CHALLENGES FACING SMALL AND MEDIUM ENTERPRISES IN MARKETING OF THE VEGETABLES TO THE UP MARKETS: CASE OF NORTHERN CORRIDOR OF TANZANIA LUSHOTO, KILIMANJARO AND ARUSHA

BY

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ABSTRACT

Tanzania's climate and growing conditions are favourable for a wide variety of fruit, vegetables and flowers. Marketing of agricultural produce has become highly complex and difficult involving very large and long marketing channels, a larger number of middlemen, many types of physical, social, economic and marketing facilitating functions and services. Despite the fact that many efforts made by the government, NGOs and other stakeholders to improve SMEs viability, many challenges are still facing them in market of their vegetables and thus the essence of conducting this research. A purposive sampling procedure was use to choose 50 farmers and traders in the seven villages around the Northern corridor of Tanzania for the study. Key informants interview based on checklists and the question administering were used as tools for data collection. Direct observations as a method of data collection were also employed to evaluate vegetable production process and marketing activities focusing on producers and consumers. The findings show that the main problems facing farmers in marketing vegetable in the Northern corridor of Tanzania are: lack of farmers' organization and flexibility to face competition in the free markets, high prices of inputs, high transport costs and posthavest losses. There are also different in priotized problems faced by the vegetable growers in Lushoto, Kilimanjaro and Arusha. In order to increase production of vegetables for domestic as well as export, the following should be considered by the government: efficient handling, grading and sorting, improved transport facilities, improving the vegetable marketing and export system. While the preceding is a pre-rogative of government in private sector, ought to provide support in strengthening farmers initiated infrastructure, and in organizing small farmers for efficient marketing of their vegetable produce.

DECLARATION

I NGANYAGWA, GEMA, do hereby declare to the Senate of the Sokoine University of Agriculture that the work represented here is my own work and has not been submitted for a higher degree in any University.

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13th June 2008
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The above declaration is confirmed

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15th June 2008
Date

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DEDICATION

To my parents G.F.M, Nganyagwa and Anatolia Maganga whose parental support has enabled me to successfully undertake my studies. And to my late beloved brother Julius Nganyagwa who died in 2002, May his soul rest in peace, Amen.

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LISTS OF ABREVIATIONS

AGOA	Africa Growth and Opportunity Act
AVRDC	Asian Vegetables Research and Development Center
DSM	Dar es salaam
DTIS	Tanzania Diagnostic Trade Study
EAC	East African Community
EBA	Everything But Arms Initiative
FAIDAMaLi	FAIDA Market Link
GDP	Growth Domestic Product
GTZ	German Agency for Technical Cooperation
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
IIFT	Indian Institute of Foreign Trade
NARS	National Agricultural Research System
NEVEPA	Network Vegetable Production in Africa
NGOs	Non Government Organisations
RTC	Regional Trade Centers
SACCOS	Saving and Credit Cooperative Society
SADC	South African Development Community
SCF	SME Competitiveness Facility
SECAP	Soil Erosion Control and Agroforesty program
SMEs	Small and Medium Enterprises
TAHA	Tanzania Horticultural Association
TANAPA	Tanzania National Parks
UK	United Kingdom

ULT	Usambara Lishe Trust
URT	United Republic of Tanzania

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background information

Agriculture is the backbone of the economy in Tanzania. The sector is dominated by smallholder farmers, who use traditional cultivation methods. Only 10% of the land is ploughed by tractor and production is dependent on rainfall. Tanzania's climate and growing conditions are favourable for a wide variety of fruits, vegetables and flowers. The majority fruit potential is in pineapples, passion fruits, citrus fruits, mangoes, peaches, peas, and bananas. Vegetables include tomatoes, spinach, cabbages, and okra. Both tropical and non-tropical varieties of flowers are grown. There is a good potential to export these products to neighbouring countries, the Middle East and Europe (SADC, 1997-2008).

With respect to the interaction between SMEs and a market, SMEs are characteristically advantaged because they are able to react quickly and efficiently to market changes. Studies of small firms confirm that the SMEs entrepreneurial characteristics and structural flexibility do not have a long chain decision-making process. SMEs can serve a narrow market by establishing close contact with customers (Rothwell & Zegveld, 1982). Marketing of agricultural produce has become highly complex and difficult involving very large and long marketing channels, a larger number of middlemen, many types of physical, social, economic and facilitating marketing functions and services. The majority of farmers are marginal, small, scattered, illiterate and unorganised. They do not have sufficient time, knowledge and skills for the scientific marketing of their produce (Dijkstra 1997), a comprehensive study of marketing efficiency of agricultural markets in India done by Thakur (1992) shows that farmers face many problems toward increasing their

marketable surplus and in marketing of their produce. These need in-depth analysis and studies to overcome these problems in future. This situation is similar to Tanzanian farmers. Efficient marketing of agricultural produce in Tanzania can be taken as a major or the most important solution to both increased subsistence and commercial production and increased farmers income through increased production and better farmer's price (Mlambiti 1975), because efficient marketing means better transportation, storage facilities, sales promotion systems, and better processing plants, which I can say are lacking in the northern corridor of Tanzania.

The term vegetable are highly subjective from a scientific point of view and is a term of convenience rather than one based on a systematically ordered scientific classification (Barber, 2003). There is no general agreement on a strict definition of what is meant by vegetables, yet five main groups are distinguished. The leafy vegetables example amaranth, fruits vegetables example African eggplant, pulse and seeds vegetables example cowpea, tuber vegetables example sweet potatoes and flower vegetables example cauliflower are used. (Terra 1966), (Mwasha 1998) reported that in Tanzania vegetables are typically grown on a rather small scale; however, horticultural crops usually generate high earnings per unit area and represent an alternative for farmers with too small cultivable land to provide adequate income from field crops.

Fruits and vegetables constitute a crucial nutrient source in the human diet. The economic importance of fruits and vegetables has been increasing domestically and internationally due to their demand. Domestic demand has increased due to increase in income, population growth, changing consumption patterns and higher nutrition consciousness

among masses. The result was a shift in the cropping in favour of fruits and vegetables and consequent increase in their production and availability (Mwasha, 1998).

Since SMEs tend to be labour- intensive, they create employment at relatively low levels of investments per job created. At present, unemployment is a significant problem that Tanzania has to deal with. Estimates show that there are about 700,000 new entrants into the labour force every year (URT, 2003). About 500,000 of these are school leavers with few marketable skills. The public sector employs only about 40,000 of the new entrants into the labour market, leaving about 660,000 to join the unemployed or underemployed reserve (URT, 2003). Most of these people end up in the SME sector, especially in the informal sector. Given this situation and the fact that Tanzania is characterised by low rate of capital formation, SMEs are the best option to address this problem (URT, 2003).

A vegetable is a wide field of study whereby many SMEs can be engage and benefit since the field is growing and increasing its potentiality (FAO, 1998). There are different varieties and different consumer market segments and preferences. Trade can be local, inter-regional, and international depending upon the demand and varieties produced. There is a large range of vegetables produced in Tanzania and consumed in several types of markets, e.g. the local market consuming traditional vegetables, such as amaranths, tomatoes, eggplant, etc. There is the urban market, which apart from amaranths and tomatoes - consumes more 'European' vegetables such as carrots, cabbage, sweet pepper, lettuce etc. In addition to the national markets, there are export markets. Of this regional export markets, mainly Nairobi for onions and tomatoes and there is a high value export market in Europe, or baby-vegetables (baby corn, mange tout, green (French) beans, etc. (DTSI, 2005).

