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## Supermarkets in the Food Supply Systems in Southern African Development Community: A Case Study of Zambia

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**Abstract:** This study evaluated how supermarkets procurement practises in the fresh fruits and vegetables (FFV) and processed products such as dairy impact on local producers in Zambia. Data was collected from key informants and secondary sources. The results showed that supermarkets procured approximately 60% of FFV from local farmers, though the bulk of these are from large-scale farms. Products not produced in the host countries were imported from South Africa and other countries. Small-scale farmers were hindered by constraints such as lack of irrigation and the stringent grades and standards imposed by supermarkets. Supermarkets procure dairy products from large processors. Farmers access supermarkets through dairy processors. Small-scale dairy processors do not access the supermarkets because of high transaction costs and lack of transport. Government involvement in the supply chain in terms of setting policies and regulatory frameworks are important in determining the type of procurement systems that develop and whether local producers especially small-scale farmers and processors access and supply to supermarkets.

**Key words:** Supermarkets, supply chain, SADC, Zambia, procurement practices, impacts

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### INTRODUCTION

Retail supermarket chains are transforming agrifood systems in many developing and developed countries. In the United States of America, supermarkets account for approximately 70-80% share of the food retail market (Weatherspoon and Reardon, 2003). In the European Union (EU) supermarkets account for about 50-80% of the food and grocery retail market (Dobson *et al.*, 2003). In developing countries, supermarkets are gaining importance in retailing of agricultural and processed/manufactured food products. In South America, the pattern of supermarket growth shows a rapid expansion and consolidation by multinational retailers resulting in high concentration of the food retail sector. The losers in these expansions have been the conventional food retail stores and small-scale producers (Reardon and Berdegue, 2002; Freidberg, 2003). In Africa, supermarkets are expanding and consolidating in a similar pattern as those in South America especially in Eastern and Southern Africa. In Africa, where producers (farmers and processors) depend on agriculture for their livelihood, the growth and rapid expansion of supermarkets has implications for market accessibility for domestically produced goods (both agricultural and agro industrial products) and hence income distribution

of households in the rural areas. The growth and expansion of supermarkets in developing countries and Africa has been fuelled by globalisation, trade liberation, urbanization and policies that attract FDI investment by most of these countries.

The growth and expansion of supermarkets in Africa is a recent phenomena mainly spearheaded by South African multi-national supermarkets, expanding into other African countries, since South Africa gained majority rule in 1994. The rapid expansion of South African supermarkets and other local supermarkets in SADC and other African countries has increased phenomenally since the mid-1990s. Since that time to date multinational South African supermarkets combined with other local chain and independent supermarkets are becoming key players in the food supply systems of African countries (Weatherspoon and Reardon, 2003). The increased involvement of supermarkets in food retailing is transforming agrifood systems in Africa. Through acquisitions of smaller supermarket chains, mergers and franchising, the multinational supermarkets mainly South African in origin have been able to expand and increase their market share in other African countries (Games, 2003). Currently, supermarkets in South Africa, Botswana and Namibia hold an estimated market share of 50-60% of food retail (Weatherspoon and Reardon, 2003).

There has been a rapid expansion of supermarkets in retailing food in the SADC and Africa in the last 5-10 years. As supermarkets have increased their market share in food retail, food markets are changing and becoming more vertically integrated and concentrated. These changes have an impact on firms, households and the economy as whole. The changing retail system has created an interest in the role supermarkets play now and in the future regarding the development of agriculture and food manufacturing sectors in the SADC and other African countries. Issues of concern relate to the impact of Foreign Direct Investment (FDI) by supermarkets in the SADC and other African countries. Some people think that these investments may lead to job creation, transfer of skills and increased production in host countries. However, in many African countries, supermarket investments has been misunderstood as a form of "colonisation" that may lead to stifling of agricultural and manufacturing sectors in host countries. Closely linked to this is the potential marginalization and exclusion of small-scale farmers and small-scale food processing and manufacturing firms with the expected loss in livelihoods. Exclusion of small-scale farmers and processors from these emerging markets may lead to increased poverty in the rural areas. These effects may follow from the sourcing and procurement practices of supermarkets in the host countries.

