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**THE MARKETS FOR ORANGES
IN
MOMBASA AND NAIROBI**

By:

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For:



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PREFACE

The DAI PESA project works with critical masses of producers of specific agricultural commodities in Tanga, Morogoro, Iringa, Mbeya, Ruvuma, and Rukwa. These are generally defined by districts. The commodities are citrus (two locations), onions, veggies, paddy (3 locations), sugarcane, paprika (3 locations), sunflower and beans.

The project works in an “integrated subsector development approach,” which means that we provide technical capacity-building assistance and links where needed, be it in institutional development (associations), policy advocacy, business training, farming and post-harvest training, access to finance, market information, or marketing. We do not fund nor do we implement; we provide guidance and access only, so that farmers may develop their own capacity and grow sustainably.

In the places where we support agricultural producers, we also encourage district-level formation of all socioeconomic stakeholders, such as GOT, producer and trade associations, processors, transporters, and fellow development projects and institutions. In this way, wide impact may be encouraged by collaboration of the involved parties.

One of the first critical mass farming areas that DAI PESA became involved with was oranges in Muheza, starting in May 2003. One of the many constraints to development of the citrus sector is the lack of knowledge of market and market dynamics. Therefore, with farmers being paid so poorly for their produce, they have no means nor motivation to upgrade their trees and cultivation methods to meet market demand for superior fruits.

This study was carried out in two parts, first in September 2003 and then in June 2004. This gives us two views, the first when Tanzanian citrus was no longer being supplied, and the second when it was still being shipped to Kenyan markets.

The overriding purpose of this study is to give Tanzania citrus producer groups a grasp of the value of the Kenya market for oranges and tangerines, and the market channels and pricing dynamics at work. By knowing the profit margins and where they are taken, the orange producer may know better what prices to bargain to. The whole assistance and capacity-building approach of DAI PESA towards orange producers in Muheza (Tanga) and Matombo (Morogoro) is designed to enable them to knowledgably interact with their markets, so that they will know the varieties of citrus to grow, and will be able to maximize their own income.

DAI PESA Project
Dar es Salaam
August 17, 2004

Part Two

Market Survey Part Two



Markets for Oranges in Nairobi and Mombasa

June 2004

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Acronyms

Nbi	Nairobi
Msa	Mombasa
KShs	Kenyan Shillings
TShs	Tanzanian Shillings
SA Rand	South African Rand
HCDA	Horticultural Crops Development Authority
MOA	Ministry of Agriculture
TARDA	Tana Athi River Development Authority
Ha	Hectare
Pdn	Production
Sms	Short Message Service

Scope of Work

- A survey of the citrus products in the major cities of Nairobi and Mombasa.
 - An account of the different varieties of oranges in the market.
- Establishment of the market players in the Nairobi and Mombasa citrus market.
- Determining the dynamics in the Nairobi and Mombasa citrus sector.
- Determining the Channels of distribution and the related transaction points and costs within which the citrus fruit market operates in Kenya.
- Presentation of a detailed report on the citrus market disaggregated by type, highlighting product of Tanzanian origin and its comparative volume and price. Relating the price to the seasonal supply.
- Identify the opportunities and constraints faced by Tanzanian citrus suppliers, ranking these opportunities and constraints and providing pointers to the potential impact of addressing these constraints and/or opportunities.
- Presentation of a detailed report of that represents the Nairobi and Mombasa market demands in volume, price, distribution channels and other indicated factors over the course of 12 months. The report should provide tax and transport information as well as names and contacts of major factors in the markets, their market shares and the like.

Executive Summary

In the past, Kenya was self sufficient in citrus fruits. There was even enough to create a small export market. In 1991 the debilitating green disease appeared in Kenya attacking oranges among other crops. Since then, Kenya has been supplementing its local citrus production with imports from other countries mainly Tanzania, South Africa and Egypt.

It also looks at the import factor in this market and particularly imports from Tanzania, including their participation in the Kenyan market and how what price dynamics are.

Citrus fruits are grown in almost every province in Kenya as follows:

Province	District / Division
Coast Province	Mombasa, Voi
Eastern Province	Machakos, Kitui, Embu, Meru
Rift Valley Province	Eldoret, Kitale
Central Province	Nyeri, Muranga
Western Province	Busia, Siaya, Kakamega, Bungoma
Nyanza Province	Kisumu
North Eastern Province	Garissa

The most common varieties of oranges found in the Kenyan market are:

- From Kenya - Washington Navel, Valencia, Voi Minneola and Voi Pixie
- From Tanzania - Washington Navel
- From South Africa - Outspan and Valencia
- From Egypt - Egyptian Orange

The main market players are:

- The traditional Kenyan farmers
- The modernized Kenyan farmers
- The importers of Tanzanian, South African and Egyptian citrus
- The collecting traders
- The transporters
- The brokers
- The wholesalers
- The retailers

As per 2002 data, Kenya produced 116,336 Metric Tons of oranges and imported 39,171.6 Metric Tons of oranges from Tanzania. It exported only 2,879 Metric Tons of oranges in the same year.

Findings

- The research establishes that Tanzanian citrus has a heavy presence in the Kenyan market and has several unique opportunities over other countries that export citrus to Kenya e.g. South Africa and Egypt.
- In some cases Tanzanian oranges keep their identity up to the wholesale market. Thereafter, citrus retailers mix them with Kenyan oranges thus making them lose their identity.
- Kenyan consumers have a high regard for Tanzanian oranges. Our interviews with Kenyan consumers suggest that they find the taste of Tanzanian oranges sweeter than the traditional Kenyan oranges.
- Branded oranges also appear to taste better than the traditional Kenyan oranges.
- Brokers and middlemen take advantage of Tanzanian farmer's lack of information about prevailing market prices and tend to buy the oranges for as little as possible.
- There is no special effort from any known source that is actually marketing Tanzanian citrus produce or making Kenyans in general, aware of their presence in the country.
- Transport costs for bringing Tanzanian oranges into Kenya are very high.
- Tanzanian drivers who transport oranges into Kenya have complained about poor inland road condition in some of the collecting farm areas. This has sometimes resulted in long delays.

Recommendations

1. **Branding**

If Tanzanian orange producers were to brand their oranges according to a specific quality or grade, this would give them a more competitive edge in the market. Kenyan consumers in the major urban areas of Nairobi and Mombasa tend to identify with quality products, and are prepared to pay more for them.

2. **Marketing**

Apart from the seller mentioning at the point of sale that the specific oranges he is selling originate from Tanzania, there is no other way of knowing this. It is therefore recommended that the relevant parties concerned in Tanzania, take advantage of the vast Kenyan advertising media to promote their oranges and create a mass awareness of their presence and quality.

3. **Identity**

One way to ensure that the true identity of the Tanzanian oranges is retained to the very end is to introduce brand names. This will allow the oranges to fetch a good price in the market, especially at the time when the Kenyan oranges are out of season.

4. **High transport costs**

The relevant body in Tanzania (e.g. Tanzania Farmers Association) should dispatch a special delegation to the Government of Tanzania to discuss the cost of transport and how it affects farmers, with a view to getting a price reduction in fuel prices.

5. **Poor inland road conditions**

This is a common phenomenon throughout East African region. Whereas the Tanzanian government cannot be expected to tarmac every village road in the country, it would assist the farmers tremendously if the roads were at least made to cater for all weather even if not tarmac-ked.

6. **Lack of proper storage facilities**

Traders in Tanzanian oranges should invest in some kind of cold storage facilities where they could hold their goods in Kenya temporarily while waiting for better prices.

Introduction

Background Information

While Kenya once was self-sufficient in oranges, the greening disease caught a largely informal and still traditional sector off-guard. The traditional citrus farmers in their pre-colonial citrus growing areas, who enjoyed little if any support from the government, found themselves unable to bring the disease under control. This, coupled with drought led the poor farmers to concentrate on other subsistence crops for their daily home consumption.

As a result of this, the sector quickly deteriorated and to date, it has yet to recover. Farmers, who traditionally grew the Washington Navel variety of oranges, introduced by the colonials, shifted to other subsistence crops for day-to-day living.

Today, Kenya relies on imports of oranges from other countries to satisfy local demand. The Nairobi and Mombasa markets have oranges of different varieties and from different sources. They supplement the shortfall in supply of oranges suffered by Kenya ever since the onset of the “greening disease” which dealt a major blow to the citrus sector.

In August 2003, a 4-day citrus market survey was conducted in Nairobi and Mombasa on behalf of DAI PESA. The study dealt with the different varieties of citrus (especially oranges), their seasonality, the fruit market players, the dynamics in the sector, and the channels of distribution. The study was also meant to look at the citrus products of Tanzanian origin, their comparative volumes and supply and constraints and opportunities identified for Tanzanian suppliers.

Unfortunately, at the time the study was done Tanzanian oranges were either too few or not available in the market.

This study is a continuation of one started in September 2003. It sets out to highlight produce of Tanzanian origin, analyzing their comparative volumes and prices and relating this to seasonal supply. It also shows the latest data available from Kenya’s ministry of Agriculture. Most topics contained in the scope of work had already been covered in the first study. Such topics like variety, seasons and channels of distribution will not change. They are therefore only motioned briefly.

Research Methodology

The research method employed during this study was personal interviews with the main players, Questionnaires as well as historical data from the relevant Kenya Government authorities.

Historical data from the ministry of Agriculture and the Horticultural Crops Development Authority is used in this study and comparative analysis is applied to establish the correlation between seasonality and price over a 12-month period. It is observed that price increases when the local oranges are not in season leading to a drop in supply of citrus.

Climatic and weather conditions such as high temperatures also cause a sharp increase in demand for citrus leading to an increase in price.

Constraints and opportunities faced by Tanzanian citrus suppliers are also listed as well as the impact of addressing those constraints.

Limitations of Study

Citrus is considered very lowly in comparison to other horticultural crops such as flowers, avocados, and French peas etc which earn Kenya substantial amounts of foreign exchange from exports. Hence, data on oranges was difficult to come by and not much government research data is available on citrus.

Data on the quantity of citrus imported into Kenya from Tanzania was not readily available because the Kenya Revenue Authority, which collects tax from Tanzanian citrus traders/transporters coming into Kenya do not keep accurate records on volumes of citrus imported. They are merely concerned with collection of revenue and hence data on this was not available.

Lack of ready information on the price differences of citrus from one area to another in the different months of the year e.g. Mombasa and Nairobi made the analysis of the sub-sector more complex and costly as this data had to be gathered weekly from visiting the markets and making observations.

The citrus market is informal and its affairs are not conducted in a professional and institutionalized way. Records are poorly kept and there is little if any monitoring of the sector. All transactions are conducted on cash on the spot basis.

There is a cartel, which controls this business sector. Its members would do anything to protect it from any intruders or prying eyes. Obtaining information pertaining to this trade from its members is therefore very difficult. Many of them viewed the interviewer with suspicion as either an under-cover agent from the Kenya Revenue Authority or a businessman wanting to find his way into the cartel.

Varieties of Oranges in the Kenyan Market

The various varieties of citrus available in the Kenyan market include:

1. Washington Navel
2. Valencia
3. Voi Minneola.
4. Voi Pixie.
5. Outspan

Sources of Oranges in the Kenyan Market

Tanzania

The Washington Navel variety of oranges coming from Tanzania mainly comes from the region of Tanga. Mwanza also produces oranges but logistical factors and climatic conditions favor Tanga and make it more competitive.

South Africa

The Outspan and Valencia varieties of oranges come from South Africa.

Egypt

The Valencia variety of oranges also is brought in from Egypt.

Kenya

The Washington Navel, Voi Minneola and Voi Pixie are the main varieties of oranges produced in Kenya, though not in substantial quantities. The Washington Navel is grown by farmers and by institutions such as TARDA (Tana Athi River Development Authority). Voi Sisal Estates Ltd produces the Voi Minneola and Pixie.

Orange Varieties	
ORIGIN	VARIETY
Kenya	Washington Navel
	Valencia
	Voi Minneola
	Voi Pixie
Tanzania	Washington Navel
	“Nairobi”
	“Msasa”
South Africa	Outspan
	Valencia
Egypt	Valencia

Seasonality

There are two main citrus seasons in Kenya. These are:

First season from July - September
 Second Season from December – March

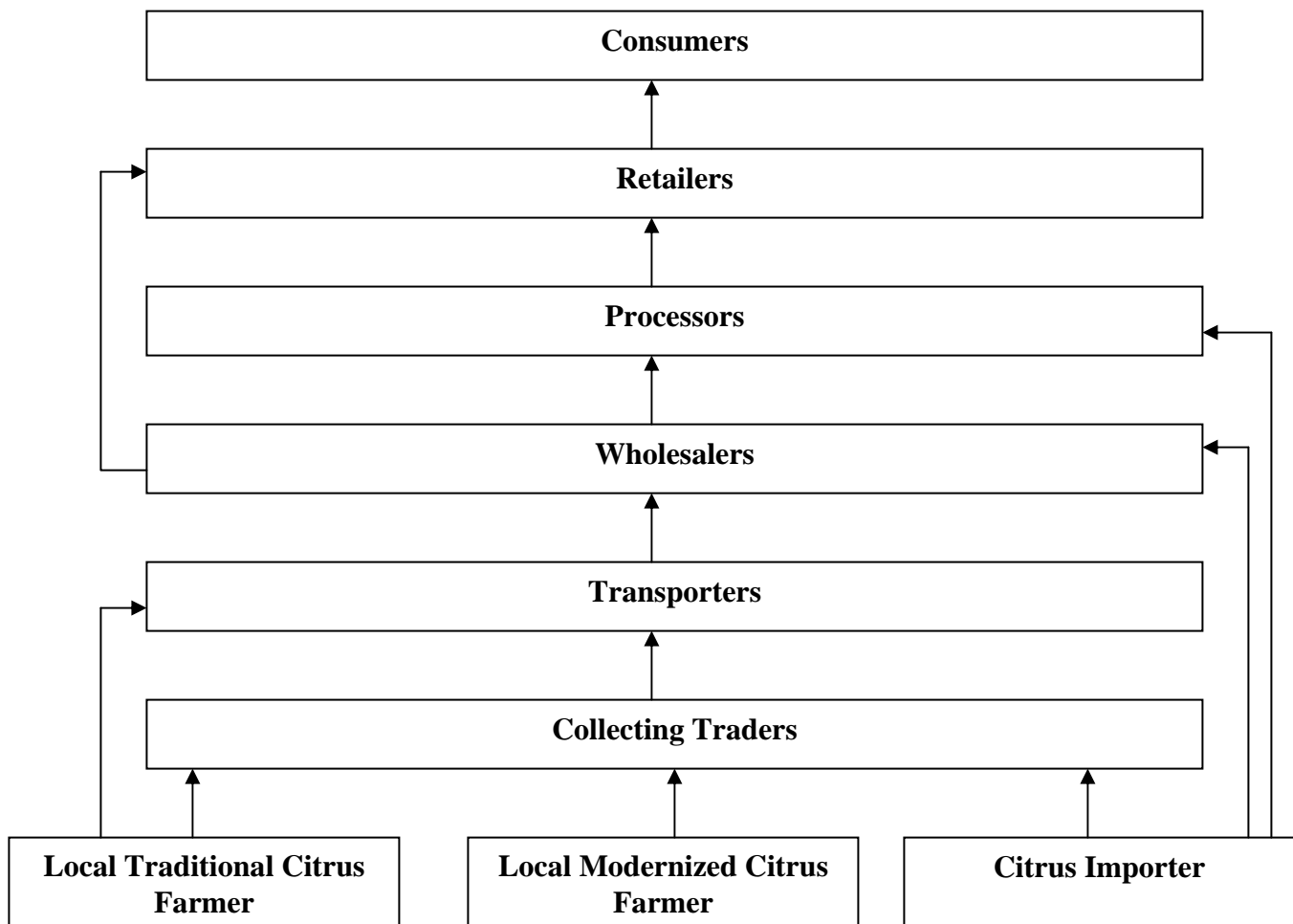
Oranges Varieties												
Oranges	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Washington Navel												
Valencia												
Voi Pixie												
Voi Minneola												
Indigenous Local Oranges												
Imported Oranges												
South African Outspan												
South African Valencia												
Egyptian Oranges												
Tanzania Oranges												

The Fruit Market Players

Nairobi and Mombasa Fruit Market Players

The main market players in the Nairobi and Mombasa citrus fruit market are:

- Local Citrus Farmers
 - Traditional
 - Modernized
- Citrus Importers
- Citrus Collecting Traders
- Citrus Transporters
- Citrus Wholesalers & Retailers
- Citrus Consumers



- **Local Traditional Farmers**

These are farmers who undertake smallholder farming (farming on area less than 3 ha.), are heavily reliant on favorable climatic conditions and adequate rainfall to produce their citrus crop; employ little or no use of advanced farming technologies, machinery and/or fertilizers/pesticides in production; are reliant on manual family labor; produce mainly for subsistence or to generate income with which to buy food and other essential commodities.

The above-described Local citrus farmers in Kenya have for many years (Since colonial times) produced citrus. Their production is in areas whose soils and climate is suited to citrus fruit production, e.g. eastern province where citrus is mainly produced in Machakos district.

- **Local Modernized Citrus Farmers**

These are well organized farmers, co-operatives, research bodies and/or individual farms that grow or produce citrus fruits on a large scale and in an institutionalized / organized manner. They mainly grow oranges fruits for the local market e.g. Voi Sisal Estates, TARDA. Lately, some have indicated an interest in venturing into the export market but are to yet do so.

For those who export their produce, this involves post-harvesting activities such as; sorting and grading of the fruits into various grades, depending on quality, size before consequently exporting their production. It is however worthy to note that the amount of citrus Kenya exports is very small, as will be evidenced by the table below giving annual export volumes of oranges in the last 9 years.

- **Citrus Importers**

Local production of citrus in Kenya is seasonal. Hence, there are instances where there is a shortfall of citrus fruits in Nairobi.

In response to this dilemma, some companies and individuals have specialized in the importation of citrus fruits, mainly oranges and tangerines from other neighboring countries i.e. South Africa, Egypt and Tanzania.

- **Collecting Trader / Broker**

These are traders who act as middlemen mainly between traditional citrus farmers and citrus wholesalers or transporters.

The collecting trader goes to the farms and negotiates with the farmers for the purchase of their crop. After paying the agreed farm gate prices, the collecting trader arranges for the oranges he has purchased to be collected from the respective farms and transported to the wholesale market. He pays the transporter directly. On arrival at the wholesale market, he sells the oranges in bulk.

In some instances, the collecting trader may have orders to deliver a specific quantity of oranges directly to particular wholesalers, at a pre-agreed price. In such cases, he will deliver the oranges directly to his wholesale clients instead of going to the open wholesale market.

