KENYA MARKETS TRUST

Better Markets, Better Lives

The Burden of Produce Cess and Other Market Charges in Kenya

Produce Cess and Other Market Charges in Kenyan Agriculture

Final Report

July 2016

Prepared by

Bayesian Consulting Group Limited

Email: info@bayesianconsultinggroup.org

Table of contents

List of tables and figures

LIST OF TABLES

LIST OF FIGURES

Acronyms

AFFA	Agriculture, Fisheries and Food Authority Act
CSDI	Centre for Sustainable Development Initiatives
EAC	East Africa Community
FGD	Focus Group Discussion
KII	Key Informant Interviews
KMT	Kenya Markets Trust
LGA	Local Government Authorities
SADC	Southern African Development Community
URT	United Republic of Tanzania

Acknowlegements

Bayesian Consulting Group Ltd gratefully acknowledges all KMT staff that provided support in the execution of this study. We single out Eric Momanyi and Chris Shimba for the invaluable contribution to the success of this study. The excellent backstopping provided by Professor Germano Mwabu throughout the study is highly appreciated. His comments and insights into the study methodology, sampling, data collection tools and data analysis and interpretation of results are highly appreciated. His comments on the draft report greatly helped to improve the final report.

We thank all the respondents who agreed to spend their time responding to our questions and providing information. These include traders, key informants, county officials and others. We also wish to thank our field enumerators and their supervisors who ensured that data collection exercise was carried out speedily and successfully. We gratefully acknowledge our data analysts for the good and timely work of data entry and cleaning.

Executive summary

Produce cess is an indirect tax on tradable agricultural commodities that is intended to operate as an earmarked levy for improvement of production and distribution of the taxed agricultural commodities. In contrast, market levies, including fees and charges, are imposed to raise revenue for devolved government authorities. Both produce cess and market levies can be charged based on volume or value traded using a flat, proportionate or graduated rate at the discretion of the authorities guided by existing laws. Cess and market charges are preferred by local government authorities due to their potential to generate significant amount of revenue, administrative ease and low collection cost. However, if designed and administered poorly they these levies can adversely affect incentives to produce and trade within the agriculture sector and even hurt the final consumers. Depending on the responsiveness of production or consumption to the associated changes in prices due to cess, the producers or consumers or both can be adversely affected. The need for government to raise revenue is well understood, but tax regimes should not be designed and administered in a way that stifles economic growth or unfairly burdens certain sections of the society.

Before the Constitution of Kenya 2010, the collection of produce cess was anchored in the Agriculture Act (Cap 318). Under this Act, local authorities could impose cess with the consent of the Minister in charge of local government. In the Act, produces cess was clearly conceptualized as an earmarked levy; 80% of all cess collection was supposed to be ploughed back to maintain roads and improve services. The new constitution ushered in a new era with the establishment of 47 County governments and the abolishment of the former local authorities. The role of taxation is shared between the two levels of government and the types of taxes that each level can charge are clearly defined. The issue of produce cess though has been a somewhat grey area. It is not explicitly defined under the main tax categories that County governments could charge under the new constitution because the Agriculture Act has been repealed by AFFA Act. However, majority of Counties have entrenched cess into their legal systems through annual Finance Acts passed by respective County Assembles.

Since the establishment of county governments, there is scanty empirical evidence on the dynamics of agricultural produce cess in Kenya. Critical aspects, such as its design, practice, and effectiveness are not very well understood. It is not clear the extent to which the burden of produce cess affects the cost structure of major agricultural commodities. Empirical evidence on these issues is essential in informing policy discussion on the most effective and efficient way to implement

or modify cess. It is against this background that the Kenya Markets Trust (KMT) commissioned this study to generate evidence and information on the cost structure of major agriculture commodities (Cereals, Livestock, Dairy, Fish and Vegetables).An important remit of the study is to assess the contribution of cess and other levies on costs of producing and distributing the above agricultural commodities.

The study was conducted using qualitative and quantitative methods. Analysis of quantitative data involved computation of total costs, revenues, cess as a proportion of total cost, the impact of cess on costs and cost structure, and the overall cess burden on consumers, especially the poor. To assess the impact of cess on costs, two regression equations, one for distribution cost, and the other for production cost, were estimated. It is important to clarify that production cost is the total expense of all the inputs involved in producing a given agricultural commodity, while the distribution cost is the total expense incurred to take the commodity to users, and this outlay includes cess, other levies and transportation expenditure.

The highlights of the findings are:-

Finding 1: Produce cess and market charges constitute a relatively small proportion of the total annual distribution cost compared to transport cost.

Finding 2: Compared to other market charges and levies, the average produce cess is higher, except for the cess paid by livestock traders.

Finding 3: The cess computed as the percent of total distribution cost varies substantially by commodity type. It varies from a high of 29% on onions to as low as 1% for small ruminants.

Finding 4: The cess burden varies by county. Traders in urban counties located away from the major production areas face higher cess, expressed as a percentage of the distribution cost. This finding reflects the existence of multiple cess levies along the trading routes.

Finding 5: Produce cess significantly increases the distribution cost. A one percent increase in cess raises the average distribution cost by 0.8%. This implies that cost of production is increased by cess although any rise in cess leads to less than proportionate rise in the distribution cost.

Finding 6: Other charges that influence distribution costs include brokerage fees, market levies and unofficial levies. A one percent increase in market levies is associated with a 0.7% increase in average distribution cost. A one percent increase in the brokerage fee is associated with a 0.5% increase in the distribution cost. A 1% increase in unofficial levies is associated with a 0.6% increase.

Finding 7: Cess increases the average cost of production. A one percent increase in cess increases the average cost of production by 0.2%.

BASED ON THE ABOVE FINDINGS, THE STUDY MAKES THE FOLLOWING RECOMMENDATIONS:-

- National and County governments should continue with and intensify building, improvement and maintenance of road infrastructure. This would contribute to reducing the transport costs, and hence the cost of distributing essential commodities.
- Given that cess significantly contributes to increasing the overall cost of doing business, County governments ***should not*** increase the current cess levels. Instead, Counties should explore ways of reducing the current levels of cess.
- Cess collection should be synchronized across counties. Once cess is charged in the source county, it should not be levied on the same goods in other counties while in transit. Counties should work together through established institutionalized inter-county fora, like the Council of Governors (CoG), to establish mechanisms for dealing with multiple payment of cess and other charges.
- County and national government should work together to eliminate unofficial levies that increase the cost of doing business without any apparent value addition.
- Counties should use cess collected to improve commodity distribution infrastructure. Funds collected from cess should not be used for general budgetary support. There is need to establish dedicated accounts for cess that can help track cess revenues and how the revenues are used.

1.0 Introduction

1.1 GENERAL BACKGROUND

Produce cess is an indirect agricultural tax charged on domestic agricultural trade. Cesses are normally targeted on major tradable agricultural products. Ideally, cess is supposed to operate as an 'earmarked levy' where the revenue raised is ploughed back towards improvement of production and distribution of the taxed commodities.

The earmarking of cess is an extension of the beneficiary principle that provides a direct link between the tax paid and provision of goods and services (Khan, 2000). On the other hand, market taxes (levies and charges) are generally levied to finance expenditures of local governments. Cess, market charges and other levies can be imposed using different rates; flat, proportional or graduated based on either quantities (volume) or value of the traded commodities.

Local government authorities favour cess, market charges and other levies because they have the potential to generate significant amount of revenue and are easy and inexpensive to administer. However, they can adversely affect incentives to produce and trade within the agriculture sector. This is because the incidence of these taxes can easily be shifted forward or backward depending on the elasticities1 of supply and demand as noted by Khan (2000). For example, if the elasticity of supply is high and the elasticity of demand is low, a cess-paying trader can increase the selling price. In this case, the incidence of the tax would fall on the consumer. On the other hand, if the elasticity of supply is low and the elasticity of demand is high, the cess-paying trader cannot raise the selling price. This puts the burden of cess on the trader. In essence the actual incidence of the cess tax can fall on the trader, can be transferred to the final consumer, or can be shared, depending on elasticities of supply and demand for a given agricultural commodity.

