

**THE IMPACT OF AGRICULTURAL MARKET
LIBERALISATION ON SMALL SCALE FEMALE
FARMERS IN MAPANZA, CHOMA DISTRICT**

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of Natural Sciences, University of Zambia, in Partial Fulfillment of the Bachelor
of Arts Degree with Education.**

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DECLARATION

I, *Madrine Bbalo*, declare that this project has been composed by me and that all the work recorded is my own. The maps and diagrams were drawn by me. The sources of information referred to, have been specifically been acknowledged. This project has not been previously submitted for any academic award.

Signature: *Madrine Bbalo*

Date: 28/04/2000

DEDICATION

- To my parents, Mr Timothy Bbalo (the late) and Mrs Mukamukuwa Chikampa Bbalo for their encouragement and support.
- To my husband Mr W.S. Mbuta for his love, encouragement, support, patience and understanding of my studentship especially during my absence from home.
- To our dear son Chileshe Milimo Mbuta.

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LIST OF ACRONYMIC

ASIP	:	Agricultural Sector Investment Programme
CSO	:	Central Statistical Office
CUSA	:	Credit Union and Savings Association
GRZ	:	Government Republic of Zambia
MAFF	:	Ministry of Agricultural, Food and Fisheries
MMD	:	Movement for Multi-party Democracy
NAMBOARD:		National Agricultural Marketing Board
SAP	:	Structural Adjustment Programme
UNIP	:	United National Independent Party
ZCF	:	Zambia Co-operative Federation

DEFINITION OF KEY TERMS

The terms that have been given operational definition are ;

Household: A group of people who normally eat and live together, make common provisions for food and other essentials for living and they have only one person whom they all regard as the head (CSO, 1994).

Female: A Farmer married woman or unmarried woman but heading a household and who is involved in agricultural production.

Small Scale Farming: Agricultural activities organised by an individual or family, with private resources and have little or no outside help and is pursued as a part-time or full time occupation. The capital investment in this case is available from one's own resources or that of his family members.

Agriculture: This is the science or practice of cultivating the land. It is also called farming.

Agricultural Liberalisation: To free agricultural production from state control into private hands.

ABSTRACT

Small scale female farmers play an important role in promoting food security at household and national levels in many developing countries, including Zambia. In spite of this, female farmers' participation in agricultural activities has been hampered by many constraints especially those that emerged with the introduction of agricultural market liberalisation policy in Zambia. Zambia adopted the Structural Adjustment Programme (SAP) and liberalised many of its economic activities in 1992, in the hope of improving the national economy.

The aim of the study was to assess the impact of the agricultural market liberalisation on the small scale female farmers in Mapanza area of Choma district in Southern Province. The specific objectives of the study were to: (i) examine the effect of the new agricultural market liberalisation on small scale female farmers; (ii) identify the type of agricultural enterprises undertaken by female farmers; (iii) compare the production of the small scale female farmers in the MMD era with that of the controlled policies in the UNIP era; (iv) assess female farmers' accessibility to land and (v) to assess problems faced by female farmers carrying out agricultural activities.

Data was collected through the use of structured questionnaires, unstructured interviews, simple field observations and literature review. Collected data was analysed by the frequency percentage approach. Analysis of data revealed that liberalisation in agriculture has had a negative effect on the small scale female farmers in a variety of ways. Female Farmers' production especially in maize decreased from an average of 43 to 21 (90kg) bags between the 1989 and 1998 period due to a number of reasons. These included the female farmers' inability to purchase inputs after the

removal of subsidies, difficulties in fixing prices, high transport costs and availability of poor markets in local places.

However, not only were the female farmers affected by the impact of liberalisation but also by environmental problems such as drought, floods, corridor diseases and also by the socio-economic impacts low levels of education and of interaction between female farmers and the extension officers.

Finally, recommendations for future improvement of the agricultural production of female farmers and farming in general are made. It is hoped that the recommendations will go a long way in bringing about positive change in the agricultural sector of Zambia.

CHAPTER ONE

INTRODUCTION

This chapter discusses the organisation of the study, gives the background information to the study, states the problem, objectives and the significance of the study.

1.1 Organisation of the Study

This project report has seven chapters. Chapter One gives the background information to the study, states the problem, objectives and provides justification for the study. The Second Chapter provides the existing literature related to the study. Chapter Three is concerned with the description of the study area in terms of location, physical characteristics and socio-economic conditions. The Fourth Chapter discusses the Methodology. This is where the methods of data collection and sources of data, the sample size and sampling procedure are discussed. Limitations of the study are also included in the same chapter. Chapter Five presents the major findings of the study. The Sixth Chapter presents the discussion and interpretation of findings. The same chapter hence looks at the performance of small scale female farmers in agriculture during the periods between 1988 and 1998 and the problems that farmers have been facing especially with regard to the introduction of liberalisation. Chapter Seven concludes the report with summary , conclusion and recommendations.

1.2 Back ground to the Study

Africa's economy is primarily based on agriculture which employs the majority of the rural population. According to Kajoba (1993), women perform most of the agricultural work on small farms. Keller (1988) also states that women constitute the majority of the continent's food producers, especially in rural areas where they represent 60-80 percent of agricultural workers.

In rural Zambia, women are normally involved in various types of economic activities such as crop and vegetables production, food preparation and storage, trade and home management. This suggests that most of the agricultural responsibilities in rural areas are undertaken by females. However, female farmers in rural Zambia have been facing a lot of problems in carrying out their agricultural activities. These problems range from environmental, to those related to the introduction of a liberalised economy. Lianda (1998) argues that since the introduction of liberalisation in agriculture, Zambian small scale farmers have been facing a lot of problems in relation with source of inputs, transport and pricing mechanisms. Small-scale farmers, especially females, have been failing to achieve effective agricultural production.

1.3 Statement of the Problem

Since the introduction of the agricultural market liberalisation in Zambia in 1992, it has been observed that rural small scale female farmers have been failing to achieve effective participation in agricultural development due to lack of support from the government in terms of inputs, transport, marketing and pricing arrangements.

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1.3 Statement of the Problem

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Furthermore, there have been problems in determining profitable prices for the crops by individual female farmers especially because of their low levels of education which make them unable to bargain and strike a balance between the cost of production and the profit. They do not have easy access to potential markets due to lack of transport and long distances from areas of production.

In view of the above, it was necessary to investigate the position of female farmers and find out the constraints of agricultural market liberalisation on them.

1.4 Objectives

The study had the following specific objectives:

- (i) To examine the effect of the new agricultural market liberalisation on small scale female farmers.
- (ii) To identify the type of agricultural enterprises undertaken by female farmers.
- (iii) To compare the production of the small scale female farmers in the MMD era with that of the controlled policies in the UNIP era.
- (iv) To assess female farmers' accessibility to land.
- (v) To assess the problems faced by female farmers in carrying out agricultural activities.

1.5 Significance of the Study

The study is important because inadequate agricultural production, especially food production, is one of the major problems facing Zambia today. Furthermore, rural women usually find themselves in a disadvantaged position especially that there

is very scanty information on them at the level planners and decision makers operate. In this regard, it was deemed valid to undertake a study on small scale female farmers and find out how much they had been affected by the agricultural market liberalisation policy.

It is hoped that research findings and generations drawn from this study would be applicable to other parts of the country where similar conditions prevail. The study would also provide some relevant information to planners and policy makers in Zambia.

CHAPTER TWO

LITERATURE REVIEW

2.1 Background Information

Like in many other developing countries, agriculture in Zambia is a very important activity second only to mining. Agricultural production has been recognised to have a significant contribution towards the raising of income levels and household food security for the country. It therefore, forms an economic base for the nation. For this reason, the formulation and implementation of agricultural policies that support the sector is crucial.

Agricultural policies which have been formulated since independence have their origin in the colonial times. Dodge (1977) observes that, one of the most important inheritance from the colonial period is the state's attitude towards agriculture. After independence up to 1991, Zambia's agricultural policies have been restrictive and constraining. The new Government (GRZ,1994) contents that, heavy government involvement in agriculture has been costly but largely ineffective. The policies entailed too much control and interference by the government as well as centralised delivery of support service such as transport. Discrimination against women in acquiring inputs were the major setbacks and obstacles to small scale farmers in achieving effective agricultural development. The situation was very critical and Mwanaumo (1997) argues that such policies were unsustainable and led to a poorly developed agricultural sector dominated by a single crop, maize. It also led

to a huge government expenditure and subsidies which contributed to insolvent public marketing and very low farm productivity and incomes among small-scale farmers.

To reverse the trend, the Movement for Multi-Party Democracy (MMD), under the leadership of President Frederick Chiluba introduced radical agricultural liberalisation policies in 1991 as a means of improving and introducing efficient resource allocation and enhancing growth prospects.

Agricultural liberalisation technically means, reduced government involvement and increased private sector participation in the agricultural sector. Following this change, the Agricultural Sector Investment Programme (ASIP) was formed with the aim of enhancing private sector participation through market development, reduced government role in commercial activity and to improve the sector's delivery system.

This study specifically examines how the rural small scale female farmers have been affected by the agricultural market liberalisation policies. Ostergaard (1992:2) asserts that, "national agricultural development has traditionally been gender neutral or even gender blind." This is because (until recently), there lacked information about women and their contribution to agriculture, hence, there was a tendency to marginalise them. He further observed that, planners must realise that agricultural development goals would only be reached successfully by securing the active involvement of both women and men and in particular, by bringing women into the main stream of economic development so that each gender plays its own important role in the process.