1.1.1 Current situation on production of vegetables in Tanzania

Tanzania is particularly well positioned to become a major floriculture and horticulture exporter: because

- Tanzania has over 88 million hectares of agricultural land of which less than 6% is currently utilized and offers a wide range of climactic zones for the full-range of floriculture and horticulture products, from high-altitude temperate zones to low-land tropical zones (TDSI, 2005)
- Regular air connections from Kilimanjaro and Dar es Salaam airports provide direct access to European and Middle Eastern markets.
- Large tracts of unused land in the Southern highlands will become viable for floriculture and horticulture export operations with the opening of the Mbeya International Airport in 2006
- Tanzania has preferential access to key markets under EBA, AGOA, EAC and other agreements
- Within East Africa, Tanzania is a traditional exporter of fresh produce to neighbouring countries

The government of Tanzania and international donors have identified floriculture and horticulture as a priority growth sector and can provide extensive support for investments in this sector. Beyond Tanzania's specific assets and incentives for floriculture and horticulture production, the country offers a very stable and favourable business environment. The few horticultural products such as vegetables are described below;

i. Green vegetables:

Most of the vegetables such as spinach, Chinese, okra, cabbage, eggplants come from Morogoro and coastal region. The bulk of vegetables reaching Dar es salaam through

vehicles is sold to trades at different (wholesale) market places or directly to end-clients. Prices differ depending upon the availability of those vegetables on that particular day. Main end client are hotels, restaurants, small kiosk in the streets and mini supermarkets. They is no seasonality since farmers (producers) use irrigation. (See special section on Lushoto supply chain to Dar es salaam).

ii Traditional vegetables:

Demand for traditional vegetables is growing. People have become aware of the nutritional value of these leaves from Amaranths, Nightshade leaves, Sweet potatoes leaves (narrow type), African eggplants (sweet variety), cowpea leaves, pumpkin leaves (for south) and Ethiopian mustard leaves. Production should be close to urban centres, where the demand is. In Kenya these traditional vegetables are found in supermarkets.

iii Onions:

Onions mainly come from Arusha, Moshi, Iringa and Morogoro. This product is seasonal but varies from each producing area due to climate making it available throughout the year. The main consumers are the same as for other commodities. NGOs projects have been influential in stimulating onion production and marketing in local markets urban markets of Dar es salaam and Arusha. Tanzania onions are very significant in the Kenyan market, representing about half of the total quantity of onions sold in Kenya (DTSI, 2005). Local Kenyan production has been reasonably consistent over the last 10 years and the increase in market demand has been met by imports from Tanzania (Muendo, 2004). Interviews with Arusha-based onion traders showed that the best quality onions are exported to Kenya, while the second quality is sold in the Tanzanian market. The higher yields achieved in Tanzania are probably due to suitable climatic conditions, whereas most

of the Kenyan onions are grown in the wetter highland areas which encourages fungal diseases resulting in lower yields (Gillson, 2005). Additionally, the Tanzanian export position is strengthened because farmers grade the onions and export the better one. This helps strengthen the Tanzanian reputation for quality in the Nairobi market. Kenya imports onions from Tanzania throughout the year, all-passing through Namanga post to Nairobi and Taita Taveta border to Mombassa. The collecting wholesalers in Arusha market receive market information (about quantities and prices) through telephone from their counterparts at *Wakulima* market in Nairobi every morning between 4.00-5.00 a.m. This information forms the basis for price negotiation with traders from Nairobi. The onions are then transported to Nairobi in ten-ton Lorries. Furthermore, Tanzanian onion farmers have proven effective at storing onions for up to 6 months and can therefore supply markets at opportune times whereas Kenyan onions have no storage facilities and must bring their onions directly to market, (DTIS 2005).

iv Tomatoes

Large amounts of tomatoes come from Arusha Moshi, Lushoto, Morogoro, Iringa, Mbeya and Coastal region. Tomatoes are brought to the market at different seasons, one from Iringa Mbeya and Morogoro which cover the months of December to May, and the other one from June to December with produce originating mainly from Moshi, Arusha, Coastal region and Lushoto. The distribution of commodities is done at Mabibo market where tones of tomatoes from different parts of the country are supplied to different markets in Dar es salaam such as Kariakoo, Tandale, Kisutu and Buguruni. The prices of tomatoes fluctuate from high peak seasons to low season depend upon the demand. The main clients of tomatoes are supermarkets, restaurants, hotels, local kiosks along the streets and home consumption

The tomato variety produced in Tanzania is Moneymaker. The variety has a softer skin and a shorter shelf life than the variety produced in Kenya. In 1997, AVRDC successfully released two new tomato varieties in Tanzania, Tanya and Tengeru 97. Their advantages were striking. They not only yielded more than the previously grown varieties, but due to firmer outer membranes, the new varieties were a lot less vulnerable to pests and diseases as well as to damage during transportation. These varieties were disseminated to small and medium scale farmers in all important tomato growing areas of the country, (Muendo, 2004).

v Carrots and sweet peppers

These are mainly produced in Kilimanjaro, Arusha and Lushoto, and sometimes from the coast region and Morogoro. Since most of the farmers use irrigation, the commodities are available throughout the year. The price also is dynamic, changing according to demand and availability. The main clients are consumers, supermarkets, hotels and street shops. Sometimes carrots were imported from Kenya especially when the supply is very low and the demand is high. (Streatfeild, 2006).

vi Cabbages/cauliflower

The products are mainly from Coast region, Arusha, Morogoro, Lushoto and Moshi. They are sold in Dar es Salaam and nearby regions. Cauliflower is mostly demanded by tourist hotels and high income people compared to cabbages.

1.1.2 Vegetables production in the northern corridor of Tanzania

The northern highlands consisting of Arusha, Kilimanjaro area, and Usambara Mountains (Tanga), which are by far the most important areas for horticultural production in the

country. In view of their generally high vitamin and micronutrients content, vegetables are commonly valued as an essential component of the human diet. The main vegetables produced in these areas are tomatoes, cabbages, onions, carrots, and green vegetables. Owing to the fairly good rainfall reliability and high altitude, the region produces temperate fruits and vegetables. The vegetable basket was identified to include; tomatoes, cabbage, carrot, iceberg lettuce, sweet pepper and a few high value vegetables, such as Broccoli, cauliflower, zucchini and soft (red) lettuce (Lynch, 1993).

In Lushoto, vegetable production takes place in the valleys among the mountains. The total valley is cultivated. In the Northern corridor, Lushoto is the place with the highest variety of vegetables produced. Apart from the common vegetables like tomatoes, sweet papers, cabbage and carrots, one can find special types, such as different types of lettuces, leeks, broccoli, zucchini, spring onions, celery, beetroot, and even fresh herbs. Most producers own small plots of about ¼ to 1 acre each and they grow a variety of vegetables. The vegetables are grown on a rotational basis. The crop rotation does not seem to comply with agronomic practices (pests, disease and fertility management). There is risk for environmental damage because of the intensive cultivation, erosion, deforestation; over use of pesticides were the concerns which were mentioned. The scope of the study and time allowed detailed examination into these issues in the field was not sufficient.

In Kilimanjaro, certain production areas produce certain types of vegetables. Among those are common vegetables like tomatoes, cabbage, carrots, sweet pepper. Hardly any type of high value vegetable is grown. Production in Moshi Rural district was done in three zones, lower, middle and upper zones. In Lower areas: Sweet pepper, Okra, tomatoes, amaranths, Chinese are produced by irrigation in Gona, Kyomu, Miwaleni, Kisangi

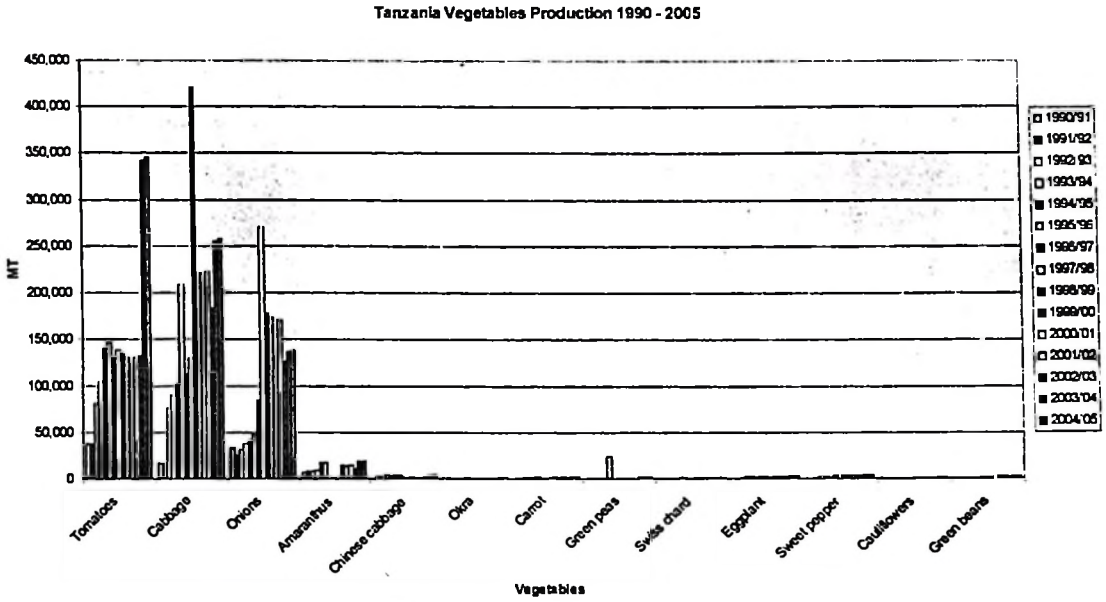
sangeni, Chekereni weruweru. Middle altitude (900 - 1200): tomatoes, Amaranths, cabbage, okra, black nightshades are produced in Kilema pouf mainly irrigated tomatoes and Masaera also through irrigation. Upper altitudes (> 1200 m) Cabbages, carrots, tomatoes, amaranths, very little cauliflower and lettuce are produced in Tema and Mwika the main production season is June to March in middle and lower areas. However during rain season flooding makes production of many vegetables difficult.