1.2 PRODUCE CESS IN KENYA'S CONTEXT

Historically, before the Constitution (2010), collection of produce cess in Kenya was anchored in the Agriculture Act (Cap. 318) of the laws of Kenya. It conferred local authorities with power to impose cess in consultation with and the consent of the Minister in charge of local government. Section 192 A of the Act explicitly directed local authorities to spend 80% of all cess monies in maintaining roads and other services related to the sector from which the cess monies were levied. In

[1] Elasticities are sensitivities of buyers and sellers to changes in market prices. A high elasticity of demand means that a small change in price will result in a large change in quantity consumed and vice versa.

essence, the Agriculture Act reinforced the cess as an earmarked levy to improve local infrastructure and services for the agriculture sector.

The Constitution ushered in a new legal regime that necessitated an overhaul of the old laws. The establishment of 47 County Governments was a major change in governance structure. Under the devolved system of government, the Constitution provides for taxation by both levels of government and defines taxes that can be imposed by the national and county governments. According to Article 209 (1) of the constitution, only the national government may impose; income tax, value-added tax, customs duties and other duties on import and export goods and excise tax. Article 209 (3) of the constitution provides that a county may impose: (a) property rates; (b) entertainment taxes; and (c) any other tax that is authorized by an Act of Parliament.

Although the constitution provides a clear framework on taxation, there have been grey areas of contention. Collection of agricultural produce cess has been one such area. The Agriculture Act (Cap.318) was repealed in January 2013 by the Agriculture, Fisheries and Food Authority (AFFA) Act (No.13 of 2013). During the transitional period up to September 2013, counties continued to charge cess under the Public Finance Management Transition Act. After that period, majority of counties entrenched cess tax into their legal system through statutes that are passed by the County Assemblies.

The need for governments to raise revenue to finance development is well acknowledged. However, taxation should not be imposed in a way that inhibits economic growth or unfairly burdens certain sections of the society. The Kenyan constitution itself under Article 209 (5) explicitly says that:-

'Taxation and other revenue raising powers of a county shall not be exercised in a way that prejudices national economic policies, economic activities across county boundaries or national mobility of goods, services, capital or labor'.

In Kenya, there are scanty empirical studies on the impact of produce cess on agriculture sector. Such empirical evidence is critical for informing policy discussions and debates on produce cess.

1.3 RATIONALE FOR THE STUDY

The Kenya Markets Trust (KMT) identified agriculture produce cess as an important issue in policy debates on agricultural taxation. It has implication on cost structure of agriculture production and distribution.

As in many other African countries and the rest of the world, rural taxation in decentralized system of government is an issue of concern (see for example Bahiigwa et al., 2004 in Uganda and; Nyange et al., 2014 in Tanzania). There is very limited evidence on the dynamics of agricultural produce cess in Kenya particularly under the devolved government. Critical aspects such as its design, practice, and effectiveness are not very well understood. It is not very clear the extent to which the burden of produce cess affects the cost structure of major agricultural commodities. Empirical evidence on these issues is needed to inform policy discussion on the most effective and efficient way to implement cess.

High cost of production renders Kenya agricultural produce expensive and internationally uncompetitive. The contributors of the high cost are generally known to include; high cost of inputs, outdated and inefficient production techniques, high government taxes and other charges, high transport costs due to poor infrastructure, high energy cost that increases processing cost among others. However, the proportion of each of these in the final price is not well understood. Disaggregating these costs would provide a more informed debate on costs that require most attention.

In the new era of devolution in Kenya, the use of produce cess has become a popular avenue for raising revenue for the counties. A number of market players have raised concern about multiple cess levies being charged across counties that straddle across main trading routes. These multiple levies lead to high consumer prices and make the commodities uncompetitive in cross border trade. However, actual hard numbers and data are not available to inform discussion on this critical issue.

It is against this background that KMT commissioned this study to generate data and information on the cost structure of major agricultural commodities (Cereals, Livestock, Dairy, Fish and Vegetables) to assess the contribution of cess and other levies on the final produce cost.

1.4 OBJECTIVES

The objectives of the study were to:-

1. Analyze how cess affects the cost structure of key commodities, including cereals, livestock, dairy, fish and vegetables.
2. Describe the practice and design of cess levies across counties.
3. Make recommendations based on study findings.

1.5 SCOPE

The study focused on four key commodity value chains including: Livestock (Cattle and Shoats), dairy, fish, cereal and vegetables (onions, tomatoes and kales (Sukuma wiki)) in 12 counties. The counties of study included; Nairobi, Migori, Kisumu, Uasin-Gishu, Kiambu, Mombasa, Trans-Nzoia, Kajiado, Homa-Bay, Kisii, Isiolo and Garissa. The study analyzed production and distribution costs. The study also undertook a critical review of the produce cess regimes in terms of its legal basis, design, practice, challenges, success, etc.

1.6 ORGANIZATION OF THE REPORT

The report is organized into 4 chapters. The next Chapter provides an overview of the quantitative and qualitative methods used in the study. Details on how sampling of interviews was done, their spread across counties and commodity groups is provided. Data collection methods, analysis and presentation are also discussed. Findings of the study are presented in Chapter 3. They are structured in four themes: characteristics of traders in the value chains covered, overview of trade dynamics by value chains and produce cess and other levies. Chapter 4 concludes and provides key recommendations on produce cess and market levies in Kenya.

2.0 Methodology

2.1 INTRODUCTION

The study was conducted using both qualitative and quantitative methods. An inception meeting between KMT and the Bayesian Consulting Group Ltd was held at the beginning and an inception report presented by the consultant. It was deliberated upon and timelines and study counties were agreed upon. It was agreed that the study would be conducted in the 12 Counties highlighted in Figure 2.1.

The choice of the Counties was informed by the production and flow of the agricultural products of interest. Mombasa and Nairobi are important markets for almost all agricultural products although in this study they were targeted as consumption centres of maize, milk, fish and vegetables. Garissa, Isiolo and Kajiado were selected for their importance in livestock production and trade. Kiambu was selected for its importance in milk and vegetable production while Uasin-Gishu and Trans Nzoia were chosen for their importance in maize and milk production and trade. Kisumu, Homa-Bay and Migori were selected because of their relative importance in capture fisheries. Kisii County was chosen because of its role in production and trade in vegetables.

To comprehensively cover different sources of information on cess and triangulate it, three interview modules were adopted. The modules included:-

- Individual trader interviews,
- Key Informant interviews (KII) and
- Focus Group Discussions (FGDs).

Consequently, interview tools and FGD checklist were developed, shared with Kenya Market Trust (KMT) for review and comments before revision and adoption. The final survey tools are annexed to this report (see Annexes 6.2, 6.3 and 6.4). In the next sub-sections, we discuss the detailed methodological approaches used to collect and analyse data, and present the results.

2.2 SAMPLING DESIGN

The sample sizes for individual traders to be interviewed for each value chain were agreed on at the inception meeting and are summarize in Table 2.1.

Table 2.1: Number of traders interviewed

	M	F	M/L*	T	O	K	Total
Mombasa	30	20		30	15	20	115
Isiolo			30				30
Garissa			31				31
Nairobi	30	29	10	30	11	20	130
Kajiado			33				33
Kiambu			52	30	10	31	123
UasinGishu	50		33				83
Trans Nzoia	51		27				78
Kisumu		53					53
Homa-Bay		29					29
Migori		25					25
Kisii				11	11	11	33
Total	161	156	122/94	101	47	82	763

Key: M/L: milk or Livestock. For Kiambu, Nairobi, Uasin-Gishu and Trans Nzoia the statistics refer to milk traders while for Garissa, Isiolo and Kajiado, the statistics refer to livestock traders.