For a long time, women more than men, have played a significant role in African agriculture and that they produce a higher percentage of its food. Kajoba

(1993:21) states that, “women perform most of the agricultural work on small farms.” Many rural small scale female farmers, just like their male counterparts, function as independent farmers as well as farming farm labourers and in many cases, they are involved in the production of many crops. Keller (1990) holds that, small scale farmers should not be undermined because they contribute greatly to the continent’s food production especially in rural areas where they present 60-80 percent of the agricultural workers.

Despite their great contributions in agricultural production, the rural African small scale female farmers have generally been affected negatively by the market, pricing and credit/input supply policies followed by various African government.

2.1 Agricultural Marketing

Marketing policies are those dealing with the distributive chain between small scale farmers and consumers. Marketing of agricultural output typically plays a dual role. One dimension is the transmission of price signals between consumers and producers and the other dimension is the physical transmission of the commodities from farms to the market.

The state intervention in agricultural marketing, dates back to the post independence period up to 1992. The former government emphasised the growing of maize as a major crop in Zambia and it was directly involved in marketing it. According Woods et al.(1990), maize was confirmed as the dominant staple food for sale, and marketing arrangements were made by the government. Farmers were convinced that maize was more profitable than any other crop.

The National Agricultural Marketing Board (NAMBOARD), was responsible for providing a wide variety of marketing functions, and later on, provincial cooperative societies and the Zambian Cooperative Federation (ZCF), took over duties from NAMBOARD. Woods et. al, (1990) contends that, NAMBOARD and Cooperatives were the monopoly buyers, offering guaranteed prices and accepting the responsibility to buy all the main crops (especially maize) offered to them. The Co-operative Unions therefore, dominated the marketing of agricultural products. Among their functions were the collection, handling and marketing of maize, groundnuts, sunflower and other agricultural products as well as the distribution of seeds and fertilizers. Roads to market places were graded by the government. Transport to carry the produce from local depots (where it was stored) to the market places was also the government's responsibilities.

In the third republic (1991 to date), a liberalised marketing structure replaced a controlled one. The Multi-party News (1991) argues that the role of NAMBOARD and Provincial Co-operatives were not clearly defined because both were involved in marketing and distribution of agricultural products and inputs. This resulted into difficulties in financing crop purchases, shortages of empty grain bags and problems with transport facilities due to lack of vehicles. The Multi-party News (1991) further points out that, every season, hundreds of maize bags went to waste because the produce was not collected in good time.

Unlike in the previous government, in the Third Republic, farmers were free to grow any crop which they deemed profitable but were expected to find a market where to sell to. However, this is alleged only to have been fair mostly to commercial farmers who easily accepted change and have enough resources to uplift their

marketing systems. The major impact on rural small scale female farmers from this system is that, there is no readily available market information in their residential areas. Even where communication is well established, rural small scale female farmers have not been so confident enough to approach consumers because of inferiority complex which could be due to low education levels among them (Bangwe, 1996).

Although there is no written literature, it has been observed that small scale farmers have held on to the tradition of growing maize as was “preached” in the previous Republic. The present government however, had tried to disseminate information on crop diversification to small scale farmers in rural areas through agricultural extension workers although, according to Mweemba (1994) this has not been effective enough because:

- i) Only very few extension workers were willing to reach very remote areas where most small scale farmers are based.
- ii) Some women were shy and stayed away while their husbands were being advised by extension workers.
- iii) Extension workers preferred to talk to men in the absence of their wives.

2.2 Transport and Road Network

Small scale farmers have also been affected relatively by the present poor state of feeder roads in their areas and this in turn affects the transportation of inputs and produce. Although there is no quantifiable statistics, the press reports reveal that, roads in rural areas have been greatly neglected hence hindering farmers especially

women, to transport their produce to markets centres. Transport has also been a major problem to farmers as it tends to be very expensive. Carl (1982:119) states that, Africa's rudimentary transportation network poses one major constraint on the distribution of agricultural commodities. There is no hope that transportation problems in rural areas will be alleviated in the foreseeable future."

The poor transport network in most cases does not allow farmers to transport their produce to the market. According to the Times of Zambia (30th July, 1999), the roads to most rural areas are so bad that they cannot allow the passage of heavy trucks that are required for the transportation of the produce. The gravel roads need to be upgraded to make them accessible by both buyers and the farmers who would want to take their produce to the market.

Most rural small scale female farmers do not have the capacity to deliver their produce to the market because: Firstly transportation costs are too high, secondly, rural women do not feel very comfortable to move on their own especially with the high level of thefts at market places and lastly, but not eht least, women's mobility is restricted by other roles which they play such as that of being a mother.

2.3 Pricing

Pricing is concerned with fixing the amount of money worth selling at. According to Wood et.al (1990), it was the government's role to set uniform produce prices for all major crops which were marketed by the government controlled Agents such as NAMBOARD and the Provincial Cooperative Unions.

Lombard (1994) observed that the prices for various agricultural produce were announced late and very often, producer prices were far much lower than the cost of production. It was therefore difficult for farmers to decide on crop acreage on the basis of relative prices. Farmers received their payments late and this resulted into loss of confidence amongst themselves, especially male farmers whose levels of education were generally higher than those of women. Multi-Party News (1991) argue that Prices for agricultural products were lower than they would have been under a reasonably free market.

The liberalisation of the agricultural market in 1991, was a clear move from government set producer prices to a free market in which market forces (demand and supply) were advocated for. Glawin (1991) contends that the reform was aimed at increasing producer prices paid to farmers and thus, increase their incentive to produce.

The current pricing policy also depends on the cost of production that the farmer incurs. Prices are therefore, no longer uniform countrywide because farmers are expected to be responsible for setting prices for their produce depending on the cost of production which they incur.

However, the movement to a liberalised pricing policy in agriculture equally has had some impacts on small scale female farmers in rural areas, for they are unable to set prices that are above their production costs mainly because of the ignorance, desperation for cash and lack of storage (Mwanaumo, 1997).

If the radio reports in the recent past are anything to go by, rural small scale female farmers are said to have had more problems regarding the pricing structure in

the liberalised economy than was the case prior to 1991 when the government fixed producer prices on behalf of farmers.

2.4 Credit and Input supply

Credit and input supply deals with obtaining goods and services for which payment is done after a specified period of time. Credits can be in form of cash or inputs such as fertilizer or other farming implements. Prior to the Third Republic but after independence, Mwenya (1987) states that some of the major credit companies were, the Zambia Co-operative Federation, Credit Union and Savings Association (CUSA) and the Agricultural Financing Company which later changes to LIMA Bank.

During that period, credit/input most of which was in 'kind', was controlled by the government, for example, if one wanted money for fertilizer, fertilizer was provided instead of cash. However, there were restrictions as one could only borrow what the government had. The cost of inputs was uniform countrywide regardless of distance. Moreover, collateral was not a priority in disbursement of loans to farmers except that women were highly marginalised as they had to acquire approval of their husbands. This hindered the small scale female farmers to maximise production especially in situations where husbands were unwilling to approve the wife's acquisition of credit. Mwenya (1987), observes that, Bank conditions required men to approve women's requests for loans. He further asserts that, it was difficult for married women to obtain credit and in most cases, it led into serious marital differences.

Liberalisation of credit and inputs entails that subsidies were removed from fertiliser and various seeds unlike in the previous government. The cost of inputs in a

liberalised economy is not subsidised but depends on the distance thus, rural areas being far from urban areas where most inputs are manufactured, experience high cost of inputs. Collateral too, is a requirement when acquiring credit/inputs.

Nevertheless, up to date small scale female farmers face problems related to access to formal institutional credit. Keller (1990) argues that, reduced access to credit facilities is negatively affecting the small scale female farmers. One can hence argue that less accessibility to credit facilities lowers production of crops among the small scale female farmers and in some cases, it leads to food insecurity at household level since women are known to have been very active in agricultural activities.

It has been observed that even in a liberalised market, most of the credit facilities have been given to male farmers and yet, the actual production of crops is done by women and children. In Mwanaumo's (1997) report, small scale female farmers are said to have very little access to credit facilities and yet they are engaged in the actual practical farming and they have recorded higher repayment rates of credit compared to male farmers.

It may be said that while the process of liberalisation is a necessity, it is not an end in itself but a means to facilitate growth, equity and poverty alleviation. Unfortunately, Bangwe (1994) says that, these changes have not only ignored the interests of small scale farmers, especially females, but have actually worsened their conditions. The reduction in the investment in roads and rural infrastructure in general, have contributed to higher prices for inputs and lower prices for outputs.

Besides the majority of farmers in most rural areas are said to be experiencing problems concerning accessibility of inputs. Lianda (1998) argues that almost 50% of the farmers most of whom could not get a loan were planning to reduce on acreage in

maize production. This would eventually imply a substantial reduction in agricultural production.

The next chapter discuss the study area.

CHAPTER THREE

DESCRIPTION OF STUDY AREA

Mapanza area is a constituency within Choma District in Southern Province (Fig.1). It is one of the remote areas in the district whose area is mostly composed of traditional land. The administrative structure is that of traditional authority as land is vested in the Chief, who is assisted by various headmen. Most of the land is arable. The chiefdom is comprised of predominantly Tonga speaking people.