Supermarkets tend to consolidate and change their procurement systems very rapidly (Reardon *et al.*, 2004). The key objective of procurement officers and managers is to increase market share vis-a vis traditional retailers such as wet markets, small shops and street vendors. Supermarkets achieve these objectives by lowering transaction costs, lowering purchasing costs, maintaining consistency of supply and increasing volume of supply. Small-scale farmers and processors getting included into the supply chain of supermarkets might be easier than staying in the supplier list of these supermarkets (Berdegué *et al.*, 2004). This could be as a result of the rapidly changing procurement systems, for example, changing from decentralised to centralise procurement systems with associated grades and standards. These changes can take as short as six months making it very difficult for small-scale producers and processors to cope with the changes and hence they may end up dropping off as suppliers to the supermarkets.

As supermarkets become key players in the food supply systems of African countries, agrifood systems are radically changing. As supermarket supply chains become more vertically integrated the potential exclusion of small farmers and food processors is a reality that is with us and a solution is needed urgently. Agriculture is

a major sector in most African countries that employs between 50-80% of the labour force. Most farms are also small-scale. Therefore, the potential exclusion and marginalization of small-scale farmers might exacerbate the problem of unemployment in rural and urban areas leading to increased poverty and crime. Many African countries have set policies aimed at increasing production and promoting economic growth in order to create employment and reduce poverty. For these policies to succeed there is need to commercialise small-scale agriculture. For production on small-scale farms and processing companies to increase; there is need for farmers and processors to access markets to sell their products. The supermarkets could be such an outlet, but currently supermarkets are known to source and procure products from large farms and large food manufacturing firms. This implies that policies to address these issues are needed urgently to map out the direction of development as the agriculture sector, is a key sector in most African and SADC countries. Therefore, this study was carried out to evaluate how South African supermarkets have spread and impacted on farmers and processors in Zambia.

There is a growing interest in what is happening in the agrifood systems of developing countries. Focus is on the rapid changes occurring in the food markets. Across most countries in the developing world (South America, Central America, Asia and Africa) various authors report increased involvement of multinational chain supermarkets in food retail resulting in increased vertical integration and concentration of the food systems of these countries. A number of studies highlight pertinent issues such as how supermarket retailing activities affect the poor and whether the rural people are left out of these emerging markets. A study by Berdegué and Reardon (2002) in Latin America indicate that supermarkets have grown rapidly and have become dominant in the food retail sector accounting for between 50- 60% of the retail market (food and non-food) in 2000, up from 10-20% in 1990.

The rapid growth of supermarkets in these countries has been promoted by increased globalization and liberalization policies pursued by these countries, which enabled the multinational supermarkets from developed countries to invest in these countries. The outcome of the increased supermarket involvement in retailing of food products has been a decline in the small traditional stores and other agricultural produce markets. The authors note that supermarkets tend to procure from large farmers and processors and only buy from wholesale markets when the supermarkets cannot make adequate arrangements with producers. The results

of the study shows that most small-scale family farms were excluded except when they organize themselves into groups negotiated contracts and supplied to supermarkets as a group.

Even when they were organised in groups, small farmers were having a difficult time in meeting grades and standards of these supermarkets. For example small farmers' organizations in Chile were having difficulties meeting the demands of supermarkets in that country. Some farmer organizations that were able to supply to supermarkets were earning more income for their members compared to those who sold on traditional markets. The authors concluded that in a little more than a decade supermarkets were rapidly taking over food retail in Latin America. Supermarkets had also moved far beyond their initial niche, that is upper income, urban cities of the largest and richest countries in the 1980s and had spread to middle and working class market segments and into medium cities and towns and poorer countries in the region. The changes taking place in Latin America are similar to those currently taking place the SADC and in Africa.

There are few studies that have evaluated the role of supermarkets in the agrifood systems in Africa. One of the pioneering studies to review supermarkets and their involvement in food retail in Africa was carried out by Weatherspoon and Reardon (2003). This study was based on review of literature (which was very scanty and there was lack of data) and qualitative interviews of some supermarkets directors (Pick 'n Pay and Shoprite). According to this paper, there has been a rapid rise of supermarkets in Africa with resultant implications for agrifood systems and the rural poor. The study covered South Africa and Kenya where supermarkets are fairly well developed. There were about 1700 supermarkets with a total market share of 55% of the food retail market in South Africa. Supermarkets in South Africa have been growing very fast and consolidating through mergers and buying out of smaller independent retailers. The authors' showed that the larger four supermarkets in South Africa have moved from the major cities to rural towns and poorer neighbourhoods and into other countries of Africa mainly in the SADC.