M=Maize; F=Fish; T=Tomatoes; O=Onions; K=Kales

Source: Survey data, 2016

However, the individual traders interviewed were randomly selected from the list of traders kept by traders' associations for respective commodities in each market.

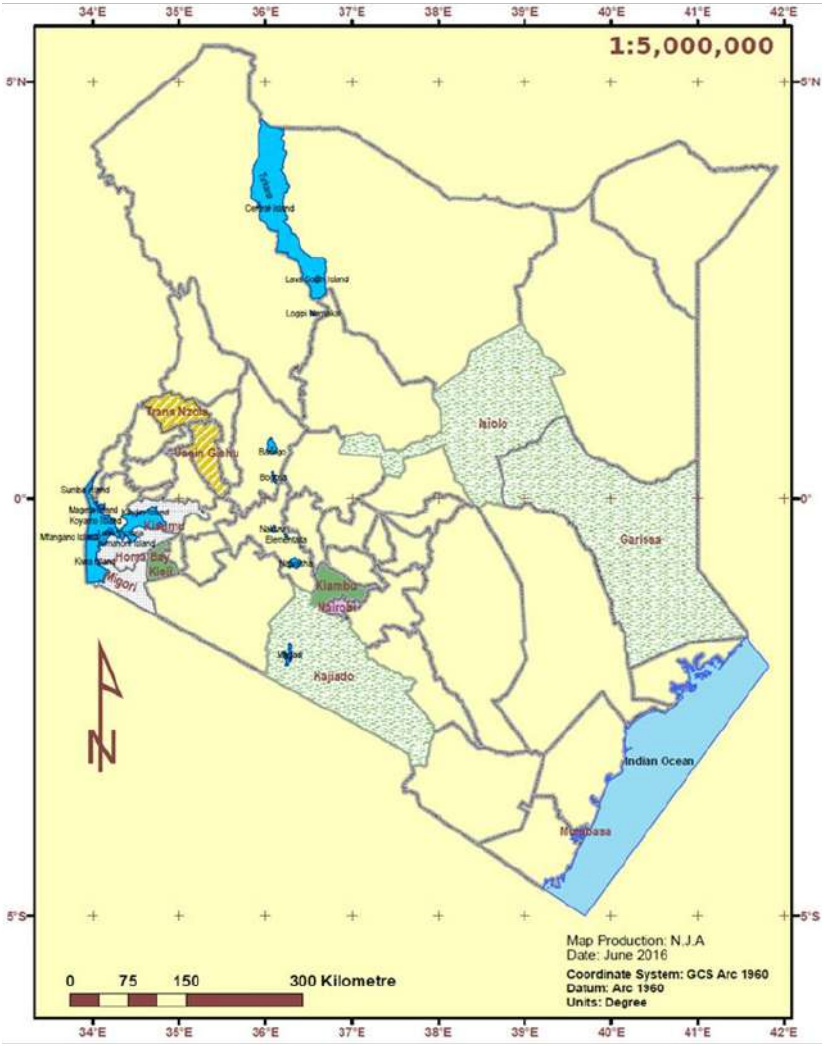

Figure 2.1: A map of Kenya showing the Counties of Study

Source: Authors, 2016

Figure 2.2 provides a proportionate distribution of the traders interviewed by Counties of study.

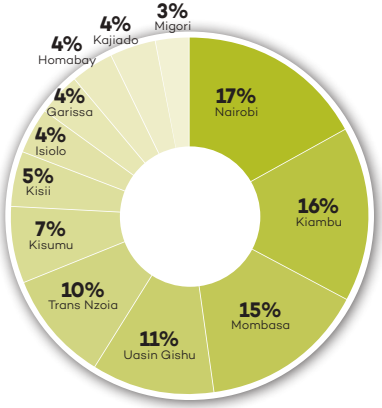

Figure2.2: Distribution of traders interviewed across Counties

Source: Survey data, 2016

By gender, the interviewees were composed of 56% males and 44% females, representing a fair balance between the two groups (Figure 2.3).

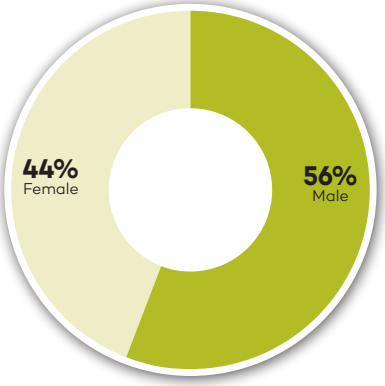

Figure 2.3: Distribution of traders interviewed by gender

Source: Survey data, 2016

Across the commodity groups, maize and fish had the largest share of the sampled traders (21%), followed by milk (16%) (See Figure 2.4).

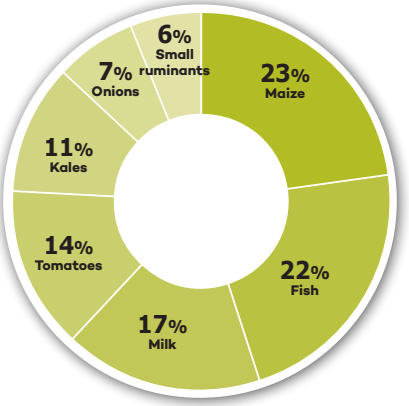

Figure 2.4: Distribution of the sample across Products

Source: Survey data, 2016

This distribution was informed by the relative importance of the products either in trade or in the diet of Kenyans. Among the vegetables, tomatoes had the largest share of the sample of 13%, followed by kales at 11%. In livestock trade, cattle and small ruminants evened out at 6% in the share of the sample while camels had a smaller share of only 0.4%.

Besides the individual trader interviews, a number of KII and FGDs were conducted in the study areas (See Table 2.2 for details).

Table 2.2: Summary of key informant interviews and focus group discussions

County	KII	FGDs	Total
Mombasa	4	1	5
Isiolo	6		6
Garissa	4	1	5
Nairobi	5		5
Kiambu	4	1	5
UasinGishu	4		4
Trans Nzoia	2	1	3
Kisumu	2	1	3
Homa-Bay	2		2
Migori	1		1
Total	**34**	**5**	**39**

Source: Survey data, 2016

The key informants included County officials, transporters and officials of traders' associations who are knowledgeable in trade dynamics, cess and other market levies charged on agricultural products. Thus, they were purposively selected (See a full list of the Key Informants in Annex Table 6.6). Focus group discussion participants were drawn from leadership of trader associations in different markets within counties. Representation of the two gender groups was ensured for all focus groups.

2.3 DATA COLLECTION

Data for this study came from both primary and secondary sources. Secondary sources provided production cost structures of different agricultural products (e.g. maize for the cereals, vegetables, livestock, dairy and fish). This provided individual production cost items, selling prices, distribution costs and farm level margins for the different enterprises. The secondary sources were also important in identifying and mapping trade flows from source to major consumption areas, and commodity flows within and across the Country's borders due to normal price differentials. Among the secondary sources used were: County Finance Bills, price watch reports, relevant data bases, technical reports and grey literature, and peer reviewed journal articles.

Primary data were obtained from a field survey of markets and/or Counties, purposively selected to ensure coverage of maize (for cereals), sukuma wiki, onions and tomatoes (for vegetables), livestock, dairy products and fish, and the most critical trade routes as reflected in the volume and direction of trade flows (see Figure 2.5 on trade flows). The data were collected using semi-structured questionnaires administered on individual traders, and carefully designed checklists to guide discussions with key informants and focus group discussions.

