Private Sector Response to Agricultural Marketing Liberalisation in Zambia

A Case Study of Eastern Province
Maize Markets
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**Programme Coordinator and Series Editor:**

Adebayo Olukoshi

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*Indexing terms*

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Private sector  
Zambia

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Contents

Chapter 1: Introduction ................................................... 6
1.0 Background ....................................................... 6
1.1 Agricultural marketing liberalisation in the 1990s .............. 9
1.2 Study objectives ................................................ 11

Chapter 2: Study methods and sites ...................................... 13
2.0 Introduction ...................................................... 13
2.1 Study methodology ............................................ 14
2.2 Data collection ................................................... 16
2.3 Community profiles ............................................. 16

Chapter 3: The pattern, nature and direction of trade ............. 19
3.0 Introduction ...................................................... 19
3.1 Organization and trade flows of crop markets ................. 19
3.1.1 The pre-1992 marketing system ............................ 21
3.1.2 The post-1991 crop marketing system ...................... 23
3.2 Organization of input markets ................................ 27
3.3 Marketing chains .............................................. 31
3.4 How effectively have the functions of cooperatives been replaced? ................................................................. 36
3.5 Chapter summary ................................................ 37

Chapter 4: Characteristics of key players .............................. 40
4.0 Introduction ...................................................... 40
4.1 Characteristics of farmers ...................................... 40
4.2 Characteristics of traders ...................................... 45
4.2.1 Characteristics of small and medium traders .......... 45
4.2.2 Characteristics of large scale traders ..................... 47
4.3 Characteristics of millers ...................................... 49
4.4 Sources of market information ................................ 51
4.5 Conclusions ...................................................... 51

Chapter 5: Grain marketing liberalisation: An evaluation ........ 53
5.0 Introduction ...................................................... 53
5.1 Price patterns .................................................... 53
5.2 Marketing margins ......................................................... 58
5.3 Constraints restricting the flow of grains from lower to higher price regions ........................................... 60
5.4 Conclusions ............................................................... 62

Chapter 6: The social and political foundations of emerging marketing channels ........................................ 63
6.0 Introduction ............................................................... 63
6.1 Ethnic affiliations ........................................................ 64
6.2 Political affiliation ...................................................... 65
6.3 Conclusions ............................................................... 67

Chapter 7: Conclusions ...................................................... 69
7.0 Introduction ............................................................... 69
7.1 Emerging marketing channels ........................................ 60
7.2 Structural constraints .................................................. 72
7.3 Macroeconomic constraints .......................................... 73
7.4 Political and grain marketing liberalisation ....................... 73
7.5 Measures to strengthen current arrangements ................... 75

References ................................................................. 76

Appendices ................................................................. 78
Appendix 2.1 Research instruments ..................................... 78
Appendix 2.2 List of people interviewed ............................... 87
Appendix 5.1 Market information flow ................................. 90
### List of abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<tr>
<td>AMIC</td>
<td>Agricultural Marketing Information Centre</td>
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<td>AMIS</td>
<td>Agriculture and Market Information System</td>
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<td>AMRF</td>
<td>Agricultural Marketing Revolving Fund</td>
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<td>CSO</td>
<td>Central Statistical Office</td>
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<td>CUSA</td>
<td>Credit Union and Savings Association</td>
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<td>DCUs</td>
<td>District Cooperative Union</td>
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<td>EPCU</td>
<td>Eastern Province Cooperative Union</td>
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<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>GMB</td>
<td>Grain Marketing Board</td>
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<td>IAS</td>
<td>Institute of African Studies</td>
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<td>LINTCO</td>
<td>Lint Company</td>
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<td>LOR</td>
<td>Line of Rail</td>
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<td>MAFF</td>
<td>Ministry of Agriculture, Food and Fisheries</td>
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<td>MCC</td>
<td>Member of Central Committee</td>
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<td>MMD</td>
<td>Movement for Multi-Party Democracy</td>
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<tr>
<td>NAMBoard</td>
<td>National Marketing Board</td>
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<td>NCZ</td>
<td>Nitrogen Chemicals of Zambia</td>
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<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>PCUs</td>
<td>Provincial Cooperative Unions</td>
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<tr>
<td>Pss</td>
<td>Primary Societies</td>
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<td>RAMB</td>
<td>Rural Agricultural Marketing Board</td>
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<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<td>UNIP</td>
<td>United National Independence Party</td>
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<td>VEGs</td>
<td>Village Extension Groups</td>
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<tr>
<td>ZANU</td>
<td>Zambia National Farmers Union</td>
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<td>ZCCM</td>
<td>Zambia Consolidated Copper Mines</td>
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<td>ZCF/FS</td>
<td>Zambia Cooperatives Federation</td>
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<td>ZCTU</td>
<td>Zambia Congress of Trade Unions</td>
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<td>ZIMCO</td>
<td>Zambia Industrial and Mining Corporation</td>
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Chapter 1. Introduction

1.0 Background

Over the past two decades, sub-Saharan Africa has been faced with an unprecedented economic crisis in general and a food crisis in particular. To alleviate the food crisis, worsened by increasing budget deficits, foreign exchange constraints and diminishing access to sources of capital, many countries were compelled during the 1980s to liberalise their markets through the adoption of IMF/World Bank-sponsored adjustment programmes. These programmes are aimed at enabling international and domestic markets to play a greater role in shaping national economic activities. The liberalisation of output markets in particular has been identified as a panacea for the worsening food crisis on the continent.

In Zambia, liberalisation of output markets is closely associated with the withdrawal of the state from agricultural markets. Dating back to the colonial period, Zambia’s agricultural marketing system was characterised by substantial state intervention. During the colonial period, there were two boards charged with agricultural marketing: the Grain Marketing Board (GMB) and the Rural Agricultural Marketing Board (RAMB). GMB served settler farmers located mainly in the better-developed and well-serviced line-of-rail (LOR) provinces, namely Southern and Central provinces. Its main function was to ensure that settler farmers had a market for their produce. Only in years when settler farmers failed to satisfy the demand for agricultural commodities was RAMB allowed to bring in grain purchased from small-scale producers to fill the gap between supply and demand. The small-scale producers were mainly located in areas which were far from the two major consumption areas, namely the Copperbelt and Lusaka (which, at the time, was part of Central Province). In other words, small-scale producers were concentrated in the less developed and poorly serviced parts of the country.

A major objective of the immediate postindependence government was to redress the imbalance in agricultural development between the LOR and the non-LOR provinces by substantially increasing the level of support to the rural areas. In pursuit of this objective, GMB and RAMB were merged to form the National Agricultural Marketing Board (NAMBoard). NAMBoard was to provide a marketing service that encompassed the handling of both...
inputs (fertiliser and seeds) and outputs. It was also to serve all farmers in all provinces on a non-discriminatory basis. In order to fulfil its mandate, NAMBoard became involved in intra- and interprovincial as well as international trade. The creation of NAMBoard was quickly followed by the establishment of cooperatives, small and medium farmers’ organisations whose organisational structure began village level under the umbrella of the Zambia Cooperatives Federation (ZCF) that operated at national level.

To further its objective of increasing incomes in the non-LOR provinces, the government introduced a uniform pricing policy during the 1974–75 season. Farmers were now to receive a single uniform price regardless of their location. Simultaneously, the government adopted a cheap food policy for the rapidly rising urban population, thereby squeezing the marketing margins allowed to marketing institutions. The margin between the producer price at which they bought and the government-set into-mill prices at which the marketing agencies sold did not cover their total marketing costs, resulting in huge operational losses. The government had to step in to cover the operational losses by paying subsidies to the marketing agencies. This marked the beginning of the controversial legacy of maize marketing subsidies.

Marketing subsidies began at a low and perhaps affordable level at a time when Zambia enjoyed high mineral rents. But, over the years the subsidies rose rapidly from K56.4 million in 1975 to K3 billion in 1990. An increase in the producer price of maize in the 1980s within the framework of the government’s attempt to move towards a more liberal agricultural pricing policy failed completely to reduce the gap between producer price and into-mill price, mainly because the consumer price of maize meal (the major product of maize grain) was kept static. Consequently, the required level of subsidies increased.

In time, the rising subsidies required to keep the price of maize meal low became increasingly difficult to sustain as Zambia slipped into an economic crisis, which began with the fall in copper prices in the mid-1970s. Maize marketing subsidies soon came be seen as impairing the performance of the economy. It was argued that the government’s subsidy policy created disincentives that prevented agricultural output from attaining its full growth potential, now estimated at 7.5 per cent per year (World Bank, 1993). Dissatisfaction with the worsening performance of the sector led to its modest

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1. In theory, in the absence of a uniform pricing policy, lower prices will be paid to producers far from consumption areas to reflect transportation costs. A uniform price thus favoured farmers outside the line of rail.
liberalization during the 1980s.\footnote{Some of these reforms included a progressive raising of producer prices beginning in 1982, reforms of public sector institutions engaged in agricultural marketing leading to the liquidation of NAMBoard in 1988 and the adoption of the Agricultural Marketing (1989) Act which liberalised agricultural marketing except for maize and fertiliser.} Fearing the political repercussions that could arise from an increase in the price of maize meal, little was done to liberalize the marketing and pricing of maize, which remained solidly under state control.\footnote{Attempt in December 1986 and June 1990 to remove food subsidies that made it difficult for government to liberalise maize marketing resulted in food riots with the loss of life.}

High and rapidly rising subsidies in an economy with declining resources led to a rise in deficit financing.\footnote{The Ministry of Agriculture, Food and Fisheries identified maize subsidies as a major part of the budget deficit. These in some years were as high as 145 per cent of the deficit (GRZ, Ministry of Agriculture, Food and Fisheries, 1990).} This resulted in high rates of inflation and the overvaluation of the Zambian Kwacha. Thus, when the adjustment embodied in IMF- and World Bank-sponsored structural adjustment programmes was initiated, the removal of subsidies in general and maize marketing subsidies in particular, formed an important part of the conditions tabled with the Zambian government by international financial institutions. Efforts to remove maize-related subsidies began in 1985 with the phasing out of fertiliser subsidies. Further attempts to remove the maize marketing subsidies were made in 1986 and 1990, when the price of mealie meal was raised. On both occasions, the decision to increase the price of mealie meal had to be rescinded when widespread food riots resulted.

In November 1991, a new government which appeared to be more determined to pursue reform came into power. During the 1991/92 season, the policy to liberalise crop marketing completely and permit private traders to participate freely in agricultural marketing was announced. But the process of complete state withdrawal from agricultural marketing has taken longer than was initially anticipated. The drought that devastated the 1992 harvest necessitated government intervention through the import and distribution of grain to affected areas. The poor harvest of the 1991/92 season, was followed by a bumper harvest in the 1992/93 season which the newly emerging private sector could not adequately handle. This, again, necessitated the involvement of government in purchasing and storing crops. Despite these setbacks, grain marketing in Zambia was one of the most liberal in eastern and southern Africa by the end of 1994, when all subsidies having been ended and marketing was now largely determined by market forces.
There is little information on the extent to which the private sector has responded to the policy changes in Zambia and on the emerging structures and networks that underly grain marketing in the country under the new regime. Concerns have been expressed that the private sector lacked the capacity to quickly fill the gap left by state monopolies after so many years of government intervention. This study traces the structure and performance of emerging private agricultural trading networks, the unwritten regulations, if any, that inform their functioning and the sociopolitical foundations on which they rest.

1.1 Agricultural marketing liberalisation in the 1990s

In December 1992, a government document was published which fully amplified the newly elected Movement for Multi-Party Democracy (MMD) government’s policies for the agricultural sector. The state would cease its direct role in marketing food crops and agricultural inputs, remove all subsidies, privatise parastatal companies in the agricultural sector and completely free producer prices. The government was to restrict itself to managing strategic grain reserves and fostering an environment that empowered the private sector to take on functions that were previously performed by the state.

The government proceeded to liberalise agricultural marketing. Problems soon emerged because the private sector was slow in responding to the new policy environment. This resulted in part from the 1992/93 bumper harvest that followed the 1991/92 drought and placed a severe strain on the untested marketing structures of private traders. The private sector lacked adequate financing as a result of a credit squeeze initiated in 1993 that led to three-digit interest rates. The collection of the 1992/93 bumper harvest was at risk and government was forced to lend money to private traders. However, because the government had in 1993 adopted a cash budget system in order to stabilise the budget, it could not find all the funding required to buy the bumper harvest. It was, therefore, forced to issue promissory notes that matured on 15 February 1994 and could be rediscounted at the prevailing interest rates.

The 1993/94 agricultural marketing chaos evoked bitter criticism from the Zambian public. The Ministry of Agriculture, Food and Fisheries (MAFF)

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2. Under the cash budget system, the government committed itself to spending only when there was enough revenue to meet the expenditure.
was forced to adopt measures to assist the private sector enter grain marketing. It established a crop storage construction revolving fund to promote on-farm storage in order to reduce the amount of grain marketed at once and, thus, avoid overstretching the capacity of the new marketing system. A marketing credit revolving fund to be provided to private buying agents through commercial banks was also established. The two funds were to be phased out at the end of 1996, by which time it was hoped that the private sector would be able to discharge the marketing functions without further assistance from the state. However, although subsequent marketing seasons have not been characterised by the same level of chaos that prevailed in 1993/94, agricultural marketing by the end of 1996 was nowhere nearer meeting the expectation of government. It is clear that the government overestimated the likely scale of the private sector response and the extent to which the private sector could fully take over the responsibilities of government-supported marketing institutions.

This overestimation of the private sector’s response and capacity may have arisen from the fact that very little is known in Zambia about the spatial and commodity pattern of entry of private traders into the market, the scale of their operations, the direction of trade movements, their stocking behaviour, the way they relate to each other and to other market participants, and the social basis of these relations. In the absence of such information, policymakers and planners based their decisions on implicit and untested assumptions about how private traders were likely to behave in the face of market liberalisation. Research elsewhere in SSA has shown that lack of reliable data has consistently led to policy changes deriving from implicit assumptions based on the inadequate knowledge that policymakers have of markets and the people’s expected responses to various constraints and incentives (Weber et al., 1988; Loveridge, 1988; Wehelie, 1989; Dione, 1989).

This study is based on the premise that the response of private traders to market opportunities is often affected by a number of constraints which, as observed in Mali by Staatz, lead to gluts in some regions not being translated into adequate access to food in others (Staatz, 1990). These factors may include poor infrastructure (which may raise transportation costs) and lack of sufficient capital for investment in large-scale grain marketing functions (for example, storage) because of limited access to formal credit. The lack of resources may, in turn, be linked to the nature of political patronage, with players who lack political support having little access to credit and other resources. Social factors, such as the status of women and different ethnic groups in a trading network, may affect the ability of participants to mobilise capital for further investment to expand their marketing activities. Private traders may also be reluctant to invest further in the market because of an
unstable policy environment. Consequently, owing to these and other reasons, private traders may find some regions unprofitable to service.

Observers of agricultural reforms in sub-Saharan Africa have concluded that their success greatly depends on the capacity of the private sector to respond rapidly and take up the functions previously performed by state companies. Under donor pressure, most sub-Saharan African countries are in the process of dismantling the state monopolies in agricultural marketing erected in the 1960s and 1970s. Liberalisation in Zambia has advanced much further than in most SSA countries. This study was designed to contribute to an understanding of the adequacy of and constraints to private sector response to reforms and whether the emerging market structures are likely to foster agricultural development in sub-Saharan Africa.

1.2 Study objectives

Despite the rising number of studies on private sector response to agricultural marketing liberalisation in Zambia, most available research on the subject is heavily biased towards a description of the state grain marketing system and its performance. Very little if any insight has been offered into the structure of the emerging private marketing system. A few studies (e.g., Lele and Candler 1981; Malambo 1984) have shown that the “unofficial” trading system (dominated by private operators) accounts for a large volume of the food marketed in rural areas, and that the official marketing system, dominated and controlled by NAMBoard, provides a market in which farmers can sell surplus maize but without the backflow for the purchase of processed maize. Farmers, therefore, have to rely on the private market to buy processed maize, often at prices higher than the official.

Little is known about the factors that influence the capacity and willingness of private traders in Zambia to rapidly and efficiently enter into the markets from which government parastatal agencies have withdrawn, especially in those remote areas that required government subsidies to induce cooperatives to market maize. Nor is it known whether private traders are able to undertake all the functions performed by state agencies such as input supply (fertiliser and seed), provision of credit and grain marketing. Questions about the nature of the market networks that have emerged—the way various players in the market (producers, traders and millers) relate to each other for storage, finance and transport as well as the ethnic and political resources mobilised by different actors and actresses—remain unanswered. Providing answers to these questions will help in key ways to determine whether the emerging maize marketing structure will contribute to the
attainment of key economic and social objectives such as income- and employment-generation and agricultural growth.
This study, therefore, has the following specific objectives:

i. Assess the extent to which private traders have responded to maize marketing liberalisation and identify the characteristics of the different traders that have entered the market;

ii. Assess the stocking behaviour of traders and their scale of operation, and determine the extent to which the functions performed by cooperatives, such as input supply and provision of credit, have been fully assumed by private traders;

iii. Determine the pattern, nature and direction of trade movements (i.e., whether there is a backflow of goods and services to the farmers from traders);

iv. Assess the emerging structure of grain marketing, i.e., the nature of the producer-trader-miller relationship and the interaction between large- and small-scale traders as regards storage, finance, transport, etc.;

v. Determine the social basis of the various interactions occurring in the maize market, i.e., the cultural, social and political affiliations of different actors and actresses;

vi. Determine the success or failure of regional markets to allocate resources efficiently, i.e., is marketed output responding to market forces and, if not, what are the constraints restricting the flow of grains from lower price regions to higher price regions? What are the major factors underlying price variations over time and space?
Chapter 2
Study Methods and Sites

2.0 Introduction

Various methods can be used to determine private sector responses to agricultural market liberalisation in sub-Saharan Africa. Invariably, however, most researchers have employed survey methods that have identified traders and analysed the factors that stimulated their entry into the market after liberalisation. A good example is the study by Staaz, Dione and Dembele (1988) in Mali that involved a survey of 118 grain wholesalers in four major cities. This approach is sufficient where a sample of traders can be framed and the study is aimed at identifying the characteristics of the traders, assessing the constraints they face in taking advantage of the opportunities presented by liberalisation, and determining the efficiency of emerging markets.

Reliance on survey methods can also be useful in establishing a relationship between marketing costs and the observed marketing network. There can, however, be other factors that play equally important roles in the development and evolution of marketing networks that survey methods do not capture. Such factors include the nature of the producer-trader relationship; the interaction between large- and small-scale traders as regards storage, finance and transport; and the ethnic, social and political affiliations of different actors and actresses. These affiliations may be important in explaining why the structure of incentives associated with liberalisation favours those traders who are able to overcome various constraints. Thus, Jaffee (1992) suggests the need to incorporate analyses of institutional development patterns in general and agricultural trade or agro-industrial settings in particular so that political, economic, historical, cultural and social factors can be incorporated into the analysis.