The growth and expansion of supermarkets offer a challenge as well as an opportunity to local producers. This is an opportunity because there is scope to increase household income for rural households if farmers will be able to produce and supply to supermarkets. And a challenge to small farmers and processors that need to overcome many transaction barriers in order to supply to the supermarkets. The broad objective of this study concluded that for the poor to be involved and benefit will

require reformulation of development policy and programs that are specifically designed to encourage small-scale producers to supply to supermarkets.

The broad objective of the study was to determine the level of supermarket involvement in the food retail market in the SADC using Zambia as a case study. The specific objectives were: 1) to determine the extent of spread of South African supermarkets in Zambia; 2) to determine the sourcing and procurement practices of supermarkets in Zambia and its impact on fresh fruits and vegetables producers and dairy producers.

## MATERIALS AND METHODS

**Study area:** The study was carried out in Lusaka province in Zambia in the months of June, 2004 and July, 2005. The study was concerned with the increased involvement of South African supermarkets in food retailing in SADC countries and how supermarkets impact on small-scale farmers and processors and agriculture and industrial sectors. Three countries: Botswana, Namibia and Zambia were selected as case studies. The Zambian case study results are reported in this paper.

**A brief description of SADC:** The Southern African Development Community (SADC) consists of 14 countries: Angola, Botswana, Democratic Republic of Congo (DRC), Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, South Africa, Tanzania, Zambia and Zimbabwe (Fig. 1). SADC countries have a total population of approximately 200 million people and cover an area of approximately 9.3 million km<sup>2</sup>. The total SADC Gross Domestic Product (GDP) was about US\$184.5 billion in 2000, while average GDP per capita was US\$1761 (Du Toit, 2000). However, there are wide variations in aggregate and per capita GDP for the 14 countries, implying that these countries are at different stages of development. On the basis of income per capita, eight SADC countries are classified as Low Income (LI) economies (Angola, DRC, Lesotho, Malawi, Mozambique, Tanzania and Zambia), while some countries are classified as Upper Middle Income (UMI) such as Botswana, Mauritius and Seychelles whereas some countries are classified as lower-middle income countries such as South Africa and Namibia. It is within these countries that South African supermarkets have been expanding and investing.

**A brief description of Zambia:** Zambia is a large land-locked country in Southern Africa covering a total area of about 752 000 km<sup>2</sup>. It has a population of about 10 Million people. Since independence up to the late eighties