3.1 Location and Selection of Study Area

Geographically, Mapanza is located about 70km north of Choma town. In terms of longitudes and latitudes, the area lies roughly between 26° 15' and 27° 00' East and 16° 15' and 16° 25' South of the equator.

Mapanza area was selected for study for a number of reasons including the following: Firstly, the main economic activity in the area is mixed agriculture, secondly, most of the farmers in the area had benefited from agricultural subsidies which are no longer offered at the moment. Additinally, no study of this kind has been done before in the area. Furthermore, the researcher has a personal knowledge of the area such that undertaking the research was made easier.

3.2 Physical Characteristics

The study area experiences a tropical type of climate. Rainfall is seasonal and the area receives an annual rainfall of between 700 and 800mm (Fig. 3). According to Lianda (1998), this amount of rainfall promotes the growth of most crops on the plateau region of the Southern Province.

July which is the coldest month, experiences a mean temperature ranging between 15 and 17.5°C while October, the hottest month, records a mean temperature ranging between 25°C and 27.5°C (Resource Atlas for Zambia, 1991).

Mapanza lies about 1170m above sea level on the plateau region of the Southern Province. The area has a number of streams such as Ngonga (Fig. 2).

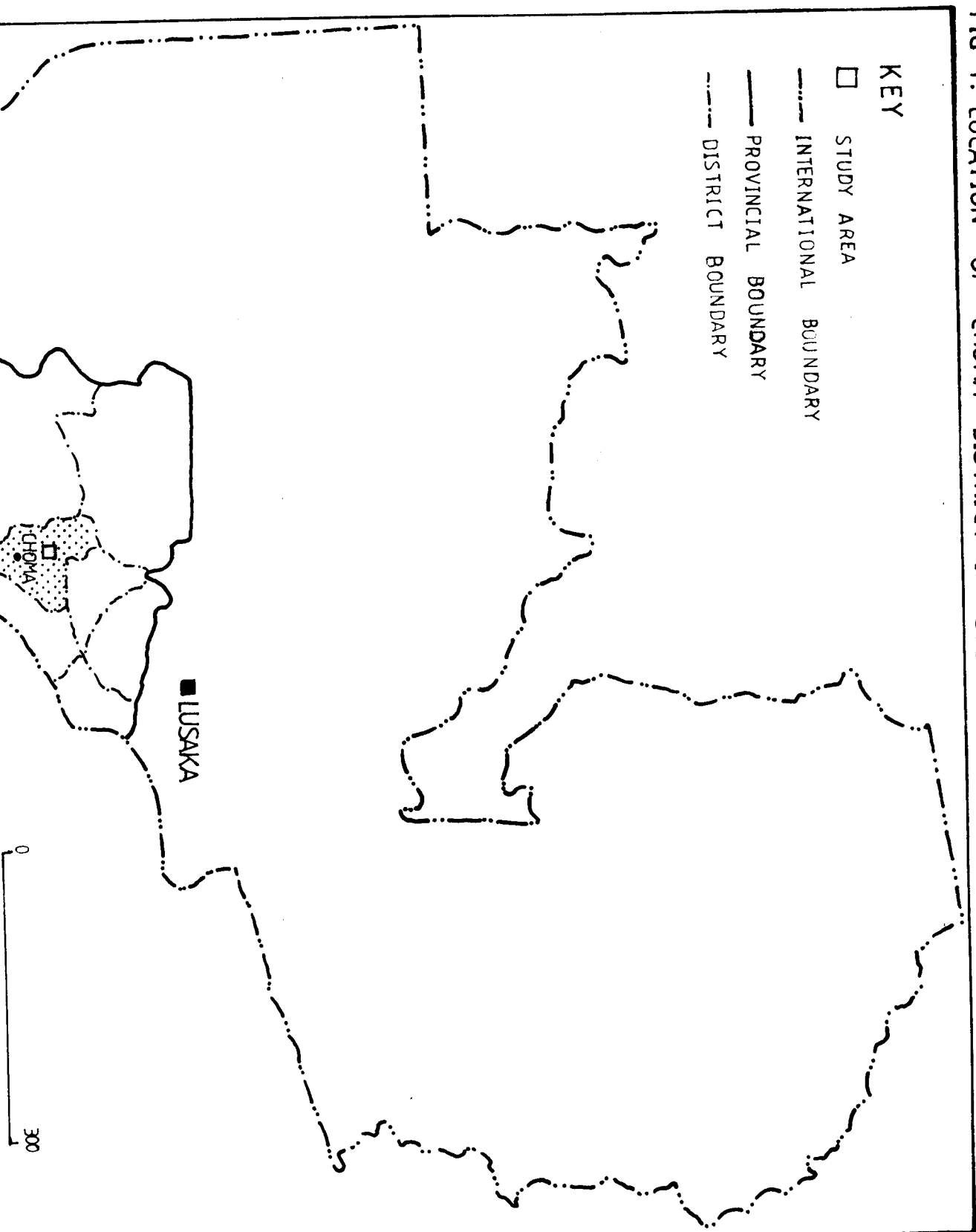
The type of soil found in an area determines the type of agricultural activities or crops to be grown. Soil is therefore very critical to agriculture. Brammer (1976) contends that, the Southern Province, especially the Monze and Choma soils have dark brown top soil overlying a strong yellow red subsoil which becomes molten red and yellow, one meter deep from the surface (Fig. 4). Such soils are said to be very favourable for most crops, one of which is maize.

3.3 Socio-economic Conditions

There are two main feeder roads to the study area, one being from Pemba through the study area and joining the Choma - Namwala road. The other road runs from Choma, through the study area to Namwala (Fig.2).

The state of Pemba road leaves much to be desired. Most of the bridges have collapsed and nothing much has been done. The situation becomes very critical

FIG 1: LOCATION OF CHOMA DISTRICT IN SOUTHERN PROVINCE.