- **Transporters**

In the absence of the collecting trader transporting the oranges from the farmers to the wholesale market, the transporter steps in and transports the oranges. However, the transporters are individual truck owners and are seldom organized into any formal setup.

- **Wholesale Brokers**

Brokers take control of the oranges once they arrive in the wholesale markets. They have over the years formed a cartel whereby once a lorry arrives in the market, brokers divide the lorries amongst themselves, sometimes completely oblivious of the transporter or the wholesaler. They completely impede direct sale of the oranges to the wholesalers, as they want to make some money as middlemen.

They set a common price agreed amongst them and the owner of the lorry of oranges. This price is higher than the price at which the collecting trader/transporter has determined to sell the oranges. They sell to the wholesalers and make a markup on the original price. The collecting trader / transporter are paid and brokers take the markup at which they sell the oranges. For example, if a consignment of oranges arrives from the farms or from Tanzania, and the owner of the oranges is selling a bag at KShs. 1,800/-, the brokers take control of the consignment and sell a bag at KShs. 1,900/-. The owner of the consignment is paid KShs. 1,800 per bag and the broker gets KShs. 100/- per bag sold since the bag is sold at KShs. 1,900/-

- **Citrus Wholesaler Markets**

Wholesalers operate in the wholesale markets. A collecting trader, transporter or a broker can play the role of wholesaler.

The wholesalers who buy the oranges pack the oranges in 93kg bags and sell these to retailers.

Wholesalers purchase the oranges directly from brokers in the wholesale markets. In some not so common instances, wholesalers purchase their oranges on order from the collecting agents.

The wholesaler then sells to retailers in 93Kg bags.

- **Citrus Retailers**

These sell their citrus products directly to the consumers. The retailers buy smaller quantities of oranges from wholesalers e.g. between 1-5 bags of oranges.

The retailer then arranges his oranges and sells them one by one mainly for KShs. 5/-. Hawkers in the streets stack four or five oranges and sell these together for KShs. 20/-

- **Citrus Fruit Processors**

These are mostly fruit juice processing factories which buy citrus and process it to make fruit juice. The juice is then sold in retail outlets such as supermarkets and hotels.

The processors either buy oranges from the wholesale markets or arrange to procure it directly from the farmers.

- **Citrus Consumers**

Oranges are in high demand in Kenya especially when it is hot and humid. In rainy months when it is cold, the demand for oranges declines. Nairobi has a population of approximately 3 million people. Mombasa has approximately 1 million people.

Oranges are rich in Vitamin C and are refreshing. People either peel and eat or squeeze them to make fresh juice.

Orange Production Volumes

Kenya has for many years produced citrus. Production is restricted to areas whose soils and climate is suited to citrus fruit production. E.g. Coast province, Eastern Province where citrus is mainly produced in Machakos district.

In Kenya, total acreage of land under citrus cultivation is 15,647 Hectares and of this, 2,640.60 Ha are in the eastern province, with Machakos district growing citrus on 1,973.40 Ha of land.

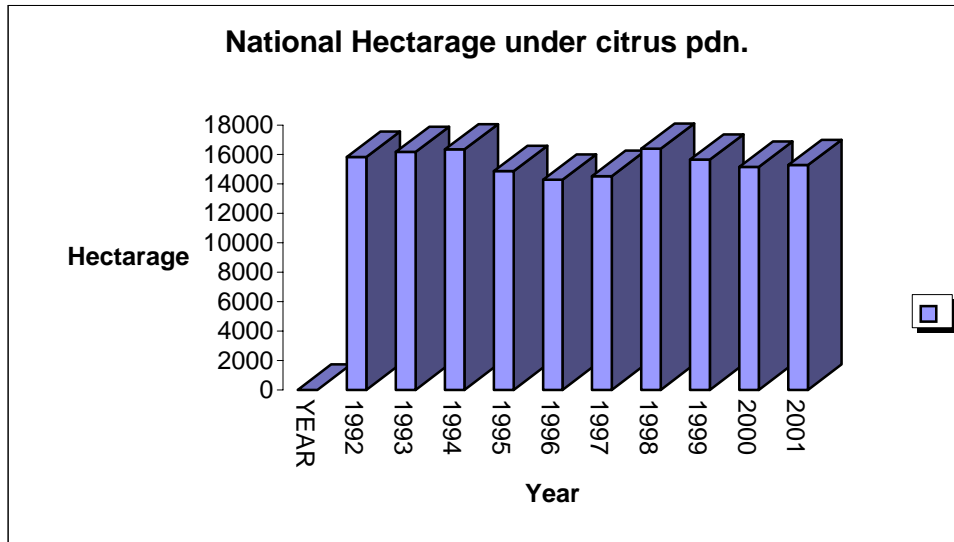
Kenya produces approximately 151,313 Metric Tons of citrus fruits annually. This translates to a yield of 9.79 Tons/Ha under citrus. From this, the Machakos district of the Eastern province accounts for 31,032.6 Metric Tons of citrus produced.

Citrus Production Statistics (1992-2001)

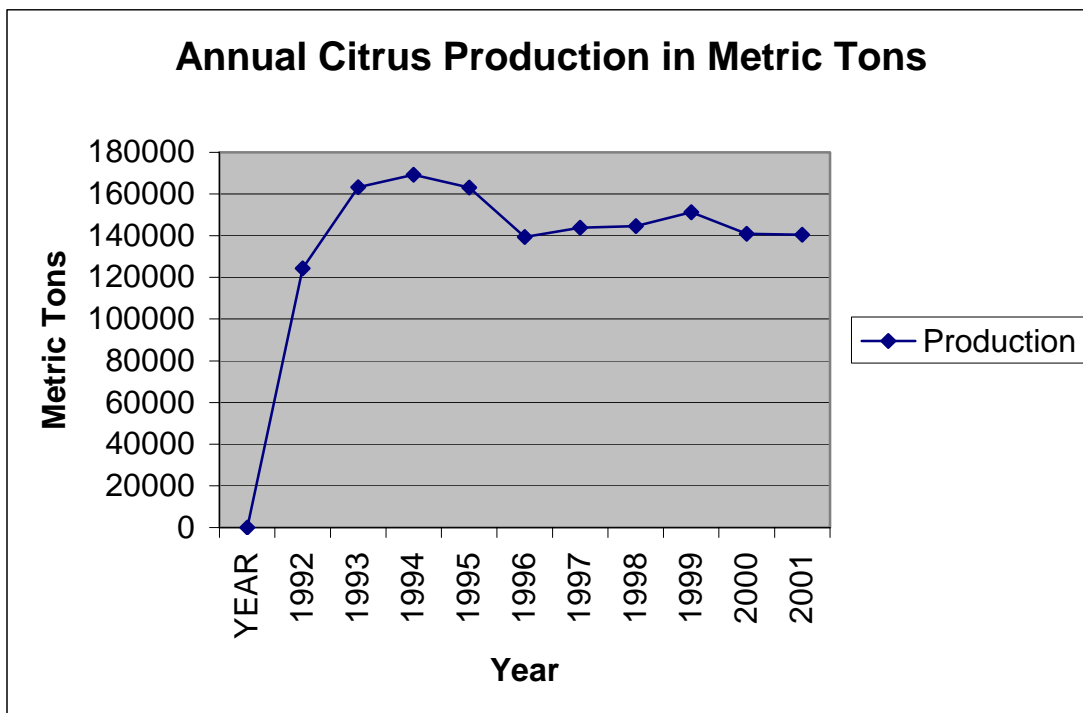
Source: Ministry of Agriculture

Year	Hectarage	Total Hectarage	Production In MT	Total Production
1992	15,830	122,754	124,379	1,704,764
1993	16,166	129,817	163,295	1,758,970
1994	16,339	101,503	169,211	1,448,816
1995	14,865	86,480	163,101	1,285,808
1996	14,270	92,808	139,344	1,393,740
1997	14,524	126,496	143,815	1,708,499
1998	16,381	132,191	144,682	2,130,285
1999	15,640	133,855	151,313	2,148,342
2000	15,161	134,054	140,926	1,051,188
2001	15,275	140,801	140,422	2,210,607

Graph Giving National Hectares under Local Citrus Production



The Annual Citrus Production in Kenya from 1992 - 2001 (In Metric Tons)



Production Table 2001/2002

Province	Hectarage (Ha)		Production (MT)		Value (K£)	
	2001	2002	2001	2002	2001	2002
Coast	9,333	9,044	74,074	51,939	48,830,500	32,847,200
Eastern	2,540	2,586	28,873	28,681	26,558,870	25,460,481
Nyanza	601	627	6,404	7,018	3,830,000	3,870,000
Western	184	196	1,018	849	553,000	461,196
Rift Valley	2,489	2,552	29,072	27,673	16,849,224	11,863,532
Central	128	46	981	176	1,226,000	219,955
Total	15,275	15,051	140,422	116,336	97,847,594	74,722,364

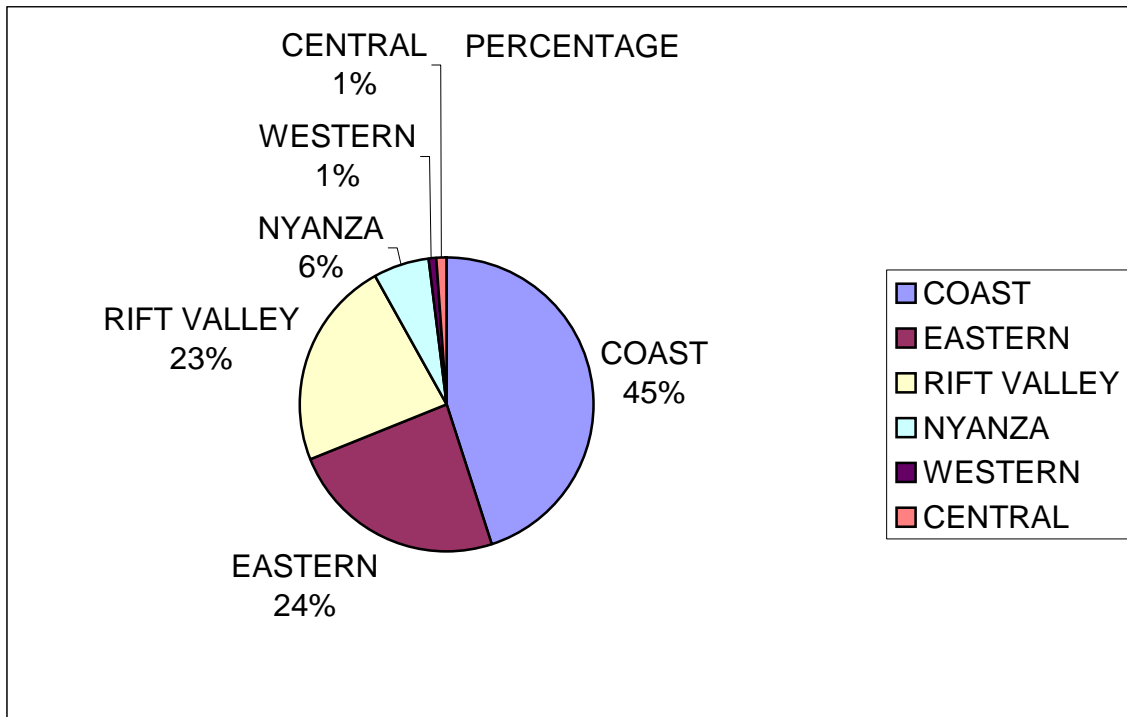
The Pie Chart Below Represents Provincial Production Figures (in Metric Tonnes) of Local Citrus in Year 2002.

Table giving citrus production statistics in 2002

Province	Annual Citrus Production in MT	Total Horticultural Production (in MT)
Coast	51,939	
Eastern	28,681	
Nyanza	7,018	
Western	849	
Rift Valley	27,673	
Central	176	
TOTAL		116,336

- Coast Province - 45%
- Eastern Province - 24%
- Rift Valley Province - 23%
- Nyanza Province - 6%
- Central Province - 1%
- Western Province - 1%

Provincial Citrus Production Statistics in 2002



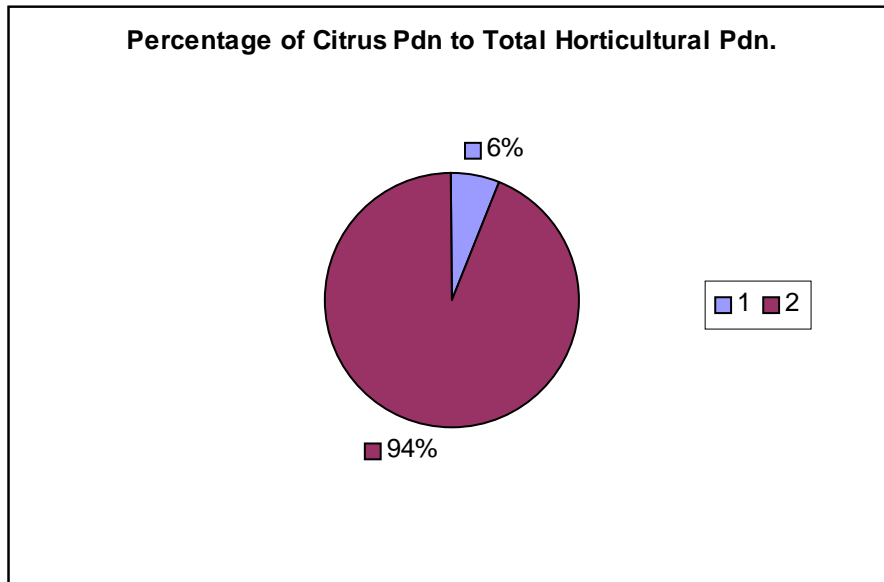
Export Volumes (in Kgs) of Oranges from 1996-2003

Source: HCDA

YEAR	EXPORTS OF ORANGES (IN KGS)
1996	6,814
1997	14,257
1998	2,992
1999	960
2000	38,194
2001	5,816
2002	2,879
2003	32,983

As can be seen from the table above, Kenya's exports of oranges are very small. The Ministry of Agriculture does not consider it an export product as it accounts for less than 1% of Horticulture Exports from Kenya.

The pie chart below shows the percentage of citrus production (6%) compared to Total Horticultural Production. As can be seen from the chart below, citrus production accounts for a very small percentage in comparison to the total horticultural production.



Dynamics in the Sector

Market Dynamics of Nairobi and Mombasa Citrus Fruit Market

There are various factors besides demand and supply that determine the price of citrus fruits in Nairobi & Mombasa Market prices of citrus fluctuated greatly – as per data from the Ministry of Agriculture. It is the market forces (factors) that may have been the cause of these price fluctuations that are the subject of discussion.

The main factors/forces responsible for citrus market dynamics are:

Supply

If the supply of citrus fruits in Nairobi & Mombasa drastically increases such that it outstrips the demand, then, prices decline drastically. This is because citrus fruits are highly perishable and do not have a long shelf life. Traders have to dispose of them quickly before the fruits rot even if this means selling at a price that enables them only to recover their costs / expenses.

Demand

At times e.g. when it becomes very hot and humid in Nairobi (25 to 29 degrees Celsius) or Mombasa demand for citrus fruits drastically increases and immediate supply to meet this upsurge in demand is nowhere to be found. This is because Nairobi or Mombasa residents feel dehydrated and very thirsty and wish to refresh themselves with fruits.

Hence, traders take advantage and drastically increase the prices of citrus fruits as consumers are willing to pay extra to take home some tangerines or oranges.

Season

At times, when local citrus is off-season, supply diminishes to a level where it cannot meet the sustained demand for citrus fruits. If this stock of citrus in supply is not quickly replenished by looking at alternative market sources e.g. imports from neighboring countries or elsewhere, then, prices will slowly fluctuate upwards consequently leading to citrus fruits being more costly on market shelves.

Other market forces may be classified into 2 categories:

1. Endogenous Factors

These are variables within farmer's control. They can cause a variation or fluctuation in prices of citrus fruits in Nairobi & Mombasa Such endogenous factors may include:

State of Transport Infrastructure

Existence of a poor road network increases the cost of transport and hence can affect the supply of oranges hence lead to price fluctuation. Similarly, a good road transport infrastructure makes reduces the transport costs.

Technological Advancements in Citrus Research e.g. Developing New Varieties

Development of new varieties that are more resistant to diseases, are higher yielding and require less rainfall can cause an increase in supply of citrus and also lead to price fluctuations.

Farm Input Costs

Farm input costs like costs of seedlings, fertilizer, water availability, electricity costs (for irrigated costs), and labor costs etc.

AIS

Agricultural Information Services to farmers could lead to better farming practice and consequently the realization of higher farm gate prices for their produce.

Marketing

Marketing of Tanzanian citrus by agricultural based marketing institutions / bodies

2. Exogenous Factors

These are factors – beyond the farmer’s control, that affect the citrus market. They include:

World Crude Oil Prices

An increase in petroleum prices raises the cost of transporting citrus to the market consequently increasing the prices of citrus.

Acts of GOD

Natural calamities like drought, Floods e.g. El Nino floods and locusts attacks of crop fields.

Weather

Sudden changes in weather and climate may affect yields of citrus hence affect their supply in the market.

Temperature

When it is very hot, consumption demand for citrus increases. Similarly, when a cold spell sets in, demand for citrus quickly declines.

Political Instability & Land Clashes

These are factors that may cause a sharp decline in production e.g. the land crisis in Zimbabwe. Consequently, this is an exogenous factor that may nevertheless affect the production of citrus.

Tastes and Preferences

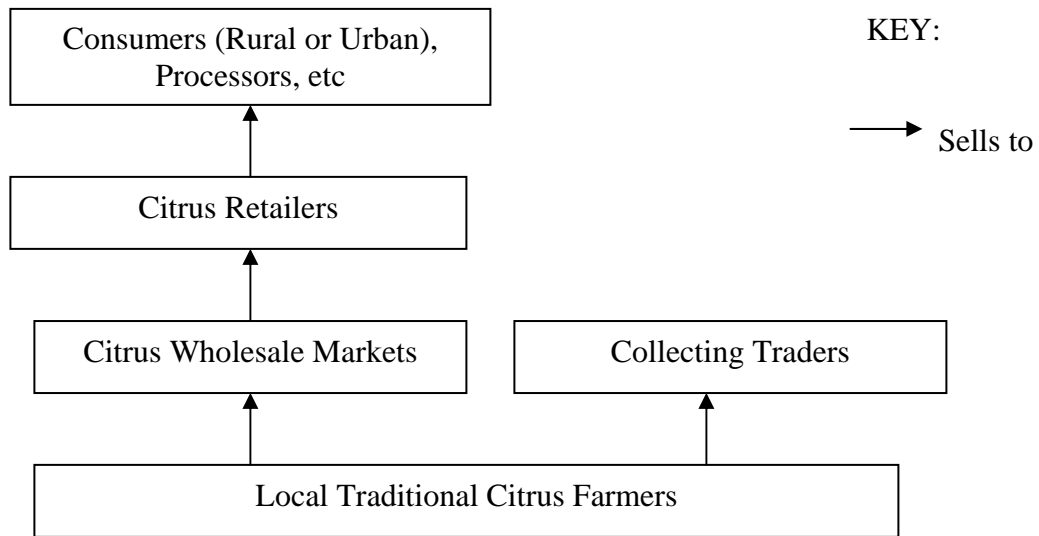
Citrus consumption is subject to individual tastes and preferences. Some consumers simply purchase oranges as an alternative to tangerines. Cost of complementing or substitute goods like tangerines or pineapples also can affect demand for oranges.