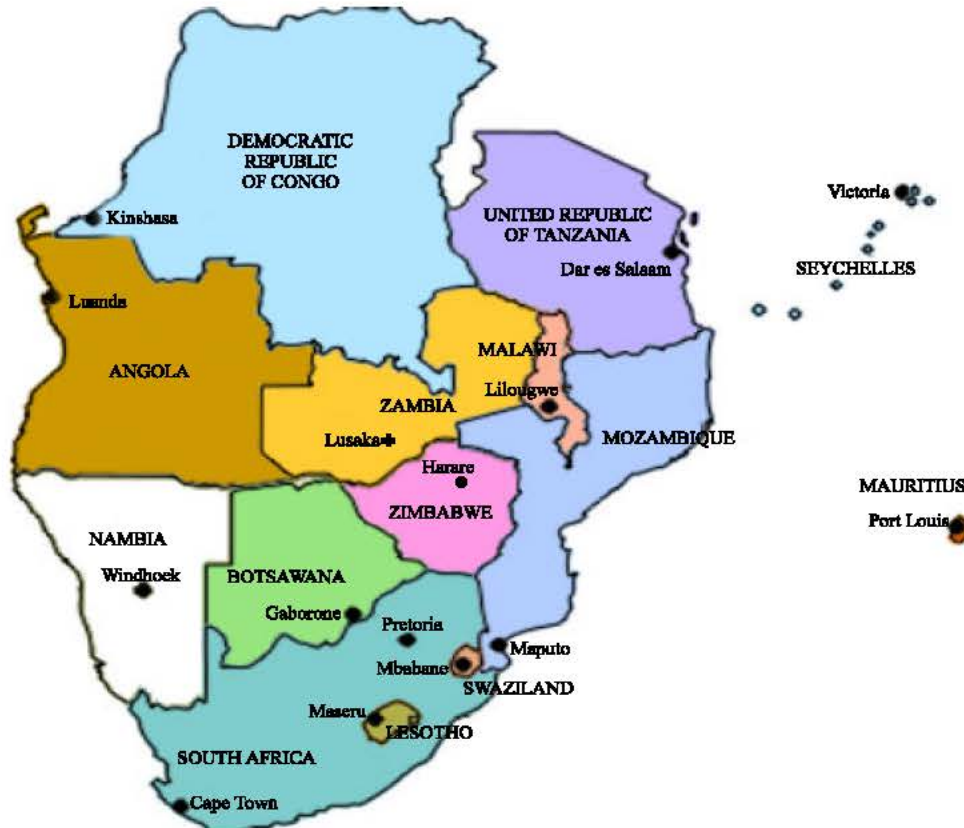


Fig. 1: Map of SADC highlighting the case study countries.  
Source: Southern African Marketing Co. (Pty) Ltd and SADC Secretariat, 2004

Zambia's economy was controlled by the government and was largely dependent on copper mining (Republic of Zambia, 2002). During the 1990s the government of Zambia carried out economic reforms under a Structural Adjustment Programme (SAP). Public enterprises that constituted a fiscal drain on state revenue were sold and/or privatised. Price controls were lifted and agricultural input and output markets opened up to private sector entry. In the foreign exchange market, exchange rate was freed and capital controls were totally removed (Republic of Zambia, 2002). It is these macroeconomic changes in the economy that have enabled FDI by the South African supermarkets into Zambia.

**Choice of products:** The study selected Fresh Fruits and Vegetables (FFV) and dairy products and their supply chains were examined.

**Fresh fruits and vegetables:** Fresh fruits and vegetables are produced by many households in Zambia. Fresh fruits and vegetables production for the local and export markets has the potential to increase farmers'

incomes and hence improve well-being of rural people. Fresh fruits and vegetables are high value crops that are labour intensive; therefore production of FFV by small-scale producers has the potential to create jobs in the rural areas. Fresh fruits and vegetables can also be processed into other products and thus be in a position to further create jobs for both rural and urban people in Zambia. However, because of stringent procurement criteria of supermarkets, small-scale farmers might be at a disadvantage in selling FFV such as traditional vegetables, tomatoes, spinach, oranges, mangoes, cabbages and onions among others to supermarkets.

**Dairy products:** Due to its perishability and critical health concerns, dairy and specifically milk production, presents a number of interesting challenges that could potentially exclude any small-scale farmers from accessing the changing retail market in Zambia. Due to these characteristics and the potential for many smallholder dairy producers to earn a decent income it was considered valuable to include a case study of the dairy sector. In addition, supply chains of dairy products

tend to be concentrated in the hands of a few producers and processors. This situation can potentially be improved with the increased involvement of dairy cooperatives and associations. There have also been considerable changes in the dairy supply chain over the past years, therefore it was important to study the dairy chain especially its impact on the rural people.

**Data and data sources:** Data in Zambia was collected from various stakeholders involved in the supply chains of FFV and dairy. Key informant interviews (Government officials in various ministries, NGOs, managers of processing firms etc.), focus group discussions and individual interviews with farmers, supermarkets, processors (milk, potatoes and packagers of fresh fruits and vegetables such as Fresh Mark) were carried out in Lusaka Province and its environs. Secondary data from various organisations were also collected on the macroeconomic situation of Zambia that provided more information on supermarkets.

**Analytical framework:** The conceptual framework for analysis was based on the supply chain management approach. Supply chain also known as value chain or demand chain is a series of activities that an organization uses to deliver value either in the form of a product, service, or a combination of both, to its customers (Min and Zhou, 2002). Supply chains are a set of sequential, vertically organized transactions representing successive stages of value creation. A supply chain or value chain can be defined as all the links involved in managing the flow of products, service and information from the manufacturer or producer to the end user. The agricultural supply chain links different actors to achieve flow of products from seed to table. The agricultural supply chain may include growers, pickers, packers, processors, storage and transport facilitators, marketers, exporters, importers, distributors, wholesalers and retailers (Chenet al., 2005; Van Roekel et al., 2002). This study was confined to the analysis of procurement practices of supermarkets in the supply chain and the relationship between supermarkets, producers (small-scale farmers) and processors (small-scale processors) and the impact on these players in the supply chain and the related sectors.