G.2: STUDY AREA LOCATION

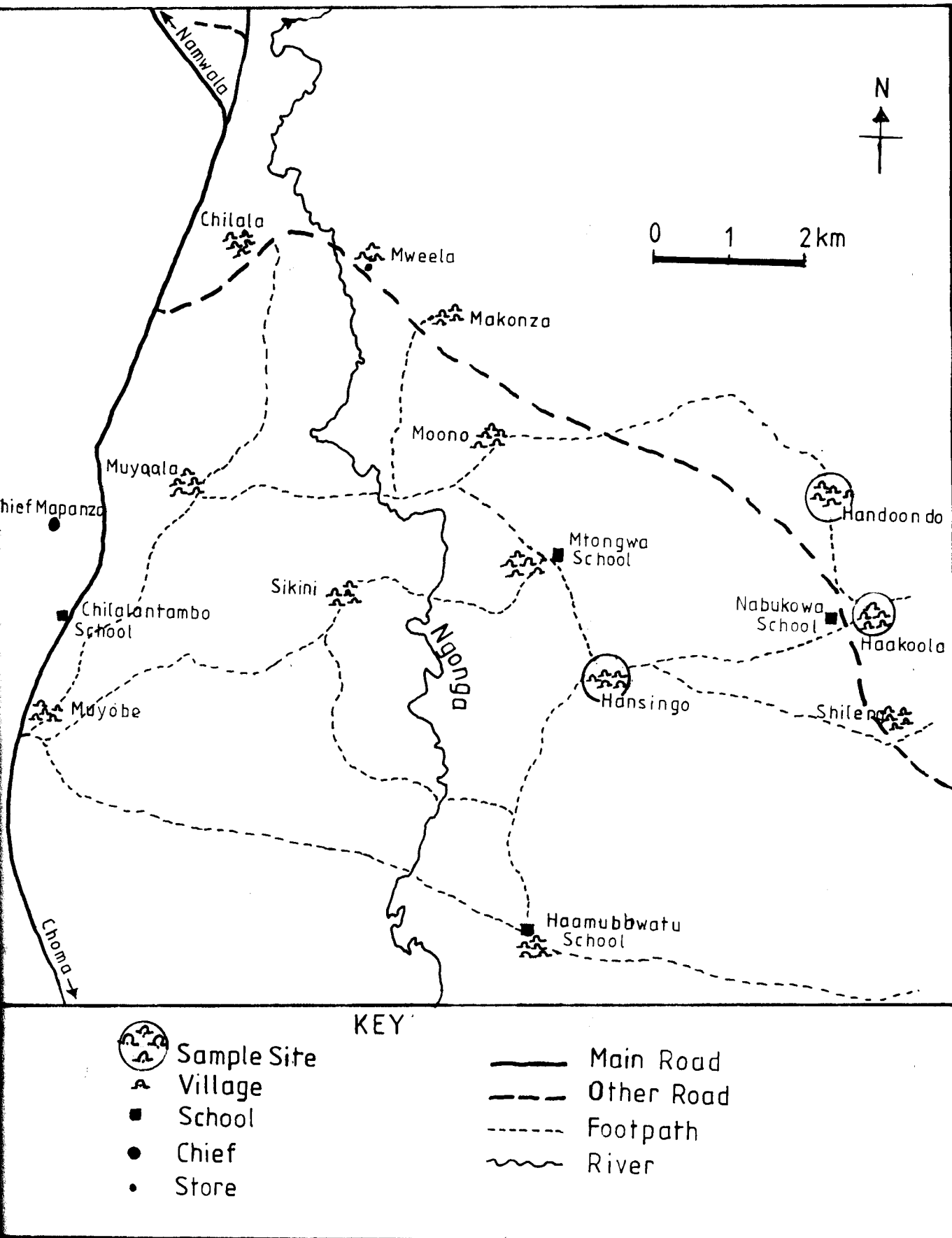
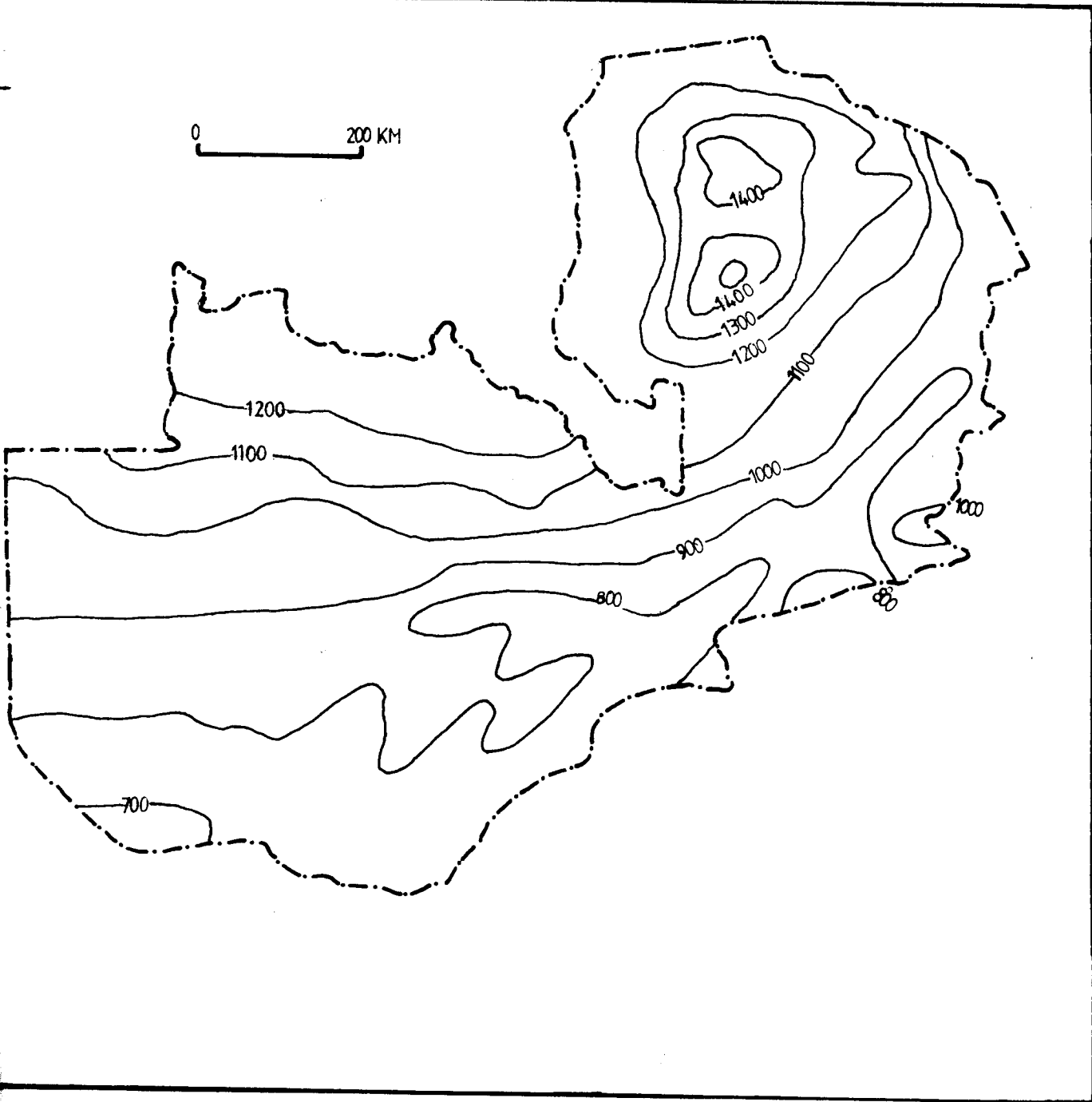
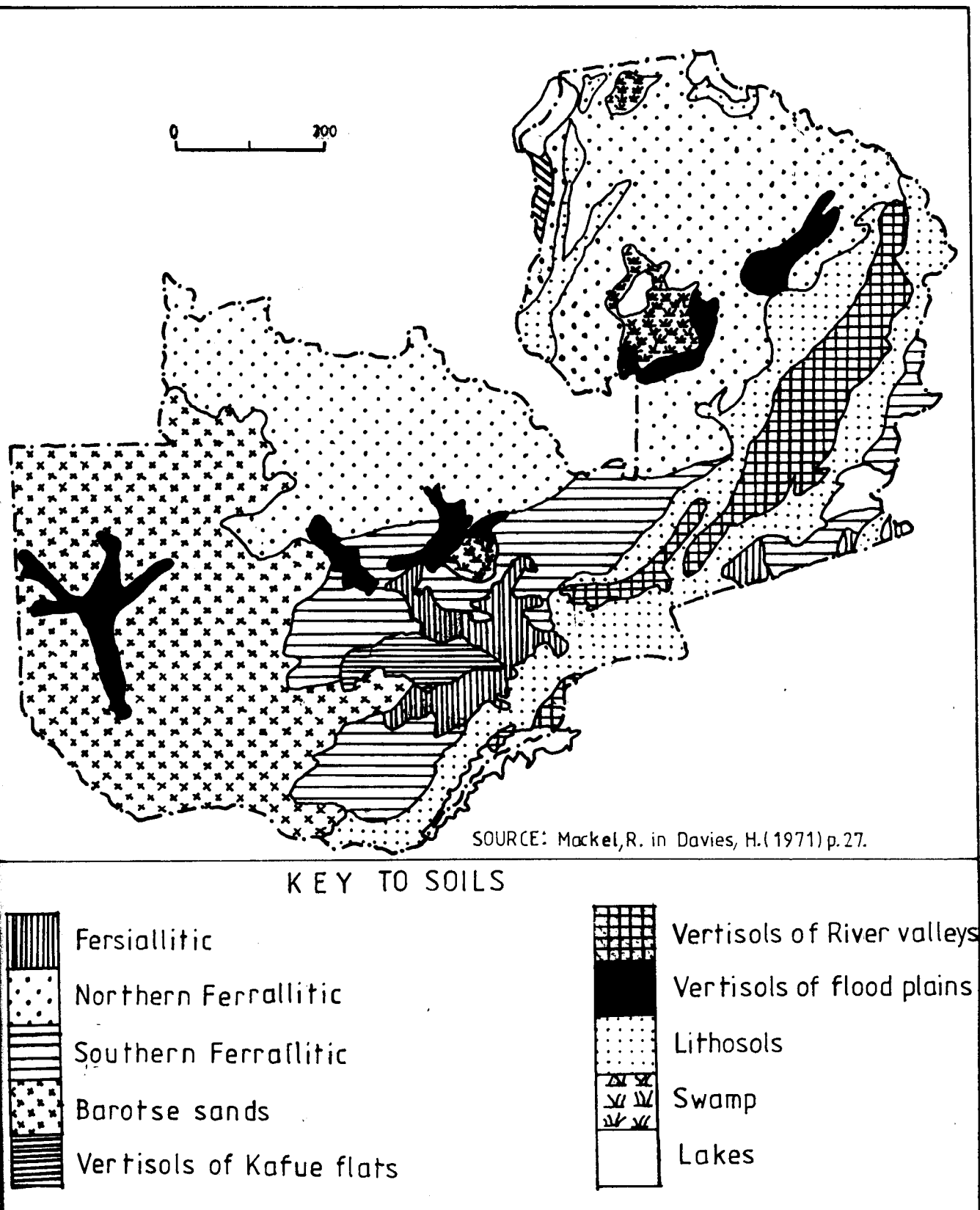


FIG. 3 MEAN ANNUAL RAINFALL (MM).



SOURCE: ATLAS SHEET NO. 13

FIG.4: SOILS OF ZAMBIA.



CHAPTER FOUR

METHODOLOGY

This chapter presents the methods of data collection, sample size and sampling procedure, selection of sampled areas, analytical methods and finally, the limitations of the study.

4.1 Methods of Data Collection

The collection of data was conducted through the use of the following methods:

4.1.1 *Primary Data*

Primary data were obtained through the use of questionnaires, unstructured interviews and field observations as discussed below:

a) Questionnaire(s)

A structured questionnaire was prepared and administered to the small scale farmers (Appendix). The aim was to find out the females' opinion regarding the impact of agricultural market liberalised on them as they are the major participants in agricultural activities. According to Kelly (1994) the level of illiteracy in Zambia is still high, especially in rural areas and the urban areas' squatter compounds. In view of this, it was decided that the researcher writes down the responses given by the individual respondents in the space provided within the questionnaires, instead of asking them to complete them.