Efforts at analysing market efficiency in particular have mainly utilised methods that test for market integration through an emphasis on price movements in different regions across a marketing season (Hopcraft, 1987). But this approach is only able to generate implicit information on the flow of goods in response to regional price differentials. In the study of market networks, however, it may be more important to observe the actual direction of the flow of grain and the channels through which grain marketing is conducted. Direct observation may be more relevant in providing answers to
why gluts in some regions are not translated into adequate access to food in others.

2.1 Study methodology

The objectives of this study were outlined in Chapter 1. It is clear that these cannot be met by sole reliance on one particular method. Thus, this study has combined both questionnaire surveys and qualitative methods (see Appendix 2.1). To meet the goals of observing the response of private traders to liberalisation, determine the emerging networks, and analyse market efficiency, it was decided to conduct fieldwork in one surplus and one deficit province. Eastern Province was selected as the surplus province and Lusaka Province as the deficit province. Lusaka Province, which mainly consists of the City of Lusaka, is the largest destination of surplus grain from other provinces. Eastern Province is an important agricultural surplus region with very strong links with Lusaka Province. A preliminary investigation by the Ministry of Agriculture, Food and Fisheries (MAFF) indicated that there had been a better response by private traders in Eastern Province to liberalisation than elsewhere in the country.

To facilitate site selection, the study relied on the agricultural administrative demarcations that have been adopted by MAFF. These move from the national to the provincial level and are broken down into districts according to existing political-administrative boundaries. Each district is subdivided into agricultural blocks headed by a block extension supervisor. The block is further subdivided into camps staffed by extension officers. A camp is, therefore, the lowest level of agricultural administration. Ideally, a camp is supposed to have a radius of 15 kms but often tends to be much larger. Within a camp, the extension officer is responsible for several village extension groups (VEGs).

To execute the study, six blocks in Chipata North (a deficit area) and Lundazi (a surplus area) were selected. A number of criteria were used to arrive at the blocks selected in Eastern Province. The production of major grains, particularly maize, and accessibility to the area in terms of infrastructure development were key factors. In each district, productive, relatively productive and the least productive blocks were selected. Within each block, two camps were selected, the most productive and the least productive. Thus a total of 12 camps were included in the study.

The study used largely qualitative methods to obtain the necessary information. Group discussions were a key approach in obtaining information from farmers. In each camp, the camp extension officer helped to assemble farmers and made all the prior arrangements for the research
team’s visit. He also introduced team members to the farmers. One group discussion was held in each camp, averaging about 20 farmers with a total of about 240 farmers participating in the 12 group discussions.\footnote{Ideally, the group discussions should have been smaller. However, the farmers’ response was usually overwhelming and turning away those that “forced” their way in would have undermined the study.} After every group discussion, an effort was made to obtain more systematic information about the characteristics of farmers, the factors driving their participation in the market and their experience with the liberalised marketing system. For this purpose, a questionnaire was administered (see Appendix 2.1). A total of 188 farmers were interviewed, 98 in Lundazi and 90 in Chipata North. An attempt was made to interview all the farmers that participated in the group discussions but for large groups this was not possible and only some were interviewed.

Surveying traders was more problematic because of their high mobility. Two approaches were used. First, a list of traders was obtained from MAFF’s Food Security Division and traders operating in the survey areas were picked from the list. However, it proved difficult to locate many of these once the researchers went into the field; it was discovered that many of them had either not participated in marketing activities as they had originally intended or had stopped trading. A few were unwilling to be interviewed, perhaps due to the controversies that surrounded agricultural trading at the time of the study, when politicians were accusing traders of exploiting farmers.

Additional information about traders was obtained from key informants in the field and the new names were added to the list. Due to the small number of active traders that could be found, it was decided to interview all the traders. A total of 25 were interviewed (16 in Lundazi and 9 in Chipata North). The traders on the list tended to be more established and operated from fixed locations. This sample was supplemented by interviews with any trader the group encountered, a strategy that enabled researchers to capture the activities of small traders. Where possible, group discussions were also held with traders; these totalled four (three in Lundazi and one in Chipata).

Since Lusaka is a deficit area, only traders and millers were interviewed. A list of 28 traders operating between Eastern Province and Lusaka was obtained from MAFF. Only ten of these could be identified and interviewed for reasons similar those in Lundazi and Chipata North. In addition, 39 small traders were interviewed in the various markets of Lusaka Urban. The markets were deliberately selected on the basis of existing information about their interaction with Eastern Province. In addition, two large millers were
selected and interviewed. A questionnaire interview was conducted with all the traders, large and small.

2.2 Data Collection

Due to the lack of existing information about the target groups, it was decided to undertake a prefield test of research instruments both as a useful exercise in itself and also to gain some understanding of the participants in the market. This exercise was undertaken for three weeks in Mumbwa District, about 100 kms north of Lusaka. It would have been better to undertake a reconnaissance survey in the areas actually selected for the study. This would have meant undertaking at least two trips to Eastern Province. However, resources available to the research team precluded this and a surplus area near Lusaka was adopted. The exercise yielded some information which was useful in the study areas.

The prefield trip was undertaken from 20 December 1995 to 8 January 1996. This was followed by fieldwork within Lusaka which took place from 22 January 1996 to 2 February 1996. The main fieldwork in Eastern Province had to wait until after the start of the agricultural marketing season, usually in May each year. This was conducted from 3 August 1996 to 24 August 1996.

The research instruments used in the data collection process are presented in Appendix 2.1. There were four checklists targeted at key informants, farmers and traders. Key informants included agricultural officers at the provincial, district, block and camp levels, community leaders such as chiefs, health workers, teachers, NGO personnel and leaders of community based organisations (CBOs). The checklist for the key informants solicited information on the socioeconomic characteristics of the community, the agronomic features of the selected areas, institutions operating in the area, types of farming systems and activities, infrastructural development and the level of community participation, availability of basic services ranging from health and education services to consumer goods and transportation, and the informants’ views on agricultural services and the impact of agricultural marketing liberalisation.

2.3 Community Profiles

As noted earlier, six blocks were visited in Lundazi and Chipata North, as compared to the three blocks visited in Mumbwa in December 1995 and January 1996. A striking feature of all the sites visited is their poor accessibility due to the bad state of feeder roads. Distances ranged from 15 kms from
the district centre in Chiwena East of Mumbwa Central to 90 kms north of Mumbwa Central. In Eastern Province, distances ranged from 31 kms in Mwase Lundazi, east of Lundazi to 92 kms northwest of Chipata North Central. All the blocks have motorised feeder roads which are passable during the dry season but are difficult to use during the rainy season. The bridges were particularly unreliable. The situation appears to deteriorate as one moves away from the centre of the districts. Thus, in many areas, agricultural inputs and products are difficult to deliver after December.

Our observations with regard to the state of roads confirms what has been observed for the country as a whole. The Central Statistical Office’s 1995 Crop Forecast Survey: Supplementary Information established that 81 per cent of farm households in the country lived within 5 kms of a public road. Only 7.3 per cent lived more than 10 kms from a public road. Thus, a study by the Institute for African Studies (IAS) (1996) concluded that “the poor state of feeder roads, impassable at critical times of the agricultural season, is the major problem. Other sources of worry are the lack of bridges and other problems at watercourses” (p. 26). Because of the bad state of feeder roads and perhaps low incomes, the most common mode of transport found in the study areas is ox-carts, particularly for shorter distances. Farmers who do not have draught power at times hire ox-carts. For longer distances, farmers use motorised transport but many find this costly. A few farmers living in the communities have one or two trucks which are hired out to other farmers. As will be seen later, transportation appears to be a major problem for many traders as well, some of whom go to the area and buy grain and then wait for a long time for transport to move their purchases. The period of waiting is sometimes as much as one week.

It can be argued that the low level of income is the major reason why farmers prefer ox-carts to motor vehicles and that even if feeder roads were developed, the transport problem would continue. It was, however, observed that those areas with relatively well serviced roads tend to have private transporters who move farmers’ inputs and products and charge prices that many farmers are able to afford. Thus, a well-developed and -serviced road network is a prerequisite to a viable private sector-led agricultural marketing system. A well-serviced network of rural roads not only enhances competition in supplying inputs and marketing agricultural goods, but also ensures timely delivery of agricultural services. If roads were improved, the government would not need to be as extensively engaged in agricultural services because the number of tasks assumed by the private sector would increase. The private sector is unlikely to become very active in supplying inputs or marketing products if roads are not improved.
The development of basic social infrastructural facilities such as schools and medical centres differs from block to block. Whereas some blocks such as Chiwena in Mumbwa have no health centre and only one primary school, others such as Mwase Lundazi boasts 21 primary schools and three health centres. In Eastern Province, where more systematic information was obtained about the characteristics of farmers, it was found that 5 per cent of the farmers interviewed have no formal education, 67 per cent have primary education, while 27 per cent have secondary school education. Although, on the face of things, these figures suggest that farmers have the basic education necessary for receiving and processing agricultural information to raise their productivity, much of the literacy that they gained in early life is often lost because of the lack of opportunity to consolidate what they learnt in school. Also, in many cases farmers when they reported having a primary education, did not indicate that they completed the full seven years of primary education, so that primary education completion may be much lower than the figures above suggest. In any case, a poorly educated rural population lacking in skills has been found to be one of the major impediments to raising agricultural productivity.

Compared to urban centres, the rural population has a lower health status. The most common diseases in all the areas visited are malaria and diarrhoea and these tended to worsen during the rainy season at the peak of labour demand, when fields must be weeded and prepared for planting. Poor health has become more common by the advent of AIDS. In one village, interviews could not take place on several occasions because four deaths occurred within one week. Another factor complicating the health situation of the population in the visited sites is the poor water supply, particularly during the rainy season. Although some blocks such as the Chankanze Agricultural Block in Lundazi have a number of boreholes and wells, this was not the case in other blocks. The declining health status of the rural population has made it difficult for small farmers to increase levels of production.

On the basis of the foregoing, it is possible to suggest that the targeted communities in this study were clearly ill-prepared for a private sector-led agricultural marketing system at the time when the government’s liberalisation policies were introduced. It seems very likely that poorly maintained roads and the absence of storage facilities meant that the new agricultural marketing system marginalised rather than integrated those farmers located in remote areas. In all the places visited, farmers where generally dissatisfied with the current marketing arrangement, except in areas nearest to district centres where the road infrastructure was relatively good. It was a generally shared view that government had withdrawn too rapidly from agricultural marketing.
Chapter 3
The Pattern, Nature and Direction of Trade

3.0 Introduction

This chapter examines the pattern, nature and direction of the flow of trade in maize, groundnuts and cotton that have arisen as a result of agricultural market liberalisation. For this purpose, we focus particularly on Chipata, Lundazi and Mumbwa. We also pay special attention to the factors contributing to the trends and arrangements that we observed. Other attendant objectives of the chapter are to assess the extent to which the private sector has taken over functions previously carried out by government-supported institutions such as NAMBoard and the cooperatives. The chapter also examines how cooperatives, which before liberalisation were heavily supported by government through various marketing subsidies, have coped with the changed environment. The aim is to determine whether the main objective of agricultural marketing liberalisation, i.e., to create an efficient and private sector-driven marketing system that will stimulate production, regulate supplies to consumers and revitalise intra- and interregional trade flows, had taken root in the four years following the 1992 radical liberalisation effort.

3.1 Organisation and trade flows of crop markets

The organisation and direction of trade flows is determined in part by the type of product in question and the demand for it. There is, therefore, a big difference in trader participation as between food crops (maize and groundnuts) and cash crops (cotton). Our field results reveal a significant level of participation by traders in maize and groundnut marketing but that the market for cotton is dominated by a few traders. This was partly explained by differences in the diversity of end-buyers of the different products. Textile companies in Lusaka, Livingstone and the Copperbelt (mainly Kitwe and Ndola) are the main end-users of cotton. Their number has been in decline, precisely coinciding with the introduction of open market policies which encouraged the import of textile materials and secondhand clothes. At the time this study was undertaken, the cotton market, assessed principally by the number of participants (traders and buyers), was very small and could
easily be satisfied by a few large firms. The need to process and store cotton in specialised places (ginneries) meant that the trader who controlled these facilities had a competitive edge over those who did not. All the country’s ginneries were previously controlled by the Lint Company of Zambia, a state-owned firm. After the privatisation of LINTCO in 1995 through the sale of its ginneries to Lonrho Cotton and Clark Cotton, the facilities came to be controlled by these two firms. The acquisition of the ginneries by these firms had the immediate effect of cutting out small- and medium-scale buyers.

The end-buyers of food crops are more diverse and range from individual households to food processing firms. Maize and groundnuts can be sold within communities to deficit households, at central markets in rural and urban centres, or directly to food processing firms which include well-established millers, hammer millers and confectionery factories. Marketing of food crops is unlikely to be as specialised as cash crops. Little wonder then that the marketing of food crops has attracted different categories of traders and small-, medium- and large-scale farmers.

Historical factors are also important in explaining the differences between food and non-food crop marketing. As is described later in this chapter, the period since the liberalisation of maize marketing has been very short. This study was undertaken during the fourth marketing season after liberalisation was introduced. Market arrangements for maize were found to be in a state of continuing flux, a situation that is unlikely to change significantly over the next few years. However, enough pointers emerged to show the direction in which the organisation and structure of the market is likely to go. The situation in the groundnut market, where there was little government intervention before 1992, was much more stable because the impact of liberalisation on the old marketing arrangements appeared minimal.

The case of cotton lay midway between that of the maize and groundnut markets. Cotton marketing, rather like maize marketing, was under the monopoly of LINTCO, a government parastatal. However, the government did not subsidise cotton marketing in the same way it subsidised maize marketing and private traders appear to have been excluded principally on the basis of the ability of LINTCO to supply imported inputs to farmers through an import licensing system that excluded other importers; its control of ginneries; and the enormous advantage it enjoyed by belonging to the parastatal conglomerate, Zambia Industrial and Mining Corporation (ZIMCO). The government decided in 1995 to sell LINTCO to Lonrho, which took over the Mumbwa Ginnery and Gwembe Ginnery in Southern Province, and to Clark Cotton, a South African firm that took over the Chipata Ginnery. Mumbwa in Central Province and Eastern and Southern provinces have been the main producers of cotton. The cotton bought in
other parts of the country is processed and stored at the Lusaka Ginnery which has been sold to Lonrho as well. Apart from a few other big traders that have entered the cotton trade, the private firms which took over LINTCO have dominated the market.

3.1.1 The pre-1992 marketing system

In one sense, the pre-liberalisation crop and input marketing system for Zambia’s staple food is easy to describe because it involved fewer players than that have emerged since the onset of deregulation. The principal players were the cooperatives and NAMBoard. Cooperatives had a federated structure that ran from primary societies at village level to district and provincial cooperatives. At the summit was the Zambia Cooperative Federation (ZCF), with its specialised organs such as the engineering, transport and financial units that were set up to service the various cooperatives. In theory, cooperatives were voluntary organisations formed by farmers at the local level who also selected representatives at higher levels of the structure. However, there was little doubt that their formation and existence was strongly linked to the interventionist and developmentalist philosophy of the government in power, which saw them as important vehicles for enhancing development in areas outside the line of rail.

Maize marketing was organised through a well-defined channel of primary societies (PSs), district cooperative unions (DCUs) and provincial cooperative unions (PCUs). The crop marketing activities of cooperatives prior to 1988 involved, in its first stage, the distribution of empty grain bags to farmers. After farmers had harvested their crop and bagged it, primary societies at the village level handed the bags over to the district cooperative unions which, in turn, handed them over to the provincial cooperative unions. Storage and sale of grain to industrial mills in urban centres was left to provincial cooperative unions. The price for the crops was fixed by the government at the beginning of the marketing season. To cover losses incurred by cooperatives, the government paid marketing subsidies to provincial cooperative unions which later shared these with the district cooperative unions and the primary societies. Thus, both the district cooperative unions and primary societies were not autonomous maize traders, but agents for their respective provincial cooperative unions. These,

in turn, were, initially, agents for NAMBoard and, later, for the Zambia Cooperative Federation.

Agricultural inputs were originally distributed on a loan basis to the farmers through the cooperative marketing chain (i.e., PCUs-DCUs-PSs). From the early 1980s, however, they began to be distributed through the provincial branches of ZCF/FS. The transport of inputs to the PSs was undertaken by the ZCF/FS using its own vehicles or hired transport from the PCUs and the DCUs or through private transporters. At the PS level, the inputs were distributed to farmers by the credit supervisor, a staff member of the society. No commission was given to the PSs for distribution of inputs. A commission was, however, paid for the recovery of loans. The inputs from Nitrogen Chemicals of Zambia and Zambia Seed were sold for cash against a fixed price and distributed through the PCUs-DCUs-PSs channel to farmers. A commission on each bag of fertiliser or of seed sold was given to the cooperative. Transportation of the inputs was by the PCUs and the DCUs. In 1985, the PCUs took over the purchasing of maize while interprovincial transfers and stock-holding were left to NAMBoard, but the role of DCUs and PSs remained the same as before. On the dissolution of NAMBoard in 1989, the maize marketing functions were transferred to the cooperatives.

Some DCUs and PSs were also agents of LINTCO in areas where cotton growing and marketing was prevalent. Most commercial farmers found the price paid by LINTCO uneconomic and, therefore, opted out of cotton growing, making cotton cultivation the domain of small- and medium-scale farmers utilising rain-fed technologies. Because cotton growing is both input- and management-intensive, LINTCO operated an arrangement similar to an outgrower scheme. Not only did it supply farmers with inputs, it also provided them with extension services in cotton growing techniques.

In Zambia, groundnuts are grown throughout the country and are an important part of the nation’s diet. Most groundnuts are cultivated at subsistence level; only a small surplus is sold on the market. However, a number of medium- and small-scale farmers in Eastern Province produce confectione nuts specifically for the market. The marketing of groundnuts has been one of the most liberal commodity marketing operations in the country and is mainly carried out by private traders. In Eastern Province, the Eastern Province Cooperative Union engaged in groundnut’s trading using primary societies and district cooperative unions as agents. Although the government announced prices, these were usually ignored by farmers and private traders who, instead, negotiated their own prices. The EPCU, therefore, had to compete with private traders. The only thing that changed with liberalisation was the reduced ability of the EPCU to trade in groundnuts mainly as a
result of its eroded financial position arising from its inability to carry out its major activity, maize marketing, as before.

3.1.2. The post-1991 crop marketing system

Organisation and trade flow of maize marketing

The DCUs and PSs continued to market maize as agents until the end of 1991 when the market was opened to private traders who were expected to compete with them. The new MMD government that assumed power in November 1991 made great efforts to undermine the system of maize marketing through cooperatives. During the 1992/93 marketing season, the government appointed principal buying agents to make maize purchases instead of supporting the PCUs, although some PCUs like the Southern Province Cooperative Union and Eastern Province Cooperative Union and some DCUs were later appointed as subagents for the principal buying agents. The decision to appoint principal buying agents appears to have been a calculated measure to destroy the close link between cooperatives and Kaunda’s United National Independence Party (UNIP) which had ruled the country for 27 years. Apart from the usual arguments about the inefficiencies of cooperatives, the new government was clearly uncomfortable about dealing with an institution that was used by UNIP as a vehicle for rural patronage and rent-seeking (van de Walle and Chiwele, 1994).