Citrus Distribution Channels

Local Traditional Oranges

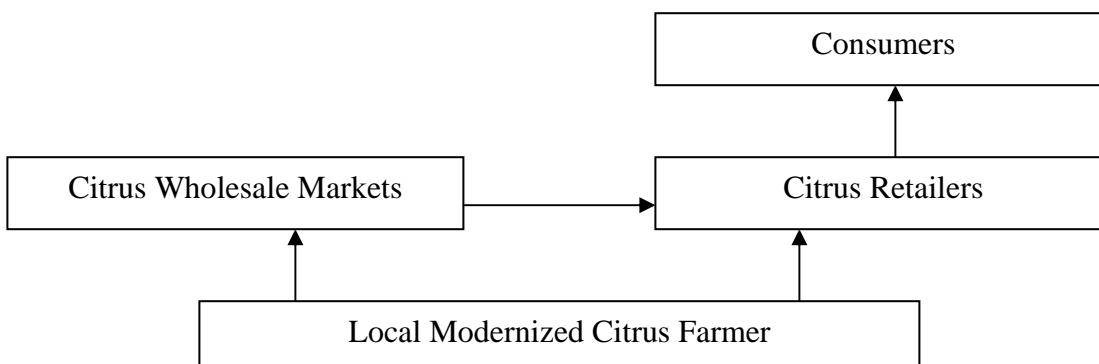
The citrus farmer sells his produce to the collecting trader who has a lorry or lorries to transport the oranges that he bought from the farmer. The produce is then transported and sold to the wholesale markets in Nairobi e.g. Wakulima market from where retailers e.g. supermarkets, grocery stalls, kiosks and hawkers purchase the produce and take it to their retail outlets for sale. Consumers shopping in these retail outlets purchase the citrus fruits for consumption.

Local oranges and tangerines are packed in 93 Kg bags.



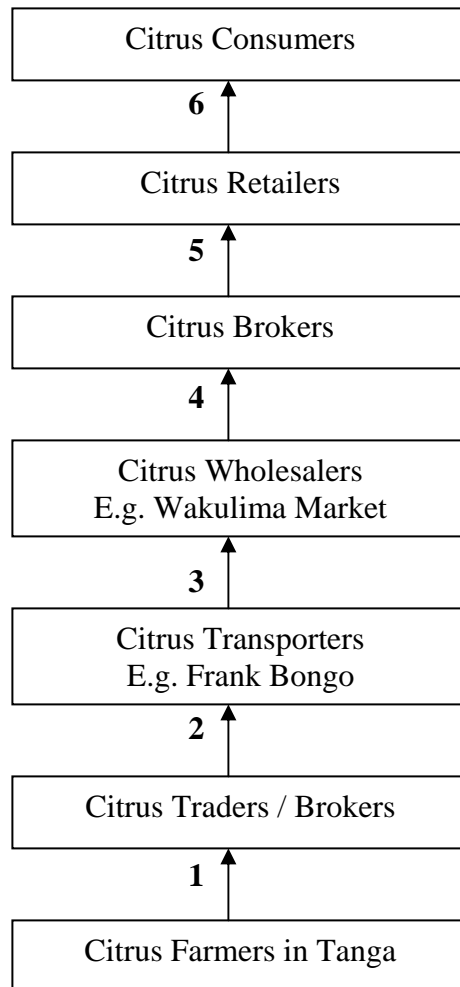
Local Modernized Oranges

The modernized local citrus farmer e.g. TARDA or Voi Sisal Estates uses his own lorries or hires lorries to transport his citrus produce to the market. He seldom needs the collecting trader. Using his own transport means, the modernized citrus farmer directly markets his citrus to the major retail outlets e.g. Supermarkets and also to street hawkers and grocery store owners, who sell it to consumers shopping in these retail outlets. Local oranges are packed in 93 Kg bags.

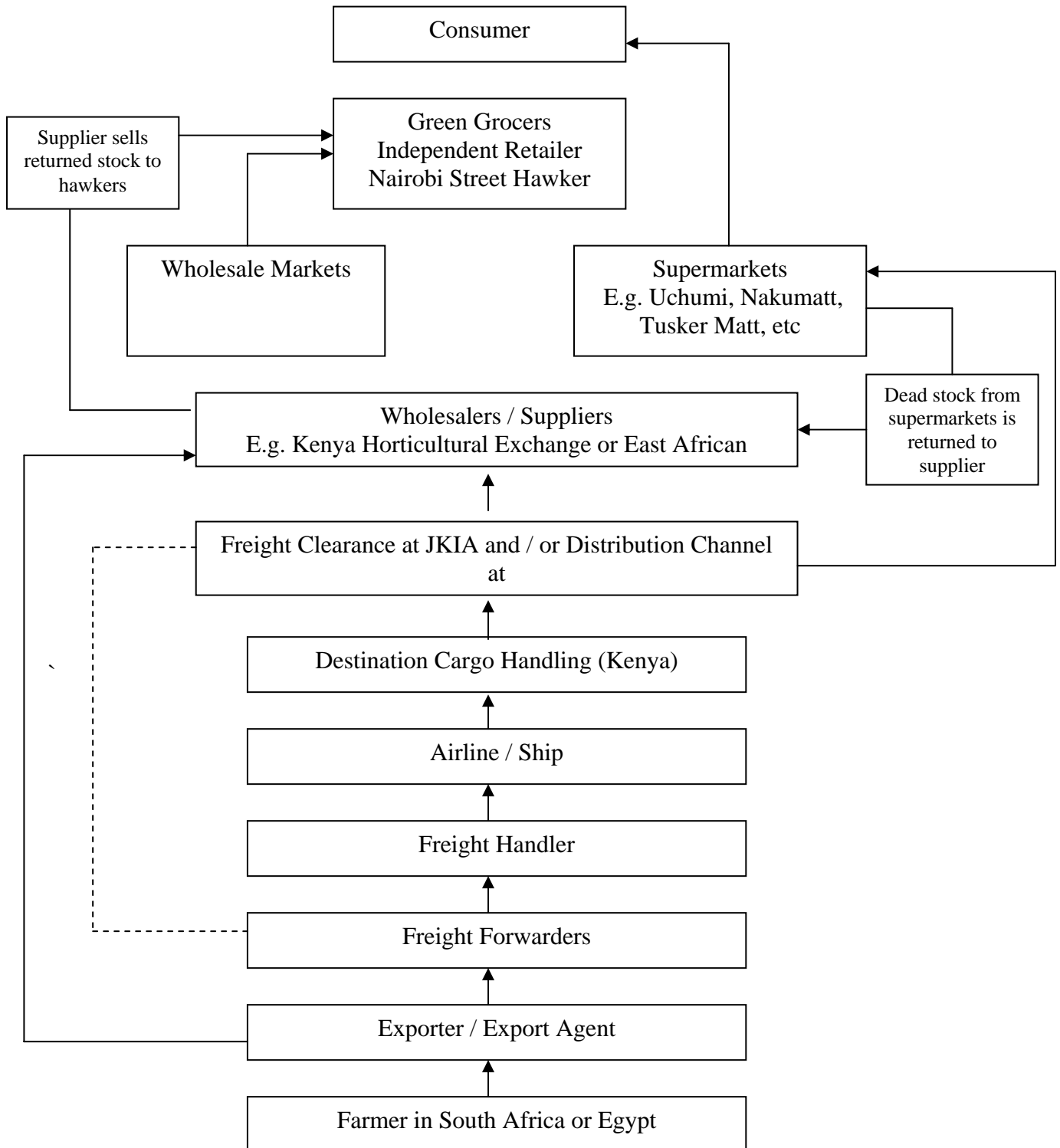


Citrus Imported From Republic of Tanzania

The distribution channel for citrus coming in from Tanga or Mwanza in Tanzania is different from that of local citrus producers. It is obviously longer as it involves different processes.



Citrus Imported from South Africa or Egypt



Key: ----- Major Overseas Contracts

Tanzanian Citrus Produce

Orange Varieties in Tanzania

The Washington Navel is the main variety of oranges found in Tanzania. Nairobi and Msasa and other local Tanzanian names for other varieties.

Sources

The main source of oranges in Tanzania is Tanga and Mwanza areas.

Seasonality

Oranges are available in Tanzania all year round. However, there are peak seasons between the months of:

- July – September.
- December – March.

Oranges Varieties												
Oranges	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Tanzania Oranges	HS	HS	HS	LS	LS		HS	HS	HS	LS	LS	HS

Key:

- HS – High Season
- LS – Low Season

Road Transit Route Distances from Tanzania Citrus Sources to Nairobi or Mombasa

1. Tanga to Nairobi

Tanga → Arusha → Namanga → Nairobi 800Kms

2. Tanga to Mombasa

Tanga → Mombasa 200Kms

3. Tanga to Nakuru

Tanga → Arusha → Namanga → Nairobi → Nakuru 955Kms

4. Mwanza to Nairobi

Mwanza → Isebania → Kericho → Nairobi Over 1000Kms

Sample Ordering Process for Tanzanian Oranges Located in Tanga

Below is an example of the journey of truckload of Tanzanian oranges from a farm in Tanga in Tanzania to the markets in Nairobi.

DAY 1

Sunday Afternoon:

A Kenyan trader picks his phone and calls his broker (collecting trader) in Tanzania. He makes an order for a certain quantity of oranges (1 or 2 lorry loads). Alternatively, he sends the truck driver who brought him the last consignment with a new order. By Sunday evening, the broker based in Tanga, Tanzania, visits a farmer at his farm and makes an order. They agree on the price and agree to meet the next morning.

DAY 2

Monday Morning: 8:00 a.m. to 5:00 p.m.

The broker (collecting trader) arrives early in the morning (8:00 a.m.) with his group of hirelings called Packers. These packers will for the next 9 hours pick ripe oranges from the farmer's trees and load them into trucks for transport. Harvesting and packing/loading begins at 8a.m. in the morning and continues until 5p.m in the evening. By 5:00 p.m., the lorry is packed full with oranges and is ready to depart.

Monday Evening: 5:00 p.m. to 7:00 p.m.

The broker (collecting trader) having paid the farmer his dues for the crop harvested from his farm pays the packers and pays the Municipal council (Kijiji) Tax of TShs. 5,000/-. The lorry departs for Namanga.

Monday Night: 7:00 p.m.

The lorry begins its long journey from Tanga to Namanga overnight, a journey of approximately 15 hours.

DAY 3

Tuesday Morning: 10:00 a.m.

At 10 a.m. the Tuesday, the lorry arrives at the border town of Namanga. At this point, it undergoes routine police and custom checks and completes the relevant procedural paperwork. This includes, paying tax to the Tanzania Revenue Authority and then to Kenya Revenue Authority.

After fulfilling all requirements including paying the relevant government charges, the truck proceeds to Nairobi using the Nairobi – Namanga road. This journey starts at 10:00am to 2:00pm. The distance from Namanga to Nairobi is not that long. Only 155Kilometres. However, because of numerous police road blocks along the way due to the time the truck spends at the weighbridge in Athi River, it may arrive in Nairobi as late as 4:00pm on Tuesday. The oranges cannot be sold at that time as the wholesale markets

such as Wakulima are closed at 12:00 noon. Therefore, the lorry driver spends the night in Nairobi. His food, accommodation and pocket money allowances are fully catered for.

DAY 4

Wednesday Morning: 8:00 a.m.

The wholesale market (e.g. Wakulima) is opened and the lorry full of oranges parks in the market. The canvas tent covering the oranges at the back of the lorry is raised and manual laborers climb to the back from where they sell the oranges. Customers who are retailers and grocery store owners/employees come in with their pick-up vehicles or hire handcart pushers. They order the number of bags of oranges they require and the laborers atop the lorry fill the bags purchased with oranges. They are paid, seal the bags and load them onto the retailer’s vehicle.

During hot seasons here in Kenya, demand for oranges is very high and all 65,000 oranges from each lorry that arrives in Nairobi (an average of 10 lorries arrive in Nairobi per day) can be purchased in one day. However, in more normal circumstances, the lorries spend 2-3 days in Nairobi before their entire stock of oranges has been purchased.

While their lorries are stationed in Nairobi, the drivers only require the trader that owns the oranges they delivered to cater for their accommodation and meals. A token payment to show appreciation is also welcomed.

Once all oranges initially in the lorry are sold, the drivers return home to Tanga, awaiting their next mission.

This is the story of the journey of the orange from Tanga to Nairobi.

PICTORIAL



Kenyan citrus trader calls his collecting trader (broker) in Tanga and orders a lorry full of oranges. He sends money. Alternatively, he sends a lorry driver departing for Tanga with the money. A lorry full will cost him approximately KShs. 50,000/- to purchase 65,000 oranges, but this varies by supply volume.



Collecting broker visits farmers in farms and agrees on farm gate price, usually between TShs.5 and 15 each orange. He agrees with farmer to arrive next day. Labourers pick and load the truck.



N.B In many cases brokers have pre-negotiated, contracted and paid farmers in advance of fruiting as little as TShs. 3 per unit.

Loaders pick oranges and load them onto the truck. It is ready to depart for Nairobi. The lorries travel and cross the border at Namanga. They have to pay border Cess in Tanga, border taxes in both countries and toll station tax and weighbridge charges. They arrive in Nairobi after a long one-day journey from Tanga. They park in the wholesale market and oranges are sold off from the back of the truck. They are packed as buyers are waiting.

Volumes of Imported Tanzanian Citrus

While it was not possible within this research, to state accurately the volumes in metric tons of Tanzanian oranges exported to Kenya annually, other research data made the computation of a close estimate possible.

Due to similarity in type and tonnage of vehicles used to transport citrus to Kenya, combined with a very close estimate of the number of truckloads that cross the border into Kenya daily, bringing oranges to the major towns of Nairobi, Mombasa and Nakuru, it was possible to calculate how many metric tons of oranges come to Kenya from Tanzania on a daily basis.

Average Daily Statistics:

The average number of Lorries carrying oranges from Tanzania into Kenya

Town	Average Number of Trucks Transporting Oranges into Kenya
Nairobi	10 lorries per day
Mombasa	3 Lorries per day
Nakuru	5 lorries per day

Almost all lorries used in transport of citrus to Nairobi, Mombasa and Nakuru are 5-Ton lorries. The maximum number of oranges a 5 Ton lorry could carry without exceeding weight limits is 65,000 oranges. This is approximately 6 tons.

Throughout the year, there are lorries from Tanzania bringing oranges for sale in Nairobi, Nakuru and Mombasa. During the high season more lorries come in and in the low season there are fewer lorries. The above figures represent the average. Information on the average number of lorries that come these major towns in Kenya bringing oranges was gathered from interviews with the truck drivers who actually transport these oranges.

Using the average number of trucks coming into Kenya from Tanga per day and the considering that all these lorries are of the same tonnage (5 Tons) and also because they carry a maximum known number of oranges, it is possible, using simple arithmetic, to estimate how many oranges get to Nairobi and Mombasa on a daily basis.

Nairobi:

An average number of **10 lorries per day** (5 Ton) come to Nairobi on a daily basis bringing truckloads of Tanzanian oranges. A full lorry carries approximately 65,000 oranges.

Hence, an average of **65,000 x 10 = 650,000** oranges arrive in Nairobi daily from Tanga. That is, 650 Bags of oranges arrive in Nairobi daily.

Mombasa:

An average number of **3 lorries per day** (5 Ton) come to Mombasa on a daily basis bringing truckloads of Tanzanian oranges. A full lorry carries approximately 65,000 oranges.

Hence, an average of $65,000 \times 3 = 195,000$ oranges arrive in Mombasa daily from Tanga. That is, 195 bags of oranges arrive in Mombasa daily.

Nakuru:

An average number of **5 lorries per day** (5 Ton) come to Nairobi on a daily basis bringing truckloads of Tanzanian oranges. A full lorry carries approximately 65,000 oranges.

Hence, an average of $65,000 \times 5 = 325,000$ oranges arrive in Nairobi daily from Tanga. That is, 325 Bags of oranges arrive in Nairobi daily.

Daily Import Volumes of Tanzanian Oranges in Nairobi and Mombasa

Town	Number of Lorries Daily	Number of Oranges Arriving Daily	Number of Bags of Oranges Arriving Daily
Nairobi	10	650,000	650
Mombasa	3	195,000	195
Nakuru	5	325,000	325

Monthly Import Volumes of Tanzanian Oranges in Nairobi and Mombasa

Town	Number of Lorries Monthly	Number of Oranges Arriving Monthly	Number of Bags of Oranges Arriving Monthly
Nairobi	300	19,500,000	19,500
Mombasa	90	5,850,000	5,850
Nakuru	150	9,750,000	9,750
TOTAL	540	35,100,000	35,100

A bag of oranges weighs approximately 93kgs and carries almost 1,000 oranges. Hence, with 35,100 Bags of oranges arriving from Tanzania monthly, this translates to monthly tonnage of:

$(\text{Number of Bags} \times 93 / 1000) 35,100 \times 93 / 1000 = 3,264.30 \text{ MT}$

Annual Import Volumes of Tanzanian Oranges in Nairobi and Mombasa

Town	Number of Lorries Annually	Number of Oranges Arriving Annually	Number of Bags of Oranges Arriving Annually
Nairobi	3,600	234,000,000	234,000
Mombasa	1,080	70,200,000	70,200
Nakuru	1,800	117,000,000	117,000
TOTAL	6,480	421,200,000	421,200

$$\begin{aligned}
 \text{Annual Volumes} &= \text{Monthly Volumes} \times 12 \\
 &= 3,264.30 \text{ MT} \times 12 \\
 &= \mathbf{39,171.6 \text{ MT}}
 \end{aligned}$$

Formulae:

- Number of oranges arriving daily = Number of Lorries x 65,000
- Number of bags of oranges arriving daily = Number of oranges arriving daily / 1000

Assumptions:

1. Number of oranges carried in a 5-Ton lorry is approximately 65,000 oranges.
2. That a 93kg bag of oranges contains 1,000 oranges.
3. Hence, a 5-Ton lorry carries about 60-65 bags of oranges (93Kg).
4. All lorries coming from Tanga carrying oranges are 5-Ton lorries.