The questionnaire covered a wide range of topics although the focus was mainly on the impact of agricultural market liberalisation on the small scale female farmers. However, sometimes questions that are not indicated in the questionnaire were asked whenever it was appropriate.

b) Unstructured Interview

Unstructured interviews were also conducted to the two agricultural extension workers in the study area. This was done to find out what sort of services they offered to the farmers and what problems, if any, they encountered in performing their duties. These officers were also asked to give their opinions over the issue of agricultural liberalisation and whether it had any impact on small scale female farmers.

Unstructured interviews were also held with some four agricultural officers in the marketing department at the Ministry of Agriculture, Food and Fisheries Headquarters in Lusaka and at Choma district office. The purpose was to find out their perception of agricultural market liberalisation and whether it had any impact on small scale female farmers.

c) Field Observation

The researcher also observed people's granaries, heads of cattle (at times). This was done in order to match the observations with the responses.

4.1.2 *Secondary Data*

Some information related to this study was obtained from documentary sources. Library research was the key method, where books, articles, past research

papers and newspapers from the University of Zambia main library, the Geography Department Library, Gender Department Library and the British Council Library.

Other information were obtained from the quarterly and annual reports from the Ministry of Agriculture, Food and Fisheries (MAFF). The purpose of collecting documentary sources of data was to find out what literature has been published regarding women and agricultural performance and whether there was any impact on them from the newly introduced agricultural markets liberalisation especially in relation to accessing loans, marketing and pricing of their produce, transports and acquisition of extension services.

The Central Statistical Office (CSO) provided information regarding the census unit(s) which were used as a sampling frame.

The information gathered from the various sources helped with literature review on small scale female farmers and how they have been affected by the agricultural market liberalisation policy.

4.2 Sample Size and Sampling Procedure

The sample size of 40 female respondents was selected from a total population of 112 small scale female farmers provided by village headmen.

To come up with a sample of these female farmers, simple random sampling was used. The reason for its use was that this method gives an equal opportunity for each female to be included in the sample. The method is simple and quicker to use too.

A total number of 112 female farmers was obtained from the three villages which were selected randomly from a total number of seven villages. In this regard, the names of the 112 female farmers were written on pieces of papers which were put

into a curton box and then well mixed. The first 40 names picked were the ones interviewed.

A sample of 40 female was considered adequate as it represents 35.7% of the total population of females. This is representative enough because Bless and Achola (19988) argue that any sample that is above 25% of the total population, is representative enough to remove bias.

Fifteen males were also sampled purposively as a control sample and five were drawn from each village.

4.3 Selection of Sample Sites

Mapanza constituency has a lot of villages in which small scale farmers reside. Figure 2, shows some of the villages that are found in the area although not all of them are indicated.

To come up with the required sample, the CSO sample frame which consisted of one census unit was used. This census unit comprised of seven villages out of which three villages were randomly sampled.

4.4 Methods of Data Analysis

Data processing was done manually through the coding of the responses on the questionnaire. Most of the data collected were qualitative. It was hence analysed manually. The analysis of data was done using frequency and percentage tables.

4.5 Limitations of the Study

The study encountered a number of limitations. Firstly, it was conducted in a rural place where there is no local transport and for this reason, it was quite tiresome and time consuming for the researcher to cover the randomly picked households. The other limitation is that, it was difficult to convince the spouses and to the family members that the researcher was only interested in females and that the presence of others during the interview was not required. Furthermore, the researcher was mistaken to be a government officer and therefore, a lot of time was spent explaining that being a student, the information collected was for academic purpose only.

The next chapter discusses the analytical methods and results obtained.

CHAPTER FIVE

ANALYSIS AND RESULTS

This chapter discusses the results of the analysis on the impact of agricultural market liberalisation on small scale female farmers.

5.1 Characteristics of Respondents

In this section, the following about small scale farmers in the study area will be discussed: age structure, marital status, level of education and household size.

5.1.1 Age structure

The study found the average age of the female respondents to be 36 years. Only very few women (5%) below the age of 20 years were interviewed and a large number of female respondents (70%) were between 21 and 40 years (Table 1). The percentage of the female respondents who were above 41 years was 25%.

Table 1: Ages of small scale female farmers

Age(years)	Frequency	Percentages
1-20	2	5
21-40	28	70
Above 41	10	25
Total	40	100

5.1.2 Marital status

Traditionally, marriage in Africa is viewed to be a level of achievement socially. It is for this reason that in most societies within Africa, married people outnumber the unmarried ones.

From a total sample of 40 female respondents, 2.5% were single, 5% were divorced, 37.5% were widowed and 55% were married (Table 2).

Table 2: Marital status of females

Status	Frequency	Percentage
Single	1	2.5
Married	22	55.0
Divorced	2	5.0
Widowed	15	37.5
Total	40	100.0

5.1.3 Level of Education

The study revealed that 27.5% of the female respondents had no education at all, while 62.5% had primary education although not all of them had completed. The rest had the first two or three years of secondary education but none had completed it (Table 3).

Table 3: Level of Education among female respondents.

Status	Frequency	Percentage
No education	11	25.5
Primary	25	62.5
Secondary	4	10.4
Tertiary	0	0.0
Total	40	100.0

5.1.4 *Household Size*

Most of the households in the study area were big and to be specific, the average number of people per household was eight (8). The family size of course has an impact on food consumption because the bigger the family size, the higher the consumption rate. However, it is difficult to determine the extent to which the level of agricultural production is influenced by the household size because the actual ages of family members were not asked apart from the age of the respondent.

However, for the purpose of this study, children under the age of twelve were considered to be dependents and are a burden because according to Murdock (1980) they consume more than they can produce, whilst children of twelve years and above are considered positive factors in agricultural production. Murdock (1980) further asserts that, the value of production by children above 12 years exceeds that of their consumption. It can therefore be said that production is likely to be higher for those households (12.5%) whose members were all twelve years of age or above because they actively take part in agricultural production.

5.2 Interrelationships between Characteristics and Production

There were some interrelationships observed between age and agricultural production, marital status and agricultural production as well as the level of education and agricultural production among the female respondents.

5.2.1 *Age structure and agricultural production*

Out of the 40 female respondents, 28 were in the age group 21-40 years (Table 4) and 68.8% of these produced sufficient crops both for sale and for home consumption. From the other farmers who were above the age of 41 years, 60% produced enough crops both for sale and consumption. Both the age groups 21-40 years and above 41 recorded high average production levels as shown in Table 4.

The average production for the age group 1-20 years was lower than that of the age groups 21-40 years and above 41 years (Table 4). This could be due to the fact that the farmers in the age group 1-20 years were still emerging in the farming activity and therefore lacked the basic experience and implements.

Table 4: Ages of female respondents in relation to average maize production of 90kg bags.

Age(years)	Frequency	Percentage	Average maize prod. 1995/96
1 – 20	2	5	9
21 – 40	28	70	43
Above 41	10	25	39
Total	40	100.0	91

The high production level in the age group 21-40 and above 41 was probably due to the fact that farmers in these age groups had acquired adequate experience needed for farming, they had farming implements such as ploughs and draught power to help them plough.

It can therefore be said that females in the age groups 21-40 and above 41, lived in households which were more able to feed themselves and to earn some income from the sale of agricultural production. This is because older female farmers were more established as far as possession of farming tools and experience was concerned. They generally had adequate land and had grown up children and dependants who could take part in agricultural activities.

The study therefore found that female farmers below the age of twenty, could be more vulnerable to land pressures and other agricultural problems since they did not have much experience in farming.

5.2.2 *Marital Status and Average Agricultural Production*

From 22 female farmers who were married, average maize production in the 1995/96 season was 43 bags (90kg). From the single, divorced and widowed

respondents, average maize production in the same season was 16,23 and 34 90kg bags respectively (Table 5).

Table 5: Marital status of female respondents in relation to average maize production (90kg bag)

Status	Frequency	Average maize prod. 1995/6 season
Single	1	16
Married	22	43
Divorced	2	23
Widowed	15	34
Total	40	106

The results from Table 5 imply that the households where the husbands were present, crops were produced more efficiently and that the husbands’ labour was a significant factor. This was so because the agricultural extension services and the provision of inputs has mostly been directed at men. According to extension officers, there was no policy on credit or extension services restriction by sex. In reality however, it has been very difficult for female farmers to obtain credit both before and after the introduction of liberalisation. The reason could be the fact that the leaders in credit provision and distribution still have a notion that males were more entitled to credit than the females because in most cases, they headed the households.

Production for the single, divorced and widowed groups was lower than that of the married females probably because the former groups lacked the farming implements or tools and their children could have been lacking adequate supervision due to the absence of one partner.

5.2.3 *Level of Education for female Respondents and Average Agricultural Production*

In the 1997/98 season, it was found that the female farmers with no education at all, produced an average of 12 bags of maize, those with primary education produced an average of 21 bags while those with secondary education produced 32 bags as shown in Table 6.

Table 6: Level of education for female respondents and average maize production of 90kg bags.

Status	Frequency	Average maize prod. in (1997/98) Season
No education	11	12
Primary	25	21
Secondary	4	32
Tertiary	0	0
Total	40	100.0

On the other hand, it was found that in the same season (1997/98) the male farmers with no education at all produced an average of 16 (90kg) bags of maize, those with primary education 29 bags, those with secondary education 41 bags, while those with tertiary education produced an average of 53 bags of maize as shown in Table 7.