Because of the 1992/93 drought, the cooperatives faced little competition from the private sector as there was little maize to market in the first year of liberalisation. Their only major competitors, especially during the 1991/92 season, were the commercial farmers. However, the next season saw a bumper harvest and competition was immediately heightened as private traders entered the market. According to Central Statistical Office estimates, 50.8 per cent of small- and medium-scale farmers selling to the market sold their grain to private buyers in the 1993/94 marketing season. Only 12.6 per cent sold to the cooperatives. Sales to deficit local households, at 25.6 per cent, were double those to cooperatives.

Another source of competition was the traditional lending institutions (Lima Bank, Credit Union of Savings Associations [CUSA], the Zambia Cooperatives Federation’s Financial Services [ZCF-FSI]), and the principal buying agents appointed by the government. But these lending institutions were involved in maize marketing only for the purpose of recovering loans

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1. ZCF was affiliated to the United National Independence Party and continued to be an outspoken affiliate for some-time after the elections of 31 October 1991 (see also Chapter 6).
from those to whom they had made them. They were, therefore, not genuine maize traders. As to the principal buying agents, they were not trading in maize autonomously, relying heavily as they did on government-supported finance and price mechanisms. It was only during the 1993/94 season that the cooperatives and other private traders started buying maize at variable prices, even though the floor price that was announced later in the season was taken to be the ruling market price.

Field visits to Mumbwa and Eastern Province showed that the organisation and direction of the maize flow is such that it moves from farmers in the surplus regions to consumers in deficit urban regions. Very little or no grain went to remote rural deficit areas. Thus, only a very small quantity of maize moves from Lundazi to Chipata. Indeed, the grain that does flow from Lundazi to Chipata does so more by default than design. It was observed that small traders who bought a few bags of maize experienced tremendous difficulty getting direct transport from Lundazi to Lusaka. They, therefore, hired transport to Chipata and, from there, tried to arrange for a further vehicle to Lusaka. In some cases, it proved very difficult to get transport in Chipata and the traders ended up selling part or all of the maize in Chipata. The flow of maize to Lusaka is not only determined by the fact that Lusaka is the main consumption area in the country but also because the largest milling companies are located there and these supply mealie meal to many other smaller towns, including Chipata. This explains why the flow of grains can bypass an intermediate deficit area. This phenomenon was also observed in Mumbwa where maize from surplus areas like Chiwena flowed to Mumbwa Central mainly as a transit point to Lusaka. Lusaka supplies most of the mealie meal in Mumbwa.

Two factors can be cited to explain why there is little flow of maize from surplus areas to rural deficit areas. First, because of the low incomes prevailing in the deficit areas, it is unlikely that the prices at which maize can be sold would be economical for the traders. Second, the population in deficit areas survives through one form or the other of subsistence farming. Chronic deficit areas have diversified out of maize to grow many more food crops than is the case in surplus areas. Although no attempt was made in this study to assess the level of food availability in the areas visited, there is evidence to show, for example, that the number of crops grown per household in Lundazi is much less than that grown in Chama, the most chronic deficit area in Eastern Province (Njovu, Kalonga, Chinkumbi and Sooka, 1995). The average number of crops grown by each household in Lundazi is three; in Chama it is five, with some households growing as many as seven.
Among the main food crops grown in Chama are cassava, sorghum and millet which were more resistant to rainfall failure.\(^1\)

Thus, apart from their lower financial capacity to buy the commodity, farmers in deficit rural areas are also less dependent on maize for household consumption. However, a major means by which grain from surplus areas has reached deficit areas was through operations mounted by relief agencies such as the Programme against Malnutrition in Eastern Province and the Mumbwa Nutrition Group in Kaindu area north of Mumbwa. Maize was distributed through food-for-work programmes. The relief organisations also engaged in the distribution of inputs, particularly for non-maize food crops, as a strategy to promote food security in deficit areas.

The participants in the maize trade fall into three categories: large traders, small traders and millers. Large traders were found to be dealing mostly in wholesale interregional trade with maize grain being moved from the surplus regions of Lundazi and Mumbwa either to warehouses, where it is stored until the price peaks, or taken straight to industrial mills in the urban areas of Lusaka and the Copperbelt (which are the major urban deficit regions) and to a lesser extent to mills in Chipata and Mumbwa. Small traders, on the other hand, participate mostly in retail and intraregional trade, purchasing a few bags at a time in the surplus regions of Lundazi and Mumbwa and selling the grain at public markets in their respective districts. When transport allows, small traders in these regions moved grain to public markets in Lusaka, especially Soweto market, where they retail it in 15 kg tins.

Periodic markets emerge at harvest time in deficit and surplus areas when farmers bring their grain for sale. Little intra-trade occurs in surplus areas and these markets are set up for the main purpose of facilitating inter-trade, i.e., they act as collection points to which traders from other areas go to buy. Within Lusaka, however, traders were found buying from other markets in the city in order to resell in their own markets. Soweto market also acts as a wholesale market where traders with large quantities of maize quickly dispose of their merchandise. Their clients are usually the retail traders in other markets of Lusaka.

Households buying grain at public markets take it to local hammer millers, where it is processed into mealie meal for household consumption. This trend began in the mid-1980s when the government encouraged the importation of hammer mills to reduce the critical shortage of mealie meal. It

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\(^1\) Chama district is in the Luangwa Valley, which is part of the Agro-ecological Zone I. The region is prone to drought and part of this diversification has been a coping mechanism against rainfall failure.
grew further after liberalisation as the price of mealie meal skyrocketed. Particularly in urban areas, it was cheaper to buy grain and have it milled at a nearby hammer mill. In rural areas, however, hammer mills are occasionally used by households as a way of saving time, as most households pound their own grain into mealie meal. The rural households using hammer mills are relatively better off. The grain processed by industrial millers is normally destined for urban consumers.

Organisation and trade flow of cotton marketing

The destination of cotton is, firstly, the trader’s warehouse located in Eastern Province, Mumbwa and Lusaka, then the processing plants, and, finally, the local textile mills in Lusaka, Livingstone and the Copperbelt and to a lesser extent the export market. The participants are all large-scale traders. There were no small buyers of cotton. In particular, the cotton trade is dominated by Lonrho Cotton, which covers Mumbwa, and Clark Cotton and Sable, which cover Eastern Province. As noted earlier, Lonrho and Clark Cotton took over the operations of LINTCO through the privatisation programme of the government while Sable Limited was a completely new entrant into the market. It diversified into cotton trading from other trading activities in 1992/93. Although little has changed in this regard, severe competition between the two main cotton trading firms in Eastern Province was observed and this appears to have had a significant impact on payment arrangements as well as the unit price to farmers.

The cotton trade is mostly based on contract-farming types of arrangement. Two types were identified in Eastern Province, namely, an outgrowers scheme and a landlord-tenant arrangement. Both are practised by Clark Cotton but Sable uses only the former although, at the time the fieldwork for this study was being undertaken, it had plans to start using the landlord-tenant farmer scheme in Mkushi in Central Province. Only the outgrowers scheme was observed in Mumbwa. In this scheme, the trader provides inputs to selected farmers at the beginning of the growing season. Clark Cotton and Lonrho also provide extension services throughout the growing season and, in this way, they have very detailed knowledge of the progress of each farmer. However, Sable Limited relies mostly on the government’s

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1. It is estimated that there were about 600,000 hammer mills in Zambia in 1994.
2. Before taking over the operations of LINTCO in Mumbwa through privatisation, Lonrho went into cotton trading in the 1992/93 marketing season following liberalisation and traded alongside LINTCO for some-time. Clark Cotton operated for the first time after the privatisation of LINTCO in 1995.
extension workers although they complained that the firm mostly went to them about problems rather than having a systematic and well defined arrangement.

In the landlord-tenant arrangement, a farmer is given a plot of land belonging to Clark Cotton on which to grow cotton. All the inputs and extension advice is provided by the landlord. The farmer receives an agreed allowance every month and, in this way, is more or less like an employee of the firm. After the harvest, the farmer receives a bonus for every kilogram produced but not the full price of the crop. The arrangement appears to work very well as farmers feel much more secure and Clark Cotton was satisfied with the commitment shown by the farmers. The limitations observed are that farmers cannot make any substantial fixed investments in the land that they occupy as it does not belong to them. This undermines productivity improvements. Also, the landlord cannot expand substantially by this method as it requires possession of vast amounts of land.

Organisation and trade flow of groundnut marketing

The organisation and trade flow of groundnuts involves the participation of both small and large traders. However, interprovincial trade appears to be almost wholly dominated by small traders instead of the mixture of smaller and bigger traders observed in maize marketing. Large traders appears to be restricted to operating between Chipata and Lundazi. Thus, there is a major difference between groundnut and maize trading as regards the direction in which they flow. Despite this, groundnuts are bought mostly from Lundazi and transported mainly to Lusaka. There are open markets in Lundazi and Chipata Urban which absorb part of the groundnut crop. However, the most important destination is again Lusaka. Some of the groundnuts transported to Lusaka are shipped by contractual arrangement with supermarkets or government institutions while some are sold to consumers at public markets. There was no evidence of an established groundnut market in Mumbwa as the scale of production of this crop in the district is very low.

3.2 Organisation of input markets

Prior to 1989, fertiliser procurement was done by the NAMBoard. Upon its dissolution in 1989, this role was given to Nitrogen Chemicals of Zambia (NCZ). Distribution was done by the Provincial Cooperative Unions (PCUs). After liberalisation, the supply of fertiliser was taken over by SGS and Cavmont Merchant Bank, which are the credit managers appointed by government to distribute fertiliser on its behalf through credit coordinators
and a few private traders, like Sable Limited that is active in Eastern province. In November 1994, three hundred fertiliser dealers and importers registered with MAFF, but only a small number were actually active (MAFF, 1995). In particular, the number of private traders supplying fertiliser to rural areas is limited. As a result, the supply of fertiliser to rural farmers has been dismal since the onset of liberalisation, with a significant number of farmers have problems in procuring sufficient amounts of either basal or top dressing in time. Whereas, prior to liberalisation, the cry from farmers was that fertiliser was delivered late, the cry at the moment is that not only is fertiliser delivered late but when it arrives, it is either the wrong type or not in the required quantities.

The supplier of seeds prior to liberalisation was Zamseed, which was responsible for production, processing, storage and distribution. About 70 per cent of the seed was distributed by the PCUs, while only 20 per cent and 10 per cent was respectively sold through private stockists and Zamseed retail shops (FAO, FSD, MAFF, 1995). Although some competitors (e.g. Cargill since 1992, Panar and Pioneer since 1994) have entered the seed market, Zamseed still dominates the supply of seeds, controlling 80 per cent of total sales. The supply of seeds, like that of fertiliser, has been problematic. It is mainly targeted at maize, although some improvement has been noted in the last three years. This is a legacy of the previous maize support policy which over-promoted the staple crop at the expense of other crops.

One of the main differences between the old system and the new is that inputs are not generally delivered to farmers, who have to travel to urban centres to buy them. Storage sheds for inputs that had been used by cooperative unions were no longer in use in all the areas visited by researchers. Farmers faced serious transport difficulties, especially as most of them bought their inputs after the start of the rainy season when most roads had become impassable. Observations made in Mumbwa where fieldwork was undertaken during the rainy season revealed that farmers were still transporting inputs to their farms two months after the onset of rain. Serious uncertainties concerning input supply no longer centre on its availability but on how it can be delivered to the actual site.

Before liberalisation, seasonal credit for the purchases of inputs for small-scale farmers was provided by three agricultural lending institutions, namely Lima Bank, the Credit Union of Savings Association (CUSA) and the Zambia Credit Federation’s Financial Services (ZCF-FS). Lintco provided credit to cotton farmers on an outgrower basis but did not qualify as a credit

\[1.\] The study team, although well equipped with a four-wheel drive vehicle, found some roads impassable and was stuck several times.
company because its primary role was to market the product. The three financial institutions faced serious liquidity problems in the 1990s because of the liberalisation of agricultural marketing, which led to a sharp decline in recovery rates. In the previous system, cooperatives were not only used as channels for providing credit for inputs, they also acted as agents for lending institutions. Because they had a monopoly on the purchase of maize, the recovery of loans was at the point of payment to farmers. With liberalisation, this method could no longer be used and repayment was left solely to the farmer who repaid the loan after receiving payment from whichever trader he/she sold the grain to. Coupled with the decline in farm profitability as a result of persistent droughts, repayment rates dropped significantly. It has been estimated that in the 1990s, only about 11 per cent of farmers were receiving credit through this traditional channel.

In the face of the serious credit crunch induced by the government’s liberalisation policy, outgrower schemes have emerged as an important source for inputs delivered on credit. Private traders and credit coordinators have been particularly important in this regard. The latter are sponsored by the government through the SGS and Cavmont Merchant Bank, while the former use their own resources, e.g., Sable Limited (maize, cotton and other crops) and Lonrho and Clark Cotton in the case of cotton. In both cases, they provide loans to farmers on a contractual basis whereby, at the beginning of the farming season, they supply inputs, mostly fertiliser, on condition that farmers pay back the loan in terms of bags of maize equivalent to the number of bags of fertiliser they obtained. The contractors collect only what is owed by the farmer; for the excess crop, the farmer has to find his/her own market outlet. At the time of harvest, credit providers, through their credit supervisor, go door to door to collect the crop from the farmers in order to recover their loans.

During our two field trips to Mumbwa and Eastern Province, a number of repayment methods were reported by some of the contractors to researchers (see Table 3.1). Repayment methods differ from contractor to contractor and according to area. For instance, in Mumbwa a 50 kg bag of fertiliser was worth between 1.75 and two bags of maize while in Lundazi the same bag of fertiliser was exchanged for between two and three bags of maize. This could be attributed to high transport costs in Lundazi compared to Mumbwa, which is closer to Lusaka. This is despite the fact that information for Mumbwa was obtained during the planting season when the prices of inputs tend to peak.
<table>
<thead>
<tr>
<th>Credit institution by district</th>
<th>Crops funded</th>
<th>Loan package</th>
<th>Terms of repayment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MUMBWA</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>All sorts maize fertiliser</td>
<td>maize</td>
<td>1.75 bags of maize per 50kg bag of fertiliser</td>
<td></td>
</tr>
<tr>
<td>Bangana maize fertiliser</td>
<td>maize</td>
<td>1.75 bags of maize per 50kg bag of fertiliser, 10% of total loan as membership fee</td>
<td></td>
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<tr>
<td>Goldstone maize fertiliser</td>
<td>maize</td>
<td>1.75 bags of maize per 50kg bag of fertiliser</td>
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</tr>
<tr>
<td>Lima Bank maize fertiliser</td>
<td>maize</td>
<td>47% interest on loan equivalent to cost of inputs</td>
<td></td>
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<tr>
<td>Lonrho maize fertiliser</td>
<td>maize</td>
<td>K15,000 service charge</td>
<td></td>
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<tr>
<td><strong>LUNDAZI</strong></td>
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<tr>
<td>DICE maize fertiliser and seed</td>
<td>maize</td>
<td>3 x 90kg bags of maize per 50kg bag of fertiliser</td>
<td></td>
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<tr>
<td>Lima Bank maize fertiliser</td>
<td>maize</td>
<td>1.75 bags of maize per 50kg bag of fertiliser</td>
<td></td>
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<tr>
<td>Chisosa Holdings maize fertiliser and seed</td>
<td>maize</td>
<td>3 bags of maize per 50kg bag of fertiliser and the cost of seed given</td>
<td></td>
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<tr>
<td>Sable Transport maize fertiliser and seed</td>
<td>maize</td>
<td>2 x 90kg bags of maize per 50kg bag of fertiliser equivalent to the cost of inputs given</td>
<td></td>
</tr>
<tr>
<td>Clark Cotton cotton fertiliser and seed, chemicals and sprayer</td>
<td>cotton</td>
<td>equivalent to cost of inputs given</td>
<td></td>
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<tr>
<td><strong>CHIPATA</strong></td>
<td></td>
<td></td>
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<tr>
<td>Clark Cotton cotton seeds, chemicals and sprayer</td>
<td>cotton</td>
<td>equivalent to cost of inputs given</td>
<td></td>
</tr>
<tr>
<td>Dickens cotton seeds, chemicals and sprayer</td>
<td>cotton</td>
<td>equivalent to cost of inputs given</td>
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<tr>
<td>Sable Transport maize fertiliser and seed</td>
<td>maize</td>
<td>2 x 90kg bag of maize per 50kg bag of fertiliser equivalent to cost of inputs given</td>
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<tr>
<td>Sable Transport cotton fertiliser and seed</td>
<td>cotton</td>
<td>equivalent to cost of inputs given</td>
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</tbody>
</table>
3.3 Marketing Chains

What follows is a more detailed description of maize marketing chains and a less detailed description of cotton and groundnut marketing chains as observed by researchers in the various study areas. The information is respectively summarised in Diagrams 3.1, 3.2 and 3.3.

Maize

Farmers deliver maize to open market

This type of marketing chain involves farmers bringing maize to the market place or, as in many cases, to the roadside (i.e., the main road) where traders go to buy on a cash basis. This appears to be mostly the case at harvest time when maize is in surplus and traders, except where they buy in bulk, have very little incentive to go to remote surplus areas. In many cases, apart from selling at established markets, periodical markets are erected specifically for this purpose. The transport cost from farm to market is borne by the farmer. The trader pays either the full cost, including the cost of the bag if he has no empty bag, or only the cost of the maize if he has an empty bag. This type of marketing chain appears to be specifically designed to meet the needs of small traders with no transport facilities to collect maize from farmers. At the open markets, trade is mainly on a cash basis and only a few contractual arrangements were observed.

Traders come to the farmer’s doorstep

This involves traders going out into remote surplus villages and looking for grain from farmers. Small traders come from Lusaka and from within Mumbwa, Lundazi and Chipata to buy maize from the farmers in order to sell either at wholesale to other traders or at retail to consumers at open markets in the localities where they operate. Large traders engage subagents to collect maize from the farmers and deliver the commodity to a central place in the village, a practice which is similar to the depot concept once operated by the cooperatives. The agents are given money to purchase maize from farmers and they, in turn, are given a commission on a bag basis. The traders then transport the maize from these collection points to their place of sale by truck.
Farmers source the trader

Sometimes, farmers go looking for traders who then come to collect the produce from them. Under this arrangement, the traders charge the farmers for the transport costs incurred.

Diagram 3.1: Marketing chain for maize grain and inputs

Outgrower scheme

Traders, usually large traders, give inputs to farmers who, upon harvest, sell the produce to the input provider. These traders are mostly the credit coordinators financed by the government through the SGS (in the case of
Chipata and Lundazi) or Cavmont Merchant Bank (in the case of Mumbwa). The credit coordinators engage credit supervisors who distribute the inputs to farmers. At harvest time, credit supervisors go door to door to collect the produce from farmers and assemble it at their rural depot in the different localities where the inputs were distributed. The produce so assembled by the credit supervisors is later collected by the credit coordinators and sold to any person or organisation of the credit coordinator’s choice, upon which the money equivalent to the cost of the number of input bags obtained plus a mark up is paid to SGs or Cavmont. Credit coordinators do not buy any surplus from farmers; only the amount equivalent to the loan which they advanced to the farmers is collected.