Note:

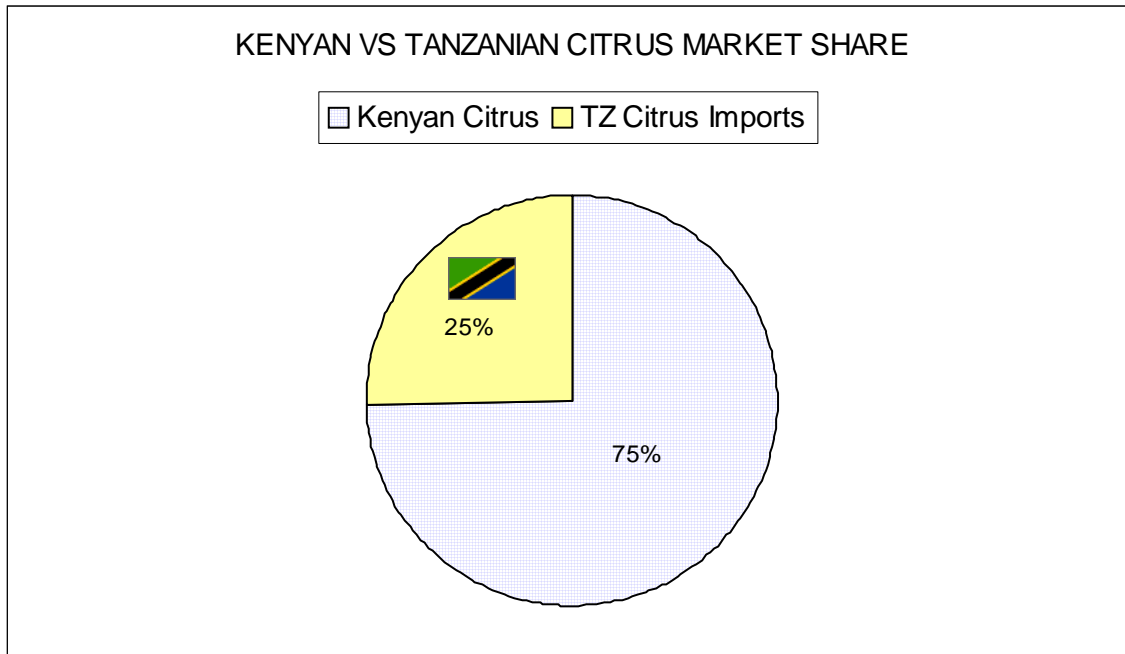
Oranges are purchased from farmers in Tanzania are just loaded into the lorry and are not packed into any form of packaging material whatsoever. When they arrive in the wholesale market in Nairobi/Mombasa, they are packed in 90-93Kg bags as they are being sold. The packing is done for the customer as he/she waits. A lorry full of oranges can fill between 60-65 bags (93kg bags of oranges).

Pie Chart Comparison of Market Share between Kenyan Oranges and Tanzanian Oranges

Sample Year: 2002

Annual Local Citrus Production = 116,336 Metric Tons.

Tanzanian Citrus Imports = 39,171 Metric Tons.



From the pie chart above, we can estimate 25% of citrus consumed annually is of Tanzanian origin whereas 75% of citrus consumed in market annually is of local Kenyan origin.

Note:

The pie chart above does not take into account citrus produce imported from Egypt or South Africa. They however, constitute a very small percentage of citrus consumed locally. The produce of Egypt or South Africa is very costly hence purchased only by high-income consumers in Kenyan market.

Related Transaction Points and Costs

There are several costs that build up from the initial farm gate price of an orange in Tanga to the eventual sale price of an orange cost in the city of Nairobi / Mombasa / Nakuru etc.

A summary of an example of these costs (amounting to Ksh.104, 164) is provided in the table below:

Cost Category	Amount KShs.	%	Description
Farm Gate Prices	51,428	49.4	Buying oranges from farmer
Loading Costs	1,100	1	Paying labourers to pick and load lorry
Tanzania Municipal Council Tax	357	0.3	To support municipal council
Tanzania Border Tax	2,142	2	Tanzania Revenue Authority collection
Kenya Border Tax	2,857	2.7	Kenya Revenue Authority collection
Weigh Bridge Charges	1,280		Kenya Roads Board levy
Transport Cost	43,000	41.3	Cost of hiring a lorry to ferry the oranges
Accommodation Cost per Day	2,000	2	Cost of accommodating the driver and turn boy

They are briefly reviewed in this section.

1. Farm Gate Prices

According to market information gathered, the farm gate prices of an orange average TShs. 12/- or KShs. 0.85 cents. According to a Tanzanian transporter interviewed, the price seldom fluctuates beyond this point.

2. Packers / Loaders

From the farms in Tanga, one needs packers to collect and load the fruits into the truck. They charge an average of approximately TShs. 15,000/- or KShs. 1,071/- to load a truck with oranges.

3. Taxes on Tanzanian Soil

A municipal council tax of TShs. 5,000/- or KShs. 357/- is charged per lorry carrying oranges into Kenya. A border tax of TShs. 30,000/- or KShs. 2,142/- is charged before crossing the Tanzania border into Namanga.

4. Taxes on Kenyan Soil

Upon crossing into the border town of Namanga, the Kenyan government charges KShs. 2,857/- or TShs. 40,000/- per lorry.

5. Weigh Bridge Charges

There is Weigh bridge between Namanga and Nairobi, at which the transporters pay US\$ 16/- or KShs. 1,280/- per lorry.

6. Transport Costs

As per the findings of our research, we established that the average transport cost for a trader hiring 5-Ton lorry to carry oranges from Tanga to Nairobi, an almost 800Km journey is KShs. 43,000/- or TShs. 602,000/-. This cost will of course vary from one transporter to another. It is likely to be much lower than this.

7. Nairobi Market Prices

The cost varies a lot once the oranges reach Nairobi. The cost depends upon several factors such as supply, demand, seasonality and other exogenous factors. However, it varies within an established price range. In Nairobi, the price of an orange at wholesale markets such as Wakulima Market varies between a low of TShs. 20/- to a high of TShs. 40/- per orange. Hence, a 93Kg bag of oranges will range from Tshs. 20,000 to TShs. 40,000 or KShs. 1,785 to KShs. 2,857/-. Tanzanian drivers interviewed informed us that the price of an orange fluctuates from between TShs. 20-40 or KShs. 1.40 – KShs. 2.85. The oranges are packed in 93Kg bags. The retail price of a single orange in Nairobi is between KShs. 4/- to KShs. 5/- or TShs. 56/- to TShs. 70/-.

Spot-Check on Retail Prices

Nairobi Retail Prices

	Supermarket Price KShs/kg	Street Price KShs/kg
South Africa/Egypt Imported Oranges	180 - 200	140 - 150
Republic of Tanzania Imported Oranges	60 - 80	40 - 60
Kenya Branded Oranges	120 – 140	80 – 100
Kenyan (Local) Oranges	40 – 60	30 - 40

Mombasa Retail Prices

	Supermarket Price KShs/kg	Street Price KShs/kg
South Africa/Egypt Imported Oranges	150 – 180	140 - 150
Republic of Tanzania Imported Oranges	40 – 60	30 - 40
Kenya Branded Oranges	100 – 120	70 – 100
Kenyan (Local) Oranges	30 – 40	20 - 30

Major Outlets

Wholesalers

1. Wakulima Market - NAIROBI

Wakulima market is the only wholesale market in the city, located along Haile Selassie Avenue. The agricultural produce comes from all over the country to be sold as early as 4.00 o'clock in the morning to dealers. The products include an assortment of vegetables like cabbages, carrots, onions, fresh maize, potatoes, tomatoes, etc and fruits such as bananas, mangos, oranges, avocados, pineapples etc. The crowd of buyers comes from all over the city to buy produce for the supermarkets, the smaller stalls, and for the kiosks in the estates.

2. Retail Market - NAIROBI

The Retail market is also located along Landhies Road. It is a wholesale market and specializes in vegetables and fruits. The produce comes from the highlands of Kenya. Traders come in to start business even before the sun rises. The traders and buyers engage in a lot of haggling and bargaining to get the best price possible for their produce. Other retail markets found within the city center and its environs include: Dagoretti market, Umoja market, Jericho market etc.

3. The City Market - NAIROBI

The city market is located on Muindi Mbingu Street. There are a few agricultural products sold here but in addition we also have the dairy and fish products. The prices of these goods are fairly steep in comparison with those at the other markets in town. Surrounding the main market are many stalls devoted entirely to basketry, rush matting, clay pots and bamboo chairs.

4. Gikomba Market - NAIROBI

This is the largest market in Nairobi. The market stretches over the Nairobi River. The market sells a variety of agricultural products at retail prices in small affordable quantities. These products include both food crops and cereal products.

5. Kongowea Market - MOMBASA

This is the Largest and most active market in Mombasa. It is situated at Kongowea in Kisauni division on the North Coast. All trucks bringing farm produce from up country arrive here first to be offloaded.

Retailers

1. Supermarkets

Nairobi and Mombasa have several major and minor supermarkets, the main ones being Uchumi and Nakumatt Supermarkets. They provide a vital retail market for citrus produce.

2. Smaller Grocery Stalls

Grocery stalls spread out all over the city of Nairobi and Mombasa provide an alternative market for citrus fruits. They mainly serve the middle (white-collar jobs) class of consumers and are located in up-market areas such as Westland's and Karen.

3. Kiosks in Estates

Within residential areas in Nairobi, retail traders of citrus have set up several kiosks from where they sell their fruits.

4. Street Hawkers

Street Hawkers though informal, are a force to reckon with in the retail market for citrus fruits. These are traders who do not have permanent structures i.e. shops from where to sell fruits.

For many years, they have been badly mistreated by the Nairobi City Council. Only in the year 2003 were they finally recognized and a council resolution legalized their activities. The traders were officially licensed and allocated certain areas of the city from where they would sell their produce.

Tax Information

Taxes Applied on Orange Traders from Tanga to Kenya.

Various taxes are levied upon traders or transporters of oranges from Tanga to Kenya. These taxes are levied on the traders by both the governments of Tanzania and Kenya. Both the KRA and TRA (Kenya/Tanzania Revenue Authorities) impose these taxes on the traders.

The various taxes levied on traders are listed below:

1. Municipal Council Tax (Cess)

This is levied on the traders who load their lorries with oranges. They pay TSHS 5,000 or KShs. 357/-. It is worthy to note that 5-Ton lorries do not travel directly to the farms. They are not allowed to do so as their heavy vehicles damage the roads. If they do use the roads, then a penalty is charged, similar to toll station or weigh bridge charges and fines for motorists whose vehicles exceed the stipulated weight limit for vehicles traveling on that road.

2. Border Tax

This tax is charged to orange transporters on both the Tanzanian and Kenyan sides of the border. On reaching the Tanzanian side of the border, the transporters are charged TShs. 30,000/- or KShs.2, 142/- collected by Tanzania Revenue Authority (TRA). Similarly, another border tax of TShs. 40,000/- or KShs. 2,857/- is charged, this time by the Kenyan government through the Kenya Revenue Authority (KRA) upon entry to Kenya.

3. Weigh Bridge Charges

While in Kenya enroute to Nairobi from Namanga, orange transporters are charged a fee upon reaching the weighbridge. They are charged approximately US\$ 16/- or KShs. 1,280/-.

Table giving taxes applied on oranges from farmer to consumer

Type of Tax	Vehicle Description	Taxed Amount KShs.
Municipal Council Tax	5 Ton Lorry	357
Tanzania Border Tax	5 Ton Lorry	2,142
Kenyan Border Tax	5 Ton Lorry	2,857
Weigh Bridge fee.	5 Ton Lorry	1,280

Transport Information

Mode of Transport

The favored mode of transport for oranges from Tanga or Mwanza in Tanzania to Kenyan towns is road transport.

This is because oranges are perishable goods hence other modes of transport such as rail and sea are unsuitable because they are slow. Air transport is fast but is very expensive hence uneconomical for transporting oranges.

Road transport is hence the transport mode of choice for orange traders. Kenya and Tanzania are well connected by the Nairobi Namanga road. The distance between Nairobi and Tanga is approximately 800Km. The distance between Mombasa and Tanga is only 200 Km. The distance between Nairobi and Mwanza is over 1000Km.

The distance between Nairobi and the border town of Namanga is 170Km only.

Road Transit Route:

1. Tanga to Nairobi

Tanga → Arusha → Namanga → Nairobi 800Kms

2. Tanga to Mombasa

Tanga → Mombasa 200Kms

3. Tanga to Nakuru

Tanga → Arusha → Namanga → Nairobi → Nakuru 955Kms

4. Mwanza to Nairobi

Mwanza → Isebania → Kericho → Nairobi Over 1000Kms

Tanga in Tanzania is a more strategically located source of oranges than Mwanza. This is because Tanga is much closer to the Kenyan border than Mwanza. Tanga is located only 200 kms from Mombasa and is 800 kms from Nairobi using the Namanga-Arusha road. The road from Tanga to Mombasa to Nairobi is shorter than the Namanga road route, but it is not preferred as drivers find the road from Mombasa to Nairobi to be too hilly hence they prefer using the Namanga route.

Mwanza is over 1000kms. It is hence cheaper for traders to bring in oranges from Tanga. Besides the consideration of distance, respondents from Tanzania intimated that oranges from Tanga are known for a long time to be of better quality than oranges from Mwanza. Hence, oranges coming in to Kenya from Tanzania come in from Tanga.

Vehicles Used in the Transport of Oranges from Tanzania

In the course of the research, a peculiarity that came to the fore so much that we made a point to state it is the similarity of the heavy commercial vehicles (lorries) used to transport oranges from Tanzania to Kenya. Most, if not all of them are 5-Ton lorries with few being less (3-Tons). There were found no 10-Tonne lorries that transport the oranges from Tanzania to Kenya.

Traders in oranges in the major wholesale markets in Nairobi, Nakuru or Mombasa at times hire these lorries to transport the oranges from Tanga to Nairobi. In essence, they hire the vehicles (lorries) that transport this fruit from Tanzania. They liaise with their brokers situated in Tanga to procure the oranges from farmers. They then hire the lorries to carry the fruit to Nairobi. It is cheaper for them to hire lorries from Tanzanian lorry owners to transport the fruit from Tanga to Nairobi. This is because owning the lorries would mean going down to Tanga with an empty lorry so as to come back with oranges. This is an expensive option and takes a lot of time.

Registration Numbers of Some of the Lorries Used to Transport Oranges from Tanzania to Nairobi

Reg No: T759 AAV 5 Ton truck.
 Reg No: TZQ 3985 5 Ton truck.
 Reg No: T658 AAN 5 Ton truck.
 Reg No: T383 ABJ 5 Ton truck.
 Reg No: T556 AAB 5 Ton truck.
 Reg No: T221 ACK 5 Ton truck.

These are just some of the lorries from Tanzania that bring oranges for sale in Nairobi's markets.

Number of Lorries from Tanzania Bringing Oranges to Markets in Nairobi / Nakuru / Mombasa

Every day throughout the year, there are lorries from Tanzania bringing oranges for sale in Nairobi. We managed to gather information on the average number of lorries that come to major cities in Kenya bringing oranges. A full lorry carries approximately 65,000 oranges.

Nairobi

An average number of 10 lorries per day (5 Ton) come to Nairobi on a daily basis bringing truckloads of Tanzanian oranges.

Nakuru

An average number of 5 lorries per day (5 Ton) come to Nairobi on a daily basis bringing truckloads of Tanzanian oranges.

Mombasa

An average number of 3 lorries per day (5 Ton) come to Nairobi on a daily basis bringing truckloads of Tanzanian oranges.

Opportunities and Constraints

Opportunities

1. Common Border

Tanzania shares a common border with Kenya and is linked by a well-maintained road to the major markets of Nairobi and Mombasa. Nairobi is 800Km from Tanga and Mombasa (only 200Km from Tanga). The transport costs of citrus from Tanzania are hence lower than those from more distant countries such as South Africa and Egypt.

2. East African Community (EAC) Membership

Kenya and Tanzania are both members of the recently revived East African community. These countries are in the process of harmonizing taxes and duties amongst produce of the member states. They are slowly removing trade barriers that will soon give Tanzanian citrus imports a strategic advantage over imports from non East African states like South Africa or Egypt. Friendly political relationships between the two states have characterized their post independence co-existence in the family of East African states. A hallmark of their good neighborliness, has been the striving by East African leaders to open their borders to each other and allow trade and movement of goods and people between them to be easier and with less restriction. This is evidenced by the formation of amongst others, the EAC (East African Community) and the East African legislative assembly).

3. Common Language

Kenyans and Tanzanians are linguistically one as they both are SWAHILI speaking nations. This makes trade relations between Kenyans and Tanzanians more cordial. This is an advantage to Tanzanian citrus farmers and suppliers.

4. History

Kenyans have a history of cordial relationship with their Tanzanian counterparts.

5. Favorable Climate

The climate in Tanzania especially in Tanga and Mwanza areas is very suitable for citrus production. Hence, oranges will generally do very well when grown in these areas as opposed to being grown elsewhere.

6. Problems in the Kenyan Citrus Subsector.

Following the onslaught of the “greening disease”, Kenya’s citrus sector was crippled. This disadvantage suffered by Kenya is a blessing to Tanzanian citrus farmers as Kenya is now a major market for Tanzanian citrus produce.

Constraints

1. **Branding**

Oranges and other citrus fruits that are imported into Kenya from Tanzania are not branded. Those from South Africa and Egypt are. Kenyans practicing modern orange farming also have branded their oranges. This gives the oranges better competition especially at supermarket level and other retail outlets for citrus.

2. **Marketing**

The Kenyan trader buys Tanzanian oranges for the Kenyan market either at the farm in Tanzania or at the market in Kenya, directly from the lorry. There after the trader can do whatever he sees fit with them. The Tanzanian owners therefore do not get a chance to do any market promotion for their oranges. Tanzanian oranges are generally said to be sweeter than the Kenyan ones.

3. **Identity**

When a Kenyan trader buys Tanzanian oranges from their original Tanzanian owners, he might choose to change their identity depending on the prevailing circumstances. If there are plenty of Tanzanian oranges in the market and the prices are fairly low, the trader simply mixes the Tanzanian oranges with the Kenyan ones and sells them all as Kenyan, at a better price.