**RESULTS AND DISCUSSION**

**Supermarkets in SADC and Zambia:** Most multiple chain supermarkets in South Africa have a presence in one or more SADC countries (Table 1). The highest numbers of supermarket stores are found in South Africa, where it is

**Table 1: Type and number of South African supermarkets in SADC (2004)**

Country	Shoprite	Pick 'n Pay	SPAR (Multi national)	Woolworth's (RSA)	Total No. of stores	% of stores
South Africa	847	457	751	102	2157	89.0
Angola	1	0	0	0	1	0.04
Botswana	3	11	26	2	42	1.7
DRC	0	0	0	0	0	0
Lesotho	2	0	0	2	4	0.17
Mauritius	1	0	11	0	12	0.5
Malawi	2	0	0	0	2	0.08
Mozambique	3	0	0	5	3	0.12
Namibia	8	8	19	0	35	1.4
Tanzania	1	4	0	0	5	0.2
Seychelles	0	0	0	0	0	0
Swaziland	2	6	7	3	18	0.7
Zambia	18	0	1	1	20	0.8
Zimbabwe	1	53	70	0	124	5.1
<b>Total</b>	<b>889</b>	<b>533</b>	<b>885</b>	<b>110</b>	<b>2423</b>	<b>100</b>

Adapted from: Various Supermarkets' Annual Reports & Planet Retail (2004)

**Table 2: Supermarkets (selling food products) in Zambia**

Supermarket Name	No. of stores	Urban (Lusaka)	Rural towns	Origin
Shoprite	18	4	14	South Africa
Melissa	3	3	0	Zambian
Spar*	2	2	0	Franchise
Independent supermarkets	Several	Several	Several	Zambia

Source: survey results, \* Commenced operations in December 2003

**Table 3: Shoprite Supermarkets in Zambia**

Name	No. of Stores			Retail Sales (USD mn)		Sales Area (sq m)	
	2002	2003	2004	2002	2003	2002	2003
<b>Supermarkets</b>							
Shoprite	18	18	18	32	30	36,000	36,000
<b>Total Food retailing</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>32</b>	<b>30</b>	<b>36,000</b>	<b>36,000</b>
<b>Fast food outlets</b>							
Hungry Lion	7	7	7	2	2	700	700
Total Foodservice	7	7	7	2	2	700	700
<b>Grand Total</b>				<b>34</b>	<b>32</b>		

Source: Planet Retail, 2004

estimated that supermarkets share in food retail is about 50-60% (Weatherspoon and Reardon, 2003). In Zambia, there were both multinational, local supermarket chains and independent supermarkets involved in food retailing. Supermarkets in Zambia consist of multinational South African chain stores (Shoprite and SPAR) and local supermarket chains (Melissa and small independent stores) (Table 2). The multinational supermarkets are found in the major towns such as Lusaka and major provincial towns. This result concurs with Weatherspoon and Reardon (2003) findings that supermarkets were spreading to other towns including rural towns.

Shoprite is the largest supermarket retailer in Zambia. It owns 18 stores, each with floor space of about 2 000 m<sup>2</sup> and retail sales of about US\$ 32 million (Table 3). Shoprite (Zambia) is a subsidiary of Shoprite South Africa and the stores are built on a similar concept to the ones in South Africa. The stores are large supermarkets with fresh food

Table 4: Share of food in total retail sales (2003)

Country	Supermarket Shoprite*			Pick 'n Pay			SPAR			Woolworth's		
	Gross sales (Million Euro)	% Food sales	% Non-food sales	Gross sales (Euro)	% Food sales	% Non-food sales	Gross sales (Euro)	% Food sales	% Non-food sales	Gross sales (Euro)	% Food sales	% Non-food sales
Botswana	24	62.2	37.8	39	90	10	34	82.8	17.2	41	10	90
Namibia	131	72.8	27.2	28	90	10	18	90	10	9	neg	100
Zambia	23	90	10	0	0	0	-	-	-	N/A	N/A	100

Source: Planet Retail 2004; \* Shoprite Brand; -Unavailable, neg = negligible, N/A = no food sales

counters and an in-store bakery. The bakeries operated by Shoprite supermarkets seemed to be very popular since we found long queues of people waiting to buy bread. It was also evident that small-traders bought their bread stocks in Shoprite for resale in the Ntembas (Kiosks) in estates in the city and in the streets outside the store. No local companies supplied bread to Shoprite stores in Zambia. Other bakeries sold bread through other traditional channels such as small shops, own bakery outlets and other independent local supermarkets.