Production in Hai and Siha Districts is very little compared to other areas. West Kilimanjaro is the main producer for potatoes and carrots, where some sweet pepper carrots and potatoes are grown on plots of 50x50 meter which used to be forest, allocated to farmers by the Forestry Department (TANAPA). Cultivation is done in this newly planted field for a number of years. During the period of data collection, many of the farmers had stopped cultivation because of the spacing of the forest trees. However in West Kilimanjaro, farmers can have large fields, between 100 and 200 acres for example, Poverty Girls produces a variety of vegetables which it delivers to the supermarket and hotels/lodges directly.

In Moshi area there are few high value vegetables produced by small holders. When visiting Tema village located at the high altitude, there was no high value that was found to be grown. Main crops were tomatoes and carrots which were good quality carrots. Farmers had stopped growing cabbages because of hazards caused by chemicals that were used. Farmers shifted to growing kale which does not need pesticides. One farmer was experimenting with broccoli, but he had no information about their production methodology even though there was an extension worker in the village.

In Arusha small holders produce tomatoes, zucchini, cabbage, lettuce, sweet pepper, and broccoli. There are a few specific production areas, such as Ngare na Nyuki which is important production area for tomatoes. The tomatoes are exported to Mombassa and through Sanya Juu wholesale market to Arusha and Dar es salaam markets. Ngare na Nyuki can produce these product three seasons a year because of irrigation. Oldonyo Sambu (Arumeru district, Nairobi Road) is another area where farmers mainly produce good quality carrots as a cash crop. Good quality carrots (sweet & last longer) are produced in that area.

In shortage season of (September – January) where supplies are in short supply, Oldonyo Sambu continues to produce while in other areas not possible. In this season traders procure these products from the spot market. In other seasons farmers (middlemen) take carrots to the Arusha wholesale market, flooding the market leading to lower prices. They got a link to Sopa lodge chain but not yet clear if this one has been successful. No sales of carrots to Nairobi but they can sell to Arusha market. Tengeru, is an important area for tomato production, but due to the market for tomato seeds, the production has been shifted to seed tomato production. Example Hort- tengeru is doing best in production of seeds like Tanya and Tengeru 97.



Source: Ministry of Agriculture and Food Security (2007)

Figure 1: Tanzania vegetable production

Table 1: Lists of vegetables grown in the Northern Highlands of Tanzania

English Term	*Kiswahili Term*
Amaranths	Muchicha/Mnavu
Baby Carrots	Karoti changa
Baby Corn	Mahindi changa
Beans (dry)	Maharagwe
Beet Root	Viazi vya kungeza damu
Bell Peppers	Pili pili hoho
Broccoli	Brokoli
Brussel Sprout	
Cabbage	Kabeji
Cachucha Peppers	Pili pili mbuzi
Carrots	Karoti
Cauliflower	Kobi maua
Celery	Selari
Chinese vegetables	Chinese
Collards	Sukuma wiki
Corn	Mahindi
Cucumber	Tango
Eggplant (Brinjal)	Biringanya
French Green Beans	Maharage machanga
Garden Peas	Njegere
Green Beans	Uwalu / green beani / ngeleshi
Hot Peppers (long)	Pili pili kali
Leeks	Kitunguu / Liki
Lettuce	Saladi / Lettuci
Okra	Bamia
Onion	Kitunguu
Parsley	Paseli
Patti Pan Squashes	Maboga
Pigeon Peas	Mbaazi
Potatoes (Irish)	Viazi mviringo
Red cabbage	Kabeji nyekundu
Snow Peas	Njegere
Squash	Maboga
Sugar Snap Peas	Njegere
Sweet peppers	Pili pili tamu
Sweet potatoes	Viazi vitamu
Tomatoes	Nya nya
Turnips	Balungi
Zucchini/Baby Marrow	Mamunya

Source: Research Protocal-Tanzania country study 2006.

1.2 Problem statement and justification

The enigma to both researchers and policy makers alike is: Regardless of availability of a backlog of improved agricultural technologies developed or made available to farmers by the National Agricultural Research System (NARS), production is still being undertaken using rudimentary technologies (Kitule, 1998).

It is estimated that about third of the GDP originates from the SME sector. According to the informal survey of 1991, micro enterprises operating in the informal sector alone was constituted by more than 1.7million businesses engaging about 3 million persons this is, about 20% of the Tanzania labour force (URT, 2003). Though data on SME sector are rather sketchy and unreliable, it is reflected already in the above data that SME sector plays a crucial role in the economy.

The fact that some SMEs in Tanzania continual to develop and expand, whereas others remain small and yet seem to survive for many years makes it more important to understand which factors contribute to the growth of small enterprise. Many researchers tried to show the roles toward developing SME's and the problems facing them, indeed in view of all the above situations and experiences it shows that many people and researchers have different views on SME's and they have different demands depend upon their financial status. Since 1994 the marketing system for all food crops has been fully liberalized. The system is multi-channel and generally competitive (Mdadila, 1995). The marketing of food crops (VEGETABLES) is currently dominated by private traders because the public marketing institutions such as Regional Trading Centres (RTC) and National milling Cooperatives although no longer operating, did not meet the needs of SMEs even when they were in operation.

While vegetables were considered as luxury products and of secondary importance in Tanzania for along time and the government gave priority to production of the cereals recent rapid increase in fruits and vegetable production has occurred due to the revival of economic growth and liberalisation of non traditional export (Mwasha, 1998).

However the important role of African vegetables in Tanzania's health sector, diets and as an income source is threatened through extinction of the generic resources of these species. Many landraces of vegetables are in the process of being replaced by modern varieties (Barley, 1998). Despite the fact that many efforts were made by the government, NGO's and other stakeholders to improve the SME's livelihood, many challenges facing SME's in marketing their vegetables which require investigation.

Generally it expected that the study would provide information/recommendation that will in turn assist policy makers, NGOs and other stakeholders in designing appropriate programmes for optimal income generation and poverty reduction among smallholder farmers and improving performance of the vegetables market.

1.3 Objectives

1.3.1General objective

To assess the general structure and challenges faced by the SMEs in marketing of vegetables in the northern corridor of Tanzania.

1.3.2 Specific objectives

i. To identify characteristics of SME's in the northern corridor of Tanzania
ii. To understand the dynamics of vegetables' markets by characterizing the producers, rural market wholesalers, transporters and retailers focusing also on seasonality of the produce.
iii. To map different market channels for vegetables and the linkage between the smallholder farmers and the market.
iv. To identify the opportunities and constraints faced by the SMEs in marketing of vegetables in the Northern corridor of Tanzania

1.4 Study questions

i. What are characteristics of SME's in horticulture?
ii. What are the dynamics of vegetables in the Tanzanian market?
iii. Where are the opportunities and constrains faced by the SME's the Northern corridor of Tanzania?
iv. What are current linkages between the SME's and marketing the horticultural industry?

CHAPTER TWO

2.0 REVIEW OF RELATED LITERATURE

In the recent years, the country has witnessed the mushrooming of non-government organisation (NGOs) which are doing a commendable job in promoting SMEs. Most of the NGOs are mainly involved in credit delivery, business training, provision & general consultancy, support market linkages, gender and environmental issues. However, most of the institutions supporting SMEs are rather weak, fragmented, concentrated in urban areas and uncoordinated. This calls for the need to strengthen the institutions supporting SMEs (URT, 2003). In addition, SMEs can achieve high growth by focusing on particular product groups, avoiding spreading their marketing activities too widely, and avoiding operating in markets dominated by large firms by choosing carefully the markets in which they operate (Adams and Hall, 1993).