4. **High Transport Costs**

With the recent increase in fuel prices world wide, the cost of transporting goods in Tanzania has risen considerably and is on the rise day after day. This causes the price of oranges to increase and it also causes a situation of instability in prices.

5. **Poor Inland Road Conditions**

Inland roads leading to the collection points at the farms are generally poor. The citrus farms in Tanga or Mwanza in Tanzania are at times inaccessible due to poor roads that get affected by rain and other weather conditions. The citrus suppliers have to hire smaller vehicles to go into the farms and collect oranges. This is both an additional cost as well as an activity where a lot of time is wasted.

6. **Lack of Proper Storage Facilities**

Oranges are a perishable product. Tanzanian citrus suppliers do not have any cold storage facilities either in Tanzania or Kenya, where they could safely hold their oranges temporarily, while speculating on prices. The farmers simply want to sell their oranges quickly to prevent them from rotting away at farm level.

Recommendations

1. **Branding**

If Tanzanian orange producers were to brand their oranges according to a specific quality or grade, this would give them a more competitive edge in the market.

Kenyan consumers in the major urban areas of Nairobi and Mombasa tend to identify with quality products, and are prepared to pay more for them.

2. **Marketing**

Apart from the seller mentioning at the point of sale that the specific oranges he is selling originate from Tanzania, there is no other way of knowing this. It is therefore recommended that the relevant parties concerned in Tanzania, take advantage of the vast Kenyan advertising media to promote their oranges and create a mass awareness of their presence and quality.

3. **Identity**

One way to ensure that the true identity of the Tanzanian oranges is retained to the very end is to introduce brand names. This will allow the oranges to fetch a good price in the market, especially at the time when the Kenyan oranges are out of season.

4. **High Transport Costs**

The relevant body in Tanzania (e.g. Tanzania Farmers Association) should dispatch a special delegation to the Government of Tanzania to discuss the cost of transport and how it affects farmers, with a view to getting a price reduction in fuel prices.

5. **Poor Inland Road Conditions**

This is a common phenomenon throughout East African region. Where as the Tanzanian Government cannot be expected to tarmac every village road in the country, it would assist the farmers tremendously if the roads were at least made to cater for all weather even if not tarmac ked.

6. **Lack of Proper Storage Facilities**

Traders in Tanzanian oranges should invest in some kind of cold storage facilities where they could hold their goods in Kenya temporarily while waiting for better prices.

Annexes

Annex 1: Local (Modernized) Citrus Farmers

1. Voi Sisal Estates
Producers of Voi Minneola and Voi Pixie Varieties for Export and Local Consumption
Tel: 254-0147-30015

2. TARDA – Tana & Athi River Development Authority
Producers of Washington Navel Variety of Oranges
P.O. Box 47309-00200 GPO Nairobi
Dundori Road. Off Dunga Road. Industrial Area
Tel: 254-020-535834 / 535835

3. Kakuzi Limited
Makuyu / Thika Road
Tel: 254-0151-64257 / 0151-64258

Annex 2: Citrus Importers

1. Kenya Horticultural Exporters – KHE
Nanyuki,
Kenya
Tel: 254-0176-31513

2. East African Growers Ltd
Jommo Kenyatta International Airport – JKIA
Nairobi.
Tel: 254-020-350137 / 254-020-822539 / 254-020-337161

3. Kakuzi Limited
Makuyu / Thika Road
Tel: 254-0151-64257 / 0151-64258

Annex 3: Citrus Fruit Processors

1. Bawazir Food Processors Ltd.
P.O. Box 80326,
Mombasa
Tel: 041-485551 / 485478
Fax: 041 – 485480

2. Trufood Ltd
P.O. Box 41521,
Nairobi
Tel: 557700

3. H. R. Retief Ltd
P.O. Box 672,
Malindi

4. Kenya Fruit Processors Ltd
P.O. Box 775,
Thika
Tel: 0151 – 21645
Fax: 0151 – 22625

Annex 4: Citrus Transporters

Some of the lorries which regularly transport Tanzanian oranges into Kenya are listed below.

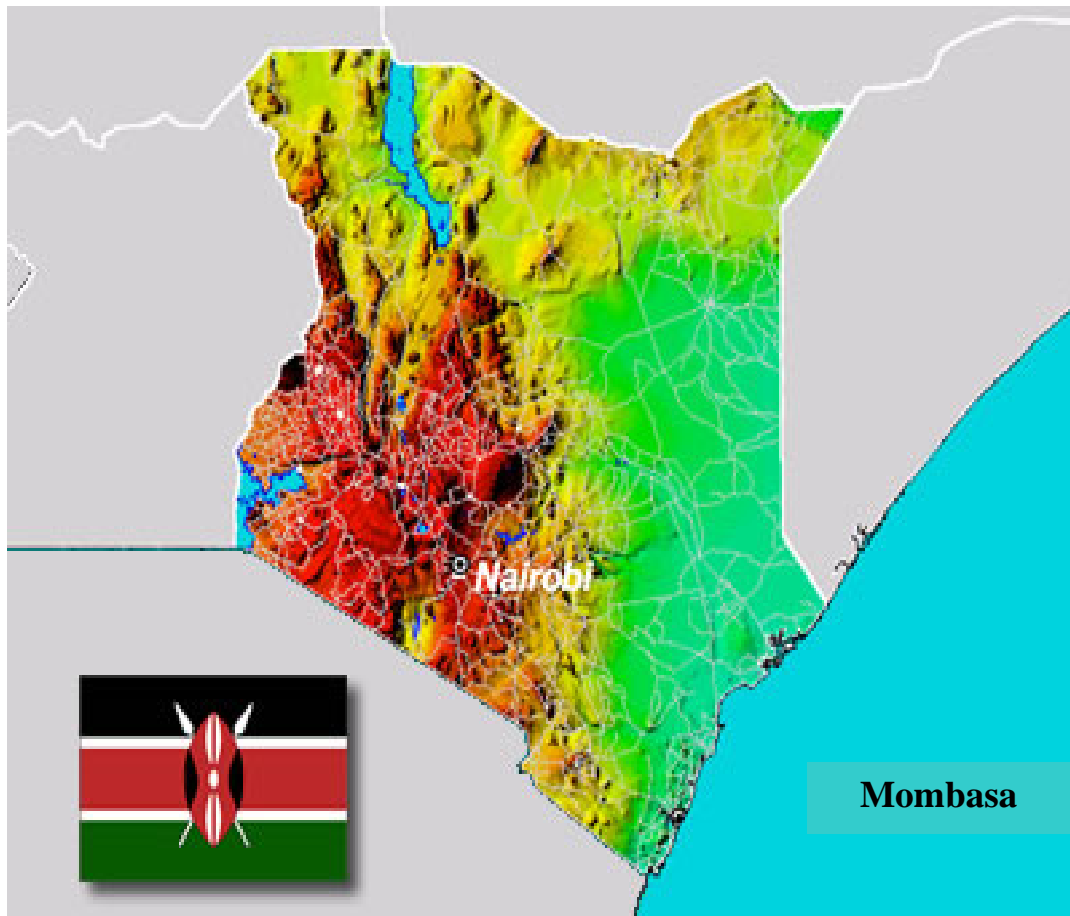
1. Reg No: T759 AAV 5 Tons truck.
2. Reg No: TZQ 3985 5 Tons truck.
3. Reg No: T658 AAN 5 Tons truck.
4. Reg No: T383 ABJ 5 Tons truck.
5. Reg No: T556 AAB 5 Ton truck.
6. Reg No: T221 ACK 5 Ton truck.

Annex 5: Agricultural Trade Associations in Kenya**Names and Contact Information**

1. Horticultural Crops Development Authority
P.O Box 42601, Nairobi, Kenya
Tel: 254/2-333150
Fax: 254/2-228386
E-mail: okado@swiftkenya.com
2. Fresh Produce Exporters Association of Kenya (Flowers, Fruits & Vegetables)
Studio House, Karbarnet Road,
P.O Box 40312, Nairobi, Kenya
Tel: 254/2-710977+8+711989+90+712102
Fax: 254/2-729485
E-mail: fpeak@form-net.com
www.fpeak.org
3. Kenya Flower Council
P.O. Box 24856, Nairobi, Kenya
Tel/Fax: 254/2-883041
Email: kfc@africaonline.co.ke
www.kenyaflowers.co.ke
4. Export Promotion Council
Anniversary Towers, 1st & 16th Floors,
University Way
P.O. Box 42047, Nairobi, Kenya
Tel: 254/020-228534
Fax: 254/020-218013/228539
Email: chiefexe@epc.or.ke
www.cbik.or.ke
5. Pest Control Products Board (PCPB)
P.O. Box 14733 Nairobi Kenya
Tel/Fax: 254/020-446115
6. Kenya Plant Health Inspectorate (KEPHIS)
P.O. Box 49592, Nairobi, Kenya
Tel: 254/020- 440087/441804
Fax: 254/020-448940
Email: kephis@nbnet.co.ke
7. Kenya Agricultural Research Institute (KARI)
P.O. Box 14773, Nairobi, Kenya
Tel: 254/020 – 444144

Part One

Market Survey Part One



The Markets for Oranges in Nairobi and Mombasa

September 2003

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Transaction Points	29
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Nairobi



Mombasa



Mombasa



Terms of Reference

1. A survey of citrus products in the cities of Nairobi & Mombasa with emphasis on oranges and tangerines but also taking into account the different varieties that exists in the marketplace.
2. Establishment of the fruit market players
3. Establishment of the market dynamics in the citrus fruit market
4. Determination of the channels of distribution, related transaction points and their costs
5. Establishment and analysis of all variables that influence the citrus market.
E.g.
 - Category of Fruit e.g. oranges
 - Type of that fruit e.g. Washington
 - Volume in Metric tones per month
 - Channel e.g. imported high quality (SA) or imported low quality (TZ)
 - Influence of seasonality on supply and price
 - Retail and wholesale pricing
 - Origins e.g. Kenya, Tanzania, South Africa
6. Provision of a detailed draft report on the citrus market disaggregated by type, highlighting
 - Citrus products of Tanzanian (TZ) origin.
 - Their comparative export volumes and supply, related to seasonal supply.
 - Identification of constraints and opportunities that Tanzanian suppliers face in their ability to produce and export their produce to Kenyan market place.
 - Giving pointers to the potential impact of addressing of the constraints and opportunities that the suppliers face.
7. Presentation of a draft report that represents the Nairobi and Mombasa demands in:
 - Volume
 - Price
 - Distribution Channels
 - Tax Information
 - Transport Information
 - Names and Contacts of Major factors in the market, their relative market shares etc.

Purpose, Scope and Limitation

- The purpose of this exercise was to study the citrus market in Nairobi and Mombasa and also to find out how the citrus products in Tanzania are fairing in the competitive Kenyan market.
- The main objective however, is to find out ways of increasing the Tanzanian citrus products market share in the competitive Kenyan market.
- The research was conducted in Nairobi (2 days) and Mombasa (2 days).
- Information was obtained through personal interviews with the respective citrus fruits market players and government records.
- During the research, there were no Tanzanian oranges or tangerines in the market because they were off-season.
- Many interviewees feared that the researcher may have been a government tax agent trying to obtain information about their income for tax purposes.

Introduction

Background Information

Back in the 1990's, Kenya was self sufficient in citrus and could cater for all local consumption demand as well as export some of its produce.

However, following the onslaught of the debilitating “greening disease” that attacked the crop some time around 1991, Kenya’s capacity to produce citrus was badly affected, causing heavy losses to citrus farmers. Consequently, the country became incapable of satisfying local consumption demand.

To date, the Kenyan citrus industry has yet to recover and the country is presently a net importer of citrus fruits from other African countries like South Africa, Egypt and Tanzania. The local market demand for citrus fruits is such that it can only be satisfied by supplementary imports from these countries.

Despite the shortage, the major citrus fruit growers in Kenya are targeting the export market, where their produce can fetch better returns than in the local market.

The citrus market in Kenya is liberalized and very informal hence not much data is available on certain types of citrus fruits e.g. tangerines. However the export volume for citrus fruits is so small that it accounts for only 1% of the total fruit export, as shown below.

Kenya Fruit Exports in 2002

Type of Fruits	Percentage
Avocadoes	68%
Mangoes	15%
Macadamia	12%
Passion fruits	4%
Citrus fruits & others	1%

About Citrus

All citrus fruits are acidic. They grow in tropical and subtropical climates where there are suitable soils and sufficient moisture to sustain the trees.

The citrus growing belt ranges from 35°North to 35°South latitude

Major Citrus Genus and Species

- Lemon (Citrus Lamonia)
- Grapefruit (Citrus Paradisii)
- Mandarin (Tangerine, Satsuma, etc.) (Citrus Reticulata)
- Lime (Citrus Aurantifolia)
- Sweet Orange (Citrus Sinesis)
- Bitter (Sour) Orange (Citrus Aurantium)
- Shaddock (pummelo) (Citrus Grandis)
- Kumquat (Fortunella Species)

Uses of Citrus Fruits

Citrus provide a rich source of vitamin C. It is thus used in various ways. E.g.

1. Basic consumption (eating) by both adults and children.
2. Making of fruit salads in hotels and restaurants.
3. Making of fresh juice for home consumption.
4. Processing for commercial juice by juice manufacturing companies.
5. Making of medicine (E.g. Beechams Hot Lemon for Colds and Flu).
6. Other uses including breath freshening.

Citrus Varieties in Nairobi and Mombasa

Oranges and Tangerines in Nairobi and Mombasa Markets

Sources

Oranges and tangerines in Nairobi and Mombasa come from two main sources.

1. Local Production.
2. Imports.

Oranges

Local Orange Varieties

Most locally produced oranges are produced for the export market.

1. Voi Minneola produced by Voi Sisal Estates
2. Voi Pixie produced by Voi Sisal Estates
3. Washington Navel produced by TARDA (Tana & Athi River Development Authority)
4. Valencia oranges

Imported Oranges Varieties

1. Outspan from South Africa
2. Valencia oranges from South Africa
3. Egyptian oranges
4. Washington Navel oranges from Tanzania

Tangerines

Local Tangerine Varieties

1. Lemandarins (mandarin X lemon crosses)
2. Tangors (Tangerine X orange crosses)
3. Complex Hybrids

Imported Tangerines Varieties

1. Tangelos (Mandarins X grapefruit crosses)
2. Complex hybrids
3. Tangors (Tangerine X orange crosses)
4. Lemandarins (mandarin X lemon crosses)

Orange Varieties in Nairobi and Mombasa

Oranges	
ORIGIN	VARIETY
Kenya	Washington Navel
	Valencia
	Voi Minneola
	Voi Pixie
Tanzania	Washington Navel
South Africa	Outspan
	Valencia
Egypt	Egyptian Orange

Tangerine Varieties in Nairobi and Mombasa

Tangerines	
ORIGIN	VARIETY
Kenya	Lemandrines
	Tangors
	Complex Hybrid
Tanzania	All Varieties
South Africa	Complex Hybrid
	Tangors
Egypt	All varieties

Seasonality / Availability

Citrus Seasons in Kenya

Oranges Varieties												
Oranges	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Washington Navel												
Valencia												
Voi Pixie												
Voi Minneola												
Indigenous Local Oranges												
South African Outspan												
South African Valencia												
Egyptian Oranges												
Tanzania Oranges												
Tangerines Varieties												
Tangerines	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Tangors												
Lemandrines												
Complex Hybrid												

The Fruit Market Players

The main players in the Nairobi and Mombasa citrus markets are:

1. Farmers
2. Importers
3. Traders
4. Market Brokers
5. Wholesalers
6. Retailers
7. Consumers

Local

1. Informal Citrus Farmers

These are those who traditionally have grown citrus crops but are not in any organized farmer co-operative societies. They mainly rely on rainfall to provide water for their citrus crops. Apart from this, they do not use advanced technology in production e.g. pesticide use, application of fertilizers, irrigation etc.

Local farmers in Kenya have for many years produced citrus. Their production is in areas whose soils and climate is suited to citrus fruit production. E.g. eastern province where citrus is mainly produced in Machakos district of Ukambani.

In Kenya, total acreage of land under citrus cultivation is 15,647 Ha and of this, 2,640.60 Ha are in the Ukambani area of eastern province, with Machakos district having 1,973.40 Ha of land where citrus is produced.

Kenya produces approximately 151,313 Metric Tonnes of citrus fruits annually. This translates to a yield of 9.79 Tons/Ha under citrus. From this, Ukambani region of eastern province accounts for 31,032.6 metric tonnes of citrus produced.

Other regions in Kenya where citrus farming is practiced:

Province	District / Division
Coast Province	Kwale, Voi
Eastern Province	Machakos, Kitui, Embu, Meru
Rift Valley Province	Eldoret, Kitale
Central Province	Nyeri, Muranga
Western Province	Busia, Siaya, Kakamega, Bungoma
Nyanza Province	Kisumu
North Eastern Province	Garissa

2. Formal Citrus Farmers

These are companies, co-operatives or individual farms that grow or produce citrus fruits on a large scale and in an institutionalized / organized manner. They mainly grow oranges and tangerines fruits for the export market. After harvesting, sorting and grading of the fruits into various grades, depending on quality, size and other criteria, they then export the bulk of their production.

As for the low quality produce that is of a poor grade, they dump the product in the local market in Kenya, including the Nairobi market. It is sold to the final consumers through wholesalers, retailers and street hawkers.

Examples of some major local citrus producers are:

1. Voi Sisal Estates
Producers of Voi Minneola and Voi Pixie Varieties for Export and Local Consumption
Tel: 254-0147-30015
2. TARDA – Tana & Athi River Development Authority
Producers of Washington Navel Variety of Oranges
P.O. Box 47309-00200 GPO Nairobi
Dundori Rd. off Dunga Rd. Industrial Area
Tel: 254-020-535834 / 535835
3. Kakuzi Limited
Makuyu / Thika road
Tel: 254-0151-64257 / 0151-64258

3. Importers

Local production of citrus in Kenya is seasonal. Hence, there are instances where there is a shortfall of citrus fruits in Nairobi.

In response to this dilemma, some companies have specialized in the importation of citrus fruits, mainly oranges and tangerines from other neighboring countries i.e. South Africa, Egypt and Tanzania.

Some of the major Nairobi importers of citrus are:

1. Kenya Horticultural Exporters – KHE
Nanyuki, Kenya
Tel: 254-0176-31513

2. East African Growers Ltd.
Jomo Kenyatta International Airport – JKIA Nairobi
Tel: 254-020-350137 / 254-020-822539 / 254-020-337161
3. Kakuzi Limited.
Makuyu / Thika road
Tel: 254-0151-64257 / 0151-64258

4. Traders

Traders are those business people fully engaged in the citrus fruit trade. They arrange for the collection of the produce from the farms and deliver it to designated market center where the fruits are sold in units of lorry-loads containing a given number of oranges/tangerine. Either loose or in bags.