Table 7: Level of education for male farmers and average maize production of 90kg bags

Education Level	Frequency	Average prod. 1997/98 season
None	1	16
Primary	8	29
Secondary	4	41
Tertiary	2	53
Total	15	139

From Tables 6 and 7, it can be said that education level seems to determine the level of agricultural production. This is because the more educated one is, the higher

the skills or knowledge possessed which for instance facilitate full understanding of weather patterns that either promote or hinder agricultural production.

5.3 Accessibility to and Acquisition of Land

In this study, questions on land were asked to find out whether the female farmers interviewed felt that they had enough land or not and how they had acquired it. Of the 40 female farmers interviewed, 57.5% reported that they had inadequate land while 42.5% said they had sufficient land for cultivation. Sixty-eight percent of the females who were 35 years of age and above reported that they had sufficient land but only 23% of those who were below 35 years said they had enough land. These figures suggest that there is a relationship between age and land ownership in that the older females had more access to cultivable land than the young ones.

In cases where land needed to be allocated, the headmen retained a considerable responsibility. Where land was passed on to female farmers within the family, it came in most cases from their fathers (37.5%), uncles (47.5%) and husbands (15%). However, land that was passed on from the husbands was mostly borrowed.

5.4 Agricultural Production Before the Year 1991

The study found that the crops grown in the study area varied from food to cash crops. In this area, food crops essentially refers to maize, which is the staple diet in the area and the whole district. The other main food crops grown are groundnuts and sweet potatoes. Beans and vegetables are grown on a very small scale such that quantifying them is a problem. Cash crops grown in the area are mainly cotton and sunflower and basically, these were grown mainly by the male farmers.

On the other hand, the interest of female farmers is mainly in the growing of maize, groundnuts and sweet potatoes and not cash crops. The reason is that their interest lies in maintaining a sustainable food security in their households.

Production varied per crop type and season. However, among the female farmers, the average production per individual in the 1988/89 and 1989/90 seasons was shown in Table 8.

Table 8: Average agricultural production of female farmers before liberalisation

Crop	Average Prod. in 1988/89 season of 90kg bags	Average prod. in 1989/90 season of 90kg bags	Difference in Production
Maize	39	43	4
Groundnuts	22	21	1
Sweet potato	16	18	2

From Table 8, it should be noted that the slight differences in average production in maize especially between the two seasons was explained as due to that in the 1989/90 season, more fertiliser and other inputs were supplied and at the right time because the previous government was indirectly campaigning for the presidential elections. Although the majority of women found it difficult to acquire loan's directly, they benefited from their husbands and friends through certain arrangements such as helping in paying back the loan.

As far as food sufficiency is concerned, there was a variation in the average number of 90kg bags of maize left for consumption in that the female headed households left an average of 11 bags per year, while the married ones left an average of five bags. This was so because the food for married female farmers was supplemented by that from their husbands' production unlike the female headed households who were by themselves. All the female respondents left an average

number of 4 and 6 bags of groundnuts and sweetpotatoes respectively, for consumption.

Out of all the female respondents, 57.5% had enough food for consumption throughout the year in the 1988/89 season, as shown in Table 9.

Table 9: Food sufficiency (maize) in the 1988/89 season

Month	Number of households running out of food	Absolute Percentage	Cumulative Accounting Total	Cumulative Percentage
May*	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	0	0
September	0	0	0	0
October	0	0	0	0
November	0	0	0	0
December	2	5	2	5
January	2	5	4	10
February	3	7.5	7	17.5
March	4	10.5	11	27.5
April	6	15.0	17	42.5
Households with Food	23	57.5	40	100.0

* May is the first month of crop harvest

Table 9 also shows that most farmers had sufficient food from the first month of harvest up to December when very few farmers started running out of their food reserves. However, in the twelfth month of harvest, 42.5% household had run out of food most of which were female headed households.

When asked why most farmers did not run out of food, they provided a number of reasons. Firstly, they said that fertilizer and seeds were provided to them by the government thereby leading to good yields. They also reported that there was

good amount of rainfall, and they had cattle for ploughing and for manure which was used to fertilise the soil.

5.5 **Agricultural Production After 1991**

During this period, liberalisation had been introduced. The type of crops grown by female farmers did not change much except that some farmers started growing sorghum although on a very small scale. The rate of adoption for sorghum was very low due to its unpalatable taste.

Like in the pre-liberalisation period, there was a variation in production per crop type within and between the season(s) as shown in Table 10.

Table 10: Average agricultural production of female farmers in a liberalised economy.

Crop	Average prod. In 1995/96 (season) of 90kg bags	Average prod. in 1997/98 (seasonal) of 90kg bags	Difference in production Of 90kg bags
Maize	29	21	8
Groundnuts	13	9	4
Sweetpotatoes	17	12	5

When the production figures between the two seasons in Table 10 are compared, there is a bigger difference than those of Table 8. These differences were accounted for by the increasing deaths of cattle and high rainfall (in the latter season) which washed away crops.

In the same way, when a comparison is made between Table 10 and 8, it is noticed that production figures generally went down in most crops in Table 10. Farmers were asked for explanation for this state of affairs. Firstly, 70% of

respondents said they did not have the knowledge that could enable them mobilise themselves so as to approach a loan institution that could help them with various inputs. Most of them had earlier depended on their spouses and friends for inputs especially fertiliser, in the Second Republic. This time, their spouses and friends equally had less or no access at all to loans. It was therefore now expensive for them to buy fertiliser. Secondly, their cattle had died from corridor diseases thereby denying them draught power. Thirdly, there was inadequate cattle manure to be used as chemical fertiliser, due to decreased cattle numbers.

Based on the above reasons, most households experienced a situation where their food reserves were exhausted before the following harvest season. Table 11 shows that by December, January and February, the number of households running out of food had increased to 40%, 62.5% and 72.5% respectively.

Table 11: Food sufficiency (maize) in the 1997/98 season

Month	Number of Households running out of food	Absolute Percentage	Cumulative Accounting Total	Cumulative Percentage
May*	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	1	2.5	1	2.5
September	2	5.0	3	7.5
October	2	5.0	5	12.5
November	4	10.0	9	22.5
December	7	17.5	16	40.0
January	9	22.5	25	62.5
February	4	10.0	29	72.5
March	2	5.0	31	77.5
April	5	7.5	36	90.0
Households with Food	4	10.0	40	100.0

* May is the first month of crop harvest

Most of the female headed households had their food for consumption virtually exhausted before the following harvest.

Female respondents had different perceptions over changes in agricultural production as shown in Table 12.

Table 12: Female farmers' perceptions concerning changes in agricultural production

Production level	Frequency	Percentage
Increased	3	7.5
Decreased	33	82.5
Constant	4	10.0
Total	40	100.0

Female farmers interviewed were asked for explanations for changes in agricultural production. The increase was accounted for by; good amount of rainfall, hard work after acquiring a loan from PAM, use of fertiliser bought from previous agricultural earnings, hiring of a tractor to plough and early planting.

On the other hand, a decrease in production was due to the absence of 'free' fertiliser (since the government had with-drawn itself from such service provision), biased institutions responsible for providing loans, lack of cattle for ploughing and too much rainfall.

5.6 Crop Marketing

Before the introduction of liberalisation, all the female respondents said that Namboard/Co-operatives were the only channel through which their crops were sold. They further reported that the government provided transport for the transportation of their produce to market centres. Farmers explained that through this system, their

produce were taken to the Namboards around May or June and payments (for the produce) were made much later in the year (October). However, most female respondents (90%) acknowledged never to have minded because payments were usually lump sum and they had no problems in selling their produce as Namboard made all the arrangements on their behalf.

With regards to late payment, 80% of the female respondents did not know why this was the case while 7.5% reported that the reason could have been due to the government policy of ensuring that farmers did not misuse the money on other ventures so that they, used it preparing for the next farming season. The rest said that the government could have been experiencing problems in sourcing money to pay the farmers.

With the introduction of liberalisation in agriculture, the female and male respondents reported that selling of all agricultural produce was done through the open market, thus, Namboard had ceased to exist. Only cotton had a stable sole buyer, Lonhro. Farmers (especially males) who grew cotton appreciated the availability of markets and timely payments which enabled them to send their children to school and to use the cash on other ventures.

Out of the 40 female farmers interviewed, 92.5% reported that the current marketing arrangements did not help them in any way because there was nobody to determine official prices at which various crops could be sold, like was the case in the Second Republic. However, 7.5% of all the respondents said they had no major problems in selling their produce as buyers came to their homes. According to them, the only problem was storage (for the produce) because they did not sell their produce immediately but waited until prices went up. The other problem was that while they

waited for the prices to go up, they experienced some financial problems. However, this did not make much of a difference to them because even in the previous republic, they used to get their money late.

Most female farmers also complained that generally, they were too many 'cheats' from buyers such that the farmers could not negotiate for good prices.

According to a few male farmers interviewed the general feeling was that, as much as farmers (whether male or female) were able to sell their produce to any customer at any time, they were not benefiting much from this arrangement because they were unable to meet their target goal which is profit making. Male respondents too, confessed that the new agricultural market liberalisation had brought a lot of misery and hunger to farmers because they were forced to sell more produce (in the hope to raise good amount of money) at a lower price determined by buyers themselves. Male farmers also acknowledged that the impact was more on females than on them.