The SME as sector of the economy is made up of small production units. Typical of small companies, ownership in the sector varies from group to individual. Like any other company, the production unit in the sector sometimes suffers from poor record keeping. In the course of analysing projects in the SMEs, the approach is different from the one used for big companies because SMEs have peculiar characteristics not found in conventional companies.

Most of the existing literature on SMEs has emerged from supply-driven research focusing on poverty alleviation, the informal sector and micro-enterprise development, employment generation; micro-finance etc. studies from these studies have contributed to a good understanding of the needs of informal sector activities and other emerging business in Tanzania. The term SMEs is usually adopted to contrast this sector with larger business.

As a consequence of the co-existing in Tanzania of formal and informal activities, the SME sector is highly diverse with structures, problems, growth potential and access to support differing widely between segments. This situation is not exclusive to Tanzania. The various SME policies that are already in place in some eastern and southern African countries show similar pattern (URT, 2003).

Generally in many development countries the SME sub sector is considered to have great potential in creating jobs and hence contributing towards economic growth of the respective countries (URT, 2005). However, in Tanzania the sub sector is still largely informal, under performing and in need of considerable assistance to overcome disadvantages and barriers so that its contribution to the national growth becomes more significant. The situation is attributed to the fact that most SMEs in Tanzania are constrained by finances as well as lack of managerial, technical business/entrepreneurial skills (URT, 2005). Other constraints include high costs of running the business and inadequate support infrastructure services as well as labour market barriers among others (Sunday Observer, 2006).

It is against this background, that SMEs in Tanzania are unable to start up and/or substantially grow quantitatively as well as qualitatively due to various reasons including the inability to access loan financing and marketing, use of obsolete technology and weak support infrastructure (URT, 2003). This results in poor quality product and higher production cost making respective business uncompetitive (Sunday Observer, 2006).

2.1 Characteristics of SMEs

Characteristics	Advantages	Disadvantages
Dependence on a limited number of people (Often owners and managers are one and the same persons)	▪ Long-term thinking, perspectives Stability ▪ No pressure for short-term Success ▪ High identification with the business, stable culture ▪ High commitment	▪ Static thinking, limited to the experiences and the knowledge of the owner(s) ▪ Difficulties to adapt corporate culture to new situations and challenges ▪ Potential conflicts between corporate objectives and personal objectives of the owner
Close relationships to customers and business partners	▪ Stable basis for further business ▪ Ability to cooperate successfully for mutual advantage ▪ Ability and willingness to enter	▪ Risk to focus too much on existing basis of business
Simple structures	▪ High flexibility and adaptability ▪ Short reaction times ▪ Cross-functional communication and cooperation within the organization	▪ In many cases not suitable for the complex planning and implementing of international activities ▪ Low willingness to introduce more sophisticated structures
Small size	▪ Basis for specialization, often successful with niche strategies	▪ Limited resources (in terms of financial means and manpower): ▪ Limited funds to finance investments and initial operating losses for new activates ▪ Spending for market research and market entry take a much higher proportion of total spending in SMEs than in larger businesses ▪ Limited number of staff to take on additional tasks ▪ Lack of internationally experienced employees

Source;TCCIA,2004

There is no consensus of SME definition as various countries have different definition depending on the phase of economic development and their prevailing social condition .however various indexes are used by member economies to define the term such as number of employees, invested capital, total amount of assets, sales volume (turn over) and production capacity (URT, 2005).

The above table gives us four characteristics which reveal why SMEs face difficulties in the internationalised market. They do not have enough manpower; they deal direct with customers, have simple structures and are small. There is however, an increasingly important role for SMEs to contribute to economic growth and technological development specifically in those developing countries where liberation and globalisation of the economy is currently take in place (URT, 2003). It is estimated that SMEs make up more than 90% of all business establishment worldwide. In Tanzania, it is estimated that approximately 50% of the industrial output originates from SMEs (URT, 2003).

2.2 Dynamics of vegetable marketing in the Northern corridor of Tanzania

Vegetable as a product may be defined as a usually succulent plant or portion of a plant, which is consumed as a side dish with starchy staple (Terra, 1966). Aside from the growers themselves, the participants in vegetable marketing activities are local buyers, traders, commission agents, wholesalers, cold storage operators and retailers. Government agencies play only a supportive role.

Given the geographic distribution of the country's vegetable producers and consumers as well as the informal organisation of the trade, vegetables pass from farmer to final consumer in a variety of different ways. Three principle types of marketing channels for

vegetables exist: local, regional, and inter regional. Local marketing channels are characterized by the intervention of fewer middlemen between vegetable producers and consumers than the regional and inter regional channel. Marketing of vegetables takes place faster because the selling processes and the volume of transaction is also less. Vegetables are sold to consumers, local traders, wholesales and commission agents (Ahmed, 1997).

2.4 Challenges of marketing vegetables

Tanzanian agriculture is dominated by small-scale subsistence farming. Like the entire economy, agriculture is in a transition from being a command to a market-based production system. The transition process started in the mid-1980s as part of the economic adjustment and structural reform pro-grams and policies supported by Tanzania's development partners. Despite some impressive macroeconomic achievements resulting from the reform programs, agricultural growth and rural poverty reduction continue to present daunting challenges (Kawa and Kaitira, 2007).

Few smallholder producers understand how markets work, and even if they do, they do not have the information they need to participate effectively. In response to these development issues, the government of Tanzania, in consultation with International Fund for Agricultural Development (IFAD), identified the sub optimal structure and functioning of the agricultural marketing system as a key area for attention. Liberalization policy has removed many of the old certainties but has not yet provided adequate basis for an efficiently functioning alternative. To meet this need, an investment program entitled Agricultural Marketing Systems Development was proposed to remove constraints to effective operation of the agricultural marketing system and to help smallholder producers

acquire the tools needed to participate on favourable terms in the open market. The program consists of four components: producer empowerment and market linkages, financial market support services, rural marketing infrastructure, and agricultural marketing policy development.

2.4.1 Constraints in agricultural marketing systems

Marketing of agricultural products in many developing economies, is a major determinant of development generally and agricultural development in particular (Ashimogo *et al.*, 2003). Although Tanzania has made progress in liberalizing the agricultural marketing system over the years, significant constraints to the sound functioning of the system still exist. (Kawa and Kaitira, 2007) observed that the constraints reduce the efficiency of the system in two ways:

i. They have a direct impact by increasing the cost of marketing through, for instance, poor transport infrastructure or impediments to the movement of produce.
ii. They have an indirect effect by collectively rendering it more difficult for new entrants to participate and thus reducing competition.

Field experience has shown that smallholder farmers face a variety of new challenges in coping with the requirements of a free market. Smallholder farmers are poorly prepared to respond to market mechanisms they only partly understand (such as fluctuations in demand and prices) or to meet the demands of traders for specific product quality and quantity. As a result, individual farmers face difficulties in developing coherent and realistic marketing strategies, particularly when faced with a single trader with considerable economic power. When marketing domestically the system is fairly easy to learn. When crossing global boundaries the whole process is exaggerated by necessary

paperwork, exchange rates, cash flows and transportation problems to name but a few. This uncertainty gives rise to the need for information

Specific information

Table 2: Specific information

Marketing decision	Marketing intelligence
Go international or remain domestic	Assessment of global market and firm's potential share in it, in view of local and international competition, compared to domestic opportunities.
Which markets to enter	A ranking of world markets according to market potential, local competition and the political situation.
How to enter target markets	Size of markets, international trade barriers, transport costs, local competition, government requirements and political stability.
How to market in target markets	For each market, buyer behaviour, competitive practice, distribution channels, media, company experience

Source: Kawa and Kaitira 2007

It is found that the marketing problems are generally similar for the marketing of food grains and vegetables except that for vegetables marketing, lack of storage and refrigerated transport facilities have been point out, which must be provided during the summer season to transport the produce to distant markets (Thakur, 1995). In case of vegetables, the nature and extent of marketing problems are almost similar with minor differences from the small to the larger to overall categories of farmers. The most important problems here are high cost of transportation, lack of storage and forced sale in the market, lack of functioning of regulated markets in the producing area, no premium for graded produce, low prices in the market and lack of refrigerated transport and processing plants. Also lack of market information, cooperative marketing and lack of credit for marketing of produces (Thakur, 1992).

i. **Input supply;** small firms almost always have more trouble accessing inputs than their larger counterparts. Ideally SMEs would like to source high quality inputs in small quantities at reasonable price on a regular basis with financing options. Small farmers for example may not be aware with certain varieties of seedlings, pesticides or drip irrigation system.

ii. **ICT;** an especially fast growing business service, ICT offers important ways for SMEs to both mitigate threat and exploit opportunities. ICT can help to reduce cost, increase access to markets provide better and more frequent access to critical market and product information. Help SMEs to work better collectively, minimize and manage inventories, speed the product cycle from design through production and improve communication throughout the value chain.