5. Market Brokers

These are self-appointed brokers who ‘receive’ the lorry-loads brought to the market place by the traders. They then buy the lorry loads and sell the same to the wholesalers at a profit. They have formed a cartel and it is a closed group to all outsiders. They control the market area and they are prepared deal violently with any one whom they see as a threat. They are an informal group with no trade licensees or stores to keep the produce and they depend on each other for both financial and physical support.

6. Wholesalers

These are the suppliers of the produce to the retailers. They feed the retailers with different volumes from the main stock, each according to his size, need and purchasing ability.

7. Retailers

They sell the fruits to the general public in single units.

8. Consumers

The final purchasers and users of the fruits

9. Fruit Processors

These are owners of fruit processing plants where the fruits are mainly processed into canned fruit juice. The main processors are:

1. Bawazir Food Processors Ltd.
P.O. Box 80326, Mombasa
Tel: 041-485551 / 485478
Fax: 041 – 485480
2. Trufood Ltd.
P.O. Box 41521, Nairobi
Tel: 557700
3. H. R. Relief Ltd.
P.O. Box 672, Malindi
4. Kenya Fruit Processors Ltd.
P.O. Box 775, Thika
Tel: 0151 – 21645
Fax: 0151 – 22625

Organizational Setup of Fruit Market Players

Citrus farmers are organized into groups' i.e. Cooperative societies like the Wananchi Vegetable & Fruit Hawkers Traders Association. Apart from these, organized institutional trade organizations exist, which bring together fruit traders:

Agricultural Trade Associations in Kenya

Names and Contact Information

1. Horticultural Crops Development Authority
P.O Box 42601 Nairobi Kenya
Tel: 254/2-333150
Fax: 254/2-228386
E-mail: okado@swiftkenya.com
2. Fresh Produce Exporters Association of Kenya (Flowers, Fruits & Vegetables)
Studio House, Kabarnet Road,
P.O Box 40312 Nairobi, Kenya
Tel: 254/2-710977+8+711989+90+712102
Fax: 254/2-729485
E-mail: fpeak@form-net.com
www.fpeak.org
3. Kenya Flower Council
P.O. Box 24856, Nairobi, Kenya
Tel/Fax: 254/2-883041
Email: kfc@africaonline.co.ke
www.kenyaflowers.co.ke
4. Export Promotion Council
Anniversary Towers, 1st & 16th Floors,
University Way
P.O. Box 42047 Nairobi, Kenya
Tel: 254/020-228534
Fax: 254/020-218013/228539
Email: chiefexe@epc.or.ke
www.cbik.or.ke
5. Pest Control Products Board (PCPB)
P.O. Box 14733 Nairobi, Kenya
Tel/Fax: 254/020-446115

6. Kenya Plant Health Inspectorate (KEPHIS)
P.O. Box 49592, Nairobi, Kenya
Tel: 254/020- 440087/441804
Fax: 254/020-448940
Email: kephis@nbnet.co.ke

7. Kenya Agricultural Research Institute (KARI)
P.O. Box 14773, Nairobi, Kenya
Tel: 254/020 - 444144

Distribution Channels

Imported Oranges and Tangerines

Imported oranges are brought in mainly from South Africa, Egypt and Tanzania to a lesser extent.

Local importers procure the oranges in 18Kg cartons. They are transported mainly by sea and air and on reaching the country, are distributed to major local retail outlets like supermarkets and leading grocery stores in the city. These supermarkets then re-package the oranges in 1kg packs and display them on their shelves to sell to consumers.

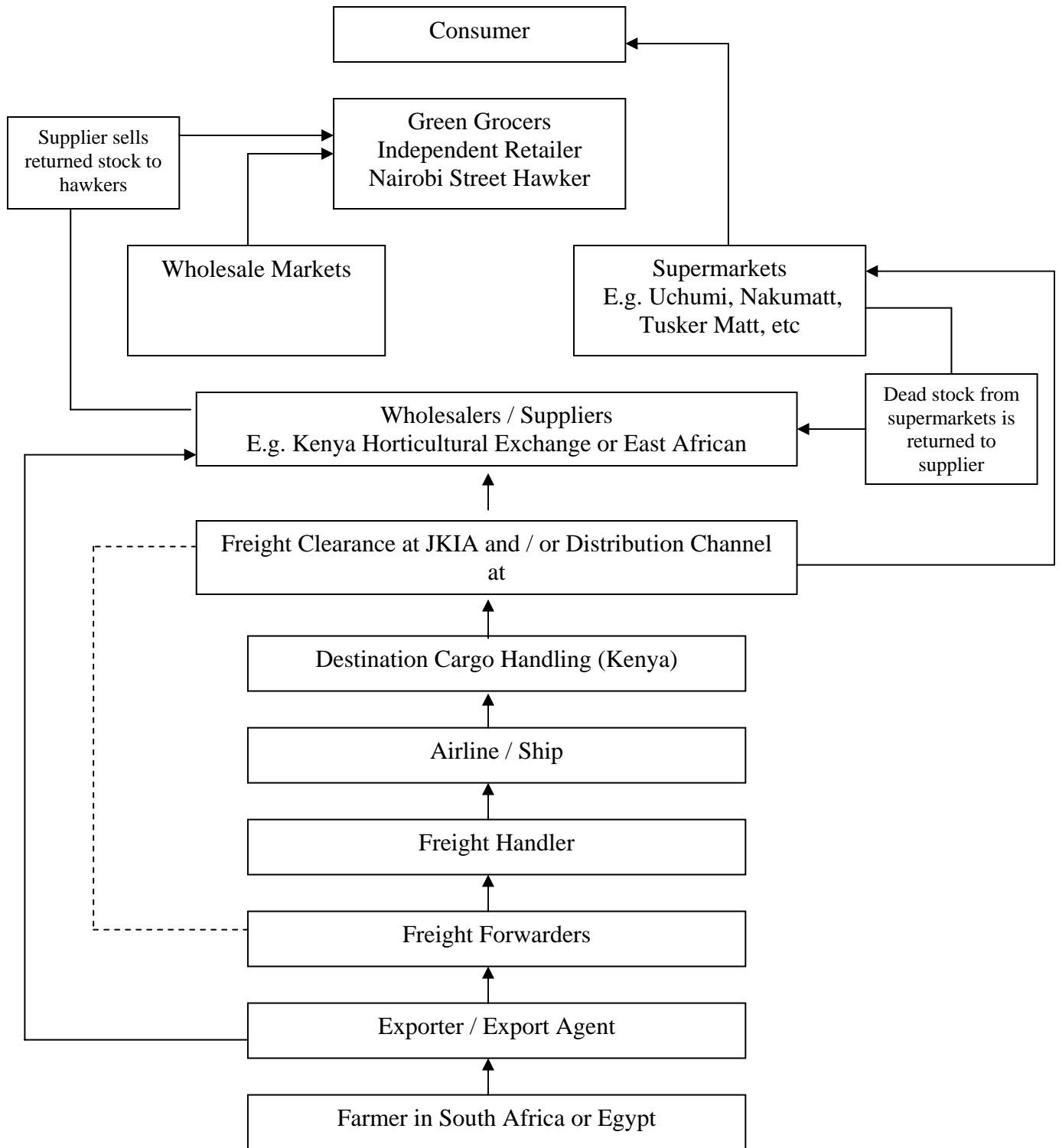
If the oranges demanded overstay on the shelves, the supermarkets return the excess stock to their suppliers, who are the importers. These companies then distribute these oranges to street hawkers who sell them along the streets. Hence, the street hawkers tend to have a much lower price and manage to quickly sell of the oranges.

Local Oranges and Tangerines

The citrus farmer sells his produce to the collecting trader who has a lorry or lorries to transport the oranges or tangerines he has bought from the farmer. The produce is then transported and sold to a wholesaler at the wholesale market in (e.g. Wakulimla market in Nairobi or Kongowea market in Mombasa). The wholesaler then distributes the stock he has purchased to retailers (e.g. supermarkets, grocery stalls, kiosks and hawkers). They purchase the produce and take it to their retail outlets for sale. Consumers shopping in these retail outlets purchase the citrus fruits for consumption.

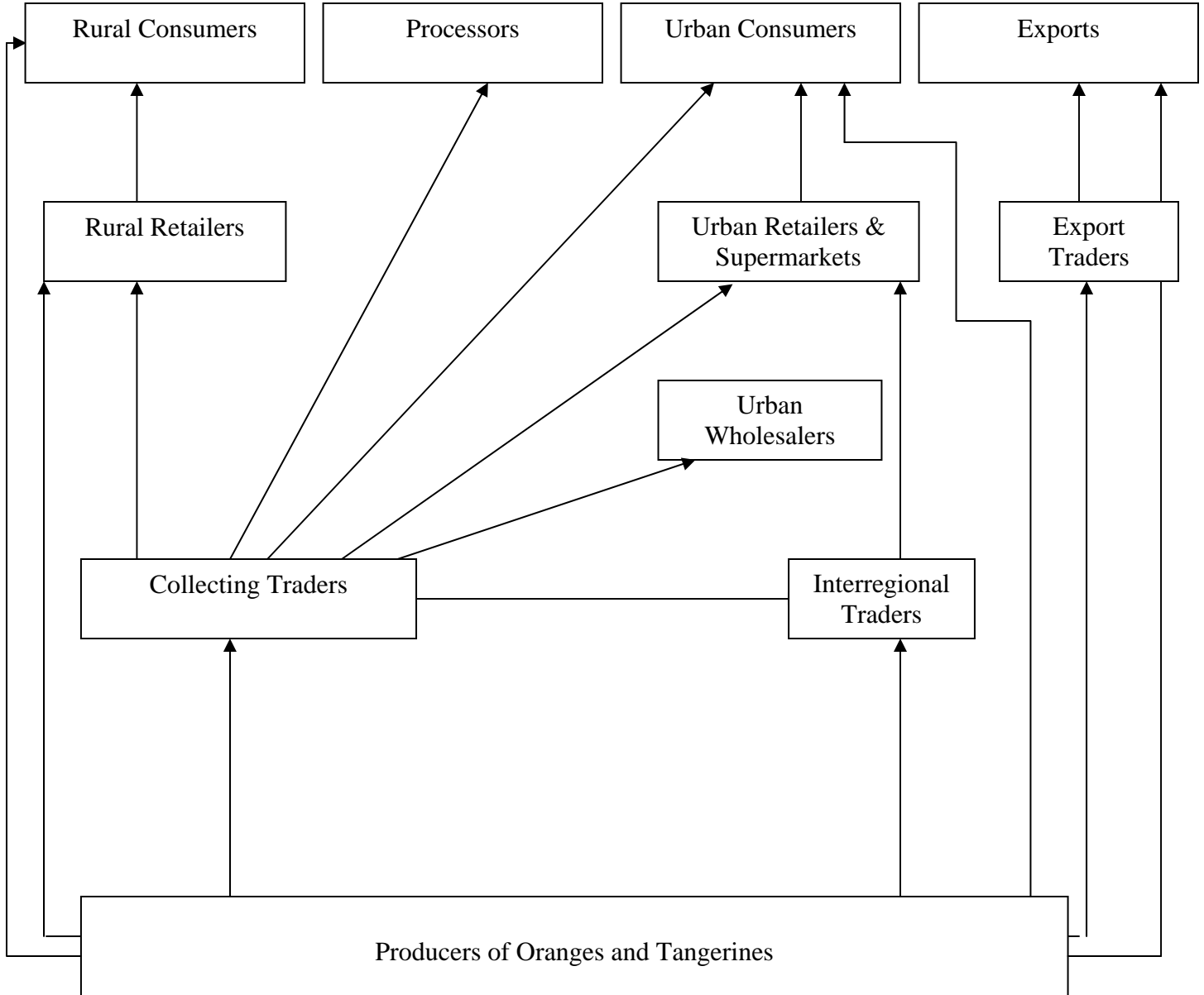
Local oranges and tangerines, unlike the imported ones are packed in 93 Kg bags.

Distribution Channel of Oranges Imported to Kenya from South Africa, Egypt or Tanzania



A Typical Flow of Locally Produced Oranges and Tangerines is as Shown Below

Horticultural Commodity Flows and Traders Involved



Volumes of Production and Exports

Information from the Horticultural Crops Development Authority - HCDA

Major Fruit Production in Kenya

Forecasts 1999 – 2003 (Tonnes)

Commodity	1999	2000	2001	2002	2003
Avocados	9,233	10,156	10,918	11,463	12,037
Macadamia Nuts	810	851	915	960	1,009
Mangoes	3,995	4,794	5,153	5,411	5,681
Passion Fruits	932	978	1,052	1,104	1,160
Pineapples	67,070	70,424	75,705	79,491	

Forecasts by HCDA on Kenyan Export Volumes and Values for Cut flowers, Fruits and Vegetables

1996 - 2003

The Kenyan Horticultural Industry Exports of Cut flowers, Fruits and Vegetables (Volumes and Values)				
Year	Volume	% Change	Values	% Change
1996	84,824	18.2	118,491	19.1
1997	84,190	(0.7)	134,363	13.4
1998	78,373	(7.0)	149,672	11.0
1999	98,964	26.0	218,525	46.0
2000	99,457	5.0	220,717	1.0
2001	119,348	20.0	230,000	4.5
2002	131,283	10.0	245,000	6.6
2003	141,786	8.0	260,000	6.2

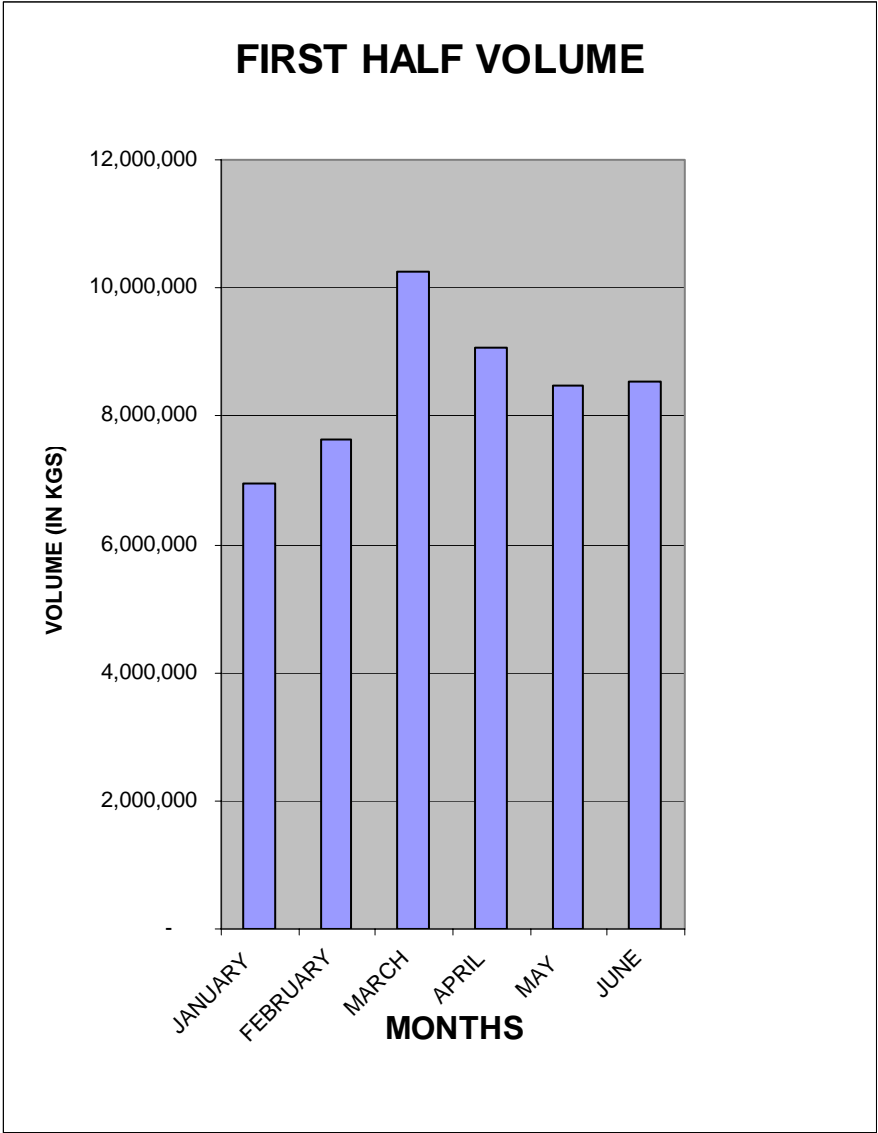
Kindly note that of Kenya's fruit exports, exports of avocados leads by 68%.