Data quality control was managed at three levels. At individual enumerator

level, at the end of each day's work, they checked their own work for completeness of questionnaires, legibility of entries and internal consistency. The second level involved the supervisors who crosschecked all questionnaires submitted by the enumerators. The supervisors recorded the questionnaires received, reviewed them and discussed the errors detected with the enumerators before recommending corrections. At the data entry level, any inconsistencies were referred to individual enumerators for clarification.

Figure 2.5: A Map of Kenya showing trade routes for selected commodities

Source: Authors, 2016

2.4 DATA ANALYSIS AND PRESENTATION

Analysis of quantitative data involved computation of total costs, revenues, profits and profitability, proportion of cess to total cost and the overall cess burden. These analyses were carried out as follows:

1. Total cost = $\sum_{i=1}^{n} C_i$, where Ci refers to cost of an individual item/activity such as input, transport, packaging, cess, etc. Thus, for each level of the value chain, we got the total cost by summing up all the individual cost items.
2. Cess proportion = $\frac{cess}{total\ cost}$
3. Revenue = $Q_s * P_s$, where Q_s the quantity is sold and P_s is the selling price. Revenue is the product of the quantity sold and the selling price per unit.
4. Pr *ofit* = Re *venue* - *Total* cost *t.*
5. Pr*ofit per unit* = $\frac{profit}{Q_s}$
6. Cess per unit = $\frac{cess\ amount}{Q_s}$

To determine the impact of cess on distribution and production cost of agricultural products, regression analysis was used. Two regression equations, one for distribution cost and the other for production cost, were estimated. The two equations were specified as below:

$$AC = c\ (y, w, x)$$

That is, average cost of distribution and/or production (AC) is influenced by the volume of sales or output (y) and cess or other costs of distribution or production (w) conditional on demographic characteristics of the trader or producer (x).The coefficient of y is expected to be negative because of scale economies.The analysis was based on the assumption that, conditional on demographics, cess and/or other levies are exogenous. This is the conditional independence mean assumption of Angrist (1997). All the dependent variables are in log form. Further, except where there are dummies, the explanatory variables are also in log form. So most of the coefficients are elasticities.

Demographic attributes of the traders were analyzed using descriptive statistics (arithmetic means).Qualitative data obtained from key informant interviews and focus group discussions were processed through content and semiotic analysis. Content analysis entailed classifying data into key themes and analysis of patterns by comparing major themes identified. Semiotic analysis involved critical assessment of use of both verbal and body language during the interview process. Semiotic analysis was done concurrently with the data collection process with the aim of identifying any emphasized opportunities and challenges in the target value chain. Content analysis was also applied on secondary information.

3.0 Findings

3.1 CHARACTERISTICS OF INTERVIEWED TRADERS

AGE OF THE RESPONDENTS

The average age of respondents/traders was 40 years, with no significant variation across the various counties. Clearly, the distribution of agricultural commodities was dominated by the middle-aged individuals (see Figure 3.1).

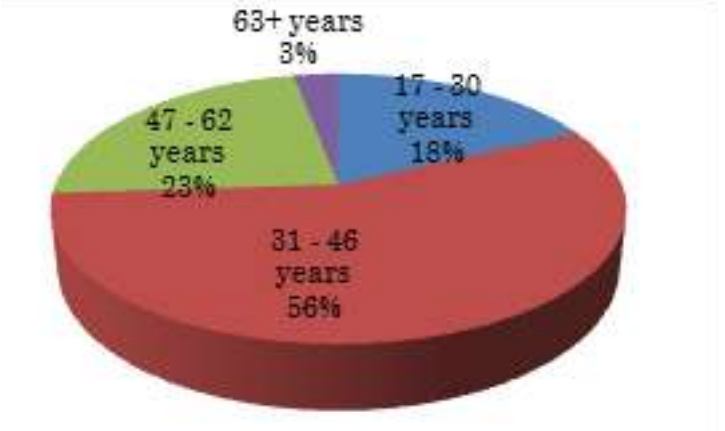

Figure 3.1: Distribution of the respondents by age-group (years)

Source: Survey data, 2016

Most traders were within the active age bracket, hence can make meaningful contribution to the economy if markets are more efficient.

EDUCATION LEVEL OF TRADERS

Among the counties surveyed, Garissa recorded the lowest average years of schooling. However, almost all counties had mean schooling years of less than 12, meaning that most of the traders had not gone beyond primary school level of education (Figure 3.2). Yet education is important for running business, especially in record keeping and accessing relevant business information.

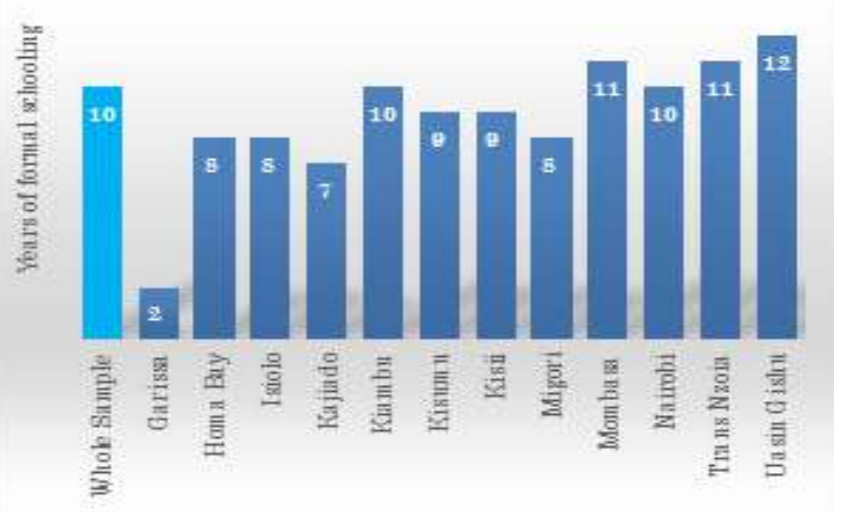

Figure 3.2: Average years of formal schooling of respondents

Source: Survey data, 2016

EXPERIENCE IN TRADE

On average, traders had about 5 years of experience in their respective businesses (Figure 3.3).

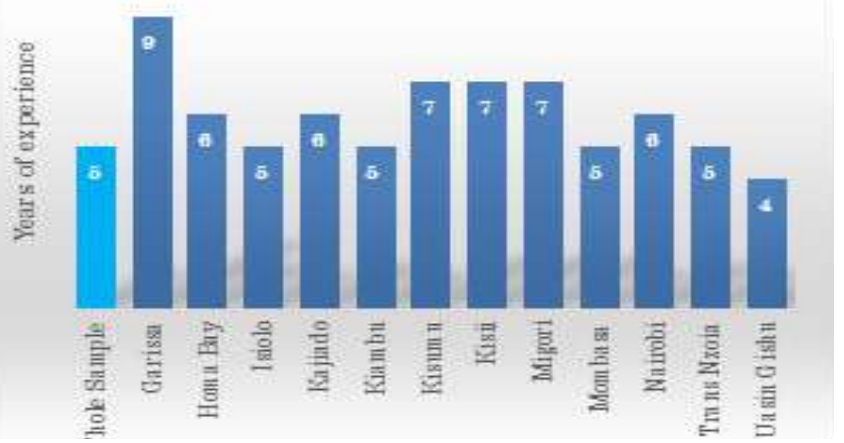

Figure 3.3: Average years of experience in business

Source: Survey data, 2016

Garissa had the most experienced traders among the counties surveyed. As traders get more experienced, they build and use social networks, understand the markets better and develop requisite strategies to counter business challenges.

GENDER OF TRADERS BY COMMODITY

Trade in most of the commodities was dominated by men (Figure 3.4). It is only in fish trade that women dominated their male counterparts.