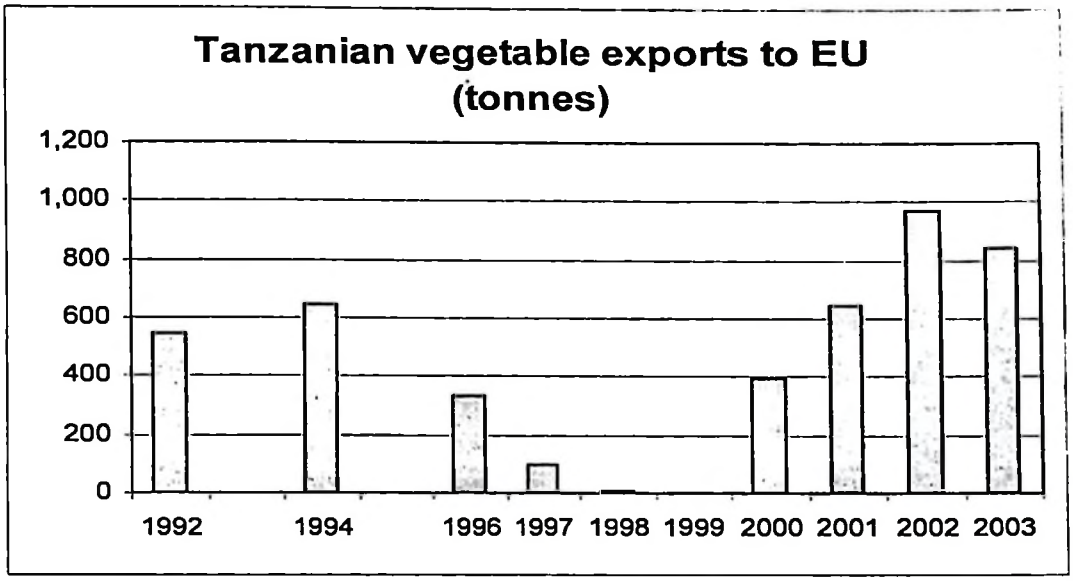
iii. **Quality control;** however some smallholder horticultural producers have experienced difficulties in meeting the standards set by overseas markets.

iv. **Infrastructures;** quality in horticulture is further affected by the bad roads, lack of cold storage and poor telecommunications.

v. **Marketing and credits;** the tension between farmers and buyer are historical and strong. The fair trade approach to trade is based on the premise that avaricious middlemen exploit farmers. This is not a universal truth, and there are many studies that show the real risks local traders take and their relatively low profit margin (UsTR, 2005).

2.4.2 Opportunities for marketing of vegetables

The Tanzania vegetable is industry is now established as mall players in the EU market, with a narrow base of vegetable exports mainly green beans with some mange tout (snow peas) and baby corn. Its development is about 5-10 years behind Kenya in both the range of vegetable grown and the development of added value prepared products (Gillson, 2005). Vegetable exports to Europe started in the 1970s; this was mainly green bean and Asian vegetable exports to the United Kingdom (UK). Vegetable exports increased slowly much slower than Kenyan exports and by the early 1990s exports had only reached about 600 tonnes per year (Fig 3). The value and weight of the vegetables exported to EU in 2003 were shown (Table 2.) the industry then collapsed and vegetable exports were virtually non-existent. Various reasons have been given for the collapse, including issues with airfreight and the "side-selling" by small-farmers. However, one of the original vegetable exporting companies re-formed (Serengetti Fresh) and another company started and the early 2000s, exports started to rise again. Even though there was a decline in vegetable exports in 2003, interviews with the two export companies suggest that exports will rise in 2004 and 2005. Their estimates are that between June 2004 and May 2005, vegetable exports from Tanzania will be about 2,300 tonnes – which is a very significant increase over the levels of the 2002 and 2003.



Source: Eurostat supplied by VEK Adviesgroep 2003

Figure 2: Tanzanian vegetable imports into the EU (tonnes)

Table 3: Value and weight of vegetable exports from Tanzania to Europe[1], 2003

Item	Value	Tonnage/Weight
Tomatoes	1	0
Onions/shallots	12	5
Leeks	13	8
Cabbage lettuce	28	83
Carrots	18	5
Peas	3245	336
Beans	50	68
Other fresh legumes	493	220
Globe artichokes	6	6
Celery	0	0
Capsicum	6	2
Total	3872	733

Source; Tanzanian Customs data 2003

Also there is opportunity for niche market in Tanzania such as organic products and opportunity for fair trade.

There are important niche markets for organic products, especially in Europe. As with SPS certification, organic certification is expensive and there are third-party certification programs. The organic certification process can take several years. While awaiting certification, farmers must demonstrate that they are consistently following organic practices. The Lushoto area is gaining a reputation for organic farming in Tanzania. Many of the large farms producing coffee and tea have been certified organic buy the buyers.

Some farmers may use organic practices, even though they are not pursuing a formal certification process. With many farmers the high costs of chemical pesticides and fertilizers forces them to 'default' into organic farming – using local ingredients of garlic and chillies to control pests. There are markets for these products in the middle ground that are "organically grown" but not "certified," since they do not come from certified farms.

2.5 Roles of linkages

In view of the considerable potential of fruits and vegetable sector from the production (supply) side as well as from the consumption (demand) side, it is imperative to examine the various linkages that facilitate/constrain the performance of this sector. The role of infrastructural facilities including credit facilities in promoting horticultural venture is widely acknowledged (IIFT, 1997). The perish ability of the produce coupled with seasonality in production and the distance between production and consumption centres warrants an effective linking of producers and consumers through strong market support. This necessitates infrastructural facilities such as motor able roads, regulated markets, cold storage, refrigerated transport, grading, and packing, processing facilities, credit support,

market information, research and development. The availability and adequacy of crucial linkage factors for the fruits and vegetables sector is very necessity. Linkages not only connect activities inside a company but also create interdependencies between a firm and its suppliers and channels (Porter, 1990).

CHAPTER THREE

3.0 MATERIAL AND METHODS

This chapter covers the following description of the study areas research design sampling technique data collection and data analysis methods.

3.1 Description of the study areas

3.1.1 Lushoto

Lushoto district is situated between latitude 4° 24' S and longitude, 38°10' E and 38° 36'E with an altitude ranging from 900-1200m above sea level. It enjoys a relatively cool climate of between 18°c-23°c with the maximum occurring in March and minimum in July and the high rainfall of between 600-2000 mm per annum. Given the geology of the area, the soils in the mountains vary depending on the landform. The lateric and red loams on the higher slopes deteriorate rapidly when the forests are cleared. The grey loam mineral soils and the grey/black soils are fertile; through the later occur mainly on the escarpment floor. The colluvial soils in the valleys are ideal for irrigation agriculture.

3.1.2 Kilimanjaro

Kilimanjaro region is found between latitude 3°34'S and longitude 37°34'E The population is 134799 according to population census 2002. Rainfall and temperature vary with altitude and exposure due to the dominant wind blowing from the Indian Ocean. Annual rainfall reaches a maximum of around 3000mm at 2100 meters. The mean annual temperature in Moshi town (813m) is 23.4°c

3.2.3 Arusha

Arusha region is the one of Tanzania's most unique regions. The region lies between 1.6-4.0°S latitudes and 34.5°-37.5°E longitudes. Arusha region had a population of 1,288,088.

according to population census 2002. the temperature ranges between 13 and 30 degrees Celsius with an average around 25 degrees.

3.2 Research design

This study used cross-sectional research design. Under this design, data from farmers' respondents were collected at a single point in time without repetition from the representative population. The design was chosen because of being economical to conduct in terms of time and it allowed comparison of variables in this case credited and non-credited (Barley, 1998). Data for the study were obtained from primary sources during a field survey carried out between 31 October-18 November 2007.most of the data were related to production, marketing and the challenges facing smallholder farmers in the vegetable sector around the northern corridor of the Tanzania.