5.7 Credit Facilities

Respondents acknowledged that before liberalisation, there was a gender bias in credit acquisition in that loans were mostly given to male farmers. Loans were in terms of fertiliser and seeds. However, only a few female farmers, especially those who headed households, also had a privilege of receiving loans. Some of those who did not receive fought hard to get some by way of buying at a very low price or through some arrangement. Some spouses shared a certain percentage of what they got with their wives so that they could help in paying back the loan.

However, in a liberalised economy, credit was offered by private institutions and not by the government. According to the male respondents, credit facilities were being offered by a few lending institutions such as LONHRO, PAM, and the World vision. Credits were mostly in form of fertiliser, seeds and chemicals. However, only a few women (15%) were able to acquire these credit facilities because firstly, the bias which existed in the second republic, towards women in credit acquisition, had been carried on to the third republic. Secondly, there were conditions/problems attached to credit acquisition such as high ledger fees, and collateral.

5.8 Relationship Between Female Farmers and Agricultural Extension Workers

Relating to whether the female respondents had ever been visited by agricultural extension workers, 45% of the total sample admitted that they had, at one time while 55% reported that they had never been. From the study, it was also found that 52.5% of the female sample had never consulted agricultural extension workers for any agricultural advice while 37.5% said it was the duty of the officers to follow the farmers because they were paid for doing so. The remaining 5% of female respondents said that their husbands did not allow them to consult any agricultural officer for any agricultural activities.

5.9 Opinion of Female Farmers and Agricultural Officers over Liberalisation

Generally, female farmers interviewed cited liberalisation to have had a greater impact on them than the environment. The aspect of educational level was brought in to find out whether the female farmers were able to differentiate between the environmental and liberalisation impact. Still more, the majority of female farmers

with primary or no education at all, felt that the impact of liberalisation was greater than that of the environment while female farmers who had secondary education generally reported that the environmental impact was greater than that of liberalisation, as shown in Table 12.

Table 12: Level of Education in Relation to Impact Education Level

Impact	Education level No education	Primary	Secondary	Total
Environment	2	4	3	9
Liberalisation	9	21	1	31
Total	11	25	4	40

On the other hand, the picture was perceived differently by the agricultural officers. Seventy five percent of the agricultural officers supported the introduction of liberalisation and said, such a policy had empowered farmers as they had become more responsible for their production unlike in the past. Previously, farmers were not responsible for the pricing, transportation and generally the marketing of their produce. They sustained themselves through subsidies. With the introduction of introduction of liberalisation, farmers were now free to decide on the price of their produce without any intervention from the government. According to them, drought, too much rainfall in some seasons, late sowing, poor quality of seed and infertile soils, were the factors that had led to low production among the small scale farmers, especially women.

The remaining 25% (agricultural officers) did not support the liberalisation policy. In their view, liberalisation had led to low production yields of one of the most highly maize producing belts in the country, the Southern Province.

Furthermore, the inadequacy of lending institutions resulted in farmers' failure to purchase agricultural inputs. The problem of transport, had derailed the farmers in travelling longer distances to sell their produce, leading to low income levels.

The extension officers who reside in the study area also confessed that the introduction of liberalisation in agriculture has had an adverse impact on farmers especially female farmers because they generally felt that the government had no 'respect' for them anymore.

5.10 Possible Solutions

The level of vulnerability seemed to be on an increase on both male and female small scale farmers. This explains why in seeking possible solutions to their problems, the female farmers were asking for government help as was the case in the Second Republic. Female farmers interviewed reported that in order to redress the current situation, old co-operatives must be revamped, the government ought to fix prices for farm produce (and that these prices should be in the interest of farmers), and that inputs must be made available to the farmers at the right time and at central places. Farmers also argued that fertiliser in particular, should be supplied on loan basis by the government or at very affordable prices and that transport costs to ferry agricultural produce to the market centres should be a responsibility of the government.

In the following chapter, results of this study are further discussed.

CHAPTER SIX

DISCUSSION AND INTERPRETATION OF RESULTS

This chapter discusses and interprets changes in food production, crop marketing, credit facilities and the interaction between female farmers and agricultural extension officers as follows:

6.1 Changes in Food Production

A comparison of Table 10 and 8 reveals that there were some changes in agricultural production in that it had reduced in the seasons after the introduction of liberalisation policy.

From the study, it can be said that lack of fertilizer and seeds, the deaths of cattle, as well as bad weather conditions, had contributed to the lower yields among the small scale female farmers. However, the study found that in the farmers' view, the most significant and underlying cause of low agricultural production was the agricultural market liberalisation policy. Thus, the removal of subsidies had worsened the farmers' conditions in that they were unable to purchase the inputs. This is therefore in line with Bangwe (1994) who argues that liberalisation of agriculture has worsened the condition of small scale female farmers.

Because of the decline in agricultural production, food sufficiency also declined. It was found that female farmers at times left enough bags of maize (average of 9, 90kg bags) for consumption but due to increasing pressure such as sending their children to school they were at times forced to sell some of it, thereby

cutting down on food security for their households. This situation agrees with Lianda's (1998:3) argument that, "more than half the population (52%) in 1997 in Southern Province had their maize stocks virtually exhausted before the following harvesting season."

6.2 Crop Marketing

This study found that unlike in the Second Republic when agricultural produce was sold through Namboad and Co-operatives, agricultural produce was now sold through the open market. It was through this arrangement that the untrustworthy private traders had stolen from farmers whose living standards depended mostly on crop production. In short, the study revealed that, the current marketing system was not understood by most female farmers in that they felt very much enslaved by the system such that no matter how much they produced, they did not seem to be progressing.

Transport costs too, were very high such that movement of produce from the farming zones to the market was almost impossible for most female farmers. In most cases, the cost of transporting the produce was hiked very much by the transporters due to the poor state of roads. The inability of farmers to transport their produce to the market left them with a very small market in the village which usually used the barter system of trade. Besides, the state of roads had discouraged even the most enthusiastic private traders to travel to the production zones of the agricultural sectors. It was further found that the price of farm produce was too low and usually determined by the buyers, making it very difficult for farmers to realise some profit.

Additionally the study revealed that on one hand male farmers were better than the females in terms of selling their crops, for a number of reasons. Firstly, in cases where the produce needed to be transported to market places such as Choma, town, males were more mobile than females and could leave their homes for longer periods than women. Secondly a few male farmer were able to sell their produce at slightly higher prices than females. This is because they were more capable of negotiating for better prices than females. Finally, male farmers moved a lot than their female counterparts and this enabled them to get hold of the marketing information faster than the females who were at home most of the time.

However, on the other hand, it was found that male farmers equally suffered the low selling prices of their produce just like the females did.

6.3 Credit Facilities

The study revealed that female farmers' accessibility to credit was lower than males both in the second and third republics. Before liberalisation, credit facilities were offered by the government agents, Namboard and Cooperatives. However, in a liberalised economy, credit institutions increased, but despite this expansion, females were still miserable because collateral when acquiring a loan was a serious setback for them. It was also found that most female farmers had very inadequate education on how to source credit in a liberalised economy. Generally, female farmers who had secondary education were the ones who benefited from the credit facilities.

The study identified both advantages and disadvantages of credit. The advantage was that it gave the farmers enough room to establish a based with their

farming activities. A loan thus, encouraged female farmers to produce enough for home consumption, for sale and to be able to repay loans without any problems.

The disadvantages were that, in times of drought, farmers found it difficult to pay back the loans. This forced the lenders to grab assets like animals, farming implements and household goods from farmers, something that never used to happen in the Second Republic. Furthermore inputs from lenders arrived late and this made the farmers to fail to have good harvests and consequently fail to pay back the loans. This agrees with Mwenya (1997) who argues that the late supply of inputs in a liberalised economy led to the poor quality and quantity of crop production.

The implication is that the capacity of farmers was reduced and eventually led to hunger and malnutrition in the area.

6.4 Interaction Between Female Farmers and Agricultural Extension Officers

The study found that the flow of agricultural information from the Agricultural extension workers to the farmers and vice versa was very minimal.

The study revealed that often times extension officers preferred talking to male farmers because in some cases, when they talked to female farmers (married or not) they were accused of having relationships. It was also discovered from the study that, some women felt shy to talk to agricultural extension workers and instead, they opted to use their experience than to seek for advice from them. Although the efforts had been made by extension workers to visit the female farmers, in most cases, their reception was 'cold'. This is one explanation why production for female farmers was relatively lower than male farmers.

The final chapter summaries, concludes the study and makes recommendations.

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter gives a summary, draws conclusions from the major findings and provides recommendations on what should be done in order to alleviate problems that small scale female farmers face due to the introduction of the agricultural market liberalisation.

7.1 Summary

The study found that female farmers face a lot of problems, most of which emerged with the introduction of liberalisation in agriculture. These problems include; difficulties in finding market and fixing the price, high transport costs and poor state of roads. The inadequacy of lending institutions has also been a major problem especially that existing institutions demanded high ledger fees and collateral from the farmers. It is with such problems that ; liberalisation has adversely affected agricultural production among small scale female farmers, for instance average maize production declined from 43 (90kg) bags in 1989/90 season to 21 (90kg) bags in the 1997/98.