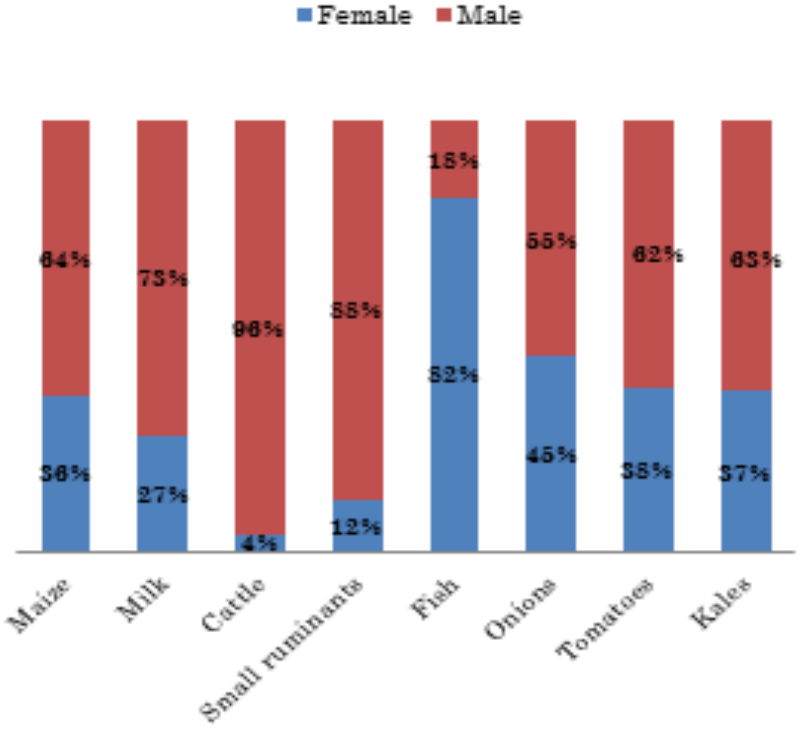

Figure 3.4: Gender of traders by commodity type

Source: Survey data, 2016

Studies by (Gurung, 2006; World Bank 2007a; Bardasietal.,2007) have noted that women farmers and entrepreneurs face a number of disadvantages, including lower mobility, less access to training, less access to market information, and less access to productive resources. Women tend to lose income and control as a product moves

from the farm to the market. However in the fish trade, women were the dominant group. Upstream activities including, fish harvesting, or the capture of fish, are essentially dominated by men, while downstream (fish-processing and distribution) activities are quite feminized. Women mainly operate on a small scale that involves direct distribution of fish.

3.2 AN OVERVIEW ON COMMODITY TRADE DYNAMICS

This section examines the sources of products traded, main trade markets, seasonal changes of source markets, variation of prices by seasons, and challenges experienced by traders and coping strategies used.

3.2.1 MAIZE

The study focused on four markets: Trans Nzoia, Uasin-Gishu, Nairobi and Mombasa. While Trans Nzoia and Uasin-Gishu were viewed as production counties, Nairobi and Mombasa were viewed as major consumption markets.

Although Trans Nzoia and Uasin-Gishu are main producers of maize, they also received maize from other areas. Trans Nzoia, for example, received maize mainly from Uganda, Uasin-Gishu, West Pokot and Bungoma. Uganda, however, was the most important external source, especially between July and September (shown in Figure 2.5 on trade flows). In Uasin-Gishu, local production dominated the maize supply to traders. Smaller quantities, however, came from the neighbouring counties of Elgeyo-Marakwet, Nandi and Narok.

The maize purchase price for the two counties ranged between Ksh 1800 and Ksh 2300 per 90-kg bag, depending on the season and the source of supplies. The traders sold their maize within their respective counties and outside. Nairobi and Mombasa were the main external markets where the main buyers included millers and consumers. Selling price ranged between Kshs 2000 and Ksh 2800 per 90-kg bag. Other than from Trans Nzoia and Uasin-Gishu, Nairobi and Mombasa received maize from Uganda, Tanzania, Nakuru and Bomet.

Maize traders were involved in a number of value-adding activities which included drying, winnowing, preservation, and bagging. They incurred a variety of costs and experienced a myriad of challenges. Focus group discussion with leaders of maize traders in Trans Nzoia revealed the following:

- Maize traders incurred between Ksh 70 and Ksh 300 on transportation of 90-kg bag, depending on the source market.
- Storage cost per month was approximately Ksh 10,000.

- Cess charges were Ksh 3000 for 28-ton truck and Ksh 1500 for 10-ton truck.
- For maize from Uganda, a charge of Ksh 5000 per truck would be levied for crossing the border.
- For traders selling to millers, cess of either Ksh 70 per 90-kg bag or Ksh 6000 per truck was charged. Besides the cess, parking fees of Ksh 3000 per 28-ton truck and Ksh 1500 per 10-ton truck per day was charged.
- Selling to Cereals and Produce Board attracted a cess of 1%.
- Traders relied on agents to collect maize at the buying centres and paid a fee of Ksh 30 per bag. The traders spent a further Ksh 200 per day on telephone communication with agents.
- At the weigh bridges, traders paid Ksh 700 per truck.
- Loading/offloading cost Ksh 30 per bag.
- Market levies cost Ksh 40 per day for open air markets and Ksh 40 per bag on landing (only in the municipal markets). Those who sold from their stores paid no market levies. However, they had to pay for business license of Ksh 13,000 annually.

The discussion showed that cess, transportation and parking fee (for those selling in Nairobi and Mombasa) were some of the most burdensome charges, impacting maize trade. While rate of cess may appear less burdensome, levying at multiple levels made the total charge heavy on the trader.

To illustrate the burden of cess, the FGD participants in Kitale gave an example of a trader who sources maize from West Pokot. The trader pays cess on leaving West Pokot. On reaching Kitale, the trader dries the maize and re-bags it. Again the trader pays cess on leaving Kitale for Nairobi or Mombasa market to sell to millers who deduct further cess. This transaction constitutes three levels of cess levying.

The components of various distribution costs of Maize from Trans-Nzoia to Nairobi are summarized in Figure 3.5. Transport cost account for about 40% of the total distribution cost. Transportation of maize is complicated by the fact that a truck could take three or more days before offloading at the mills. Thus, the transporter charges waiting fee in addition to high parking fees charged by the counties of Nairobi and Mombasa.

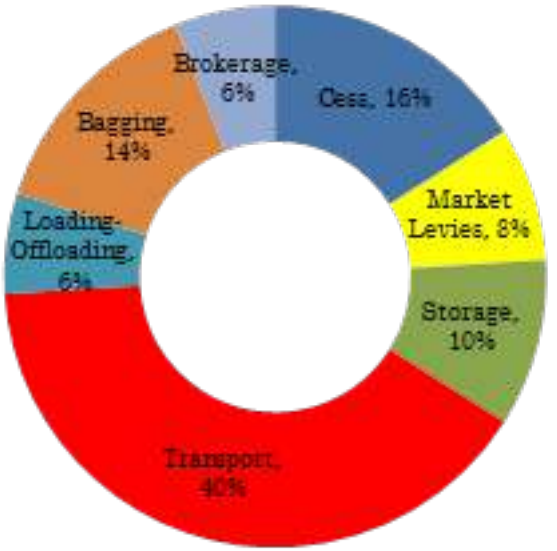

Figure 3.5: Distribution cost of maize from Trans-Nzoia to Nairobi

Source: Survey data, 2016

Other challenges in the maize trade, as raised by the focus groups, the individual traders and key informants were the high cost of drying maize to meet the desirable moisture content, especially during the rainy periods; unavailability or poor access to real time market information; and delays at cess collection points.