Horticultural Crops Development Authority

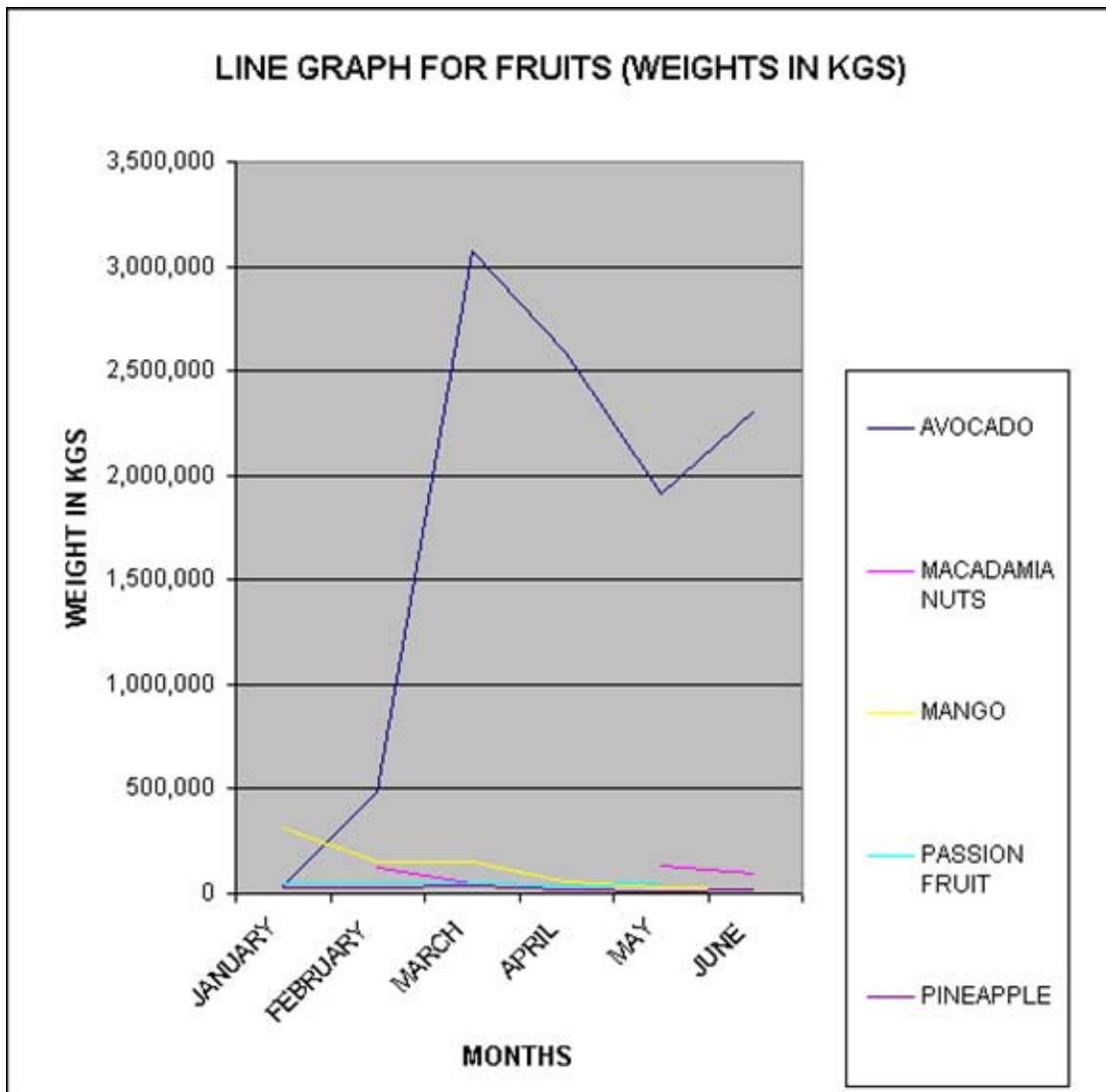
Export Market Statistics Figures for Fresh Fruits from Kenya by Sea & Air 2001 Volume in Kgs

COMMODITY	JAN	FEB	MAR	APR	MAY	JUN	JUL
FRUITS							
Apple	628	3,269	1,131	671	388	174	207
Avocado	36,645	482,747	3,069,604	2,588,134	1,909,145	2,313,498	2,440,829
Bananas	2,390	432	3,117	2,435	1,216	1,618	2,003
Betel Nuts	12	-	-	-	-	-	-
Cashewnuts	-	-	20	-	-	-	-
Coconuts	48	44	112	50	41	-	23
Custard Apple	45	525	173	350	249	-	-
Dried Fruits	-	-	419	-	-	-	-
Grape Fruit	160	41	225	585	-	-	20
Lemon	694	151	357	175	68	-	53
Lime	5	-	2	65	-	12	41
Macadamia Nuts	-	124,800	50,400	-	134,400	91,200	130,495
Mango	314,111	151,346	151,822	54,186	23,838	18,691	31,068
Melon	5,578	4,383	6,015	7,074	988	2,512	4,520
Mixed Fruits	19	-	70	383	65	36	-
Orange	1,520	249	2,700	633	-	-	265
Passion Fruit	46,124	46,038	50,176	41,601	44,258	-	42,983
Passion Fruit Juice	-	-	-	-	-	55,474	-
Pawpaw	576	438	511	482	461	881	961
Peaches	-	-	-	32	-	-	-
Pears	78	-	292	165	-	-	135
Pineapple	26,315	30,193	36,203	16,635	10,251	20,573	17,474
Plums	22	-	-	30	-	-	-
Raspberries / Blissies	408	418	399	290	63	72	18
Sour Sop	-	45	202	101	192	452	1,095
Starfruits	-	-	-	-	-	-	10
Strawberry	6,465	5,728	4,986	232	108	81	18
Tangerines	44	21	-	-	-	-	60
SUB TOTALS	441,889	850,868	3,378,937	2,714,309	2,125,729	2,505,273	2,672,277

COMMODITY	AUG	SEP	OCT	NOV	DEC	TOTAL 2001	TOTAL 2000
Fruits							
Apple	13	8	263	1,639		8,391	14,117
Avocado	1,279,944	790,140	258,548	73,632	129,808	15,372,674	10,716,113
Bananas	1,076	1,347	2,462	1,863	662	20,622	26,220
Betel Nuts	-	-	20			32	
Cashewnuts	-	-	-			20	25
Coconuts	-	-	25	52		394	8,777
Custard Apple	-	-	-		84	1,426	736
Dried Fruits	-	-	-			419	
Grape Fruit	-	-	15	5		1,051	1,165
Lemon	-	-	140	95		1,733	986
Lime	4	-	84	73	80	366	565
Macadamia Nuts	-	77,375	138,500	1,925,970	43,587	2,716,727	498,345
Mango	3,960	26,006	1,300,830	517,654	572,671	3,166,181	2,686,864
Melon	2,020	2,850	2,603	2,276	192	41,012	27,852
Mixed Fruits	-	-	-	20,534	13,784	34,891	
Orange	-	-	288	160		5,816	38,194
Passion Fruit	54,295	69,332	182,093	65,998	77,651	720,548	830,415
Passion Fruit Juice	-	-	-	24,000	6,340	85,814	1,404
Pawpaw	360	589	1,892	783	398	8,331	6,943
Peaches	-	-	-	20		52	
Pears	-	-	-	60		729	887
Pineapple	18,223	46,108	61,845	24,209	10,592	318,622	483,792
Plums	-	-	-		567	619	424
Raspberries / Blisses	-	-	18	658	63	2,408	664
Sour Sop	1,160	732	45	280	214	4,518	625
Starfruits	-	-				10	696
Strawberry	-	-	227	7,312	6,602	31,759	47,890
Tangerines	-	106,800	95	10	50,000	157,030	
SUB TOTALS	1,361,056	1,121,287	1,949,993	2,667,282	913,294	22,702,194	15,393,699



JAN	FEB	MAR	APR	MAY	JUN
36,645	482,747	3,069,604	2,588,134	1,909,144.70	2,313,498
	124,800	50,400		134,400	91,200
314,111	151,346	151,822	54,186	23,837.84	18,690.94
46,124	46,038	50,176	41,601	44,258.35	
26,315	30,193	36,203	16,635	10,250.58	20,573.12



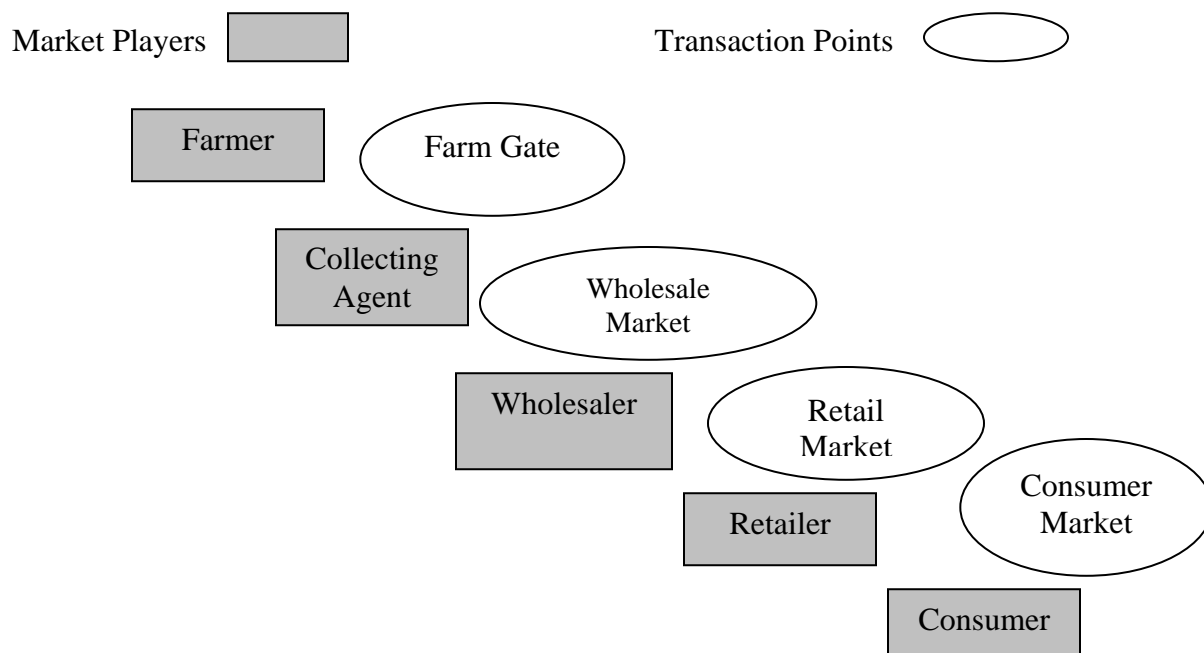
Pricing and Price Variations

Citrus Market Prices

Market Player	Price Range	ORANGES		TANGERINES	
		Local	Imported	Local	Imported
Farm Gate Sale Prices	Low	4.30/Kg	6.0/Kg	6.50/Kg	5.0/Kg
	High	16.10/Kg	16.0 / Kg	16.0/Kg	15.0/Kg
Wholesaler Buying Prices	Low	9.50/Kg	15.0/Kg	12.50/Kg	14.50/Kg
	High	22.0/Kg	35.0/Kg	22.0/Kg	35.0/Kg
Retailer Buying Prices	Low	14.50/Kg	35.0/Kg	18.50/Kg	20.0/Kg
	High	32.0/Kg	60.0/Kg	30.0/Kg	40.0/Kg
Retailer Selling Prices	Low	20.0/Kg	90.0/Kg	25.0/Kg	90.0/Kg
	High	46.0/Kg	130.0/Kg	50.0/Kg	120.0/Kg

Farmer sells citrus to collecting trader or trucker at Farm Gate Prices. The trucker, also acting as a collecting agent transports his produce to the market place and sells his produce to wholesalers in the market. These wholesalers in turn sell their produce to retailers.

Illustrated as below:



Average Monthly Pricing of Oranges and Tangerines over a 12 Month Period from August 2002 to August 2003

Source: Market Information Branch – Ministry of Agriculture.

**Wholesale Prices in Nairobi
(Sold Packed in 93 Kg Bags)**

Month of year	Average Monthly Price per 93Kg Bag KShs	Wholesale Price KShs per Kilo	Monthly Price Variation
August 2002	1250	13.44	From 1700 to 800
September 2002	1025	11.02	From 1200 to 850
October 2002	1700	18.28	From 1400 to 2000
November 2002	1,150	12.40	From 1,600 to 700
December 2002	1,500	16.13	From 1,600 to 1,400
January 2003	1.200	12.90	From 1,400 to 1,000
February 2003	1600	17.20	From 1,400 to 1,800
March 2003	1600	17.20	Constant
April 2003	2000	21.50	Constant
May 2003	1,900	20.43	Constant
June 2003	2000	21.50	Constant
July 2003	1750	18.82	From 1800 to 1700
August 2003	900	9.67	Constant

Expense Category	Cost in KShs
Category A	
Airfreight Costs	114/- per Kg
Rail Transport Costs	6/- per Bag
Road Transport	11/- per Bag
Storage and Handling Costs	3/- per Bag
Market Off Loading Costs	3/- per Bag
Category B	
City Council Cess	3/- per Bag
Purchase of Sacks / Gunny Bags	22.50/- to 25/- per Bag

Cost Variations

The costs of these factors of production can vary with influence of other exogenous factors such as:

Exchange Rate Fluctuations:

Fluctuations in the exchange rate may lead to a sudden increase in e.g. Petroleum prices or jet fuel consequently leading to an increase in transport and freight costs.

Increase in Fees and Taxes Levied by Government:

For example, an increase of V.A.T on various inputs can lead to an increase in the final costs of citrus.

Additional Price and Costing Information

Country	Market	Market Prices Date	Price / Transaction Unit (LC)	Local Currency (LC)	Transaction Unit	Kgs X Transaction Unit	Exchange Rate LC X \$ 1	Price / Kg (\$)	Kgs / Unit
Kenya	Mombasa	21/03/02	1400	KShs.	Bag	93	78.11	0.19	Wholesale
Kenya	Mombasa	07/03/02	1600	KShs.	Bag	93	78.02	0.22	Wholesale
Kenya	Nairobi	07/03/02	1800	KShs.	Bag	93	78.02	0.25	Wholesale
Kenya	Mombasa	01/03/02	1640	KShs.	Bag	93	79.05	0.22	Wholesale
Kenya	Nairobi	01/03/02	1800	KShs.	Bag	93	79.05	0.24	Wholesale
Kenya	Mombasa	01/03/02	1800	KShs.	Bag	93	79.05	0.24	Wholesale
Kenya	Mombasa	28/02/02	1540	KShs.	Bag	93	78.11	0.21	Wholesale
Kenya	Nairobi	28/02/02	1800	KShs.	Bag	93	78.11	0.25	Wholesale
Kenya	Nairobi	20/02/02	1800	KShs.	Bag	93	78.06	0.25	Wholesale
Kenya	Nairobi	12/02/02	1800	KShs.	Bag	93	77.99	0.25	Wholesale
Kenya	Nairobi	06/02/02	1600	KShs.	Bag	93	78.52	0.22	Wholesale
Kenya	Mombasa	20/02/02	1120	KShs.	Bag	93	78.48	0.15	Wholesale
Kenya	Nairobi	20/12/01	1600	KShs.	Bag	93	78.48	0.22	Wholesale
Kenya	Mombasa	13/12/01	1120	KShs.	Bag	93	78.76	0.15	Wholesale
Kenya	Nairobi	06/12/01	1050	KShs.	Bag	93	78.92	0.19	Wholesale
Kenya	Mombasa	22/11/01	1050	KShs.	Bag	93	78.97	0.14	Wholesale

Country	Market	Market Prices Date	Price / Transaction Unit (LC)	Local Currency (LC)	Transaction Unit	Kgs X Transaction Unit	Exchange Rate LC X \$ 1	Price / Kg (\$)	Kgs / Unit
Kenya	Nairobi	22/11/01	1600	KShs.	Bag	93	78.97	0.22	Wholesale
Kenya	Nairobi	21/11/01	1600	KShs.	Bag	93	78.90	0.22	Wholesale
Kenya	Mombasa	19/11/01	1050	KShs.	Bag	93	78.93	0.14	Wholesale
Kenya	Nairobi	19/11/01	1800	KShs.	Bag	93	78.93	0.25	Wholesale
Kenya	Mombasa	15/11/01	980	KShs.	Bag	93	78.92	0.13	Wholesale
Kenya	Nairobi	15/11/01	1800	KShs.	Bag	93	78.92	0.25	Wholesale
Kenya	Mombasa	08/11/01	980	KShs.	Bag	93	78.94	0.13	Wholesale
Kenya	Nairobi	08/11/01	1800	KShs.	Bag	93	78.94	0.25	Wholesale
Kenya	Mombasa	21/03/02	1050	KShs.	Bag	93	78.99	0.14	Wholesale
Kenya	Nairobi	01/11/01	2700	KShs.	Bag	93	78.99	0.37	Wholesale
Kenya	Mombasa	25/10/01	950	KShs.	Bag	93	78.80	0.13	Wholesale
Kenya	Nairobi	25/10/01	2600	KShs.	Bag	93	78.80	0.35	Wholesale
Kenya	Mombasa	18/10/01	1540	KShs.	Bag	93	79.01	0.21	Wholesale
Kenya	Nairobi	18/10/01	2500	KShs.	Bag	93	79.01	0.34	Wholesale
Kenya	Mombasa	11/10/01	1540	KShs.	Bag	93	78.90	0.21	Wholesale
Kenya	Nairobi	11/10/01	2200	KShs.	Bag	93	78.90	0.30	Wholesale
Kenya	Mombasa	04/10/01	1240	KShs.	Bag	93	79.15	0.17	Wholesale
Kenya	Nairobi	04/10/01	1600	KShs.	Bag	93	79.15	0.22	Wholesale
Kenya	Nairobi	19/09/01	2000	KShs.	Bag	93	78.88	0.27	Wholesale
Kenya	Mombasa	18/09/01	1400	KShs.	Bag	93	79.18	0.19	Wholesale
Kenya	Nairobi	18/09/01	1800	KShs.	Bag	93	79.18	0.24	Wholesale
Kenya	Mombasa	13/09/01	1360	KShs.	Bag	93	78.93	0.19	Wholesale
Kenya	Nairobi	13/09/01	1800	KShs.	Bag	93	78.93	0.25	Wholesale
Kenya	Mombasa	06/09/01	1800	KShs.	Bag	93	78.54	0.25	Wholesale
Kenya	Nairobi	06/09/01	2000	KShs.	Bag	93	78.54	0.27	Wholesale
Kenya	Mombasa	30/08/01	1420	KShs.	Bag	93	79.03	0.19	Wholesale
Kenya	Nairobi	30/08/01	1800	KShs.	Bag	93	79.03	0.24	Wholesale
Kenya	Mombasa	23/08/01	1360	KShs.	Bag	93	78.75	0.19	Wholesale
Kenya	Nairobi	09/08/01	1800	KShs.	Bag	93	79.15	0.24	Wholesale