However, although the introduction of agricultural market liberalisation has been negatively received by the small scale female farmers, it is one of the ways to development. The poor reception could have been as a result of the poor dissemination of information by the agricultural officers to the rural farmers. Despite a number of problems associated with it, liberalisation is one of the answers to Zambia's economic problems. It reminds the farmers that they are in business and so,

they should bear most of the costs involved. It is a way of empowering farmers to decide on the selling price of their produce in relation with the cost of production. When information on liberalisation has fully been disseminated to farmers, its gradual implementation can improve agricultural production and can also lead to economic development.

7.2 Conclusion

From the study, it has been clearly indicated that female farmers have had more problems in with agricultural production in a liberalised economy than in the previous Government era. Problems which the female farmers faced in a liberalised economy ranged from those of difficulties in credit acquisition, pricing (of the produce), as well as the actual selling of their produce. The other problems which female farmers faced were those of cattle deaths as well as too much rainfall or drought in certain seasons. However in the female farmers' view the impact of liberalisation was greater than that of the environment (floods, drought and cattle deaths).

Female farmers therefore need to be supported and encouraged in their dairy agricultural activities so that their production of crops continues to increase. According to Kajoba (1993) contribution of female farmers to agricultural activities is greater than that of males and so the need to fully support them. The variations in individual female productivity is attributed to the traditional social organisation in terms of land and other property ownership which are important factors in production. According to Sichingabula (1998), regression analysis shows that economically active males and females explain about 97% and 96% of the variation in maize production.

significantly different. Thus, given equal means of production as that available to males, production by females could easily equal or surpass that of males.

Finally the findings of the study suggest that the future for the female farmers is questionable and so, whatever policy measures the government undertakes, there is need to operationalise the strategies that are established for different categories of farmers. Strategies should clearly state for example, how the majority rural poor farmers will benefit or how the increasing number of rural female headed households would operate under such a policy framework. There is need to come up with agricultural policies and strategies aimed at empowering vulnerable groups, especially women. Until the identified problems are solved and recommendations implemented, the agricultural transformation and development of the Zambian female farmers will still be a nightmare more even in this new millennium.

7.3 Recommendations

In order to improve agricultural production by female farmers, the following recommendations are made:

- There is need to expand and promote quality education for female farmers in order to improve their agricultural skills and confidence to understand the agricultural opportunities more as well as improving their personal status.
- The newly introduced government policy where farmers are encouraged to form group managed co-operatives with their own physical resources and with very little help from the government should not only be on paper but must effectively be

implemented. This could help empower farmers to fix prices (as a group) that would raise their income and be able to repay their loans promptly.

- Female farmers should fully be motivated and encouraged to improve agricultural production through agricultural training, provision of extension services and credit, as the contribution of women to agricultural is very important.
- Collateral and high ledger fees for small scale farmers especially women, should be reviewed. This is because collateral and high ledger fees spell doom to the vulnerable farmers especially women who lack capital to engage in production.
- The Road Sector Investment Programme (RoadSIP) needs to have a specific parallel sub-programme for rural road and bridge rehabilitation, so as to improve the farmer's mobility and attract transporters of produce to reach remote areas and thus ease marketing problems in the rural sub-sector.
- There should be a strong Government commitment to agricultural development and to overall rural development.

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APPENDIX: SAMPLE QUESTIONNAIRE

THE UNIVERSITY OF ZAMBIA

DEPARTMENT OF GEOGRAPHY: SCHOOL OF NATURAL SCIENCES

QUESTIONNAIRE

**TOPIC: Impact of the Agricultural Market Liberalisation on Small Scale
Female Farmers.**

Dear Respondents,

**You are kindly asked to provide all the information requested in this
questionnaire. Please be rest assured that this Research is purely academic and
any information you give would be treated in the strictest confidence.**

Thanking you in anticipation of your co-operation

M. Bbalo

QUESTIONNAIRE

PART A: General Information

District: Chief:

1. Village:

2. Sex: Male Female

3. Marital status

- | | |
|-------------------|---------------------|
| i. Single | ii. Married |
| iii. Widow | iv. Separated |
| v. Divorced | |

4. Level of education attained

- | | |
|----------------|--------------|
| i. None | ii. Primary |
| iii. Secondary | iv. Tertiary |

5. Household size

- | | |
|------------------------|-----------------------|
| i. Male children | ii. Female size |
| iii. Dependents..... | iv. Spouse(s) |

6. Children's age

- | | |
|-------------------|--------------------|
| i. Under 12 | ii. Above 12 |
|-------------------|--------------------|

Part B: Economic Information

7. Do you have land? Yes No.....

8. How did you acquire it?
.....

9. What crops did you grow before 1991?

- | | |
|----------|----------|
| a) | c) |
| b) | d) |

10. How many of each of the above crop did you harvest in the 1988/89 seasons?
- | 1988/89 | 1989/90 |
|---------------|--------------|
| Crop | Crop |
| a) bags | a)..... bags |
| b)..... bags | b).....bags |
| c)..... bags | c)..... bags |
| d)..... bags | d)..... bags |

11. Which of the mentioned crops in Question 9 did you sell?
- | 1988/89 | 1989/90 |
|---------------|--------------|
| Crop | Crop |
| a) bags | a)..... bags |
| b)..... bags | b).....bags |
| c)..... bags | c)..... bags |
| d)..... bags | d)..... bags |

12. How did you sell them?
-

13. Did you get money in good time? Yes No.....

14. If No, why?
-

15. How many bags of each mentioned crop did you save for food?
- | | |
|---------------|--------------|
| a) bags | a)..... bags |
| b)..... bags | b).....bags |
| c)..... bags | c)..... bags |
| d)..... bags | d)..... bags |

16. Were any credit or input facilities given to you before 1991?
- Yes..... No.....

17. If the answer in Question 16 is Yes, mention the organisation and the credit/input services that you were given.....
-

18. If the answer in Question 16 is No, why were you not given?
-
-

19. Did you ever run out of food at home before 1991?
- Yes..... No.....

20. If the answer is Yes in Question 19, in which month did you run out of food?
-

Part C: Liberalised Economy Era

21. What crops have you been growing since 1991?

- | | |
|----------|---------|
| a) | d)..... |
| b)..... | e)..... |
| c)..... | f)..... |

22. Of the crops mentioned in Question 21, how many bags did you produce in the 1995/96 and 1997/98 season?

- | 1995/96 | | 1997/98 | |
|----------|------|---------|------|
| Crop | | Crop | |
| a) | bags | a)..... | bags |
| b)..... | bags | b)..... | bags |
| c)..... | bags | c)..... | bags |
| d)..... | bags | d)..... | bags |
| e)..... | bags | e)..... | bags |

23. How many bags of each of the mentioned crops in Question 21 did you sell?

- | 1995/96 | | 1997/98 | |
|----------|------|---------|------|
| Crop | | Crop | |
| a) | bags | a)..... | bags |
| b)..... | bags | b)..... | bags |
| c)..... | bags | c)..... | bags |
| d)..... | bags | d)..... | bags |
| e)..... | bags | e)..... | bags |

24. How did you sell your crops?

.....

25. How do you get hold of the marketing information?

.....

26. Do you think Namboard/Co-operatives are needed in your area to purchase your crops?

.....

27. How many bags of each of the mentioned crops in Question 21 did you reserve for food?

- | 1995/96 | | 1997/98 | |
|----------|------|---------|------|
| Crop | | Crop | |
| a) | bags | a)..... | bags |
| b)..... | bags | b)..... | bags |
| c)..... | bags | c)..... | bags |

d)..... bags

d)..... bags

28. Did you run out of food at home?

Yes.....

No.....

29. If Yes in question 28, in which month did you run out of food?

.....

30. Do you get your money from the sold product in good time?

Yes.....

No.....

31. Are you happy with your income from the agricultural products?

Yes.....

No.....

32. Explain your answer in Question 31.

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

33. As women farmers do you think male farmers are better off than female farmers in terms of selling their crops?

Yes.....

No.....

Not sure.....

Dont know.....

34. If Yes, what are the reasons for this?

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

35. Has there been an increase or decrease in agricultural production?

a) increase

b) decrease

c) constant

36. Give reasons for your answer in Question 34.

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

37. Are any credit/input services given to you currently by any institution or organisation?

Yes.....

No.....

38. If Yes, what form of credit /input services are given to you?

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

39. Which institutions given you credits?
.....
.....
.....
40. Do you have any problems in acquiring credit or input services?
Yes..... No.....
41. If Yes, mention them
a).....
b).....
c).....
42. Have you ever been visited by an agricultural extension worker?
Yes..... No.....
43. If Yes, whom did he talk to?
i. Wife..... ii. Husband.....
iii. Widow..... iv. Children.....
v. Dependents.....
44. Do you take agricultural problems to your extension officers?
Yes..... No.....
45. If your answer in Question 36 is no, give reasons
.....
.....
.....
46. Since 1991 up to date have you been facing any problems with the current policies in agriculture?
Yes..... No.....
47. If your answer in Question 34 is Yes, mention them.
a).....
b).....
c).....
48. What environmental problems have you been facing since 1991?
.....
.....
.....
49. Which one do you think has a great impact on you as farmers?
a) environmental problems b) liberalisation problems

50. Can you make suggestions as to what the government should do in order to improve the agricultural sector?

.....

.....

.....

Thank you for your co-operation