3.3 Sampling technique

Purposively sampling procedure consisting of 50 farmers and traders in the 7 villages around the major vegetable areas in the northern corridor of Tanzania was done. The sample can therefore not be considered as statistically representative of the vegetable cultivated areas in the northern corridor of the Tanzania. It would be very difficult to estimate representative anyway, because of the scarcity of district and village level secondary data.

3.4 Data collection

The data collection method adopted is that of personal contacts with key informants. Checklist (simple questionnaire) was used as tools for data collection from farmers and traders to obtain background information on characteristics of the respondents. Direct

observations were also employed to evaluate the production process and marketing activities of the vegetables among the producers and consumers. The information gathered using technique was used to counter check information provided by the respondent.

3.5 Data analysis

Data was sorted and corded; a substantial part of the analysis was based on descriptive statistics such as percentages and mean. These statistics were used to assess respondent's characteristics and identify the challenges affect the marketing of vegetables. The MS excel software was used to analyse most of the descriptive statistics.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 General characteristics of the respondents

4.1.1 Distribution of vegetable producers in the northern corridor

Sample size was distributed as follows 30% for Arusha region, Kilimanjaro region 30% and Lushoto district were 40%, (Table 3 below). This indicates that Lushoto district comprised larger share of respondent in the study sample due to its potentiality in producing vegetables. Lushoto compared to other two regions Kilimanjaro and Arusha have many varieties of vegetables produced and in high volumes that makes the area to be more significant than the two regions.

Table 4: Distribution of farmers among the northern corridor

Region	All Producers	
	N =50	%
Arusha	15	30
Moshi	15	30
Lushoto	20	40

Source; Data survey 2007

4.1.2 Location of the farmers

In Table 4 below, show that 74% of producers are from rural areas, and (26%) from urban areas. This shows that majority of smallholder farmers are living in rural areas where there is availability of land for production of vegetables. Most smallholder farmers engaged themselves in agricultural activities in rural areas which is the backbone economy of the country. However people living in urban can also involve themselves in vegetable production through intensive farming due to scarcity of the land and high cost of hiring the land.

Table 5: locations of the farmers

Location	All Producers	
	N =50	%
Urban	13	26
Rural	37	74

Source; data survey 2007

4.1.3 Age distribution for the respondent

According to Table 6, average age of the producers is 38 years old, with 56% being between the ages of 26 and 50 years. The age of an individual has an influence on the willingness to participate in certain activities. There is an argument that when an individual grows older, he finds difficulty to engage in certain economic activities that are uncertain. Kashuliza (1993) suggests that an older person is able to take the risk due to experience and security in terms of capital. The youngest respondent in this study was 18 years old while the oldest was 67 years old. The age distribution revealed that there is little involvement of a young people in vegetable production

Table 6: Ages of the respondents

Age	All producers	
	N=50	%
Ages <25	7	14
Ages 26-50	28	56
Ages 50+	12	24
Not Mentioned	3	6

Source; Data survey 2007

4.1.4 Education levels of producers

The study reveals that, the majority of producers about (70%) have primary level education and 20% secondary education. Less than 5% have high school or college level

education. (Table 7). This indicates that most producers have basic education and very few have professional education. The results indicate that most vegetables growers are knowledgeable and therefore can implement new innovation easily in order to improve the vegetable production in those particular areas. However, the trading of vegetables is predominantly owned and operated by low educated entrepreneurs who are not equipped professionally to face the challenges related to marketing of vegetables.

Table 7: Education level of the respondents

	All producers	
Highest level of school completed	**N=50**	**%**
Primary	35	70
Secondary	10	20
High school	1	2
College/University	2	4
Not mentioned	2	4

Source; Data survey 2007

4.1.5 Producers experience in vegetable production and selling

Many vegetables producers (40%) have been producing and selling vegetables for 5 years or less of the total population sample, (Table 8) of the total population. This indicates that many farmers who are engaged in vegetable production in less than five years because vegetable production has recently increased in importance as well as demand and has become a commercial product compared to previously years. 20% of the respondents have less than 2 years and over 6 years of vegetable production experience respectively. These results suggest that producers have little experience in vegetable trading and are therefore not well positioned to face the challenges related to marketing of vegetables products.

Table 8: Experiences in vegetables production and selling

Years producing and selling vegetables.	All producers	
	N=50	%
0-2 years	10	20
2-5 years	20	40
6-10 years	10	20
11-15 years	4	8
16 - 20 years	1	2
21-25 years	3	6
>25 years	2	4

Source; Data survey 2007

4.1.6 Distance travelled by producers to access trading centres

Trading centres are located far from producers' locations. Table 9 shows that 40% of producers travel more than 6 km to reach trading centres 30% less than 3 km. This indicates that sometimes producers need to travel long distance with their produces in order to sell them. Distance from trading centres also increases costs to farmers by hiring transport in order to reach the market early and in order to avoid post-harvest loss which requires good management of perishable produces like vegetables.

Table 9: Distances to nearest trading center

Distance to nearest trading center or town	All producers	
	N=50	%
Less than 3 km	15	30
3 km - 6 km	11	22
Above 6 km	20	40
Not mentioned	4	8

Source; Data survey 2007

4.1.7 Decision making on vegetable production

Male and female participate in make decision making on vegetable production. However, the results in Table 10 indicate that male have more power on decision making by 64%

compared to 32% of females. The over representation of males could be accounted by the fact that most males are household heads. It is common practice that heads of households are powerful and the main planners for their households. It is also uncommon for women to own production resources like land and capital as elaborated by Cagatay *et al.* (1995) who argue that women have limited access to the means of production such as land and support services such as credit.