From the information supplied through interviews, Shoprite on Cairo Road in Lusaka caters mainly for customers on foot (mainly urban working people and also poorer customers) whereas Shoprite, Manda Hill targets the upper middle class and elite. It has ample parking available for motor vehicles. The Manda Hill Centre opened on 28 October 1999 and with floor space of 22 260 m<sup>2</sup> is the largest shopping centre of its kind in Zambia. Apart from Shoprite other well-known South African supermarkets such as Game, Woolworths and Pep Stores were also in Lusaka, Zambia.

Supermarkets handle large quantities of food especially in urban and in rural towns. The share of food in total retail sales was high for most of the supermarkets. The proportion of food sales to total sales is about 90% for SPAR and Pick 'N Pay and varies between 62-90% for Shoprite in Zambia, Botswana and Namibia (Table 4). The food handled included both fresh and processed foods in all categories (meat, milk, fresh fruits and vegetables, processed fruits and vegetables and milled products).

**Procurement practices of supermarkets in Zambia**

**Fresh fruits and vegetables:** Several types of sourcing and procurement practices were observed among the supermarkets in Zambia. These included: 1) Supermarkets used specialized sourcing and procurement companies as well as in developing countries; 2) Farmers delivered directly to supermarket stores; and 3) Farmers delivered to distribution centres.

**Supermarkets use of specialized sourcing and procurement companies:**

Multinational supermarkets use specialized companies to source and procure FFV for their stores. For example, Shoprite uses Freshmark to

source and procure FFV for all its stores. Freshmark is a subsidiary of Shoprite and is responsible for sourcing, grading and packaging of FFV for sale in Shoprite stores in Zambia. Freshmark supplies FFV to more than 400 Shoprite stores in South Africa and 12 countries in Africa (Shoprite, 2002). In Zambia it is registered as an independent company from Shoprite. This trend of supermarkets using specialised sourcing and procurement firms is an outcome of the integration process by multinational supermarkets and is common in developed as well in developing countries. International and national supermarket chains in Asia were following the practices of the West and Japan (Shepherd, 2005). Owing to globalization, multinational supermarkets in Africa operate just like those in developed countries and other developing countries.

Almost 95% of all produce sourced by Freshmark Zambia goes to Shoprite stores in Zambia and the remaining 5% is sold to other buyers such as hotels, lodges, hawkers and street vendors. Farmers cannot supply fresh produce directly to any of the Shoprite stores in Zambia. Farmers deliver FFV to Freshmark, depending on the quantities and quality agreed upon. Quality is assured by rejection of produce that do not meet the specified grades and standards. Delivery is on agreement. For example, in Zambia farmers received orders from Freshmark before they supplied. Verbal contracts or agreements are used. The farmers have to adhere to the quantities specified in the order and quality standards. Excess quantities of produce above those ordered and produce of poor quality that do not meet specified grades and standards, are not accepted. Farmers have to take it to alternative markets such as Soweto, a traditional wholesale market. The quality standards are provided to supplying farmers by Freshmark and therefore because farmers are aware of them, the rate of rejection was low about 2%. Most of the farmers supplying to Freshmark Zambia, have been doing so for a long time and therefore farmers have formed relationships of trust.

In Zambia, Freshmark procured directly from both large and small scale as well as from South Africa for products not available locally such as temperate fruits (apples, pears) and bananas. Per volume basis the products supplied by small scale farmers would make less

than 5% of the total supply the rest coming from large farms. Another constraint is inconsistent production implying that farmers cannot meet the year round supply requirements. Private standards demanded by Freshmark are unattainable for most of these farmers. Lack of traceability and high transaction costs contribute to Freshmark in Zambia not procuring directly from many small scale farmers as only a few special kinds of farmers who possess special production inputs such as irrigation systems access this market. This means that most small scale farmers practicing rain fed agriculture are automatically excluded.

In Zambia the procurement system is computerized. This helps in coordination by keeping track of inventory. For example, by the touch of a button, the manager can check how much was supplied, sold and how much was remaining to guide replenishment decisions. To support this type of centralized coordination bar code, packaging and information technology are used. By Freshmark operating a FFV distribution centre (DC) in Lusaka implies that only small farmers nearby and large-scale farmers who have the capability to deliver to the DC can participate in the supply chain. Small farmers distant from the DC cannot afford to deliver produce because of lack of transport and high transport costs. Freshmark Zambia achieved complete centralization of its procurement system towards the end of 2004. This led to small-scale farmers who used to supply directly to the Shoprite store in Chipata some 600 km from Lusaka being dropped from the list of suppliers. Now fresh produce is transported to the Chipata store from Lusaka. Fortunately for these farmers the traditional wholesale and retail markets are operational in Chipata, so farmers' can still sell their produce. The move to more centralised sourcing systems is not unique to Zambia. These changes are observed in many developing countries. For example in Kenya, Neven and Reardon (2004) reported that front runner chains in a concentrated supermarket system in Kenya had moved or were moving towards a more centralised procurement systems. These changes are also observed in other developing countries in Latin America and East Asia (Reardon *et al.*, 2004).