Pre-harvest individual contracts

Large traders sometimes make contracts with farmers even before the maize is ready. The contracts are based on either order-price or order-quantity but it is also not uncommon for both methods to be used. For instance, in Chipata, of the total number of traders who made contracts with farmers, 67 per cent were on both order-price and order-quantity terms. In Lundazi, the majority of large traders and small traders made their contracts on the same basis as traders in Chipata. At the time of the contract, both price and quantity are determined in advance. The grain is either transported by the farmer from his/her field to an agreed central place or the trader comes to collect the maize from the farmer. Traders can make contractual arrangements with individual farmers to buy the grain on credit or for cash at the time of collection. These contracts do not seem to be binding as, in some cases, farmers may sell to other traders, depending on their cash needs.

Farmer agents

Farmers purchase and assemble produce from many small farmers and then a trader comes to collect the commodities, i.e., a farmer acts as a marketing agent for the trader and receives a commission for each bag assembled at a central place. This was observed in Mumbwa. In this case, the farmer-agent meets the transport costs from the farm site to the central collection point while the trader meets the transport costs from the central collection point to the selling point.

Farmer to farmer

Under this arrangement, farmers sell their produce to local deficit households. This is usually the case during the hunger season, particularly during
the rainy season when field preparation and planting are taking place and some households run out of food supplies. During such periods, the price of grain peaks as the commodity is in short supply. However, this practice appeared more common in areas where access during the rainy season is poor due to bad roads and traders and farmers experience difficulty in transporting the commodity out of the area. It is, thus, a convenient way for farmers to dispose of maize. It also seems that there are social constraints that allow this channel to develop as an effective mechanism for marketing output. Most farmers prefer to sell to outsiders and not to other farmers in their localities as they find it difficult to charge their fellow farmers a full price. As already pointed out, these are mainly deficit households who have lost their crop due to drought, late planting, or a lack of labour, and whose distress would be fully known to the whole community. Charging a full price would be socially unacceptable and could be interpreted as unwillingness to show real concern for the plight of neighbours.

Cotton

Diagram 3.2 shows the marketing chain for cotton. This chain is shorter than that for maize. Upon harvest, the traders, through their credit supervisors, collect cotton bales from farmers. The bales are assembled at rural markets for collection by credit institutions. Sable Limited has 28 such markets in Lundazi alone. The cotton bales are collected from these points and transported straight to the ginneries in Lusaka or Mumbwa before being sold to textile industries or exported.
Diagram 3.2: Cotton marketing chain as of August 1996
Groundnuts

In the groundnut marketing chain, the farmer has the option of selling his/her groundnuts to either the smaller traders or the large traders or he/she can take his crop straight to the open market, or to other households, supermarkets or food processing plants (see Diagram 3.3). The smaller traders either act as agents for larger traders or they enter into contracts with supermarkets to supply specified quantities of groundnuts. They also buy and sell at retail in open markets. The large traders mostly buy in bulk and supply supermarkets and processing plants.
3.4 How effectively have the functions of cooperatives been replaced?

In 1991, just before complete liberalisation, it was found that 97 per cent of farmers sold their produce to cooperatives while the remaining 3 per cent sold to private traders, who comprised 56 per cent commercial farmers, 19 per cent millers and 25 per cent local villagers (Sipula, 1993). By the 1993/94 marketing season, however, 51 per cent of the reporting households were selling their maize to private traders while about 26 per cent were selling to fellow farmers and only about 13 per cent were selling to cooperatives. In Eastern Province, 56 per cent sold to private traders, 16 per cent to cooperatives and 7 per cent to deficit households, while in Central Province, 38 per cent, 23 per cent and 24 per cent sold to private traders, cooperatives and deficit households respectively (CSO, 1995, in IAS 1996).

At first, liberalisation did little to change the dominance of cooperatives as very few private traders participated in grain trading in the first year. This was mainly the result of the fact that the decision to liberalise the market was made when the marketing season was already under way and much of the grain had already been bought and stored by the cooperatives. In the second year of liberalisation, competition against cooperatives arose mainly from the traditional lending institutions and the principal buying agents that the government had appointed. However, the lending institutions were mainly involved in maize marketing for loan recovery purposes. As pointed out earlier, less than 15 per cent of farmers obtained credit in the 1990s. Principal buying agents, on the other hand, provided greater competition as they traded in maize under a government-supported financial scheme.

Although seasonal and regional prices emerged early during liberalisation, they appear not to have developed according to official policy and this dulled the competitive edge of the cooperatives. Up until the 1993/94 marketing season, the government continued to announce floor prices. It was only during the 1994/95 season that grain marketing was completely liberalised. But, for the private traders, the floor prices served as the maximum price that they were prepared to pay, particularly in remote areas. In most cases, traders generally paid much less than the floor price. Cooperatives, on the other hand, were forced to buy at the floor price since they could not be seen to be contravening government regulations. This could have been advantageous to cooperatives as farmers would prefer to sell to cooperatives. However, cooperatives were unable to buy on a cash basis for two reasons. First, they had always bought on credit and only paid farmers after they had been paid for the crop. Thus, the state of their liquidity at the beginning of the marketing season was normally very poor. Because of the need to service loans and meet other demands that would otherwise have to
be postponed if they had to wait on the cooperatives, farmers chose to sell to private traders at a lower price. Second, the government had announced the withdrawal of subsidies and this affected the cooperatives financially. The fact that subsidies were withdrawn midway through the marketing season, when cooperatives had already collected maize from farmers, affected their liquidity. Farmers were unsure whether they would get their money if they sold to cooperatives on credit. Reports of the financial difficulties faced by cooperatives at this time affected farmers negatively. In many cases, this became a self-fulfilling prophecy.

In general, therefore, the role of cooperatives seems to have declined tremendously since liberalisation. Available survey data indicate that for the three provinces, Central, Eastern and Southern, the market share of provincial cooperatives in maize marketing declined by more than 90 per cent while that for district cooperatives declined by 70 per cent between 1993/94 and 1994/95. The volumes of other crops handled by cooperatives have declined equally (FAO/FSD/MAFF, 1995).

Competition in the input trade has, however, been less stiff. The major competitors in input distribution are Zamseed for seed and Nitrogen Chemical of Zambia for fertiliser. They both operate a wholesale and retail network throughout the country. Recently, a limited number of private traders have entered the market and these include some registered fertiliser dealers (i.e., credit coordinators) appointed by SGS and Cavmont Merchant Bank to distribute fertiliser to farmers on behalf of the government, private cooperatives, and companies like Omnia and Kynoch (for fertiliser) and Panar and Cargil (for seed). Apart from the slow liberalisation of input trade, cooperatives were able to source inputs on credit to sell to farmers for cash. Thus, liquidity problems did not present major constraints in this regard, although there was always a risk that farmers would fail to repay loans. Even although the participation of cooperatives in input marketing has not declined as much as in output marketing, cooperatives are no longer the dominant players.

It would be tempting to conclude that private traders have fully assumed the role that was played by cooperatives. Although this is likely in due course, the situation in the field proved that there is a long way to go. In all the blocks visited, farmers were dissatisfied with the current arrangement and looked back with nostalgia to the days of the cooperatives. Their major concern was that private traders were not always coming to their areas to purchase grain. As already mentioned, this problem arose from the poor state of the roads. Before liberalisation, all farmers were assured that their grain would be purchased without their having to take it outside their local area. Following liberalisation, farmers, especially those in remote locations,
have found that they have to take the grain to public markets which are often outside their area. Selling at market places tends to be slow. Very few farmers have the advantage of traders who purchase maize from their own locality. On the input side, farmers obtaining fertiliser and seeds from distributors other than credit coordinators often have to travel long distances before obtaining the inputs. Input distributors are often located at district centres and farmers go there to buy the supplies they need. The acute transport problems faced by farmers make this arrangement rather cumbersome.

3.5 Chapter summary

This chapter has examined the pattern, nature and direction of the trade in maize, cotton and groundnuts in the study areas, as well as assessing how the cooperatives fared after market liberalisation. It has been shown that the organisation of marketing of the three crops differs according to the participants involved and demand for the respective crops. In general, the organisation and flow of maize, groundnuts and cotton moves from surplus to deficit provinces more than from surplus to deficit districts. In other words, there was more interprovincial trade than intraprovincial trade.

All the market functions of buying and selling are performed by traders. However, storage, transportation and processing functions are only performed by traders to a limited extent. Transportation is mostly done by the large traders, especially Sable Transport Limited, which is the only enterprise found to possess its own transportation. The majority of traders have to resort to hiring. The storage function is most apparent for maize, whereas for cotton and groundnuts, no storage is needed except when awaiting onward transport to selling points in Lusaka and other provinces. With maize, storage is undertaken mostly by large traders. Traders do not engage in processing activities but instead sell their crops to millers in the case of maize and to ginneries in the case of cotton.

Trader participation in the supply of inputs is limited, with the market still dominated by Zamseed for seed and, until recently, by Panar and Cargil, NCZ and a few private companies for fertiliser. Contract farming is emerging as an important channel for input provision to farmers by traders. This is particularly evident for cotton production and marketing. The emerging contract farming arrangement for maize production and marketing involves a few government-supported input distributors through a system that includes credit supervisors, credit coordinators, SGS and Cavmont Merchant Bank. No contract farming was observed for groundnuts. The organisation of input marketing is based mostly on the repayment method favoured by the trader and the type of crop. In general, inputs are provided on credit prior to
the rainy season and payments are either in kind or on a cash basis upon harvest. Thus, the organisation and flow of inputs are much simpler than those for other crops, although input availability remains a serious problem.

A number of marketing chains were identified, indicating the range of strategies that traders and farmers have devised since liberalisation. These chains differ according to the season, ranging from farmers bringing their crop to public markets immediately after harvest, when crops are in abundance, to traders going door to door after harvest, when crops are in short supply. In between are other types of marketing chain, some of which are crop-specific as in the case of cotton. These marketing chains show that farmers now have wider range of outlets for their crops compared to the pre-liberalisation period, when they had to sell to designated government parastatals.

In all this, the cooperatives have been trying to integrate into the new policy environment, but with much difficulty. A number of them have not been able to compete effectively in either the crop or input distribution market, especially after the government stopped funding them and in the face of intense competition from the private sector.
Chapter 4
Characteristics of Key Players

4.0 Introduction

The maize marketing channel described in Chapter 3 comprises many actors undertaking particular or several roles which together form a complete marketing chain. The key actors are farmers, traders, creditors, transporters and millers. For the marketing channel to efficiently achieve its function of transferring a commodity to where it is required at the right time and in the desired form, all actors have to perform their tasks effectively.

This chapter highlights the characteristics of the major actors in the liberalised agricultural marketing system of Zambia. This is done as a prelude to an analysis of the factors that have influenced the emerging marketing channels. Only three of the main players, namely, farmers, traders and millers have been characterised. Transporters have not been fully characterised because data were not collected on them. The characterisation of the three actors is based on information obtained from field visits to Mumbwa, Lusaka, Chipata and Lundazi. Because field visits to Mumbwa were undertaken before a questionnaire was designed, the information obtained there was not sufficient in a number of cases to allow for a full comparative analysis of the behaviour of the key players in the two surplus provinces. However, important impressions were formed and have been utilised in the analysis where possible.

4.1 Characteristics of farmers

Only medium- and small-scale farmers were interviewed in Mumbwa, Chipata and Lundazi; no commercial farmer was surveyed. This is because commercial farming is concentrated in a narrow strip of land along the line of rail and mostly in Southern Province, Lusaka, Kabwe in Central Province and the Copperbelt. A few commercial farmers are found in Mkushi along the Tanzania-Zambia Railway line. We did not interview farmers in Lusaka as it was classified as the main deficit area that received supplies from other provinces. The other reason is that the study area chosen was Lusaka Urban and not Lusaka Rural where commercial farming takes place. Twelve farmers were interviewed in Mumbwa, 90 in Chipata and 98 in Lundazi.
According to Zambia’s official statistics, medium-scale farmers produce crops on an average area of between 5 and 20 hectares while small farmers cultivate less than 5 hectares on average (Institute for African Studies, 1996). Small-scale farmers rely heavily on hand-hoe cultivation, with a only a very small number using oxen while most of their farm labour is provided by unpaid family workers. They use little input technology, which is mainly restricted to fertiliser and seeds. Livestock is mostly of local and indigenous breeds reared under traditional and semi-traditional husbandry. This contrasts sharply with the experience of large-scale (commercial) farmers, which includes extensive mechanisation, the use of high-level technology and management, the rearing of exotic breeds, and heavy reliance on permanent and casual labour. Medium-scale (emergent) farmers are found between these two extremes.1

Between 1980 and 1994, the smallholder subsector (small- and medium-scale farmers) contributed about 40 per cent of the agricultural output. Crops constituted about 80 per cent of smallholder production in the 1990s. Livestock had contributed over 30 per cent in the mid-1980s but this declined in the 1990s because of animal losses and sales as a result of the droughts that were experienced. Nevertheless, it is the possession of cattle, and particularly oxen, that still marks the difference between a small-scale and an emergent farmer. Both Eastern Province and Mumbwa have seen significant animal losses due to drought. Particularly in Mumbwa, with its significant migrant population from Southern Province and Zimbabwe, animal losses have had a notable impact on the cultivation methods adopted by farmers. The cultivated area dropped significantly.

To cope with the impact of animal losses, farmers resorted to minimum tillage whereby they opened up only a small line where seed is planted rather than turning all the soil. This helped avoid a drastic reduction in the total area planted. It is worth noting that farmers in Kaindu have always used this method as an indigenous mode of cultivation because of the area’s lack of integration into modern society. Field visits revealed that Lonrho, under its outgrower scheme, has sought to encourage the use of this technology and extension workers have recommended it to farmers. In conjunction with the Zambia National Farmer’s Union, Lonrho is carrying out studies of this technology. The results, to date, suggest that it may be ideal for increased agricultural output rather than the modern technologies that

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replaced indigenous methods (including minimum tillage) at the turn of the century.

Small- and medium-scale farmers in Zambia produce most of the food crops in the country, including maize, sorghum, millet, cassava, groundnuts and mixed beans. The major crop is white maize, partly from improved hybrids and varieties and partly from traditional seed. Cassava production has not been native to Mumbwa and Eastern Province as it appears to have been grown mainly in parts of Northern, Luapula and Western Provinces. However, crop failures appear to have made cassava more attractive as part of the quest for food security. There has, therefore, been a gradual introduction of the crop into Mumbwa and Eastern Province, particularly in the deficit areas. Thus, in Mumbwa, cassava production as well as sorghum and millet cultivation are most prominent in the Kaindu area rather than in Chiwena and Mumbwa Central. However, in the more productive areas, the main crops are cash crops, especially maize, cotton and sunflower. Groundnut production is also very prominent in Lundazi and Chipata but not in Mumbwa, where it is grown only on a subsistence basis. It was noticed in both Mumbwa and Eastern Province that farmers appeared to be shifting from maize to cotton production.

The farming systems vary from location to location and have been historically shaped by agro-ecological conditions, of which three main ones have been recognised while 36 sub-zones are said to exist. The physical environment has had an important effect on the nature of the farming systems practiced throughout the country. Soil types and rainfall are the most important factors. Rainfall, apart from having an effect on the soil types, is also an important determinant of the types of crops that can be grown in an area. The most suitable areas for crop production appear to fall in the range 800 mm to 1000 mm mean annual rainfall. Over 1000 mm, the soils become highly leached and unsuitable for production. Areas with less than 800 mm annual rainfall are found in Zambia’s main valleys of Luangwa in the east and Gwembe in the south where less crop cultivation occurs, although crops such as cotton tend to do well (Chiti et al., 1989, p.23).

All the areas visited fall within the 800 to 1000 mm annual rainfall range and are found in Agro-ecological Zone II. A number of farming systems, listed in Chiti et al. (1989), were identified. The first is the Fishing and Semi-Permanent Hoe Systems. These systems are practiced mostly along the main rivers and swamps by 7 per cent of Zambia’s rural population. The dominant crops are maize, cassava and groundnuts but fishing is the dominant activity. The system was found only in the Kaindu Block of the nine blocks visited; that block was perhaps the poorest of all the blocks. The location was also near the Kafue River, one of the four main rivers in Zambia.
The second is the *Semi-Permanent Hoe and Ox Plough Systems* which are very common in Zone II, with maize, finger millet, sorghum, groundnuts and beans as the dominant crops. Some cassava, although not very significant, is grown in certain areas. Livestock plays an important role in these systems. 25 per cent of the rural population use these farming systems in Zambia and they were found in Chiwena and Mumbwa Central in Mumbwa and Chitandika in Chipata.

The third is the *Semi-Commercial Ox and Tractor Plough Systems* which, again, are mostly identified with Zone II but appear to have been spreading to the other two regions as well. This systems is used mostly by medium-scale farmers and the area cultivated is usually above five hectares. Both draught and tractor ploughing is used. Cash crops, particularly maize and groundnuts, are dominant. In the study sites, these systems were most common in Chiwena and Mumbwa Central. *Commercial Systems*, although existing both in Mumbwa and Eastern Province, were not encountered in the study because they are concentrated along the line of rail, especially in Zone II.

Results based on questionnaire interviews in Chipata and Lundazi indicate that small and medium farmers are constrained by a number of factors that have important implications for the emerging marketing channels. Many do not have access to credit. As many as 80 per cent of the farmers in Mwase Block in Lundazi indicated that they had no access to credit. The lowest percentage of farmers without access to credit (48.3 per cent) was found in Chiparamba in Eastern Province. However, most of those that get credit obtain it from non-financial institutions and individuals. In this regard, agricultural marketing firms were identified as the most important source of finance. Credit is provided mostly through contract farming; this represents an important development in the marketing chain after liberalisation.

Lack of credit is partly a result of the liberalisation of interest rates that occurred in 1992 in an environment of high inflation, which forced nominal interest rates to skyrocket. At the same time, the government decided to phase out its support to agricultural lending institutions whose recovery rates, which were always poor, worsened even further after the onset of liberalisation.1 Five years after the reforms were initiated, the credit squeeze

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1. Before liberalisation, the Zambia Cooperative Federation, Credit Union of Savings Association and Lima Bank were the main sources of agricultural credit. Their recovery rates were slightly higher because they made an arrangement with provincial and district cooperative unions, the sole buyers of maize grain, to deduct the seasonal loan
continues as the rate of inflation remains high, although it is much lower than it was at the beginning of the 1990s. Apart from farmers, the credit squeeze has made it difficult for traders themselves to respond as expected to agricultural marketing liberalisation, which makes the market, despite the many types of traders in the study areas, not fully competitive. Thus, farmers are forced to accept low prices for their products with severe, adverse implications for farm profitability. This situation is not helped much by the poor state of feeder roads and the lack of on-farm storage facilities that would enable farmers to sell their produce when the price is highest. Most roads become impassable during the rainy season.