Table 10: Decision makers on vegetable related farming issues

	All Producers	
Gender of decision-maker	N =50	%
Male	34	64
Female	16	32

Source; Data Survey 2007

Table 11: Marketing channels

Channels	N=50	%
Channel 1	13	26
Channel 2	25	50
Channel 3	8	16
Channel 4	4	8

Source; Data survey 2007

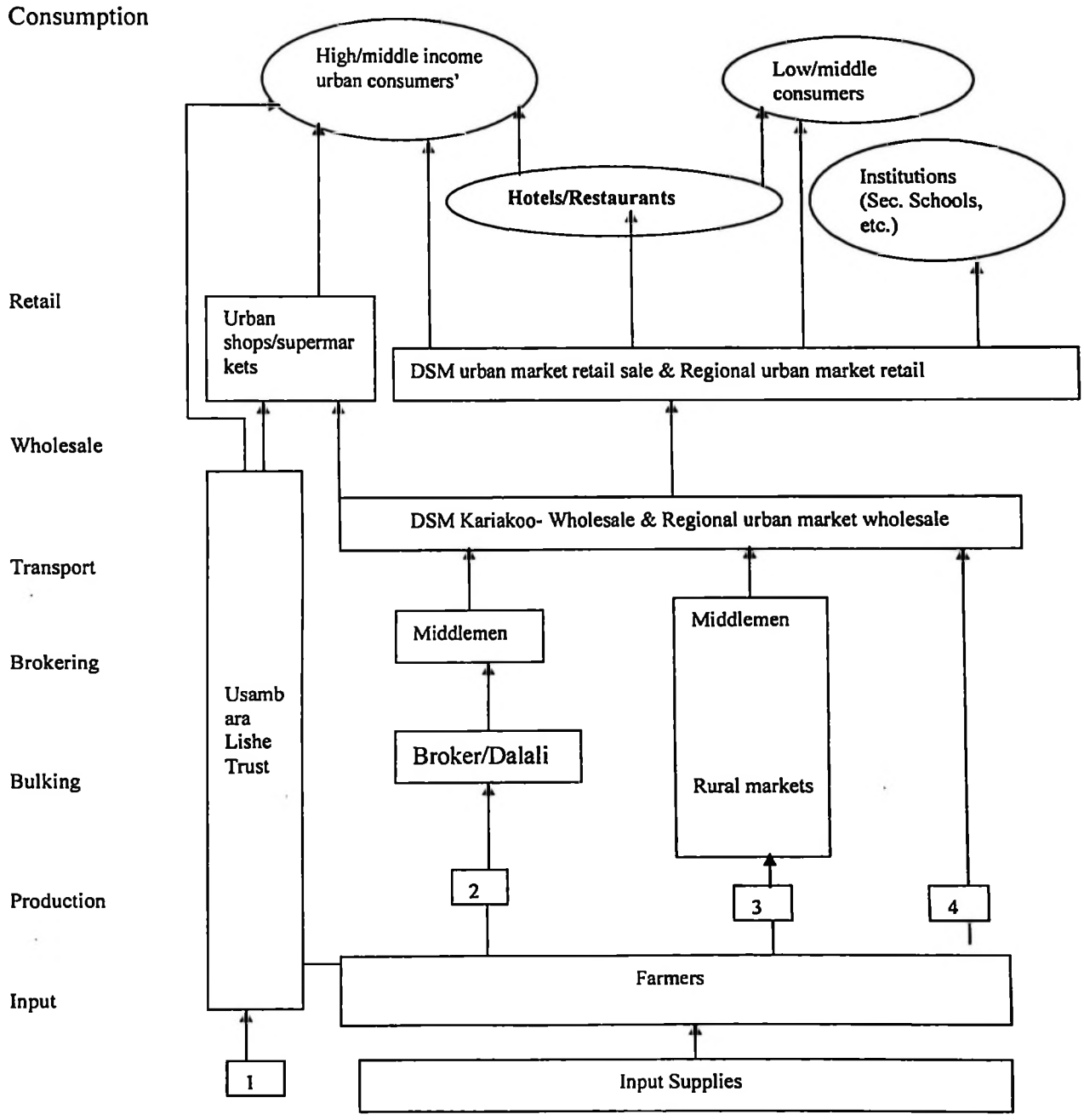
4.2 Marketing channels

There are four main marketing channels (Table 10) used by smallholder farmers in the Northern corridor of Tanzania to market their produces. The first one is ULT who sell their produce to different urban shops and hotels, ships and in flights catering. Brokers within the local areas provide another channel through which farmers sell their vegetable produce. These brokers sell their vegetable commodities to middlemen in the kariakoo market and hotels in urban areas. The third channel involves farmers sell in rural markets

and from there middlemen will buy and sell to other middlemen in Kariakoo, Moshi or Arusha markets, who in turn sell to low/medium consumers, hotels and institutions. The last channel is where the farmers sell directly to urban markets like Kariakoo.

The respondents who sold their produce through ULT were 26%, those who sell to channel two were 50%, 16% sell through channel three and finally 4% sell directly to urban markets such as Kariakoo, Moshi and Arusha. The results show that the majority of the producers' sell their produce through channel two where the brokers and middlemen are involved. This channel seems to be good to farmers but it involves many intermediaries who always benefit from the farmers' products leading farmers to get less compared to the latter.

2.3 Different market channels for vegetables



Source: Survey data 2007.

Figure 3: Market channels for vegetables

2.3.1 Channel 1. Usambara Lishe Trust

Usambara Lishe Trust (ULT) is one of the farmers' organisations in Lushoto.

Objective of ULT is to link farmers to the market. ULT has been founded in 1997 as a trial by SECAP. SECAP was a programme funded by GTZ with the aim to improve soil conservation and reforestation in the Usambara. After establishing terraces and other protected fields on slopes, marketing of the extra produce (especially horticulture) became an issue. In the beginning SECAP and NEVEPA (another GTZ funded programme) financed the building of stores and buying centres, which are still functioning up to now. There are four groups of roughly 50 farmers who sell to ULT.

ULT has certain specific outlets for their vegetables: Movenpick Hotel in DSM, Saverio Pizzeria, vegetable shops on the DSM Peninsula (upper end market), Dar Es Salaam Corridor Group, which supplies the ships in the DSM harbour, Flight Catering (which is in the sub-sector map taken under hotels/restaurants). Orders are taken by phone, collected from farmers, transports hired and produce delivered twice a week at night at the doorstep of the client

2.3.2 Channel 2-via Brokers/dalali and middlemen

The characteristic of this channel is that there is a farm level transaction of the produce and that there is a broker in-between the farmer and the buyer. Producers can sell at farm gate price or at the sport markets whereby brokers bulking it and re sell to the trades who will transport it to the urban markets such as Kariakoo, Moshi and Arusha as a wholesale, finally the middlemen sell the produces according to the demand of markets. This channel is characterized by a middleman/broker who has a links with a group of farmers to the wholesale urban market or shops (not yet supermarket). There are no formal contracts but

there is an informal bond. The Middlemen buy from farmers at farm level or at a collection point (not an open market) and transport to the urban market.

2.3.3 Channel 3 – via rural wholesale market places

This channel is characterised by product exchange in a wholesale market place. Farmers take their produces to a rural wholesale market, where buyers come to buy. Buyers select, buy, and transport. In some cases there are middlemen in between. Farmers can buy from their neighbour farmers and take it to the market. Examples of these markets are Kwasadala (Hai Distrcit), Sanya Juu (Siha District).

2.3.4 Channel 4: Farmers take own produce to Kariakoo

Only larger scale farmers can do this, or those that are able to buy from neighbour farmers. This does not happen often. Obviously, this system is what a farmer's organisation could do.

4.3 Dynamics of vegetable marketing in the Tanzanian markets

There are many dynamics in marketing of the vegetables in the Northern corridor of Tanzania but few of them will be discussed below;

i. **Perishability**

Fruits and vegetables like most of the agricultural products are bulkier and perishable. These two characteristics greatly affect their marketing in addition to their physical handling and processing. Perishability of the product directly governs the marketing system of that product. However what matters most is the rate of deterioration. Fresh vegetables must move into consumption very promptly if their value is to be maintained because they deteriorate faster than other products particularly in hot and humid climates

.in Lushoto farmers take vegetables to the collection centers early in the morning or evening ready for parking before they deteriorate, while in Kilimanjaro and Arusha farmers sell their produces very early in the morning at rural whole sale markets or regional markets.

ii. Price fluctuations

Big and erratic fluctuation in vegetable prices is the rule not the exception since prices depend on quantity available in the market at the particular time and the quantity available on the other hand is governed by factors largely beyond the control of the farmer example weather and diseases.

The prices of perishable crops like vegetables and fruits is expected to fluctuate seasonally more than the prices of the more durable crops. Prices are high during the month of December and May where there is too much rain for vegetables growth and is planting season for other vegetables. On the other hand, the price is low in the month of June and November when the market is flooded with practically every type of vegetables.

iii. Transportation

The transport problem is largely responsible for the slow rate of increase in marketing efficiency and for the continuance of small production yields in Northern corridor of Tanzania in particular and Tanzania in general. High transport costs inhibit farmers from hiring tracks which cost about Tsh 650,000 for Dar es salaam markets. Because of inadequate cooling transport facilities much of the vegetables bought by the traders had be wasted. In order to avoid these high price differences, most producers have resorted to direct selling of their crops by auction or as a retailer.

iv. Seasonality

Supply of fruits and vegetables vary not only between years and months but also within the month. In additional to annual variations of vegetable supply, there are the seasonal variations. In fact most of agricultural production is highly seasonal. In Lushoto for example, tomato producers get high price between December and April where there is high production compared to other tomatoes producing areas.

4.4 Linkages between the smallholder farmers and markets

The private sector collaborations, together with other donor programs such as the SME Competitiveness Facility (SCF) play key roles in linking small farmers into the high value horticulture markets, provide training, inputs and dependable access to support infrastructures. Most importantly, they will provide farmers with exposure to international standards, increase their commercial awareness, improving farmers' and the sector's ability to be competitive over the long term.

FAIDA MaLi (FAIDA Market Link Company) has a mission of empowering rural households in the Northern parts of Tanzania through improving their access to markets and building up their economic capacities. The core of its activities is to promote business opportunities in rural areas. FAIDA MaLi plays a facilitating role in setting up of market linkages between traders or exporters on the one hand, and farmers or producers organisation on the other hand with mutual benefits through out grower programmes or contract farming.

4.5 Constrains and opportunities facing vegetables farmers

Table 12: Challenges facing farmers in the northern corridor of the Tanzania

	Lushoto		Kilimanjaro		Arusha	
11.1 Problems	**N=20**	**%**	**N=15**	**%**	**N=15**	**%**
Lack of markets of their produce						
Yes	15	75	13	86.67	14	93.33
No	5	25	2	13.33	1	6.67
High transportation costs						
Yes	13	65	11	73.33	12	80
No	7	35	4	26.67	3	20
High price of inputs						
Yes	17	85	14	93.33	13	86.67
No	3	15	1	6.67	2	13.33
High post harvest loss						
Yes	15	75	10	66.67	10	66.67
No	5	25	5	33.33	5	33.33
No support from extension officer						
Yes	4	20	8	53.33	10	66.67
No	16	80	7	46.67	5	33.33
Lack of farmers organisation						
Yes	16	80	10	66.67	12	80
No	4	20	5	33.33	3	20
Lack of storage facilities						
Yes	10	50	14	93.33	11	73.33
No	10	50	1	6.67	4	26.67
11.2 Opportunities						
Get subsidized inputs from the government						
Yes	12	60	12	80	13	86.67
No	8	40	3	20	2	13.33
Get resistance varieties						
Yes	19	95	13	86.67	11	73.33
No	1	5	2	13.33	4	26.67

Source; Data survey 2007.