**Farmers deliver FFV directly to individual stores:** This is mainly practiced by local independent supermarkets for example Melissa in Zambia. Melissa is a chain of supermarket stores owned by Zambians. Generally farmers supply fresh vegetables directly to the individual Melissa stores. Melissa sources from both large and small scale farmers. Small scale farmers are paid cash on delivery. This type of procurement system is more accessible to small scale farmers compared to the centralised systems.

Many supermarket chains are moving away from store to store sourcing and procurement especially as their operation become large and the level of competition increases.

**Delivery to distribution centres:** Some supermarkets were using distribution centres to source and procure fresh produce for their stores. This was mainly done by Spar group of supermarkets. There were two Spar stores in Zambia. The first one located at Arcades in Lusaka was opened in December 2003. It operated as a franchise wholly owned by local people. The second one was opened late 2004. Farmers supply their produce to the Spar distribution centre of each store. Spar buys directly from the farmer to cut out the middlemen, which means that their fresh produce is much cheaper. Quality and price were important when buying from the farmers. Spar in Zambia bought whatever produce the farmer could grow and which Spar could pack for the consumer. Farmers deliver vegetables such as rape, spinach, cauliflower, broccoli, cabbage, lettuce, tomatoes and onions to Spar.

**Dairy products and other processed products:** In Zambia, most processed food products such as canned fruits and vegetables, powder milk, UHT milk, creams, breakfast cereals, tomato sauces and ketchups, etc are mainly imported from South Africa and other neighbouring countries such as Zimbabwe. Approximately 80% of all processed foods sold in all supermarkets in Zambia are imported from South Africa. This may be due to the small base of manufacturing that is not well developed. The processing facilities for manufactured food products such as canned fruits and vegetables, fruit juices making, condensed milk and milk powders were not well developed.

Large supermarkets such as Shoprite, Spar and Melissa procured most dairy products (fresh milk, yoghurts and milk drinks) locally from large processors such as Parmalat, Finta and large dairy farms that are involved in on-farm milk processing such as Momba farms, Cedrics and Northern Dairies in Zambia. These firms were not able to meet all the demand for all dairy products such powder milk and condensed milk. In Zambia there is a deficit in fresh milk production which is met through importation of powder milk (Land O' Lakes, 1999; Valeta, 2004). Canned milk powders and condensed milk are imported from South Africa. Other processed products such as canned fruits and vegetables, UHT milk, creams, breakfast cereals, etc were mainly imported from South Africa and other neighbouring countries such as Zimbabwe. The local independent and chain supermarkets



also imported processed products. The local supermarkets use agents in South Africa and other neighbouring countries such as Zimbabwe to import these products.

**Impacts of supermarkets involvement in FFV and dairy supply chains in Zambia:** The information below on how South African supermarkets have impacted on FFV and dairy sector was collected from key informants and secondary data. The impacts resulting from South African supermarkets activities on host nations agricultural, food manufacturing and processing sectors are complex in that some are direct and observable while others are indirect and may occur at the level of the whole economy. Supermarkets impact directly on consumers, other businesses and local producers. These impacts are as a result of the decisions made by the supermarket to source or procure from suppliers in the host nation where they have invested or source and procure from South Africa or from other countries in the world. These impacts may be positive or negative depending on whether local farmers and processors access and sell their products to these multinational supermarkets or not. These impacts may also differ in different sectors depending on the structure of the agrifood systems and regulatory policies in individual countries. Impacts of supermarkets on various participants in the dairy and FFV supply chains in Zambia are discussed in the following paragraphs.