It was also observed that farmers in the study areas have inadequate agricultural price and market information to enable them to make critical decision about the crops they need to grow. All six blocks reported access to market information but the levels of access vary greatly. Farmers in Chipata have better access than farmers in Lundazi, where access in Chikomeni is acknowledged by only 17.9 per cent of the reporting farmers. On the other hand, in Chipata, access is as high as 80 per cent in Chitandika. The difference arises from the fact that Chipata is the provincial capital of Eastern Province and has better communication facilities than Lundazi. The source of information tends to vary by block and no single source emerged as dominant. The emerging picture is that the agricultural price and marketing system is still at a very early stage of transition from the pan-territorial and pan-temporal pricing system under which the government announced the price of maize at the beginning of the planting season and the information was disseminated through the radio and other media. Liberalisation has brought about a more complex situation requiring varied information for different areas and for different times of the year.

However, a better price and market information system is, in itself, not useful unless farmers are empowered to take meaningful decisions on the basis of that information. It was apparent that farmers were not empowered to take advantage of price variations and market information due to lack of on-farm storage, the prevalent problem of impassable roads in critical times of the marketing season, and the uncertainties in the macroeconomic situation. Although almost all farmers practise some form of storage, this was found to be inadequate to cope with the requirements of agricultural marketing. Most storage is of a traditional type (nkholwe) which is not appropriate during the wet season. Farmers expressed a wish to store some of their harvest and benefit by increased prices later in the season.

from a farmer’s sale of maize grain. With the entry of private traders, this arrangement could not work and financial institutions were unable to keep track of their debtors.
After financial liberalisation was effected in 1992 with the objective of obtaining positive real interest rates, nominal interest rates skyrocketed almost overnight. Farmers spoken to fear that they will incur higher interest rate charges if they stored their commodities. They, therefore, feel the need to sell immediately after harvesting in order to repay their loans as quickly as possible. In addition, by the beginning of the agricultural marketing season, most farmers desperately need money to pay off debts (usually non-agricultural) and meet other obligations that have been postponed due to lack of funds at any other time during the agricultural season.

These constraints generally make farmers feel that better price and market information does not provide any advantage to them and so they take little interest in it. Information is, nevertheless, important to enable farmers to be aware of the profitability of the crops they produce and the markets for crops that are well suited to their areas. An easy approach to the transition from intervention to liberalisation would have involved efforts to incorporate price and market information in extension messages. However, MAFF is only now beginning to put this in place and it is not expected that extension workers will be trained fast enough to have any big impact in the next two seasons.

4.2 Characteristics of traders

This section presents a summary of the characteristics of the traders interviewed in Eastern Province and Lusaka. 48 traders were interviewed, nine of whom were classified as large traders while the rest were medium and small traders. Large traders are incorporated businesses with all the characteristics of a formal business entity. They handle in excess of 500 90 kg bags of maize in one marketing season. Of the nine big traders interviewed, four traded in more than 70,000 bags per marketing season. Medium-scale traders were classified as those handling between 101 and 500 90 kg bags while small traders handle up to 100 90 kg bags. The general picture that emerged is one of a market dominated by small and medium traders, a situation that speaks of an undeveloped market still in transition.

4.2.1 Characteristics of small and medium traders

A characteristic of the small and medium traders is their relative youth. The modal age for small traders is 15–25 years while that of medium traders is 26–35 years. For small traders, the modal age range constitutes 46.7 per cent of the traders interviewed. The modal age for medium traders constitutes 40 per cent of the traders interviewed. That the market is dominated by the
youth has significant implications for its operation. First, because of the youth of the traders, they are unlikely to have sufficient experience and management skills to fully meet the challenges of such a complex market. Second, unless the market is joined by traders from outside, the traders are likely to remain small for some-time and will only break into large trading rather slowly.

Results obtained from the field suggest that whereas an equal number of male and female traders is found among small traders, medium-scale trading is dominated by male traders with 81 per cent of those interviewed being male. Surprisingly, the educational differences between small and medium traders relate more to the numbers with primary education while those without education or with secondary education were very similar. Nevertheless, medium-scale traders are on average slightly better educated than small-scale traders. In both cases, about 40 per cent of the traders have some secondary education. It can, therefore, be expected that a number of traders have some basic education that will enable them to read the market signals appropriately.

Most of both the medium- and small-scale traders started trading after the 1992 liberalisation of the market was initiated, with less than 20 per cent starting before 1992. In fact, 34 per cent of the traders went into maize marketing for the first time in the 1995/96 marketing season. As far as maize marketing is concerned, not only is the inexperience maize marketing attributable to the relative youth of the traders, but it is also a result of the market itself having been closed to private traders before 1992. This was somewhat compensated for by the fact that most traders had been in trading-related employment before venturing into maize trading. The kind of trading mentioned ranged from selling merchandise in makeshift shops situated in strategic areas to the import and export of goods. In addition, although maize is the dominant crop that is traded, other crops also feature prominently and traders appear to prefer trading in a combination of crops. The traders interviewed were found to be trading in bulrush millet, groundnuts, mixed beans, cotton, soybeans, rice, beans, potatoes, sunflower and sorghum.

From the reasons given by the traders, one can argue that the major attraction of agricultural trading is the apparent existence of a market and the perceived profitability of the trade. The need to diversify their business activities is another reason given by the larger traders who operate other businesses besides trade in agricultural commodities. Most traders who trade in 50 bags and more reported that they sold mainly to millers. Some traders sell to other unspecified markets. From the responses, the major factors determining choice of market seem to be the following: the rate of
turnover, the nonexistence of other markets, lack of transport and the proximity of the market. Proximity of market and lack of transport are two factors that seem to reinforce each other.

About 60 per cent of traders enter into contracts with suppliers whereas the other 40 per cent do not. The most common contracts include agreements on price (12 per cent), quantity to be supplied (4 per cent), both price and quantity (44 per cent), and price and credit arrangements in the case of contract farming (4 per cent). Only 20 per cent of the traders had entered into maize buying/selling contracts for the 1995/96 marketing season.

4.2.2 Characteristics of large-scale traders

A distinguishing characteristic of large-scale trading is its domination by men; all the firms interviewed had male proprietors. This completes the hierarchy of male dominance, with female traders being consigned to small-scale trading and getting progressively fewer as the scale of operations increases. In Eastern Province, large-scale trading is dominated by Asian-Zambians. This is discussed further in Chapter 6. It is important to point out that this is an extension of the situation obtaining in the other types of trade. Most types of trade in Zambia have for years been dominated by Asians. Furthermore, Chipata has a large Asian population and most of these are businessmen running basically retail trade-related businesses. The link between retail trading and maize trading can be seen even among indigenous Zambian traders of all categories.

All the large traders were already in business before the liberalisation policies were announced. However, they mostly went into crop marketing after 1992 when the market was liberalised. The responses indicate that large-scale traders are largely businessmen who engage in other business activity besides agricultural trading. The crops which the large-scale traders trade include maize, groundnuts, soybeans, finger millet and beans. Going by range of crops traded, it is clear that all three categories of traders trade in the same crops. The responses given by the large-scale traders show that private marketing covers a variety of crops previously regarded as having limited official market potential.

Large-scale traders use more casual labour than permanent employees. Casual workers ranged from 75 to 600 workers per year. The number of permanent workers ranged from 13 to 75. A possible explanation is the seasonal nature of the trade and the variations in labour demand at different phases of the trading season. More labour is required at purchase time for loading and off-loading while little is required at the time when the produce is in storage. It is, nevertheless, clear that large-scale trading has the capacity
to generate employment both on a temporary and permanent basis. The seasonality of labour demand is associated with the fact most of the grain purchases take place the first three months of the marketing season. Problems identified earlier such as lack of storage facilities and the poor rural roads are important determinants.

The sources of the crops traded vary between traders. Traders participating in cotton trading rely mainly on contract farming, with one trading organisation obtaining its crop from some 24–25,000 small-scale contract farmers through its outgrower scheme. Those trading in maize and groundnuts reported the variety of ways by which they undertake their business. In some cases, farmers deliver to their premises. One trader reported that he reverted to this method because he incurred significant losses as a result of thefts by workers he sent out to purchase crops. The volumes acquired through this method appear much less than those yielded by other methods. Thus, the number of bags of maize handled by the large-scale traders range from 3,500 to 1.5 million bags per year. More volumes were reported by the traders who went out and purchased grain either at the periodic markets that are established at the beginning of the marketing season or who went from farmer to farmer. One trader reported relying on farmer-agents to collect grain from other farmers and bring them to a particular point where he took over. In many cases, traders use both methods. Big traders indicated that there are no hard and fast rules about where or how they obtain their crops. Some go out to buy while others wait for the sellers to deliver to their premises. Some restrict themselves to the province while others are ready to cross provincial boundaries.

Although theft was reported as a major reason for large traders not to go out to purchase crops, it is apparent that ready access to transport was the most important constraint. Only one trading firm, which has always operated a transport company, has its own transport. All the other traders rely on hired transport. The hire charges for transport range from K75/ton/km for maize to K200/ton/km for cotton. The price per ton is higher for remote areas. Although some firms indicated that they owned storage facilities, lack of storage is a big problem even among large-scale traders. Apart from own storage facilities, large traders mostly depend on rented storage. Sable reported having some of its own storage facilities as well as renting others. The charge reported for the rented storage was K54 million per 3 months (per quarter). Clark Cotton used an open slab for storage. No ownership nor charge was reported. Shiffa stored his purchases on the veranda of his shop. He reported that the storage was inadequate as he was renting the shop premises. Senegalalia reported renting storage facilities from the Food Reserve Agency for K250,000 per month. The facility can hold 5 cubic tones. Nezi
Enterprises reported renting storage at K165,000 per month. The facility has a capacity for 5,000 90 kg bags of maize. The information provided by the five large-scale traders on storage indicates that although almost all have no storage facilities of their own, they are able to rent some even if they may be at times inadequate and expensive.

Sable reported that it sold the commodities it purchased mainly to the local market, especially National Milling, and to some foreign bulk buyers. It pointed out that all its transaction were on a cash basis. Clark Cotton also reported dealing mainly in the local market. It also reported that it paid cash within two days or paid by cheque. Shiffa reported paying cash for some of its purchases and credit for those on which the terms of payment were purchase price plus 10 per cent. It buys on a daily basis. Senegalia reported exporting most of the tobacco it dealt in. Senegalia also reported that it purchased immediately after harvest and paid cash for these purchases. Nezi Enterprises reported that individuals, institutions and schools were its major markets and that it bought crops, mainly maize, throughout the year. Its business transactions are on a cash basis, although credit is sometimes used.

Only three of the traders reported their source of finance, although one response was actually more of a comment on the national financial system. Sable pointed out that the current interest rates are too high and make borrowing for investment unattractive. Clark Cotton indicated that it had obtained its funding from friends and relatives. Senegalia obtained its funding from Barclays Bank.

4.3 Characteristics of millers

Three industrial millers were interviewed to help characterise millers. Of these, one is based in Chipata while two are based in Lusaka. Unlike traders, millers have been in operation for between six and eight years. At first, this would appear to be a short period since milling was not as regulated as maize trading. However, nearly all the milling companies were taken over by the government in December 1986 following food riots in which 15 people died. Millers were accused by government of hiking the price of mealie meal to astronomical levels following the announcement of its liberalisation. The milling companies were only handed back to their previous owners after the MMD government came to power. Those interviewed were among those that escaped the takeover by government and had been operating as private firms even before 1992. Owing to the small number of millers interviewed, no statistical inferences can be made. However, interviewees were asked to comment not only on their firms but also to offer their general impressions of the milling industry as well.
Not surprisingly, millers were found to be the most capitalised of all the participants in the maize marketing chain. Apart from milling plants, millers also have their own transport, although this is supplemented by hired transport at peak times in the marketing season. All three millers were found to have their own storage. Again, this is often supplemented by hired storage facilities not only in Lusaka and Chipata but also in a number of other towns where the millers buy their maize grain. Millers, therefore, have a good capacity to purchase, transport and store maize meal in large quantities. This is strategically important for millers who need to maximise their profit margins at the time when maize grain is in short supply and prices for maize meal are at their highest. Immediately after harvest, prices for maize meal are very low not only because of the huge supply of maize grain at this time, but also because maize meal substitutes, such as cassava and sweet potatoes, are in abundant supply. Thus, millers need to buy in bulk, be able to store a large part of their maize stock and reap high profits later on in their production calendar.

For this reason, millers appear to participate much more strongly in marketing than might be expected. Millers do not rely much on traders bringing maize grain to them but actively go out and purchase it. Four channels through which maize grain got to the millers were identified. The first channel involves purchases from farmers, with millers going out to buy directly from farmers. The second is through contract farming, with millers supplying inputs to farmers which are later discounted at the time of the grain purchase. In these two methods, millers acted just like any other trader with the only difference being that they do not purchase for onward sale. The third channel involves millers engaging in the direct production of maize. This method appears not to be very widespread but is preferred by the smaller industrial milling firms. In all the cases, the objective of the millers is to be able to reduce the amount they spend on the purchase of maize grain so as to increase their gross margins. Millers obtain maize through these three channels mostly at harvest and compete with ordinary traders.

The fourth channel, when millers buy from traders, appear to be common only when maize becomes scarce and most parts of the country are inaccessible due to rain. Thus, from December onwards, millers begin to buy massively from traders who have stored the grain. Their own stocks tend to run out after three to five months. Although in some cases, millers are able to store bigger volumes for longer periods, their storage facilities are not good enough to preserve the quality of the stored grain for longer than this and millers prefer restocking at this stage because of rising storage costs.
4.4 Sources of market information

Several sources of market information were given by traders. It seemed to exist a serious deficit in the flow of market information, with most traders relying on other traders. It was clear that even though there have been attempts to establish a market information system, traders rely mainly on informal sources. The radio, agricultural price bulletins and newspapers through which most of the official information is disseminated reached only 28 per cent of the traders. Part of the problem is that official channels provide very little location-specific information on prices and markets. An innovation under the new Agriculture and Market Information System (AMIS) is the production of regular bulletins in each district. However, the bulletins are largely inaccessible as they are not disseminated widely enough.

None of the medium- and small-scale farmers was found to own motorised transport; instead, they relied on hired transport. This was found to be a major problem in their operations. The general lack of transport translates into very high transport charges. One reason for the scarcity of vehicles is the poor state of roads such that transporters are not willing to service these areas. Transport charges are normally based on per kg (per ton) load, distance or hours spent in transit or a combination of these. For the 1995/96 marketing season, the transport cost locally and to the closest market ranged between K200 and K500 and K1000–K3000 respectively. Because transport charges are found to be exorbitant, close to 50 per cent of traders are located within 10 km of their main point of sale.

Storage was found to be a considerable constraint in determining the capacity of traders to play an important part of the marketing function expected of them. Only four large traders own adequate storage facilities while other big traders rent storage facilities. Medium and small traders store grain for a very short period; the grain is not used for speculative purposes but as ongoing inventory stocks. The types of storage range from a market stall or shop to a room in a house. During the dry season, open sheds covered by tarpaulin are used. Both transport and storage constraints cannot be easily addressed because most traders have difficulty in obtaining investment capital. 72 per cent of the medium-scale traders interviewed reported that they obtained their initial financing from their own resources.

4.5 Conclusions

The characterisation of the key players in the post-liberalisation agricultural marketing system reveals a market still seriously undeveloped. Apart from millers who have been in operation since before liberalisation, the other actors are too undercapitalised to execute their marketing functions effec-
tively. At the production level, the sector is dominated by small farmers who produce mainly for consumption but are also able to sell some surplus to the market. They are unable to take advantage of seasonal and regional price variations because they lack both storage and transport facilities. The previous uniform price did not serve as an incentive for farmers to build on-farm storage facilities. Thus, most small-scale farmers sell their crops immediately after harvest causing a huge glut on the market and a consequent drop in prices. Nor is it certain that if farmers were able to store grain, there would be any significant improvement. Most areas are inaccessible during the rainy season and both traders and farmers have little capacity to buy grain from remote areas at this time. This tends to shorten the marketing season as farmers hurry to sell their crops before they are destroyed completely.

Small traders dealing in less than 100 bags of grain per marketing season have dominated agricultural marketing since the onset of liberalisation. This group has an equal number of male and female traders. Medium-scale traders, who deal in between 100 and 500 90 kg bags of maize and are next on the ladder, are entirely male. There appears to be very little difference in the education level of the two groups. Large-scale trading is also entirely dominated by male traders. Most of the traders from small to large-scale traders entered the market after 1992. Most small and medium-scale traders are less than 35 years old. There is, therefore, little experience in dealing with such a complex market, a shortcoming that is only partially compensated for by the fact that a number of traders were previously in trade-related activities. All three categories own very little transport and few storage facilities and tend to depend on hired facilities. A key problem is the traders’ lack of access to capital. For the small- and medium-scale traders, a basic problem is their lack of collateral security for borrowing from financial institutions. Large traders have also had very little capital to invest in transport and storage facilities because liberalisation of grain markets coincided with rising nominal interest rates that make it virtually impossible to raise investment funds from financial markets.

It is, therefore, clear that for agricultural marketing liberalisation to succeed, the government needs to invest heavily in the rehabilitation and building of road infrastructure in rural areas and in helping farmers build on-farm storage. A possible solution is to promote community storage facilities among farmer groups, as was the case in the Kaindu area in Mumbwa where storage sheds were built for a women’s farmers group. Without this, liberalisation will tend to marginalise those farmers in remote areas that had benefited from the previous policy of pan-territorial and pan-seasonal pricing. The current rates of inflation which have pushed up nominal interest rates need to be brought down if private traders are to be in a position to
respond fully to liberalisation. Our attempt to characterise the actors reveals a private sector that lacks the capacity to enter the market and immediately take over all the functions previously performed by cooperatives. If the objectives of liberalisation are to be met, the government will need to initiate a programme to improve the capacity of the private sector to undertake these functions.
Chapter 5
Grain Marketing Liberalisation: An Evaluation

5.0 Introduction
This chapter evaluates the economic performance of agricultural marketing under liberalisation. It attempts to assess whether the flow of trade has been in accordance with theoretical expectations, that is, whether grain is moving from higher to lower price regions. It gives the price variations in the market over time and space and seeks to reveal the underlying factors behind these movements. Although conclusive tests for market integration have not been provided due to limited data, inferences have been drawn from marketing margins on the degree of market integration, while price graphs are utilised to indicate the degree of seasonal market integration.