3.2.2 MILK

Milk traders in Trans Nzoia, Uasin- Gishu and Kiambu mainly got and sold their supplies within their respective counties. Purchase price was estimated at Ksh 42 per litre in Kiambu, and Ksh 30-40 in Trans Nzoia and Uasin-Gishu, depending on the season. The sale price was estimated at Ksh 50 per litre in Kiambu and between Ksh 45 and Ksh 60 in Uasin-Gishu and Trans Nzoia, depending on the season. Additional supplies in Uasin-Gishu came from Nandi and Elgeyo-Marakwet. Kiambu also got additional supplies from Nyandarua.

Milk supplies were found to be high during the wet periods (March-May and October-December). From the focus groups and key informant interviews, dairy

producers incurred the following costs on a single lactating dairy cow per day (See Table 3.1).

Table 3.1: Estimated costs of dairy production per day per cow

Cost item	Cost (Ksh)
Purchased feeds	80-150
Supplements	30-70
Pesticides	10-15
Hired labour	30-60
Total	170-295

Source: Survey data, 2016

The milk traders incur between Ksh 100 and Ksh 200 per day on transport; between Ksh 3000 and Ksh 4500 per year on fee to Kenya Dairy Board; 40 cents per litre on market levies; Ksh 4500 on trade license per year; and Ksh 1120 on public health license per year. The distribution costs of a litre of milk from Kiambu to Nairobi are summarized in Figure 3.6.

Transport accounted for the single largest component of the distribution cot (26%) followed by storage costs (22%).Irregular supplies, storage and poor transport infrastructure were highlighted as the main challenges that the milk traders had to contend with, raising cost of production and distribution.

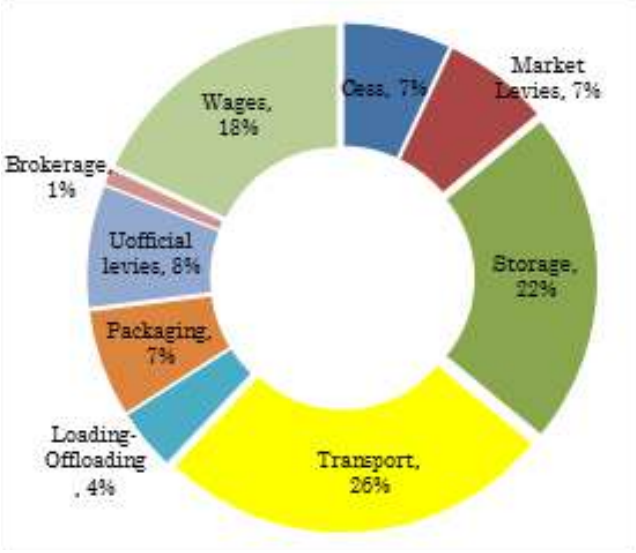

Figure 3.6: Distribution cost of Milk from Kiambu to Nairobi

Source: Survey data, 2016

3.2.3 CATTLE

Beef production is mainly carried out by the pastoralist communities in the arid and semi-arid areas of Kenya. In these areas, livestock trade is the main economic activity and a critical source of livelihood for local communities. Discussions with traders in Garissa and Isiolo revealed that the main livestock traded in the markets were cattle, sheep, and goats. The livestock were sourced from remote villages, where local traders procured animals from pastoral households in village markets2. These animals would then be brought to primary markets in the major towns, like Isiolo town. Garissa, however, is a large secondary market that hosts animals from both Ethiopian and Somali primary markets. From the main source markets, livestock were transferred to the terminal markets of Nairobi and Mombasa, in large trucks (see the trade route map in Figure 2.5)nd Mombasa (see the trade floon because of weight loss, and market counat the main livestock traded in the markets were cattl. Livestock trade and prices fluctuated significantly between seasons. They tended to decline towards the end of the dry season (July – September) because of weight loss. They reached their peak during holidays (Christian, Muslim or other public) when meat was in high demand.

The main costs incurred by livestock traders broadly include; Transport, Storage, Stock auction fees, Movement permit, fee to brokers, Produce cess, Loading/offloading fee and unofficial levies along the roads. Figure 3.7 and 3.8shows typical distribution cost structures for cattle and goats/sheep from Garissa as source market to Nairobi as destination market.

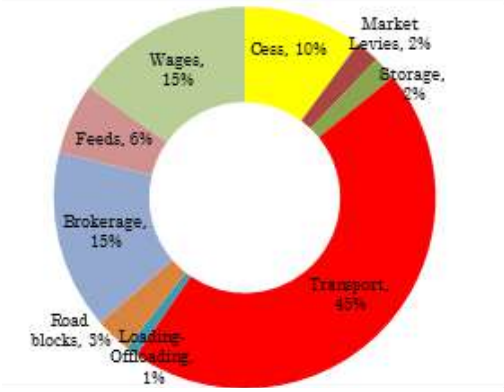

Figure 3.7: Distribution cost structure for live cattle from Garissa to Nairobi

Source: Survey data, 2016

Transport cost makes up the largest share of distribution cost component for both cattle and goats/sheep, at 45%

[2] Also referred to as 'bush markets' are poorly developed and have no essential market facilities. No market fees are charged here, despite their activeness, presenting a lost opportunity for the counties to generate revenue, and improve facilities.

and 32% respectively. In cattle, brokerage, wages and cess also make significant contribution to the distribution cost. Brokers are important players in the livestock distribution chain, particularly in secondary and terminal markets where they link potential buyers and sellers. In the terminal market, newcomers would find it very difficult to sell their animals without going through a broker.

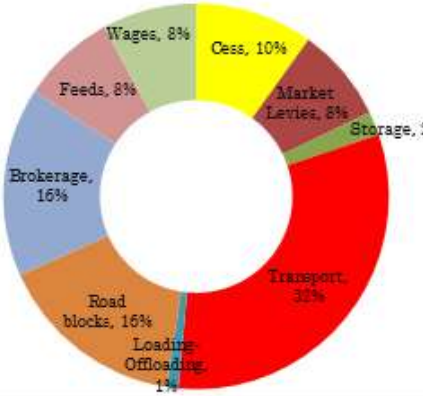

Figure 3.8: Distribution cost structure for a live small ruminant (goat sheep) from Garissa to Nairobi

Source: Survey data, 2016

Plate 3.1 Shows market fee collection in progress in Garissa.

Plate 3.1: Market fee collection agents at the livestock market in Garissa

Livestock distribution is faced by a number of constraints as summarized in Table 3.2.

Table 3.2: Main challenges facing the livestock trade

Challenge	Coping Strategy
Obtaining feeds for the livestock at the holding grounds.	Buy feed either from the market or from somewhere else.
Extortion from law enforcement agencies, increasing the cost of business.	None
Lack of adequate water and veterinary services and other basic amenities such as toilets for the traders.	None
Lack of delineated market yards, limited holding grounds and lack of partitions to separate the different type of livestock.	Rent privately owned space near market areas
Poor road networks from the source markets raising transportation costs	None

Source: Survey data, 2016

3.2.4 Vegetables (Sukuma wiki, Onions and Tomatoes)

Vegetables traded in Nairobi were sourced from Nyeri (onions), Narok (tomatoes) and Kiambu (sukuma wiki). Other sources of onions included Kajiado and Tanzania. Other sources of tomatoes included Kajiado and Kirinyaga. Some kales were sourced from Nakuru.

In Kiambu, onions traded originated from Nairobi, Nakuru, Nyandarua and Nyeri. Most traders, however, sourced their supplies from Nyeri. About half of the traders sourced their tomatoes from Kirinyaga although a few others got their supplies from Kajiado, Narok, Nairobi and Nakuru. Kale supplies mainly originated from within the county.