Country	Market	Market Prices Date	Price / Transaction Unit (LC)	Local Currency (LC)	Transaction Unit	Kgs X Transaction Unit	Exchange Rate LC X \$ 1	Price / Kg (\$)	Kgs / Unit
Kenya	Mombasa	02/08/01	1070	KShs.	Bag	93	78.85	0.15	Wholesale
Kenya	Nairobi	02/08/01	1700	KShs.	Bag	93	78.85	0.23	Wholesale
Kenya	Mombasa	26/07/01	1140	KShs.	Bag	93	78.81	0.16	Wholesale
Kenya	Nairobi	26/07/01	1800	KShs.	Bag	93	78.81	0.25	Wholesale
Kenya	Nairobi	19/07/01	1800	KShs.	Bag	93	78.62	0.25	Wholesale
Kenya	Mombasa	12/07/01	1100	KShs.	Bag	93	79.17	0.15	Wholesale
Kenya	Nairobi	12/07/01	1800	KShs.	Bag	93	79.17	0.24	Wholesale
Kenya	Mombasa	05/07/01	900	KShs.	Bag	93	78.93	0.12	Wholesale
Kenya	Nairobi	05/07/01	1600	KShs.	Bag	93	78.93	0.22	Wholesale
Kenya	Mombasa	28/06/01	880	KShs.	Bag	93	79.06	0.12	Wholesale
Kenya	Nairobi	28/06/01	1800	KShs.	Bag	93	79.06	0.24	Wholesale
Kenya	Mombasa	14/06/01	1120	KShs.	Bag	93	78.47	0.15	Wholesale
Kenya	Nairobi	14/06/01	2000	KShs.	Bag	93	78.47	0.27	Wholesale
Kenya	Mombasa	07/06/01	1400	KShs.	Bag	93	78.56	0.19	Wholesale
Kenya	Nairobi	07/06/01	2000	KShs.	Bag	93	78.56	0.27	Wholesale
Kenya	Mombasa	31/05/01	2100	KShs.	Bag	93	78.79	0.29	Wholesale
Kenya	Nairobi	31/05/01	1400	KShs.	Bag	93	78.79	0.27	Wholesale
Kenya	Mombasa	24/05/01	1400	KShs.	Bag	93	78.65	0.19	Wholesale
Kenya	Nairobi	24/05/01	1800	KShs.	Bag	93	78.65	0.25	Wholesale
Kenya	Mombasa	21/05/01	1750	KShs.	Bag	93	78.31	0.24	Wholesale
Kenya	Nairobi	21/05/01	1800	KShs.	Bag	93	78.31	0.25	Wholesale
Kenya	Mombasa	17/05/01	2100	KShs.	Bag	93	78.46	0.29	Wholesale
Kenya	Nairobi	17/05/01	2000	KShs.	Bag	93	78.46	0.27	Wholesale
Kenya	Mombasa	10/05/01	2100	KShs.	Bag	93	78.29	0.29	Wholesale
Kenya	Nairobi	10/05/01	2000	KShs.	Bag	93	78.29	0.27	Wholesale
Kenya	Mombasa	03/05/01	2100	KShs.	Bag	93	77.61	0.29	Wholesale
Kenya	Nairobi	03/05/01	2000	KShs.	Bag	93	77.61	0.28	Wholesale
Kenya	Mombasa	27/04/01	1400	KShs.	Bag	93	77.52	0.19	Wholesale
Kenya	Nairobi	27/04/01	2000	KShs.	Bag	93	77.52	0.28	Wholesale

Country	Market	Market Prices Date	Price / Transaction Unit (LC)	Local Currency (LC)	Transaction Unit	Kgs X Transaction Unit	Exchange Rate LC X \$ 1	Price / Kg (\$)	Kgs / Unit
Kenya	Mombasa	26/04/01	1500	KShs.	Bag	93	77.41	0.21	Wholesale
Kenya	Nairobi	26/04/01	2000	KShs.	Bag	93	77.41	0.28	Wholesale
Kenya	Mombasa	25/04/01	1750	KShs.	Bag	93	77.41	0.24	Wholesale
Kenya	Nairobi	25/04/01	2000	KShs.	Bag	93	77.41	0.28	Wholesale
Kenya	Mombasa	24/04/01	1750	KShs.	Bag	93	77.41	0.24	Wholesale
Kenya	Nairobi	24/04/01	2000	KShs.	Bag	93	77.41	0.28	Wholesale
Kenya	Mombasa	23/04/01	1600	KShs.	Bag	93	77.41	0.22	Wholesale
Kenya	Nairobi	23/04/01	2000	KShs.	Bag	93	77.41	0.28	Wholesale
Kenya	Mombasa	20/04/01	1700	KShs.	Bag	93	77.44	0.24	Wholesale
Kenya	Nairobi	20/04/01	2000	KShs.	Bag	93	77.44	0.28	Wholesale
Kenya	Mombasa	19/04/01	2100	KShs.	Bag	93	77.47	0.29	Wholesale
Kenya	Nairobi	19/04/01	2000	KShs.	Bag	93	77.47	0.28	Wholesale
Kenya	Mombasa	18/04/01	4000	KShs.	Bag	93	77.49	0.56	Wholesale
Kenya	Nairobi	18/04/01	2000	KShs.	Bag	93	77.49	0.28	Wholesale
Kenya	Mombasa	17/04/01	1500	KShs.	Bag	93	77.47	0.21	Wholesale
Kenya	Nairobi	17/04/01	2000	KShs.	Bag	93	77.47	0.28	Wholesale
Kenya	Nairobi	12/04/01	1850	KShs.	Bag	93	77.28	0.26	Wholesale
Kenya	Nairobi	11/04/01	2000	KShs.	Bag	93	77.31	0.28	Wholesale
Kenya	Mombasa	10/04/01	1400	KShs.	Bag	93	77.34	0.19	Wholesale
Kenya	Nairobi	10/04/01	2000	KShs.	Bag	93	77.34	0.28	Wholesale
Kenya	Mombasa	09/04/01	1400	KShs.	Bag	93	77.45	0.19	Wholesale
Kenya	Nairobi	09/04/01	1800	KShs.	Bag	93	77.45	0.25	Wholesale
Kenya	Mombasa	06/04/01	1350	KShs.	Bag	93	77.53	0.19	Wholesale
Kenya	Nairobi	06/04/01	2300	KShs.	Bag	93	77.53	0.32	Wholesale
Kenya	Mombasa	05/04/01	1400	KShs.	Bag	93	77.66	0.19	Wholesale
Kenya	Nairobi	05/04/01	2200	KShs.	Bag	93	77.66	0.30	Wholesale
Kenya	Mombasa	04/1/01	1540	KShs.	Bag	93	78.50	0.21	Wholesale
Kenya	Nairobi	04/01/01	1800	KShs.	Bag	93	78.50	0.25	Wholesale

Tax Information

The taxation in the Kenyan citrus market is virtually insignificant. Mostly, only import duty is paid on imported citrus i.e. oranges and tangerines.

Further information will be provided as regards the specifics of these import duty on imported citrus produce.

Expense Category	Cost in KShs / Kg
CATEGORY A	
City Council Cess	KShs. 3/- per bag

Transport Information

Road Transport for Local Citrus

Local citrus is transported from farms in trucks and lorries of between 5-10 tons. The lorries then travel overnight and get to the Nairobi wholesale markets as early as 4 a.m. in the morning where they are off-loaded and sold to the market wholesalers in 93 Kg Bags.

These market wholesalers then sell their citrus produce to various retailers e.g. grocery stalls and supermarkets.

Air and Sea Transport for Imported Citrus

For imported citrus, the Air and sea transport are the most common methods of transportation. Rail transport is also used but to a very limited extent and mainly for neighboring regions within a country like transporting fruits from Mombasa to Nairobi. However, because of the perishability of the fruits and the slowness of rail transport, road transport is much preferred.

Expense Category	Cost in KShs / Kg
CATEGORY A	
Airfreight Costs	144/- per kg
Rail Transport Costs	6/- per bag
Road Transport Costs	11/- per bag
Storage & Handling Costs	3/- per bag
Market Off Loading Costs	3/- per bag

Transaction Points

The following are the major transaction points for citrus fruits:

- **NAIROBI**

1. Wakulima market
2. City council retail market (Landies)
3. City market
4. Nakumatt supermarkets
5. Uchumi supermarkets
6. Kenyatta market
7. City park market
8. Smaller markets in the various suburbs of the city

- **MOMBASA**

1. Kongowea market
2. McKinnon market
3. Nakumatt supermarkets
4. Uchumi supermarket
5. Majengo market

Market Dynamics of Kenyan Citrus Fruit Market

There are various factors besides demand and supply that determine the price of citrus fruits in Nairobi and Mombasa.. As per the table below, it is obvious that the market prices of citrus fluctuated greatly – as per data from the Ministry of Agriculture. It is the market forces (factors) that may have been the cause of these price fluctuations that are the subject of discussion.

The main factors/forces responsible for citrus market dynamics are:

- **Supply**

If the supply of citrus fruits is drastically increases such that it outstrips the demand, then, prices decline drastically. This is because citrus fruits are highly perishable and do not have a long shelf life. Traders have to dispose of them quickly before the fruits rot even if this means selling at a price that enables them only to recover their costs / expenses.

- **Demand**

At times e.g. when it becomes very hot and humid in Nairobi (25 to 29 degrees Celsius) demand for citrus fruits drastically increases and immediate supply to meet this upsurge in demand is nowhere to be found. This is because Nairobians feel dehydrated and very thirsty and wish to refresh themselves with fruits, which are cheaper than sodas.

Hence, traders take advantage and drastically increase the prices of citrus fruits as consumers are willing to pay extra to take home some tangerines or oranges.

- **Season**

At times, when local citrus is off-season, supply diminishes to a level where it cannot meet the sustained demand for citrus fruits. If this stock of citrus in supply is not quickly replenished by looking at alternative market sources e.g. imports from neighboring countries or elsewhere, then, prices will slowly fluctuate upwards consequently leading to citrus fruits being more costly on market shelves.

- **Other market forces may be classified into 2 categories:**

1. **Endogenous Factors**

These are variables – determinable by the fruit market players that cause a variation or fluctuation in prices of citrus fruits in Nairobi. Such endogenous factors may include:

- a) **Rejected Exports**

The EU has very strict regulations on the grading, levels of chemical treatment and pesticide use that should have been done on fruits exported to its member countries. Hence a local producer of citrus who exports his fruits to the EU market, only for them to be rejected as low quality, finds that he has to dump his produce in the local market leading to an upsurge in supply and decline in price.

b) Trade Barriers and Stiff External Competition

Local farmers' citrus produce has to compete with the produce of farmers from other leading nations of the west whose farmers produce is heavily subsidized and who have better technology of production. In such a scenario, a farmer growing for exports may find that he/she is unable to sell his/her produce overseas and resort to selling it locally.

c) Level of Dumping

Ineptitude by the government in effecting set tariff levels controlling quantity of imports that can be allowed to enter into the country is responsible for dumping of citrus fruits in the market. This leads to supply fluctuations and distorts prices.

d) Poor Infrastructure

Poor road network, lack of AIS – Agricultural Information Services

e) Cost of Factors of Production

Farm input costs like costs of seedlings, fertilizer, water availability, electricity costs (for irrigated costs), and labour costs etc.

f) Lack of AIS

Absence of Agricultural Information Services) to farmers

g) Poor Marketing Performance

By Agricultural based Marketing institutions/Bodies.

h) Bias by Horticultural Bodies

Which favor other fruits and vegetables over citrus fruits, hence affecting the production.

2. Exogenous Factors

These are factors – beyond the control of mankind, that affect the citrus market. They include:

a) Acts of GOD

Natural calamities like drought, floods e.g. El Nino floods and locusts attacks of crop fields.

b) Weather

Sudden changes in weather and climate may affect yields of citrus hence affect their supply in the market.

c) Political Instability & Land Clashes

These are factors that may cause a sharp decline in production e.g. the land crisis in Zimbabwe. Consequently, this is an exogenous factor that may nevertheless affect the production of citrus.

d) Tastes and Preferences

Citrus consumption is subject to individual tastes and preferences. Some consumers simply purchase oranges as an alternative to tangerines. Costs of similar complementing or substitute goods like tangerines or pineapples also can affect demand for oranges.

Analysis – Tanzanian Import Potential

Opportunities and Constraints

Opportunities

Besides simply sharing a common borderline with Kenya on the south, the history of the peoples of Tanzania and Kenya’s dates back to pre-independence times, hundreds of years ago.

Friendly political relationships between the two states have characterized their post independence co-existence in the family of East African states. A hallmark of their good neighborliness, has been the striving by East African leaders to open their borders to each other and allow trade and movement of goods and people between them to be easier and with less restriction. This is evidenced by the formation of amongst others, the **EAC** (East African Community), the East African Legislative Assembly and **COMESA** (Common markets for East & Southern Africa).

Tanzania and Kenya are connected by the Indian Ocean, as well as by road and rail networks. The people of East Africa share a common language – Swahili, hence making them further integrated.

Last but not least, the climate in Tanzania being mainly hot and humid favors the production of citrus fruits that have higher sugar content than rival produce. They are known for their sweet taste.

Constraints

Unfortunately however, besides these obvious advantages for Tanzania, it has, (despite being a major producer of citrus fruits and especially tangerines and oranges) been unable to effectively penetrate the Kenyan market, which has a shortage of the same. Instead, Tanzanian produce of citrus has faced stiff competition in the Kenyan market from South Africa, a country several thousand miles away from the two east African states.

Some of the main constraints hindering the entry of Tanzanian produce into the lucrative Nairobi market are:

- 1. Poor Merchandising**

Tanzanian produce is not well marketed in the city of Nairobi. While maintaining a silent presence on the shelves of many retail outlets, it is unbranded and hence lacks identity – existing in the informal market.

- 2. Inconsistency of Supplies**

Several retailers, including leading supermarkets have complained that Tanzanian citrus suddenly appears and disappears from the market. Its supply is inconsistent and hence leading retailers shy away from stocking of these products.

3. Lack of Established Tanzanian Companies that Sell Citrus to Kenyan Market

Leading Nairobi retailers prefer dealing with established horticultural based firms or companies to supply them with citrus. WHY? Because with these established dealers, the retailers e.g. leading supermarkets can buy their stock of citrus (tangerines and oranges) and put them on their shelves. Then, if the citrus fruits they have in their stores begins to rot, they can return the spoilt fruits to the Horticultural based firms and get their money back (a kind of MONEY BACK GUARANTEE) Hence, they find it to be less risky dealing with established firms than with informal citrus fruits suppliers whose citrus fruit once bought cannot be returned, hence a loss to the retailer if the stock of these highly perishable goods/ fruits purchased by them isn't sold off before it goes bad.

4. Poor/Low Quality of Citrus Produced

Much of Tanzanian citrus fruit produce sent to Kenya is of a poor grade and quality compared to citrus products imported from the Republic of South Africa. Thus, it cannot compete effectively in the retail market because, going for the same price as South African oranges or tangerines, a customer would easily prefer the latter's produce as it is of far better quality than that from Tanzania.

5. Poor Packaging

Compared to South African citrus imports to Kenya, which are beautifully and presentably packaged, produce from Tanzania is brought packed in overstuffed 93Kg bags. It is soiled and dirty by the time it arrives in Nairobi. Tanzanian imports to Kenya should in future be attractively packaged and clean to entice the Nairobi buyer, who has several choices to make and will only choose the best.

6. Lack of Subsidies to Tanzanian Citrus Farmers

Tanzanian citrus farmers do not enjoy agricultural subsidies, as do their South African or Egyptian counterparts. Hence, they are unable to compete in terms of pricing for their produce. South African farmers enjoy subsidies from their government and hence can manage to sell their produce at a cheaper cost.

7. Lack of Appropriate Technology in Production

Unlike their main competitors who have access to the latest technological means of enhancing their produce, Tanzanian farmers because of a relatively weaker economy and lack of proper information, do not have access to appropriate technological methods of planting, irrigating or use of genetically modified varieties of citrus (which tend to be more resistant to various diseases and have a shorter maturity period) than ordinary citrus produced in Tanzania.

8. Poor Transport and Communications Infrastructure

Poor infrastructure e.g. poor road network, poor communication facilities etc. lead to a significant increase in the price of citrus fruits produced in Tanzania.

Other Constraints

1. Inadequate infrastructure; poor access roads to the production areas and to the market; insufficient and yet expensive electricity; inefficient railway system.
2. Low quality produce and low yields leading to high production costs.
3. High cost of farm inputs, including seed, fertilizer and chemicals.
4. Insufficient horticultural extension services, ineffective extension messages and poor delivery system and adoption.
5. Poor post-harvest handling leading to post-harvest loss.
6. Unacceptably high pesticide use and ignorance of environmental concerns as demanded by importing countries.
7. Lack of cooling facilities in the rural areas.
8. Un-streamlined marketing channels and the exploitation of farmers by middlemen.
9. Heavy handling charges for services at the airport.
10. Fairly high freight rates and (inadequate cargo space).
11. Lack and access to adequate and reasonably priced credit.
12. High bank interest rates, which discourages borrowing.
13. Lack of adequate market promotion.
14. Ineffective regulatory constraints

Over 70% of vegetables and fruit is produced by small-scale holders – who have certain specific problems which need to be addressed if the industry is to continue to grow; and these are:

- **Problems/Constraints Specific to Small Scale Growers**

1. Their acreage under horticultural crops(s) are narrow – 0.25 – 1.5 acres, and mostly rain-fed.
2. Difficulty in procuring seed and other inputs.
3. Relatively expensive inputs costs

4. Unavailability/inaccessibility to financing loans - they do not have access to loans from private banks due to lack of mortgage security.
 5. Labour shortage in peak harvesting time.
 6. Precarious and irregular collection by exporters/and brokers (road conditions from collecting points are generally poor),
 7. Un-remunerative farm gate prices. Small-scale farmers also suffer from cost-price squeeze – there is a tendency for input cost indices to increase while farm-gate price decline, due mainly to exchange rate, expensive air cargo tariffs and poor quality product.
 8. Lack of information – market prices and prices and the supply and demand dynamics.
- **Opportunities**
 1. Horticulture offers increased food self-sufficiency, generation of income and employment.
 2. Provides raw materials to the processing sector – thus encouraging industrialization.
 3. Produce should/must be of good quality to be well accepted in the International markets.
 4. Development of new product lines is vital to the survival of the industry. Consumer preferences are never static.
 5. Producers/Exporters need to be in touch with markets, gather appropriate marketing information (i.e. price, packaging, timing) and respond to it.
 6. Apart from traditional markets, continuously search for new markets and opportunities.
 7. In order to develop new products, farmers should have access to new varieties and updated production technologies at a competitive price.
 8. In addition to basic research, adaptable market oriented research is necessary, and resultant finding be developed into appropriate extension packages and the resultant data to be simplified for easy use by extension officers and farmers, e.g. in local languages.
 9. Address the constraints by involving the government and other trade associations.
 10. Regulation should create an enabling environment.

- **Production Issues**

1. Low quality produce and need for Good Agricultural Practice (GAP).
2. Poor post harvesting handling and phytosanitary problems leading to crop loss.
3. Low yields with the resultant high production costs.
4. High cost of farm inputs, including seed, fertilizers and chemicals.
5. Insufficient horticultural extension services, ineffective extension messages and poor delivery system and its adoption
6. Limited horticultural research.
7. Lack of cooling facilities, especially in the rural areas
8. Unacceptably high pesticide use and ignorance of environmental concerns as demanded by importing countries.
9. Inaccessibility to production credit.
10. Inadequate water for irrigation.

Major Players in Tanzania Citrus Fruits Market

1. KIDAMARI KIPERA FARM
NZIHI AREA
BOX 193, IRINGA
TEL: 255-64-2177
2. MICCOS INTERNATIONAL LTD
JAMUHURI / MRIMA STREET
BOX 2990 DAR-ES-SALAAM
TEL: 255-51-31101
3. MOROGORO TRADING AGENCIES
BOMA ROAD
BOX 1156 MOROGORO
TEL: 255-56-4315
4. TRADE INVESTMENT CO. LTD.
KIWALAWI AREA
BOX 2870 DAR-ES-SALAAM
TEL: 255-51-37371