**Impacts of supermarkets in the dairy sector:** Supermarkets do not procure milk directly from farmers. According to key informants, supermarkets such as Shoprite investing in Zambia have extended the cold chain for fresh milk. This has enabled increased milk availability in urban towns in remote areas away from Lusaka. Secondly, the quality of milk supplied has improved because supermarkets procure from local large companies such as Parmalat Zambia, Finta and large farms that process the milk, maintaining high domestic and international standards. These companies deliver milk to all the supermarket stores. This was facilitated by the government policy requiring that fresh milk and other dairy products available locally be procured locally to promote production in Zambia. The quality of the milk was also high because these dairy processing firms adhere to local as well as international standards. Efforts have been made in collaboration with other stake holders such as Land O lakes and Zambia Agribusiness Training Assistance Centre (ZATAC) to include farmers in the supply chain by training farmers on issues of quality, formation of dairy farmer groups and provision of inputs that farmers need to produce and supply to dairy processors. For farmers to meet the quality and quantity

requirements and reduce transaction costs, formation of dairy farmer cooperatives has been promoted by the government.

It is through the dairy processors that the emerging dairy farmers (small scale commercial dairy farmers) and large-scale commercial dairy farmers access supermarkets. Dairy processors such as Parmalat and Finta have made special arrangements to assist small-scale dairy farmers by purchasing milk from organised groups of farmers at collection centres. There has been an increase in the amount of milk processed and marketed by these companies as shown by their increased sales volume. For example Parmalat Zambia sold 20 million litres in 2002 and this increased to 24 million litres in 2003. Apart from supermarkets availing cold storage for processed fresh milk from processors sold in their stores, increased involvement of milk processors in the supply chain especially making long life milk has made it possible for consumers to access milk for domestic use. There has been an increase in per capita milk consumption especially in urban areas such as Lusaka. Milk processing and long life milk production has enabled milk exportation from Zambia to other countries such as Democratic Republic of Congo (DRC). Finta, a dairy processing company located in Livingstone, is the main exporter. The opening up of export markets should also contribute to increased milk production in Zambia. The dairy supply chain involves processors who purchase milk from both small and large scale dairy farmers. Owing to availability of market outlets for milk farmers are bound to increase production.

**Fresh fruits and vegetables:** When Shoprite started operations in Zambia 1995 most of the FFV were imported from South Africa. Currently, Freshmark sources approximately 80-95% of fresh vegetables from local farmers both small-scale and large-scale. This change could be explained by the high cost of sourcing these products from South and government policy that requires that products available locally be purchased from local producers. Fruits such as apples are imported from South Africa because they are not produced in Zambia. Importing fresh produce from South Africa is very expensive resulting in fresh produce becoming unaffordable for a large percentage of the people. The reason is that produce costs up to three times more in Zambia than in South Africa due to import taxes and high transport cost. Since fresh fruits and vegetables are important and preferred by many consumers, due to high costs of importation from South Africa and other countries, most supermarkets try to source as much of their fresh produce from local farmers. With some encouragement and cooperation with the government, farmers were able to increase production of vegetables

such as tomatoes and potatoes. At present, though most of the fresh fruits and vegetables are procured from large farms especially those already exporting to the European Union.

Farmers' especially small-scale affluent farmers negotiate contracts and supply to the supermarkets. Small-scale farmers lacking required capital such as irrigation systems and who rely on rain-fed agriculture to produce, cannot meet the quality and volume requirement of supermarkets, therefore are left out of the supermarket supply chain. Small-scale farmers who are able to deliver to the super market or to the supermarkets procurement companies are assured of a continuous large market for their produce. The farmers that supply to the supermarkets have increased output and income. Most of these farmers have increased the number of workers on their farms. Farmers who do not access the supermarkets (who are the majority) sell their produce through the traditional wholesale and retail markets. The problem of the traditional markets is the fluctuation of prices due to produce flooding the market. This because the horticultural produce produced under rain-fed agriculture mature at the same time. There is need to improve the traditional FFV markets as most of the produce (75%) is sold through these channels.

The entrance in Zambia of foreign food processing companies, such as Foodcorp should also lead to an increased demand for fresh produce such as tomatoes and potatoes for processing. This may ultimately translate into increased production, higher income levels to the farmers and increased raw materials.

### **CONCLUSIONS**

Supermarkets involvement in food retailing in Zambia is increasing. Both indigenous and South African supermarkets are involved. The share of food in total retail sales was high (90%). Despite this high percentage of food sold, it was estimated that about 75% of FFV are sold through traditional channels and the remaining 25% through supermarkets. Most small-scale producers are not able to access supermarkets because of the large volume requirement and consistent supply throughout the year. The impacts of supermarkets in Zambia were positive for large-scale farmers and negative for the small-scale farmers because less than 5% of small-scale farmers could supply their produce to supermarkets.

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