In Mombasa, over 70% of the traders got their onion supplies from Tanzania. Others got from Taita-Taveta and Nyeri. About 40% of the traders got their tomato supplies from Kajiado while 23% got supplies from Taita-Taveta. Other tomato supplies came from Nakuru (17%), Nyeri (7%), Makueni (3%) and others (10%). For kales supplies, 95% of traders relied on Kiambu. The rest got supplies from Nyandarua.

In Kisii, the main sources of onions were Bungoma and Narok. Tomato supplies came from Nakuru (46%), Narok (45%) and Trans Nzoia (9%). For kales supplies, 64% of traders got supplies from within the county while 36% got their supplies from the neighbouring Nyamira County.

Vegetable prices varied widely. For example, during the peak seasons, a crate of tomatoes could cost as low as Ksh 500 while in off peak seasons, the same crate could cost as high as Ksh 3500. Selling price could be as low as Ksh 1500 per crate in peak

seasons and as high as Ksh 6000 per crate in off peak seasons. For onions, purchase price ranged between Ksh 500 and Ksh 2000 for 14-kg bag (net) while the selling price ranged between Ksh 1500 and Ksh 3000 for the same size of net, dependent on season. Purchase price of 90-kg bag of kales was reported to vary widely, from as low as Ksh 200 to as high as Ksh 2500. The sale price was reported to range from Ksh 2000 to Ksh 3500.

The distribution costs of onions, tomatoes and Sukuma wiki are summarized in Figures 3.9, 3.10 and 3.11 respectively.

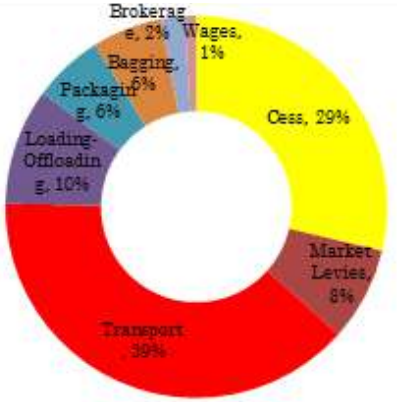

Figure 3 9: Distribution cost of Onions from Loitoktok to Nairobi

Source: Survey data, 2016

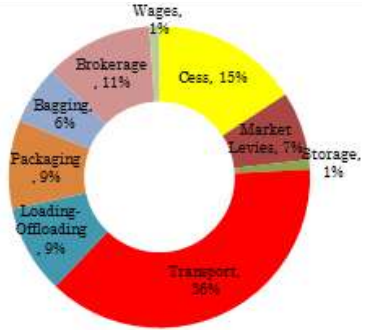

Figure 3.10: Distribution cost of Tomatoes from Loitoktok to Nairobi

Source: Survey data, 2016

3.2.6 FISH

Fish traders got their supplies mainly from L. Victoria, either from the Kenyan beaches or Uganda through Busia. Uganda was cited as the most important source except for omena, whose main source was Migori County. Other sources were Kisumu, Homa-Bay, Siaya and Turkana. Seasonality was only reported for omena whose main source would switch to Siaya between May and August.

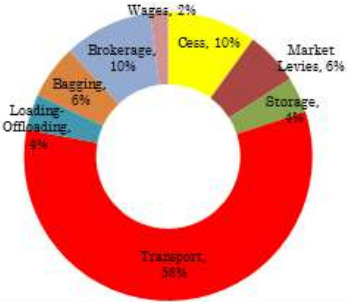

Figure 3.11: Distribution cost of SukumaWiki from Nyandarua to Nairobi

Source: Survey data, 2016

Fish traders used agents to collect fish from the beaches. This helped them to save on cost and time of travel. Although substantial market existed within the counties of Kisumu, Homa-Bay and Migori, Nairobi and Mombasa were reported as the most important markets especially for traders who had large volumes.

Among the costs that fish traders paid were:

- Trader's and movement permit fee of Ksh 350 per year.
- Public health permit fee of Ksh 1000 per year.
- Stall charges (only for those selling within the Municipal market in Kisumu) of Ksh 2000 per month and trade license fee of Ksh 7525 per year.
- Usual market levies charged by quantity, but ranging from Ksh 30 to Ksh 200.
- Cess based on quantity but ranging from as low as Ksh 30 per 50-kg sack of omena in Mbita to Ksh 50 for the same in Mfangano island (in Homa-Bay) and Siaya. Notably, Homa-Bay had two cess points (Mfangano and Mbita), each charging cess independently.

The distribution costs of fish from Kisumu to Nairobi are summarized in Figure 3.12.

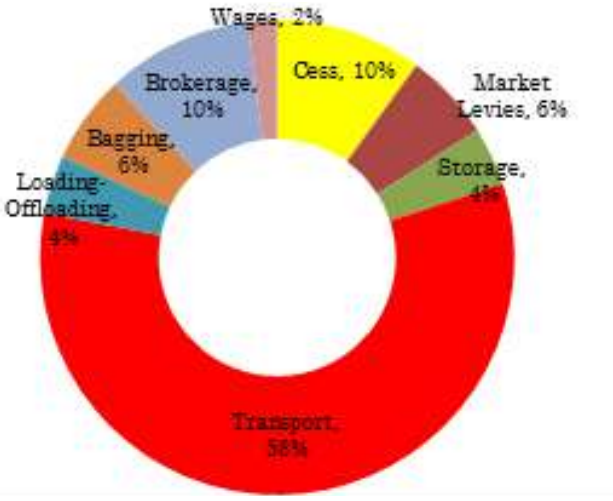

Figure 3.12: Distribution cost of fish from Kisumu to Nairobi

Source: Survey data, 2016

The traders observed that, although the market levies may not have been high, the ultimate amount paid was high if one took a longer time to clear the stock. Notice that one sack of omena would attract a market levy of about Ksh 30 per day. On a good day, the whole sack may be sold. However, there were instances when the same quantity could take up to 7 days to clear. This made the levies burdensome.

3.3 AN OVERVIEW ON PRODUCE CESS IN COUNTY REVENUES PORTFOLIO

The revenue sources for County governments include own revenue and disbursement from the national government in the form of, equitable share and conditional and unconditional allocations, borrowing, grants and donations. A review of the county revenue sources, for the 2015/16 Financial Year, revealed that, across most counties, national government allocation remained the major sources of revenue, accounting for over 60% of counties total annual revenues (see Figure 3.13).

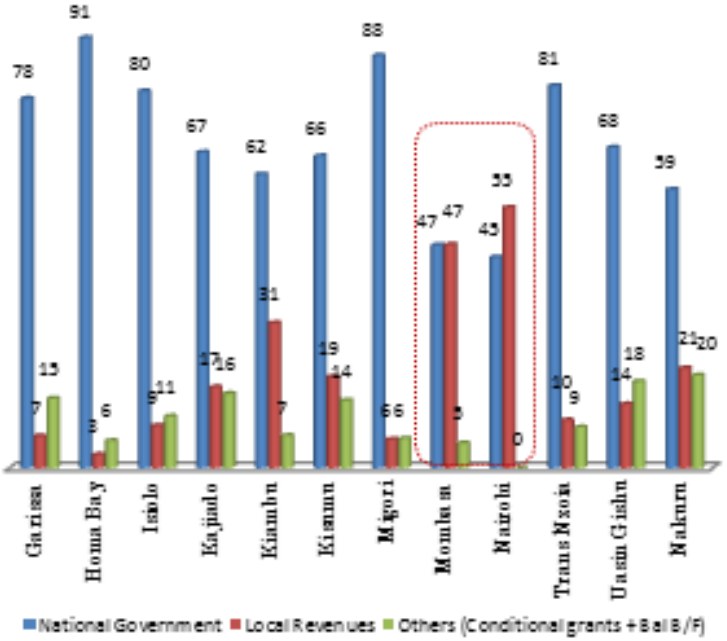

Figure 3.13: County governments revenue sources (FY 2015-16)

Source: Survey data, 2016

This shows that counties rely heavily on the national government and that they cannot sustain their operation if the only source of revenue was from their own revenue. Notably though, Nairobi and Mombasa relied substantially on locally generated revenues, accounting for about 55% and 47% respectively, of total annual revenues, supported mainly by their established industrial and service sectors.