5.1 Price patterns
Average wholesale, into-mill and retail price movements for maize in Chipata in Eastern Province and Lusaka Urban in Lusaka Province are presented in Figures 5.1 to 5.3. The wholesale and into-mill prices are for the period June 1993 to November 1996 while the retail prices are for March 1994 to July 1996. Mumbwa and Lundazi have been left out in this analysis as no similar data was collected in those areas. The analysis is also done only for maize and groundnuts as no such data were available for cotton. This is because the cotton price does not vary over time but between traders due to the prevalence of contract farming. Moreover, the cotton marketing season is generally short. Each trader specifies the price which he or she is willing to

1 The Ministry of Agriculture, Food and Fisheries, through the Agricultural Marketing Information Centre, collects price data in selected towns which include provincial centres, towns along the line of rail and major production areas and border towns and trading areas (see Appendix 5.1). In Eastern Province the data collection points are Chipata, Katete and Lundazi while in Central province they are Kabwe and Mkushi and in Lusaka they are Lusaka Urban and Lusaka Rural. The analysis, however, is based on price data collected in Lusaka urban and Chipata as data on the other towns that were visited during the survey (i.e., Lundazi and Mumbwa) are not available on a consistent basis.
pay and this prevails during the buying period that extends from May to September, despite the supply and demand situation.
Figure 5.1: Wholesale price developments in Lusaka, and Chipata (June 1993–November 1996)

Figure 5.1 indicates that, in general, wholesale maize prices in both Chipata and Lusaka start rising during December, peak during February and March, which is the period just before harvest, and begin to decline from about April, reaching their lowest around June when the new harvest begins to enter the market. These results show that wholesale prices are in general at their lowest at harvest time and peak after harvest, thereby reflecting not only the cost of storage but also the fluctuations in demand and supply. The figure also shows that the Lusaka wholesale prices lead the Chipata wholesale prices.

Figures 5.2 and 5.3 show similar trends for into-mill and retail price movements during the same period. Both the into-mill and retail prices peak and bottom at about the same period as the wholesale prices for maize. Lusaka prices also lead the Chipata into-mill and retail prices. It can, therefore, be concluded that prices in Chipata are determined by prices in Lusaka.

1. The into-mill price is the price at which millers buy the grain from farmers while the retail price is the price at which farmers or traders (small-scale) sell their grain at public markets. The retail price is based on a 15 kg tin. To get the retail price for a 90 kg bag the price per 15 kg tin was multiplied by 6.
Where markets function well, prices of grains that are storable, like maize, should rise seasonally and reflect storage costs. Thus for farmers and traders
to be enticed to undertake the storage function, there is a need for a certain degree of seasonal price variation. These price variations should, however, not be excessive. Should this occur, government intervention may be necessary through such actions as releasing/buying stocks and increasing/reducing imports of the commodity in question. As Figure 5.1 shows, wholesale prices were excessive from December 1994 to February 1995 and from December 1995 to March 1996. The excessive price increases during the former period was attributed to “distress sales”, reduced production, high and increasing marketing costs, and the segmentation of the maize market (see FAO/FSD/MAFF, 1995b). In particular, marketing costs tend to influence the wholesale prices of maize. Previous studies on marketing costs and margins in Zambia have shown that traders spend 30 per cent of their wholesale price on marketing costs of which 70–85 per cent is accounted for by transport costs (Sipula and Maleka, 1992; FAO/FSD/MAFF, 1995a, 1995b). For the latter period, the major factors could be “distress selling” and the higher marketing costs.

The graphs also reveal that there is now a clear pattern of both seasonal and regional price differentials following the complete liberalisation of the market. The fact that prices are low at harvest time and highest just before harvest implies that traders can arbitrage seasonally by buying when prices are low and storing until prices are high. Farmers could also hold on to their crops until peak. The graphs also show that prices are lower in Lundazi, which is a surplus area, than in either Chipata or Lusaka, both deficit regions. Taking transport costs into account, traders could arbitrage spatially by buying in surplus and low-priced regions (Lundazi) and selling in deficit high-priced regions (Chipata and Lusaka).

The survey results, however, reveal that most traders, especially small traders, are not engaging in seasonal arbitrage in the case of maize and groundnuts. As soon as they obtain their crops, they dispose of them. Similarly, in the case of cotton, the large-scale traders do not store their crops for later sale. Seasonal arbitrage is, in particular, constrained by the lack of storage facilities, the risks associated with spoilage and policy inconsistencies. Lack of capital to invest in proper storage facilities and transport is a major constraint. The problems with storage, in particular, have resulted in small traders turning over their stocks of maize and groundnuts very quickly, thereby missing out on seasonal price variations. Although government decided to lease out its storage facilities, the rental charges are too high for most traders. In the case of cotton, the problem is not only the lack of proper storage facilities but also the fact that prices are more or less fixed during the June–September period after which no sales are made because the markets close.
Small traders are unable to invest in proper storage facilities or to purchase large amounts of these crops due to the lack of capital and access to formal credit facilities. Chapter 4 showed that most traders rely on their own resources to carry out their marketing functions and, as a result, the majority of them handle very small volumes. Attempts have been made to resolve the problem of capital through the establishment of the Agricultural Marketing Revolving Fund (AMRF), which was aimed at stimulating development in agricultural marketing and diversification. AMRF provided funds to private traders for use as capital for either the purchase of crops and inputs or the establishment and operation of outgrower schemes for the production of crops other than maize. This Fund, however, only operated for two seasons 1994/95 and 1995/96. During the 1996/97 season, the government replaced it with the Inventory Credit Fund (ICF) and nine companies were appointed as warehouse managers while four others were named as fund managers. It was hoped that this would help ease the problem of capital for a number of traders, but the system has not worked well.

5.2 Marketing margins

Table 5.1 indicates the wholesale, into-mill, and retail prices as well as the spread between wholesale and retail prices in Chipata and Lusaka during the period June 1995 to May 1996. The results suggest that price spreads between wholesale and retail prices in Lusaka are positive and relatively small for the period indicated. This implies that the wholesale prices are below retail prices. In Chipata, however, although the wholesale-retail price spreads are generally positive, they were negative for the period October 1995 to January 1996 and February to May 1996. Thus, for these two periods, wholesale prices were above retail prices. The results indicate that the maize trade is not as profitable, especially in Chipata, as is normally assumed. In other words, private maize traders in Chipata are not reaping monopoly profits but are making a loss. If transaction costs (such as transport, handling charges, etc.) are deducted from gross margins, the returns on their invested capital, storage and labour would be much smaller still.

Tables 5.2 and 5.3 further confirm that traders are not, in fact, exploiting farmers. The tables show the net margin for maize and groundnuts respectively for a typical Lundazi-based small trader who buys his maize and groundnuts from farmers in Chikomeni, some 40 km from Lundazi Boma, and transports and sells them at a public market in either Lundazi or Lusaka or Chipata. The results show that a trader would reap a net margin of only 11 per cent if he purchases and sells his maize in Lundazi and a net margin of 10 per cent and 14 per cent if he purchases his maize in Lundazi and sells it...
in Lusaka and Chipata, respectively. The net margins are much higher for groundnuts than for maize, with the trader reaping a net margin of 25 per

Table 5.1: *Maize marketing margins in Lusaka, June 1995 to May 1996*

<table>
<thead>
<tr>
<th>Period</th>
<th>District</th>
<th>Wholesale price</th>
<th>Into-mill price</th>
<th>Retail price</th>
<th>Gross margin</th>
<th>Wholesale as % of retail</th>
</tr>
</thead>
<tbody>
<tr>
<td>June–Sep 95</td>
<td>Chipata</td>
<td>8,076</td>
<td>7,727</td>
<td>8,285</td>
<td>209</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>Lusaka</td>
<td>11,761</td>
<td>12,315</td>
<td>14,729</td>
<td>2,968</td>
<td>80</td>
</tr>
<tr>
<td>Oct 95–Jan 96</td>
<td>Chipata</td>
<td>17,363</td>
<td>16,198</td>
<td>14,879</td>
<td>(2,484)</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>Lusaka</td>
<td>24,270</td>
<td>20,753</td>
<td>25,457</td>
<td>1,186</td>
<td>95</td>
</tr>
<tr>
<td>Feb–May 96</td>
<td>Chipata</td>
<td>20,326</td>
<td>22,203</td>
<td>19,106</td>
<td>(1,220)</td>
<td>106</td>
</tr>
<tr>
<td></td>
<td>Lusaka</td>
<td>24,661</td>
<td>24,086</td>
<td>25,683</td>
<td>575</td>
<td>96</td>
</tr>
</tbody>
</table>

Source: AMIC, MAFF: *Weekly Market Bulletins*

Table 5.2: *Estimated net margin (for a 90kg bag of maize) for a representative small trader based in Lundazi District*

<table>
<thead>
<tr>
<th>Selling price</th>
<th>Selling in Chipata</th>
<th>Selling in Lusaka</th>
<th>Selling in Lundazi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of 90kg bag</td>
<td>7,000</td>
<td>7,000</td>
<td>7,000</td>
</tr>
<tr>
<td>Transport</td>
<td>3,500</td>
<td>6,500</td>
<td>2,000</td>
</tr>
<tr>
<td>Handling charges</td>
<td>200</td>
<td>500</td>
<td>100</td>
</tr>
<tr>
<td>Cost of grain bag</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>Storage</td>
<td>150</td>
<td>200</td>
<td>100</td>
</tr>
<tr>
<td>Levy</td>
<td>500</td>
<td>500</td>
<td>N.A</td>
</tr>
<tr>
<td>Total costs</td>
<td>12,850</td>
<td>16,200</td>
<td>10,700</td>
</tr>
<tr>
<td>Transport costs as % of total costs</td>
<td>27</td>
<td>40</td>
<td>19</td>
</tr>
<tr>
<td>Net margin (% of selling price)</td>
<td>14</td>
<td>10</td>
<td>11</td>
</tr>
</tbody>
</table>
cent in Lundazi, 35 per cent and 54 per cent in Chipata and Lusaka respectively. This is because groundnuts are a high value crop and their demand in Lusaka is higher than in either Chipata or Lundazi, whereas maize is a low value bulk crop.

The tables also indicate that, in general, net margins for both groundnuts and maize are low if the trader sell these crops in Lundazi, despite low transport costs. This could be due to the fact that Lundazi is a surplus area
Table 5.3: Estimated net margin (for an 80kg bag of shelled groundnuts) for a representative small trader by district, August 1996

<table>
<thead>
<tr>
<th>Selling price</th>
<th>Selling in Chipata</th>
<th>Selling in Lusaka</th>
<th>Selling in Lundazi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of 90kg bag</td>
<td>32,000</td>
<td>32,000</td>
<td>32,000</td>
</tr>
<tr>
<td>Transport</td>
<td>3,500</td>
<td>6,500</td>
<td>2,000</td>
</tr>
<tr>
<td>Handling charges</td>
<td>1,000</td>
<td>1,500</td>
<td>500</td>
</tr>
<tr>
<td>Cost of grain bag</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>Storage</td>
<td>-</td>
<td>1,000</td>
<td>-</td>
</tr>
<tr>
<td>Levy</td>
<td>1,000</td>
<td>1,000</td>
<td>-</td>
</tr>
<tr>
<td>Total costs</td>
<td>39,000</td>
<td>43,500</td>
<td>36,000</td>
</tr>
<tr>
<td>Net margin (% of selling price)</td>
<td>35</td>
<td>54</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: Agricultural Trading Survey, August 1996

for both maize and groundnuts. Thus, even if transportation costs as a percentage of total costs are low (19 per cent for maize and 25 per cent for groundnuts), the selling prices are low, whereas the selling prices for both crops are higher in Lusaka and Chipata.

5.3 Constraints restricting the flow of grains from lower to higher price regions

In a situation where markets function well, commodities will move from surplus and lower-priced regions to deficit higher-priced regions. Poor market integration may result from a number of factors such as lack of competition, lack of consistent market information, inadequate infrastructure and unclear and inconsistent government policy.

The survey revealed that the maize trade is very competitive. In other words, the maize market is not dominated by a few individual traders, neither is it dominated by any major ethnic group. Anyone can enter the market without facing non-economic obstacles. It has been shown in Section 5.2 that net marketing margins are small, which further confirms the competitive nature of the maize trade. The groundnut trade is relatively less competitive—the net margins are higher than those for maize. The cotton trade, on the other hand, is less competitive with a few traders dominating it, mostly large traders and input providers who operate outgrower schemes.
Prices for cotton do not vary seasonally with the effect that seasonal arbitrage is not possible. In general, however, it can be concluded that for groundnuts and maize there are no barriers to entry and no collusive behaviour as was indicated by the modest price spreads between wholesale and retail prices. For cotton, however, there are barriers and some collusive behaviour in the sense that not anyone can purchase cotton from the farmers except the traders/organisation/companies that provide the inputs to farmers, and these are very few.

One of the necessary conditions for a perfect market is the availability of access to market information. It is assumed that in a perfect market, each participant has perfect information about the supply and demand conditions. The survey, however, indicated that farmers, together with traders, have insufficient knowledge of commodity prices in other markets away from their local markets. Chapter 4 showed that most of the reporting traders depend on informal information flows through their fellow traders. Very few have access to formal information networks such as radios or government bulletins. Although a systematic allocation of price information has been established (see Appendix 5.1), the dissemination of this information, especially in remote rural areas, is very limited. In this sense, the marketing system for these crops, especially maize and groundnuts, does not necessarily meet the competition norm, as the traders do not have adequate information on prices.

Another constraint preventing the smooth flow of commodities is the nature of the infrastructure and road network connecting the surplus remote areas and the deficit regions. Whereas the road networks between the major central markets of Lundazi and Chipata and between Chipata and Lusaka are accessible, the feeder roads connecting the supply sites and the main roads are in poor condition, with most places being inaccessible during the rainy season. In Eastern Province, interregional prices may appear to be high not just because of the distances but also because of the poor roads. The nature of the roads contributes significantly to high marketing costs. Therefore, improvement of these roads may in the long run reduce the marketing costs.

The credibility of government pronouncements can help in the smooth movement of crops from surplus regions to deficit regions. Currently, traders and farmers understand that the market has been liberalised, although a few of them do not yet believe that the system is here to stay. For instance, before the 1994/95 marketing season, the government announced that the market was liberalised and yet it continued to appoint government agents to purchase maize and to announce the floor price which was taken by many farmers and traders as the ruling price. In the 1996/97 marketing
season, a levy was introduced for moving grain out of surplus regions, but it is not yet clear whether this is to be charged only once or every time one passes through another town. This has to be made clear to both the city council personnel and to the farmers and traders.

5.4 Conclusions

The chapter has shown that maize is highly competitive given its modest net margins. Groundnuts, although competitive, are less so while the cotton trade seems to reveal some collusive behaviour. The discussion has pointed out that there are seasonal and spatial price variations for maize and groundnuts while cotton exhibits no seasonal variation. The price variations for maize, in particular, seem to follow normal price fluctuations, peaking after harvest and bottoming at harvest time. The private sector is limited in its expansion efforts by problems connected with finance, storage and transportation. For the private sector and, indeed, cooperatives to operate efficiently, the government needs to adopt policy measures that will help alleviate these problems. These measures should focus on the creation of adequate infrastructure, transport, and communication networks and efficient financial markets.

Although the market for maize and groundnuts is relatively competitive, the lack of sufficient information flow, capital and a proper road network may render the system inefficient. In particular, spatial and seasonal price variations help indicate the performance of the market, but if information is lacking on purchase and sale prices, the system may not utilise these price variations. Price information is useful to traders by helping them to time their purchases and sales and, hence, helping them engage in arbitrage. Price information is also important to policymakers as it helps indicate the timing of food shortages and general crop failure. In this sense, policymakers are able to counteract transient and chronic food insecurities. Thus, it is important that much more effort is put into the collection of price information on a regular and consistent basis.
Chapter 6
The Social and Political Foundations of Emerging Marketing Channels

6.0 Introduction

This chapter aims to explore the underlying reasons for the way in which the marketing channels which we have described have developed since liberalisation. In chapters 3, 4, and 5, we attempted to explain the phenomena observed in terms of economic and historical factors. Even though these factors are important in determining trade flows from surplus to deficit areas, social and political factors may also explain why some traders have been able to overcome the constraints observed in Chapter 4. This chapter examines these factors with particular emphasis on ethnic and political affiliations.

6.1 Ethnic affiliations

Field observations indicate that, overall, ethnic affiliations are not an important aspect of the emerging marketing channels. This conclusion may be surprising given that trade channels and flows in other countries have been known to be influenced by ethnic affiliation. The nearest that we saw of the influence of ethnic affiliation in Zambia’s marketing system is in the retail trade, which is overwhelmingly dominated by Zambians of Asian origin. Two factors appeared to explain why ethnicity is not, on the whole, such an important factor. First, the high rate of urbanisation that has occurred in the country over the last 30 years has diluted the importance of ethnic affiliation. In the 1990s, close to 50 per cent of Zambians lived in urban areas. Most of these were below the age of 35 years and had either been born or lived most of their lives in towns. It was this age group that provided most of the traders, as observed in Chapter 4. Generally, this group was unlikely to exhibit a strong sense of ethnicity. Second, the marketing channels observed for maize and cotton are relatively new and not well developed. Nearly all the traders encountered entered the market after 1992 and their entry could not have been shaped by their ethnic affiliation as there existed little or no basis for this.
It is clearly important that in the development of responses to new marketing opportunities which depart significantly from past opportunities, ethnicity has had very little influence. However, this does not say much about the ability of traders to withstand competition, observed constraints, and be able to persist in the trade without being forced out or reduced to marginal roles. It may, therefore, be that after the markets settle and a number of traders are forced out, ethnic affiliation may emerge as an important basis for entering and remaining in the market. Principally, ethnicity may play an important role in the way that traders gain access to the capital that would enhance their ability to purchase and store crops in large quantity. As already noted, the economic environment has been too harsh for traders to be able to respond to liberalisation as expected. Grain marketing was liberalised in 1992, the same year that financial liberalisation occurred. The environment in which this took place was three-digit inflation. The immediate effect was to push nominal interest rates to very high levels. It was thus virtually impossible for traders to raise initial investment in grain marketing from financial institutions as returns could not be expected to be more than 100 per cent in any season.

Given this environment, traders had to rely on their own resources for initial investment. It was observed in Chapter 4 that most traders use their own funds for initial investments. The second important source is funds obtained from friends or relatives. Both of these sources appeared to favour the Zambian Asians who were found to dominate large-scale grain marketing in Eastern Province. Of the five large trading groups for which information was analysed, three are owned by Zambian Asians. This reflects the dominance of Zambians of Asian origin in retail trading in Eastern Province. Part of the explanation is that at the time of liberalisation, members of the group already had resources from their earlier businesses to take advantage of the new opportunities offered by maize trading.

We observe that Zambian Asians have strong ethnic and religious bonds which entail offering economic assistance to one another in order to promote economic welfare. Thus, relying on friends and relatives as a source of funds is almost a natural thing to do within this group. Indigenous Zambians breaking into large-scale entrepreneurship, on the other hand, tend to be more individualistic and count little on ethnic affiliation. This picture is, however, slightly different at the lower scale of operations as ethnic affiliations are important in the way that internship is organised and offered within the informal sector (Chiwele, 1993). The picture that is likely to emerge, therefore, is of a grain marketing structure dominated at its apex by Asian Zambians. This group is likely to consolidate its market share by the time the rather individualistic indigenous Zambians enter the market on a
large scale. Indigenous Zambians are likely to assume the role of medium- and small-scale traders. It is difficult to tell, however, whether at this level ethnic affiliation will come to play an influential role in the way the market operates.