4.5.1 Problems facing vegetables producers in Lushoto, Kilimanjaro and Arusha

Table 12 shows that about 85% of smallholder farmer reported high price of inputs, 80% lack farmers' organization, and 75% lack markets for their produces as well as high postharvest loss respectively, and 65% of the respondents complaining about high transportation cost. This shows that the most significant problems facing vegetables growers and traders in lushoto is high price of inputs. In Kilimanjaro, the main problems were, high price of inputs 93.3%, lack of markets for their produces 86.7% and lack of storage facilities 93.3% while in Arusha lack of markets of their produces was reported by 93.3%, high price of inputs by 86.7%, lack of farmers' organization by 80% and high

transport costs by 80% of the respondents. This shows differences in the problems faced by vegetable grow in Lushoto, Kilimanjaro and Arusha. In Lushoto for example the high price of inputs and lack of farmers' organization were main problems. Lack of markets for produce was reported to be the major problems in Kilimanjaro. Lack of markets for their produces, high costs of transports and inputs and lack of farmers' organization constrained the performance of vegetable marketing in Arusha. These findings suggest that the problems affecting marketing of vegetables in the study areas were location specific. The study also found that unreliable market, low price for the produce, the trend of private traders to violate laws and regulations governing licensing and participations in vegetables trade and poor transport to selling point were found to be causes leading to the creation of an inefficient market system. A study conducted by the commonwealth secretarial (1997) indicated that between 40% and 80% of an estimated production of 2.75millions tons of fruits and vegetables produced in the country are lost as post-harvest handling techniques such as processing and preservation facilities. Specifically the study done by Mathooko *et al* (2000) found that post-harvest losses of fruits and vegetables in Dar es salaam, Chalize, Morogoro and Dodoma markets are quite high and vary between 5% and 80%.

4.5.2 Opportunities of the vegetables producers in Lushoto, Kilimanjaro and Arusha

Table 12 indicates that farmers have opportunities of getting subsidized inputs from the government 60% reported by respondents and 95% of the respondents indicates that non availability of resistance varieties of different vegetables in Lushoto. In Kilimanjaro,80% of the respondents suggested that the government should subsidize inputs, supply resistance vegetable varieties was mentioned by 86.7% and 73.3%, the respondents from Arusha voiced the same suggestion. The results also show that many smallholder farmers in the Northern corridor of Tanzania would be able to produce quality and quantity

vegetables once being supported by the government or any other stakeholders gave them supporting and supplied resistance seed varieties and subsidized inputs like fertilizers, which was very expensive and sometimes not available in time.

CHAPTER FIVE

5.0 CONCLUTION AND RECOMMENDATIONS

5.1 Conclusion

The study conducted to the northern corridor of Tanzania (Lushoto, Kilimanjaro and Arusha) about challenges facing smallholder farmers in marketing of vegetables was successfully conducted and the respondents characteristics results shows that a larger number of farmers in the sample are from Lushoto due to its potentiality in producing vegetables, that makes the area to be more significant than the two regions: Kilimanjaro and Arusha. Majority of the farmers are living in rural areas where there is availability of land for production of vegetables, sometimes producers need to travel long distance with their produces in order to sell them. Data shows that many farmers who are engaged in vegetable production in less than five years because vegetables production has recently increased in importance as well as demand and has become a commercial product compared to previously years. Majority of the farmers sell their produce through channel two whereby brokers and middlemen are involved. Farmers in the Northern corridor are linking to other institutions through FAIDA Mali and SCF.

The main problems facing farmers' vegetable crop market in the Northern corridor of Tanzania resulted in the study were location specific, such as in Lushoto, high price of inputs and lack of farmers' organization were identified. Lack of market for their produce was reported to be the major problem in Kilimanjaro. Lack of market for their produces, high costs of transport and inputs and lack of farmers' organization constrained the performance of vegetables marketing in Arusha. The results also show that many smallholder farmers in the Northern corridor of Tanzania would be able to produce quality and quantity vegetables once being supported by the government or any other stakeholders

gave them supporting and supplied resistance seed varieties and subsidized inputs like fertilizers, which was very expensive and sometimes not available in time. Increased production of vegetables, especially domestic as well as export demand, the following should be considered, efficient handling grading and sorting, adequate transportation facilities, improving the vegetable marketing and export system.

5.2 Recommendations

i. It is proposed that the centralized market information system be decentralized to reach the target people in the rural areas. The ministry concerned should go down to regional and district levels (decentralized). Similarly the responsible extension agent should establish market information systems seasonally at regional or district and/or ward levels.

ii. The plan to improve the condition of rural infrastructure (roads) to be passable all year round is yet to be implemented. Government should provide support in strengthening farmers initiated infrastructure.

iii. Small farmers should be organized into informal groups for efficient disposal of vegetables from remote producing areas to the big consuming/upmarket by the assistance from government authorities. Close co-operation among farmers in decision making on vegetables market issues is very important among the farmers themselves.

iv. Linkage between growers and traders of vegetables should be established through the NGOs and private sector dealing with linkage, and also contract growing of

vegetables should be encouraged to ensure regular supply of good quality vegetables throughout the year.

v. Marketing credit facilities should be provided to make the private market participants more efficient, with a view to bringing about an overall improvement in the marketing system in the country. Farmers should join credits and loan societies /organisation such as saving and Credits Cooperative Society (SACCOS) in order to strengthen capital through local credits rather than relying on aids.

vi. Quick transportation facilities, refrigerated trucks and storage facilities should be available and being introduced for carrying highly perishable vegetables by stakeholders in vegetable businesses. T o cope with the seasonal surplus situation, storage facilities have to be developed and export prospects of processed vegetables explored.

vii. Introduce farmer-marketing education by extension officer around that area including training to improve product quality, packaging and level of service offered to buyers.

viii. Build farmers' capacity to produce, and develop and strengthen farmers associations through the provision of technical assistance for capacity building.

ix. Improve support services to agricultural sector, in particular in the area of research and extension services, with a view to responding to market demands.

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APPENDIX

QUESTIONNAIRES

A: GENERAL CHARACTERISTICS OF THE RESPONDENTS

Circle the correct answer.

1. Distribution of producers between the Arusha, Kilimanjaro and lushoto.
   a) Arusha.....
   b) Kilimanjaro.....
   c) Lushoto.....
2. Where is the location of the producers?
   a) Rural
   b) Urban
3. What is the age of the respondents?
   a) Less than 25 years
   b) Between 26-50 years
   c) Above 50 years
   d) Not mentioned
4. What is the education level of the respondents?
   a) Primary
   b) Secondary
   c) High school
   d) College/university
   e) Not mentioned
5. What is the experience in producing and selling vegetables?
   a) 0-2 years,
   b) 2-5 years,
   c) 6-10 years,
   d) 11-15 years,
   e) 16-20 years,
   f) 21-25 years,
   g) More than 25 years.
6. How long (distance) it takes to reach the nearest trading center or town
   a) Less than 3km
   b) 3km-6km

c) Above 6km

d) Not mentioned

7. Who is involved in decision making on vegetables related farming issues among the producers?

a) Male

b) Female.

8. Which marketing channels used by vegetables producers in the northern corridor of Tanzania.

a) Channel 1

b) Channel 2

c) Channel 3

d) Channel 4

B. CONSTRAINS AND OPPORTUNITIES FACING VEGETABLES FARMERS.

9. 1.What Constrains do farmers face

a) Lack of markets of their produce yes/no.

b) High transportation costs yes/no.

c) High price of inputs yes /no.

d) High post harvest loss yes /no.

e) No support from extension officer yes /no

f) Lack of farmers' organization yes /no.

g) Lack of storage facilities yes/no.

9.2 Opportunities.

a) Get subsidized inputs from the government yes /no

b) Get resistance varieties yes /no

THANK YOU FOR YOUR COOPERATION!