6.2 Political affiliation

If ethnic factors have thus far not been crucial in determining the emerging marketing channels, political factors have been fundamental, if only because of their role in the determination of the pace and nature of the liberalisation of agricultural marketing. A basic explanation of why the MMD government liberalised grain marketing barely one month after coming to power and despite every indication that the timing was not right, is that it had political difficulties in dealing with the cooperative movement which had dominated grain marketing since the early 1970s. The cooperative movement in Zambia was a creation of the UNIP government and it was encouraged principally as a means of diluting the influence of white farmers represented by the Commercial Farmers Bureau, later the Zambia National Farmers Union (ZNFU). The nationalisation of key firms in 1969 provided UNIP with an important vehicle for dispensing political and economic patronage in urban areas. It needed a system for expanding this patronage into rural areas. The establishment of the cooperative movement appeared to fulfil this function for UNIP.

The close association between UNIP and the cooperative movement permeated the entire hierarchy of the two organisations. At the highest level, the chairman of the Zambia Cooperative Federation (ZCF) was a member of the central committee (MCC) of UNIP. This equated him with the chairmen of the Zambia Consolidated Copper Mines (ZCCM) and the Zambia Industrial and Mining Corporation (ZIMCO), both of whom served as members of the UNIP Central Committee. At lower levels of the hierarchy, leadership positions in UNIP and in the provincial and district cooperatives were often held by the same person. The UNIP government funded the cooperatives through subsidies in the same way that it funded the party. At the same time, cooperatives, just like the parastatal firms under ZIMCO and especially ZCCM, mobilised enormous resources for the operations of UNIP.

To a certain extent, it was almost impossible for major organisations in the country, including the labour movement as represented by the Zambian Congress of Trade Unions (ZCTU), to avoid being affiliated with UNIP under the one party system. What appeared to make the difference was that, whereas the ZCTU was critical of the UNIP government and clearly represented the interests of its members, the ZCF appeared to be more supportive
of the party. The ZCTU leadership rejected the positions offered to it on UNIP’s Central Committee in order to preserve its independence. The ZCF, on the other hand, appeared to relish its political role. Furthermore, at the dawn of multipartyism in 1990, ZCTU promoted the reintroduction of plural politics and broke away from UNIP. The ZCF, for its part, chose to remain loyal to UNIP and its chairman continued to serve as a UNIP MCC despite pressure on the organisation to renounce this position. A few provincial and district cooperative leaders broke ranks with the central leadership and supported the opposition, but they were quickly ejected from the cooperative movement. After the multiparty elections, the new MMD government and other civic organisations asked ZCF to renounce its affiliation with UNIP. However, the ZCF central leadership appeared intransigent for several months, by which time the MMD government had already decided to withdraw all maize-related subsidies and liberalise the market.

Although liberalisation was on MMD’s reform agenda, the speed with which it was implemented suggests that allowed the new government to avoid having to deal with a cooperative movement whose loyalty clearly lay with the major opposition party. In fact, MMD had little intention of withdrawing immediately from grain marketing and saw itself as playing an important role in the transition. It soon realised that doing away with the cooperatives created a void that needed to be filled quickly. It, therefore, created a Maize Marketing Revolving Fund to help entrepreneurs raise funds at reasonable interest rates to purchase maize. Under this arrangement, cooperatives were to be treated like any other private firm. However, given their experience and the infrastructural network that they offered, one would expect that the cooperatives would have enjoyed some advantage in accessing the revolving fund. However, cooperatives appear to have been deliberately discriminated against and failed to access these funds.

Even as cooperatives were being undermined, MMD politicians fell over each other to establish front companies that appear to have been at a great advantage in obtaining marketing credit. Yet most failed to invest the money they borrowed in grain marketing and chose, instead, to put it in treasury bills where returns were high and whose only risk was the unlikely possibility of a sudden and rapid drop in interest rates. This line of investment was much preferred to grain marketing which presented significant risks. The newly formed firms had few facilities such as transportation and storage, even though they were required to demonstrate access to transport and storage as proof of their eligibility. It was for this reason that the 1993/94 bumper harvest remained uncollected and the government had to issue promissory notes which were discounted at a later date. The very small number of traders who borrowed from the revolving fund who actually
went into grain marketing is further attested by the fact of all the people registered as traders with MAFF and who were supposed to be operating between Mumbwa, Eastern Province and Lusaka, few were actually trading at the time of the fieldwork for this study. Much of the credit that was extended remained unrepaid at the time that the research was conducted and there appeared to be political difficulties in enforcing the loan recovery programme that was spelt out.

The Maize Marketing Revolving Fund could not be sustained and the government appointed Cavmont Merchant Bank and SGS to handle the distribution of fertiliser. The two institutions then appointed credit coordinators for specific areas who received fertiliser on credit and distributed it to credit supervisors, who oversaw a number of villages usually synonymous with the village extension groups (VEG). When credit coordinators were appointed, only a few cooperatives, especially in the Southern Province, were invited to participate and none in the study areas. This appears to be a perpetuation of MMD’s discriminatory stance against the cooperative movement. It is clear that even at this stage, the government is still not sure of the loyalty of the cooperative movement and appears not to let it benefit from government economic programmes.

6.3 Conclusions

The discussion above suggests that in the early stages of the new agricultural marketing system, ethnic affiliations do not appear to have greatly influenced the nature of the emerging marketing channels. There are, however, indications that these may become important in the future because of the interplay of social and economic factors. The difficulties of raising investment capital in the present environment appear to favour the Zambian Asians who already dominate the retail trade in Eastern Province. This is because, among them, strong ethnic and religious ties are important for obtaining economic assistance from within the community.

As to political affiliations, these have been critical in shaping the current marketing system. Liberalisation took place at a time when the macroeconomic and the rural infrastructural situation appeared inadequate. However, MMD seems to have been in a hurry to introduce reforms and marketing liberalisation was announced just two months after it assumed office. What appears to explain this is that MMD perceived the cooperative movement, which had stood solidly behind the United National Independence Party (UNIP) at the dawn of multiparty politics, continued to be loyal to UNIP. When the decision to help the private sector gain access to marketing credit was taken, cooperatives appear to have been discriminated against.
and there appears to have been an unwritten policy of ensuring that cooperatives did not benefit from the programmes of the new government. Instead, MMD politicians formed front companies which were used to access the resources but which clearly had no firm footing in agricultural marketing. Most companies put the money into treasury bills and quickly dropped out of the marketing system. This left a private sector that had little capacity to discharge fully the various marketing functions that had been undertaken by the cooperatives.
Chapter 7
Conclusions

7.0 Introduction
The Zambian government expected that by the end of 1996 the new private-sector led marketing system initiated in 1992 would be fully developed and be able to stand on its own without governmental involvement. However, this study has shown that the new marketing system at the end of this period was still undeveloped, with most of the actors and actresses unable to effectively discharge the marketing functions that had once been carried out by the cooperatives. Although trade flows moved as expected from surplus to deficit areas, gluts in surplus areas did not always induce trade flows to deficit areas. This was particularly the case during the rainy season when most remote areas remained inaccessible. The marketing channels identified appeared to be dominated by small- and medium-scale traders who had few resources to enable them to fully carry out the marketing functions expected of them. A key observation made is that liberalisation of grain markets occurred in an environment ill-suited to the new system. Rather than stimulate production through seasonal and regional price variations, market liberalisation tended to marginalise farmers in remote areas. Thus, in all the sites visited, farmers appeared highly disillusioned with the new system and looked back with nostalgia on the old arrangements under the cooperative movement. This chapter concludes the study with a discussion of the factors that made the environment for agricultural marketing liberalisation inappropriate. It also recommends measures that could be taken to strengthen the current arrangement.

7.1 Emerging marketing channels
The study identified a number of marketing channels that have emerged in Chipata and Lundazi in Eastern Province and Mumbwa in Central Province. It outlined the trade flows of three agricultural commodities, maize, cotton and groundnuts. This was done in order to compare and effectively analyse the factors behind the emerging channels in the maize market. It was found that trade flows and marketing channels depend on the type of commodity. For food crops that have various outlets, marketing attracted many small-
and medium-scale traders. Compared to groundnuts, however, the trade in maize attracts far fewer small-scale traders. This is because much of the groundnut output is sold at public markets to deficit households. Maize marketing, although dominated by small- and medium-scale traders, is different from groundnut marketing in this regard since the main outlet for maize is industrial mills, even if a substantial part of the harvest is also sold at public markets to deficit households. As to cotton marketing, it is wholly dominated by large traders, even though its production is dominated by small and emergent farmers. This is because to trade in cotton, economies of scale and access to gineries are critical and these are currently enjoyed by only two private firms.

The study found that for maize, the organisation of trade flows according to the marketing season. Immediately after harvest and when the commodity is in abundant supply, farmers take the maize to public markets which often emerge specifically for this purpose and traders go there to buy the commodity. Desperate selling is noted as farmers are aware that they have little capacity to store the commodity for sale later in the season. Also, household needs that have been postponed earlier in the year need to be urgently met at this time and farmers are desperate to earn some money. There is also an awareness that after the rains begin, few traders will make it to the remote parts of country, hence the need to sell as quickly as possible. This creates a severe glut on the market and depresses prices, apart from straining the market. If it was expected that the chaos that prevailed before liberalisation would be resolved, the situation does not appear to have changed. At harvest time, large traders who contract farmers through outgrower schemes and other types of contract farming, collect the agreed number of bags of maize. Contract farming is emerging as an important source of inputs, although it is much more prevalent for cotton than maize. Indeed, the bulk of the cotton grown at the time this study was undertaken appears to have been through out grower/contract arrangements. Considering the collapse of traditional agricultural credit systems, this development may emerge as one way of resolving the constraints faced by farmers who lack the resources to buy inputs.

Just before the rainy season, in the short period before the roads become impassable and the maize stocks of farmers start declining, traders appear more ready to go out in search of the commodities they want. At times, they engage subagents who buy the commodity for them which they stockpile at a single location. Traders then collect the maize from the subagents. Very few traders go to remote areas after the first month of the rainy season, as most roads have started to become impassable. For most farmers, the outlets for selling maize are then closed off and they are forced to sell their
commodity to deficit households within the area. Statistics show that farmers who sell most of their maize to deficit households are second in number to those who sell most of it to private traders and outstrip the number selling to cooperatives. Even though it is during this period that the price of maize tends to peak, there is no corresponding flow of maize from surplus to deficit areas. Desperate selling within the surplus areas to deficit households means that the prices at which the grain is sold are much lower than those prevailing in urban centres.

An examination of the key players in the emerging marketing channels has shown that most have few facilities that enable them to carry out their functions effectively. Only a very few large traders have transport of their own; hence the inability of most of them to go deep into remote areas. Most traders (all small- and medium-scale traders) depend on hired transport. Furthermore, only a few traders have storage facilities of their own; the overwhelming majority depend on hired storage facilities. Almost all the traders entered the market after liberalisation and have been in the business for less than five years. This, coupled with the dominance of younger participants, means that a complex market such as grain trading is being handled by traders with little experience. The situation is, however, different with millers who, in most cases, have been operating since before liberalisation. They are the most capitalised players in the market, owning not only the industrial mills but also a sizeable fleet of vehicles and storage facilities that have capacity for around three months of supply. Millers appear to perform the function of maize trading much better than the traders themselves. This tends to reduce the cost of the grain they mill, but has the disadvantage of not making them concentrate on milling and gain from increased economies of scale.

Based on the foregoing, it can be concluded that the liberalisation of grain marketing is still in transition and remained undeveloped at the end of 1996. Although they have captured much of the market from cooperatives, private traders are still not able to execute their marketing functions to the same extent that the cooperatives did. This has created uncertainty in the sector, and appears to have had some serious consequences for production. Liberalisation-induced uncertainties have been coupled with persistent droughts in the 1990s which, in a number of cases, decimated farming for many households and reduced farm profitability for others. Credit recovery plummeted as a result and this, in turn, induced a severe problem for input supply, for which much of the seasonal loans had been used. We explore below the nature of the constraints that undermined the liberalisation effort.
7.2 Structural constraints

One major reason for liberalisation’s disappointing results centres on a number of structural rigidities that prevented the agricultural markets from adapting easily to new arrangements. First is the fact that grain production in the study sites and in Zambia as a whole is dominated by small and emergent farmers who produce over 60 per cent of the commodity. The widespread adoption of maize production, although dating from the colonial era, is the result of the aggressive promotion of the commodity by the UNIP government. All agricultural delivery systems and support services such as research, extension and marketing were mobilised for this purpose. The result is an agricultural system that is overwhelmingly dominated by maize production which accounts for more than 50 per cent of the area planted in most years across the country. Consequently, maize-related technologies are the only ones that small and medium farmers know while extension officers themselves have little practical experience in advising on any other technologies.

The architects of liberalisation implicitly expected that market signals would make farmers adopt the crops in which their areas had an advantage relative to other parts of the country. However, the structure of agricultural production presents a powerful lock-in factor that prevents farmers from changing quickly. This has been worsened by the poor human capital characteristics in rural areas that make it difficult for small farmers to receive and process new information on production technologies quickly and start growing other crops. What was implied in the new arrangement was that farmers in remote areas need to move away from bulky commodities such as maize and grow high value crops, whose transportation costs are much lower. However, given such structural constraints, it should not be expected that this can be done in a short time.

Second, marketing liberalisation assumed that farmers would store some of the crop and take advantage of seasonal price variations. This was expected to avoid some of the strains on the earlier marketing system, when all the maize had to be hauled and safely stored before the start of the rainy season. In all the sites visited, however, farmers have little ability to store any part of the crop other than for their own consumption needs. Lack of on-farm storage forces farmers to sell their crop at a single time, which creates a glut on the market and pushes the price down. Thus there is little difference between the old and new systems. This is also due to the fact that the price of maize peaks during the rainy season when most rural roads become impassable. Thus, even if there were on-farm storage, very little of the glut that occurs in surplus areas could be translated into sales. The only outlet for
most farmers has been to sell to deficit households within the area at much lower prices than those prevailing in other deficit areas during periods of short supply.

7.3 Macroeconomic constraints

Zambia’s aggressive reform agenda has few parallels on the African continent. Within one year of coming to power, a number of radical reforms had been initiated with the aim of achieving macroeconomic stabilisation and introducing new systems for managing the economic and social sectors. However, introducing agricultural marketing liberalisation at the same time as financial liberalisation in an environment of high interest rates undermined the anticipated private sector response. The resulting high nominal interest rates created a severe credit squeeze that undermined new investment in the productive sectors of the economy, particularly manufacturing and agriculture. Traders could not respond to the new opportunities by borrowing from financial institutions as their profit margins were not expected to meet the high cost of borrowing. Only those traders who had their own capital resources or were able to borrow from relatives or friends could enter the market.

The implication of the credit squeeze has been the emergence of marketing chains dominated by small traders who dealt in less than 500 bags per agricultural marketing season. Large-scale trading has been dominated by very few traders and in Eastern Province most of these are Zambian Asians. The environment has been less harsh for them because they have resources from their previous and ongoing business activities, particularly trading, from which they obtained initial investment funds. It is expected that grain trading, which was little affected by ethnic affiliation by 1996, will, in due course, be dominated by Zambian Asians, at least in Eastern Province, in the same way that they dominate retail trading. Once the macroeconomic situation is stable and interest rates are lowered, it is anticipated that a number of traders will enter the market attracted by the prospect of super profits. At the same time, Zambian Asians are likely to consolidate themselves and maintain or increase their market share.

7.4 Political and grain marketing liberalisation

A factor that appears to have had serious implications for the emerging grain market structure is the coincidence of political liberalisation and agricultural marketing liberalisation. This not only changed the system, but effectively destroyed the marketing institutions that existed before liberalisation. These
were precisely the institutions that had the best infrastructure to deal with the challenges of the new system. The liberalisation of agricultural markets in Zambia moved at the pace it did because the cooperative movement, which dominated agricultural marketing before 1992, identified itself closely with UNIP in the Second Republic and its loyalty could not be counted on by the new MMD government. Before multiparty elections, the cooperative movement, which had been formed partly to counter the influence of white farmers, was used by UNIP as a vehicle for patronage in rural areas. The movement was represented at the highest level within UNIP structures, while at lower levels positions in the two organisations were often occupied by the same people.

When MMD came to power, it faced the dilemma of whether to continue providing subsidies to a movement whose loyalty appeared to be to UNIP. Although the liberalisation of agricultural marketing had been part of the new government’s agenda, this dilemma pushed it to bring the decision forward. In fact, it would seem that the decision was announced before the 1992 budget was presented at the end of January, in order to avoid the payment of subsidies to cooperatives which had already bought and stored the 1990/91 crop. The decision does not appear to have been preceded by a serious analysis of the impact it would have and the appropriateness of the current environment. A more rational approach would have been to introduce liberalisation after macroeconomic stabilisation had been achieved with the government mounting a simultaneous programme to rehabilitate rural infrastructure.

Subsequent steps to help rectify the marketing crisis that was induced by the inadequate private sector response, clearly showed that the MMD government was determined that the cooperatives would not benefit from its programmes. Cooperatives appeared to have been discriminated against in accessing the Agricultural Marketing Revolving Fund, set up to help traders obtain funds at a time of very high interest rates. MMD politicians, acting through their front companies, appear to have had better access. Because these were new firms, they calculated that agricultural marketing was probably too risky for them as they lacked the necessary infrastructure and organisation. They, therefore, opted to invest the borrowed money in treasury bills. Later, when Cavmont Merchant Bank and SGS were appointed as credit managers to help with the distribution of fertiliser, cooperatives were discriminated against in the appointment of credit coordinators, even though they had massive infrastructure for that purpose. The selected credit coordinators appear to have been strongly affiliated to the ruling party, a fact that suggests the reemergence of an elaborate system of patronage similar to that which existed earlier between UNIP and the cooperatives. Both
innovations have had disastrous effects as recovery rates have been much lower than was the case under the old system. Thus, the government’s effort to help the private sector has had very little effect in encouraging a well-capitalised private sector to enter into agricultural marketing, while it has destroyed existing institutions that could have been helped to perform well in the interim while private traders developed their capacity.

7.5 Measures to strengthen current arrangements

Rectifying the mistakes that have produced an inadequate marketing system does not consist of reversing liberalisation but consolidating the capacity of the private sector to execute its expected marketing functions. The first item on the agenda must be the reduction of the prevailing high rates of inflation, which push interest rates to very high levels. Although the rate of inflation dropped to 35 per cent at the end of 1996 from over 200 per cent in 1992, it was still too high to enable traders to borrow from financial institutions and invest in agricultural marketing. Variable interest rates, as a result of very unstable rates of inflation, make borrowing risky. Thus, not only should inflation be lowered, it should remain stable at low levels to encourage traders to borrow. Although a revolving fund that provides lending at lower interest rates may be a quick fix, experience both under UNIP and MMD show that this approach often only provides booty for political patronage and economic considerations are disregarded in selecting beneficiaries. Apart from the adverse fiscal implications, the approach gives the impression that something is being done but does not actually help the development of the market.

Withdrawing from agricultural marketing does not mean that government has to completely abdicate its responsibility to ensure that private traders are able to execute their functions effectively. It was observed that the poor state of rural roads is the most important constraint to liberalised marketing. The government needs to mount an aggressive road rehabilitation programme to open up remote areas to the market. At the same time, small farmers should be assisted to build on-farm storage facilities so that they can take advantage of seasonal price variations. A revolving fund for this purpose might even be more helpful in developing the market than one targeted at traders. At the same time, government needs to take measures to strengthen the agricultural price and marketing information system for both farmers and traders. Although much effort has already been put into this, the dissemination channels do not appear to have reached very many farmers.
References


Appendix 2.1 Research Instruments

A. Check list for key informants

1.0 Community Profile

1.1 Socio-economic characteristics of the community
- Different ethnic (e.g. tribes, nationalities, races) groupings in the area
- Settlement pattern of the area
- Estimated population, number of farm households in the area
- Number of female versus male headed households
- Religion
- Presence of inward and outward migration and its causes
- On-farm and off-farm economic and livelihood activities

1.2 Weather and climatic characteristics of the area
- Water, climate, vegetation soil, etc.

1.3 Institutions operating in the area—NGOs, Government institutions, community- based groups, private firms etc.

1.4 Farming activities
- Agricultural productivity of the area
- Major cash crops grown, area cultivated and harvested, amount produced
- Major food crops grown, area cultivated and harvested, amount produced
- Type of livestock kept, number and breed

1.5 Level of infrastructural development and availability of basic services—health centers, schools, financial institutions, consumer goods, transport/ communication network

Health Facilities
- Distance to nearest health center
- Quality of the health service
- Type and numbers of personnel at the health institution
- Drug supply

School Facilities
- Distance to nearest school
- Whether number of schools is adequate
- Whether schools are adequately staffed or not
- Whether schools have adequate teaching materials e.g. text books
- Developments in drop-out rates and attendance rates.

1. Key informants include, but are not restricted to, extension officers, community leaders such as chiefs, health workers, teachers, NGO personnel and leaders of CBGs.
– Reasons behind these developments
– General level of literacy in the area
– Presence of adult education classes

Financial Institutions
– Availability of credit
– Type—formal or informal
– Institutions providing credit
– Their lending practices
– Lending practices of informal lenders
– The commodities for which credit is available
– Perception concerning credit and the lending practices

Consumer Goods
– Distance to nearest shop
– Types of consumer goods available
– Availability of consumer goods

1.6 Transportation
– Type of transport commonly used in the area
– Distance to nearest road
– Quality of road linking area to the nearest main road
– How well is the area linked to the major towns
– The distance to the nearest market
– Means of getting produce (inputs) to/from the market
– Who maintains the road linking the area to other areas
– How often is this done
– Any communal road repair activities
– Major transportation problems

1.7 Views on the availability and quality of agricultural services, i.e., extension, research, veterinary, marketing and credit.

B. Check list for farmers

1.1 Marketing services
– Types of agencies (cooperatives and the different types of private traders) to whom farmers sell their commodities
– Why farmers choose these agencies
– Access to markets
– Distance to markets
– Availability and type of transport
– Quality of roads
– Existence of outgrower arrangements and the perceived advantages and disadvantages
– Commodity prices for both inputs and outputs and consumer goods
– Availability of on-farm storage to take advantage of seasonal price variations
- Farmers views on the new marketing arrangements (the liberalized system).
- what are the perceived problems? What are the suggested solutions?
- Coping strategies to the new marketing system

1.2 Credit facilities
- Availability of credit
- Type—formal or informal
- Institutions providing credit
- Their lending practices
- Lending practices of informal lenders
- The different forms of informal credit
- The commodities for which credit is available
- Perception of farmers concerning credit (availability, type and adequacy) and the lending practices

C. Check list for traders
1.0 Profile of Traders
- The number of years traders have been operating
- Agricultural products/inputs other than maize traded in
- Non-agricultural products traded in
- The background of traders (what business conducted before entry into the market)
- Number of bags traded in, the capital employed and number of workers hired
- Ownership of such assets as transport and storage facilities.

2.0 The Socio-economic Characteristics of Traders
- Estimated range of age and mode
- The participation of women engaged in agricultural marketing
- General indication of the level of education traders
- The ethnic groups engaged in agricultural marketing

3.0 Stocking Behavior
- Type of storage facilities, capacity and location
- The average rental charges/day/week/month
- Views on the quality and adequacy of the available storage facilities
- Views on rental charges

4.0 Pattern, Nature and Direction of Trade
- Level of trading at different times of the year
- Growth of trade (i.e., whether it is increasing, decreasing, constant or widely variable)
- Views on factors determining the variability of trading
- The nature of transactions (i.e., whether cash, barter with consumables or inputs, credit etc.)
- Availability of maize vs consumables and other agricultural products.
- Sources of funds, e.g. credit
– Who sells what to whom and where?
– What do they sell/buy (i.e., commodities, inputs, consumables, etc.).
– Views on the emerging pattern of trade

5.0 Price Integration
– Purchase price at different times in the marketing season
– Selling price at corresponding times in the marketing season
– Source of purchase and destination of sales by region at different times of the marketing season
– What factors determine the choice of source of purchases and destination of sales
– Type of transport used, capacity (tons) distances and costs involved

6.0 Profitability
– Interest charges and their effect as reflected in seasonal prices.
– Levels of profitability viz-a-viz new investments
– Market information—source, relevance, adequacy and accuracy.
– Constraints and prospects
– Scale of operation
– Direction of trade movement, any limitations?
– Stocking behavior

7.0 Views on current agricultural market arrangement
– Government regulations
– Storage
– Financing
– Transportation
– Processing
– General government policy

D. Check list for farmers, traders, millers and key informants
Producer—traders—miller interaction
– The participants in maize/agricultural marketing
– The categories into which existing participants fall
– Types of relationships existing within each category e.g., amongst the small traders
– Types of relationships across categories, e.g., between small and large traders, producers and traders, millers and traders etc.
– Possible basis for the type of emerging relationships:
A Economic
– storage facilities
– financing—credit provision
– input provision
– transport
– agents
– kinship-cultural
– business partnerships—related/friends/purely business basis
– contract farming
– socio-cultural-political
– ethnic-relation/kinship based interaction
– gender based
– adult/children
– group based (unrelated)
– political affiliation based
– How the political affiliation and social-economic characteristics and interaction of the participants is affecting and shaping the nature of the emerging trading networks/marketing chain

Please note: All these play an important part in determining the nature of the emerging marketing network and structure. These affiliations might be important in explaining why the structure of incentives presented by liberalisation favours some traders, such as those who are able to overcome the various constraints due to certain affiliations and connections.

E. Questionnaire for farmers

Identification
1. Date of interview
2. Province/District
3. Block/Camp
4. Enumerator
5. Name of Trader
6. Age   Sex
7. Education Level

1. Farming experience
   (a) How long have you been in the farming business? ....Years
   (b) In order of importance, what crops do you produce:
       (i)  (ii)  (iii)  (iv)  (v)  (vi)  Other

2. Crop marketing experience:
   (a) Who are the major buyers of your crops?
   (b) What were/are the product prices during the following crop marketing seasons?
   (c) Are the buyers locally based or not?
   (d) If not to 2c. above, where do the buyers come from?
   (e) Is there a large number of buyers?
   (f) Can you easily sell your produce when you want to during any time period of the year, especially after the rains have started?
   (g) Are you able to sell to other markets other than the local markets here?
   (h) Are you organised in any marketing group? If yes, do you feel you would get significantly higher prices if you as farmers are organised in groups?
       If no, don’t you think it would be beneficial for you to get organised in farmer groups? Elaborate.
   (i) Do you practice on farm-storage? If not, why?
3. Pricing
   (a) On a scale 1 to 10, how attractive are the prices received in 2b.
   (b) On the same scale, how would you rank the previous marketing arrangement in terms of producer price attractiveness?
   (c) Given the product prices given in 2b, would you be encouraged to expand production or area cultivated?
   (d) Are you involved in any outgrower scheme? If yes, specify.
4. Infrastructure
   (a) What is the condition of the road network from the local areas to the peri-urban or urban areas?
   (b) How far are the distances?
   (c) What is the most common mode of transportation for agricultural produce?
      If hired transport is used, what are the charges like?
   (d) Do you receive any product or input price information from the MAFF or any other source? Specify.
   (e) If you receive any product price information, to what degree would you say it helps you bargain for a better price for your produce? State on the rank of 1 to 10.
   (f) Are you able to obtain credit for crop marketing purposes?
      If yes, from whom and what are the terms?
      If no, why?
5. General knowledge
   (a) What problems do you face in crop marketing in general? And over what crops?
   (b) What do you think is the solution to the problems?
   (c) Are you able to cope up with the problems?
      If yes, to what degree? Choose from a scale of 1 to 10 and explain as to how you are coping up with the problems associated with the liberalised crop marketing arrangement.
   (d) To what degree do you understand the liberalised crop marketing system?
      i) Not all ii) Just a little bit iii) Fairly well iv) Very well
   (e) If you understand it fairly well or very much, do you appreciate it?

F. Questionnaire for traders
   Identification
1. Date of interview  2. Province District
3. Block Camp 4. Enumerator
5. Name of Trader 6. Age Sex
7. Education Level
   Grain purchases
8. What year did you start trading in grains?
9. What food grains do you generally trade in?
a) maize  
b) sorghum  
c) finger millet  
d) bulrush millet  
e) groundnuts  
f) other

10. How did you decide to trade in maize?
   a) availability of the market  
b) number of clients..  
c) storage facility  
d) availability  
e) profitability

11. Since you started trading where have you normally obtained your maize from?
   a) within the district.  
b) neighbouring districts  
c) other provinces (specify)  
d) neighbouring country (specify)

12. From whom did you purchase your maize last year and what quantity?
   Source                  Quantity bought (90kg bags)
   Farmer                  
   Wholesaler              
   Miller                  
   Other private traders   
   Other

13. To whom did you sell your maize last year and what quantity (i.e., no. of bags/tins) ?
   Destination Quantity bought
   Miller                  
   ZCF                     
   Lima Bank               
   CUSA                    
   Cooperative Union       
   Other (specify)

14. What is the reason for selling where you did?
   a) no other alternative buyer  
b) the buyer offered a higher price  
c) other reasons (specify)

15. How does maize get to your point of selling?
   a) it is brought to me  
b) I go to fetch it myself..  
c) I make orders

16. If the maize is brought to you, who brings it?
   a) producers  
b) small assemblers.  
c) wholesalers  
d) truckers  
e) others (specify)

17. If you go to fetch the maize yourself from whom do you get it?
   a) producers.  
b) small assemblers  
c) wholesalers  
d) truckers  
e) other (specify)

18. If you make orders from whom do you order your maize?
19. What were the major reasons that motivated the choice of your selling point?
   a) number of clients  
   b) number of suppliers.  
   c) proximity to home  
   d) profitability  
   e) transportation costs  
   f) other (specify).

20. What is your strategy of buying maize?
   a) harvest time  
   b) progressive buying over the 
   c) progressive buying over whole year  
   d) other (specify)  
   buy before shortages

21. What is your strategy for selling maize?

22. Did you make any promises to your suppliers before they delivered the maize?
   Yes  
   No  
   a) order-price only  
   b) order-quantity only  
   c) order-price and quantity  
   d) credit

23. If you have a maize buying/selling contract and say maize runs out, what would you do?
   a) revise the terms of the contract  
   b) import neighbouring province/country  
   c) break the contract  
   d) other (specify)

24. Suppose you observe that the normal season has failed and there is no stock of maize within your district, what would you do?
   a) go look for it in other districts/provinces...  
   b) import it from other countries if given a permit  
   c) sell exclusively at retail the little that I have  
   d) other (specify)

Prices

25. What is the current selling/buying price for the following grains?
   
<table>
<thead>
<tr>
<th>Buying Price</th>
<th>Selling Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>90kg</td>
<td>90kg</td>
</tr>
<tr>
<td>18kg</td>
<td>18kg</td>
</tr>
</tbody>
</table>

   maize  
   sorghum  
   finger millet  
   bulrush millet  
   groundnuts

26. How do you get to know about grain prices in other districts/provinces?
   a) radio  
   b) newspapers

92
27. What is your major decision variable for fixing the selling price?

Transportation
28. Do you have your own means of transport? Yes No
   If yes, what type(s)?
   a) bicycle b) van
   c) oxcart d) trucks
   e) other
   If no, how do you transport your grain from place of purchase to your selling point?
   a) hire a truck b) hire an oxcart
   c) hire a tractor d) other

29. What is the cost of hire based on?
30. What is the transportation cost per 90kg bag of maize?
31. What is the distance which separates you from the most frequent point of supply?
32. What is the distance to your major selling point?

Storage
33. Do you own any storage facilities? Yes No
   If yes, what type of structure is it?
34. What is the capacity of your particular storage facility (e.g. how many bags of maize can it take at a time)?
35. If no, do you rent any of the government storage facilities that have been leased and what is the rental charge?
   Yes Rental charge

Credit
36. What is the source of your finances?
   a) CUSA b) Lima Bank
   c) ZCF/FS d) GRZ
   e) commercial bank f) other

Investment
37. How do you find trading in grains, especially maize?
38. What are the major problems that you encounter in your trade?
   a) lack of clients b) lack of sufficient funds
   c) lack of means of transport d) poor storage facilities
   e) unclear government policy f) other (specify)...
39. Are you involved in any of the following activities?
   a) farming b) farm input trading
   c) transportation of goods and services
d) milling enterprise  e) other (specify)....

40. What is your opinion on the following marketing issues?
   a) government regulations  b) financing
   c) transportation  d) leasing of storage facilities....
   e) government policy in general
Appendix 2.2: List of Market participants interviewed

Credit coordinators operating in Lundazi
1. Mulla
2. DICE Enterprise
3. Kandanga

Crop financing and/or purchasing institutions operating in Lundazi
1. Aliboo Trading Co.
2. Sable Transport
3. R.C. Chungu
4. Lonrho
5. LWF
6. Daud Musa
7. Nyimba Super Market
8. Khalid Dalal
9. Clark Cotton

Crop Financing and/or purchasing institutions operating in Chipata
1. Sable Transport
2. Lonrho
3. Clark Cotton
4. Tobacco Development Company
5. Senegalia Farms and Fodya Investments
6. Tobacco Board of Zambia
7. Tobacco Growers Association
8. Shiffa
9. Eastern Cooperative Union
10. Chipata District Cooperative Union Ltd
11. R.J. Angroindustries
12. Adam R. Macher
13. Nthaka Farmers Development Company
14. Ismail S. Ahmed
15. Quives Investments Ltd
16. Nezi Investments Company Ltd

Credit coordinators in Chipata
1. Mosali
2. Mupa Investments
3. Mwobina
4. Mvuvye Development Company
5. Chalimbana Farmers Association

Personal interviews
A. Lundazi
1. Mr. Ernest Lungu, District Agricultural Officer/Acting District Agricultural Coordinator, Lundazi
2. Mr. Ndlovu,
3. Mr. P.A Sakala, Market and Cooperative Officer, Lundazi
4. Mr. J.A. Tembo, Market and cooperative Officer, Lundazi
5. Mr. Ngwenya, Block Supervisor, Emusa Block, Lundazi
6. Mr. J. Nyirongo, Camp extension Officer/Agricultural Assistant, Hoya Agricultural Camp, Emusa Block, Lundazi
7. Ms Lexina Mwale, Camp Extension Officer, Hoya Agricultural Camp, Emusa Block, Lundazi
8. Mr. Mwanza, Agricultural Camp Extension Officer Kamuzoole Agricultural Camp, Emusa Block Lundazi
9. Alfred D. Mulauzi, Chikomeni Agricultural Camp, Chikomen Block, Lundazi
10. Mr. Kawawa, Block Supervisor, Mwase Block, Lundazi
11. Mr. Francis Manda, Agricultural extension Officer, Mankhaka Agricultural Camp, Mwase Lundazi Block, Lundazi
12. Mr. Zulu, Agricultural Camp Officer, Mukomba Agricultural Camp, Mwase Lundazi Block
13. Mr. Willard Mainza, Sable Transport
14. Mr. C. Banda, Production Manager, DICE Enterprise
15. Mr. Iqbal Mulla, Sikatengwa Enterprise, Lundazi

B. Chipata
1. Mr. Christopher Chifwembe, Principal Agricultural Officer, Chipata, Eastern Province
2. Mr. V.J. Banda, Provincial Marketing and Cooperative Officer, Chipata, Eastern Province
3. Mr. Samboko, Senior Marketing and Cooperative Officer, Chipata
4. Mr. V.Y. Mumba, Acting District Agricultural Officer, Chipata South
5. Mr. Chikambwe, District Agricultural Officer, Chipata North
6. Mr. Y. Phiri, Deputy District Agricultural Officer, Chipata North
7. Mr. A. Silavwe, Block extension Officer, Chitandika Block, Chipata North
8. Mr. Robert Chavula, Camp Extension Officer, Mnukwu Agricultural Camp, Chitandika Camp, Chipata North
9. Mr. Silvester Chiposo, Camp Extension Officer, Mafuta Agricultural Camp, Chitandika Block, Chipata North
10. Mr. Sakala, Block Extension Officer, Chankhadze/Chipangali, Chipata North
11. Mr. Josiah Banda, Camp Extension Officer, Mtambalala, Chankhadze/Chipangali Block, Chipata North
12. Mr. —, Camp Officer, Lumamba Agricultural Camp, Chankhadze/Chipangali Block, Chipata North
13. Mr. Wilson Banda, Camp Extension Officer, Kawawa Agricultural Camp, Chiparamba Block, Chipata North
14. Mr. A.N. Chirwa, Camp Extension Officer, Kapita Agricultural Camp, Chiparamba Block, Chipata North
15. Mr. Robert Zulu, Finance Manager, Tobacco Development Company, Chipata
16. Mr. E.M. Mbewe, Provincial Marketing Manager, Clark Cotton, Chipata
17. Mr. Mulengela, Mbende, Chipata
18. Mr. James Phiri, Senegalia Farms and Fodya Investments, Chipata
19. Mr. Mwale, Commercial Manager, ECU, Chipata
20. Mr. Phiri, General Manager, Clark Cotton, Chipata
21. Mr. Lucky Matonga, Provincial Manager, Sable Transport Ltd.
Appendix 5.1: Market information flow
Publications of the research programme “Political and Social Context of Structural Adjustment in Africa” published by the Nordic Africa Institute


<table>
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<th>No.</th>
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<td>1.</td>
<td>Meyer-Heiselberg, Richard</td>
<td>Notes from Liberated African Department in the Archives at Fourah Bay College, Freetown, Sierra Leone</td>
<td>61 pp.</td>
<td>1967</td>
<td>OUT-OF-PRINT</td>
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<td>7.</td>
<td>Selinus, Ruth</td>
<td>The Traditional Foods of the Central Ethiopian Highlands</td>
<td>34 pp.</td>
<td>1971</td>
<td>OUT-OF-PRINT</td>
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*Photocopies of these reports can be obtained at a cost of SEK 0:50/page.*
46. Abdel-Rahim, Muddathir, *Changing Patterns of Civilian-Military Relations in...*