County governments through the County Finance Bills, collect revenue through various taxes, fees, and charges for service and other revenue raising measures that county governments can engage in. Analysis of some of the counties local revenue streams, for FY 2015/16, revealed that agricultural produce cess contribution to local revenue streams varied widely across counties, ranging between 2 – 23%, for the sampled counties (Figure 3.14). For instance in Migori County, the FY 2015/16 targeted revenue was Ksh 400 million. Of this, the County expected to raise Ksh 40 million each through Tobacco and Sugarcane cess and a further Ksh 11 million through Maize/Potatoes cess, making up to 23% of total revenue collected by the county.

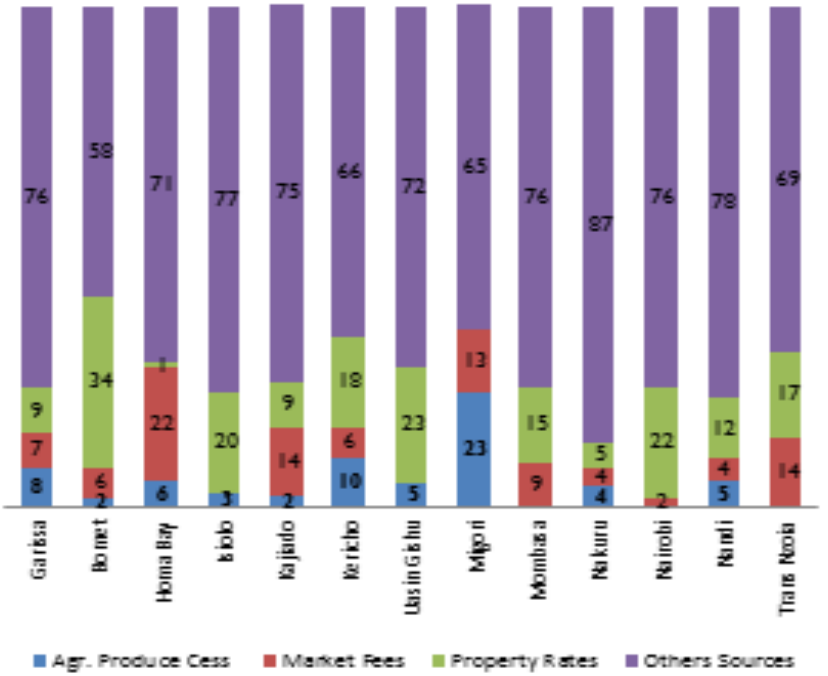

Figure 3.14: Produce cess as a proportion (%) of local revenue streams

Source: Survey data, 2016

Review of County Finance Acts revealed wide disparities in the way counties charge produce cess on same agricultural commodities across various counties (See Annex Table 6.5.2). For instance in Mombasa, onions cess is charged per ton of truck carrying onions rather than per unit (net or bag), as applies in other counties.

3.4 PRODUCE CESS AND OTHER MARKET CHARGES AND LEVIES

In this section we present the findings from data analysis obtained from interviews with the traders on the produce cess, market levies and charges that they face.

Finding 1: Produce cess and other market charges and levies constitute a smaller proportion of the total distribution costs compared to transport cost (see Figure 3.15).

Transport costs accounted for over 50% of the total annual distribution cost for maize and kales, and over 40% for cattle and onions. On the other hand, produces cess accounted for 15% of distribution cost in maize and onions; 13% in milk and kales; 11% in cattle, 8% in shoats, and 7% in fish and tomatoes, respectively. Agent and brokerage fees were substantial for some commodities. They raged from about 25% in fish trade to about 0.1% for the milk traders.

Finding 2: Cess as a proportion of total distribution cost varies by commodity. Cess burden (cess as a percentage of profit) was highest for maize and onions. The burden was 16% for maize and 15% for onions. For fish and tomato, cess burden was 7% (see Figure 3.16).

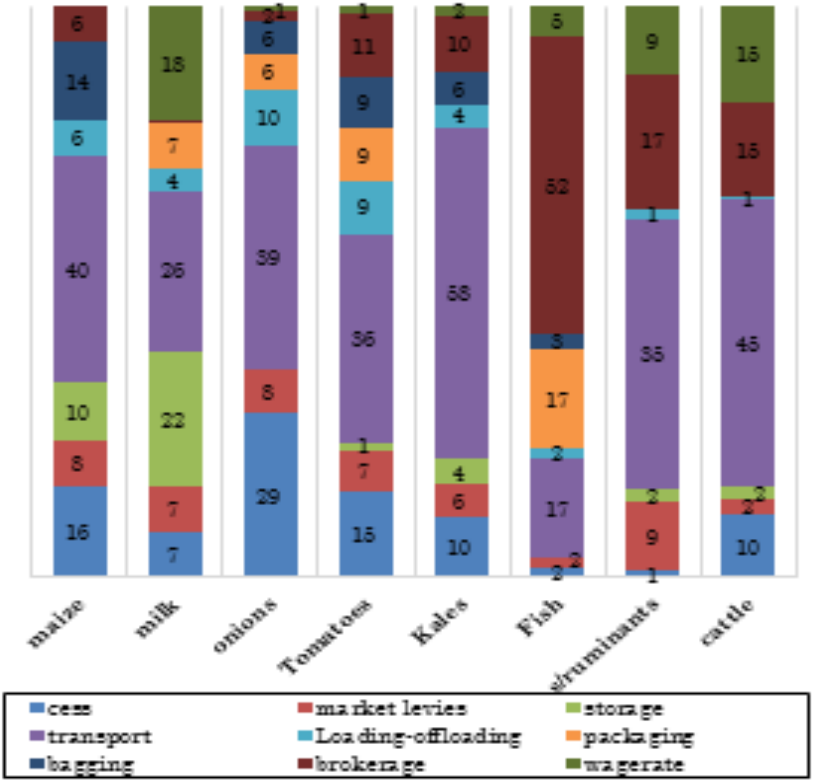

Figure 3.15: Percent annual distribution costs of different commodities

Source: Survey data, 2016

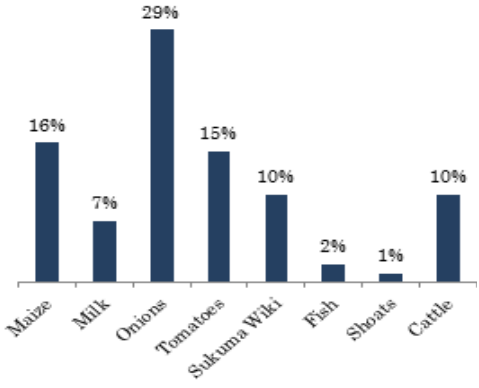

Figure 3.16: Cess burden by commodity (% of total distribution cost)

Source: Survey data, 2016

In absolute terms, livestock (cattle and shoats) and maize attracted the highest levels of cess per unit (Table 3.3).

Table 3.3: Average cess charged per unit of the traded commodities in absolute terms

Commodity	Average Cess burden per unit (Kshs)
Maize (90-Kg bag)	56
Milk (Litre)	0.98
Cattle (No.)	117
Shoats (No.)	27
Fish (Kg)	5.7
Onions (Kg)	5.5
Tomatoes (Kg)	4.6
Kales (kg)	1.39

Source: Survey data, 2016

Finding 3: Average market charges and levies were lower than produce cess for all commodities except livestock.

It is only for cattle and shoats that market charges and levies were higher than cess (Figure 3.17).

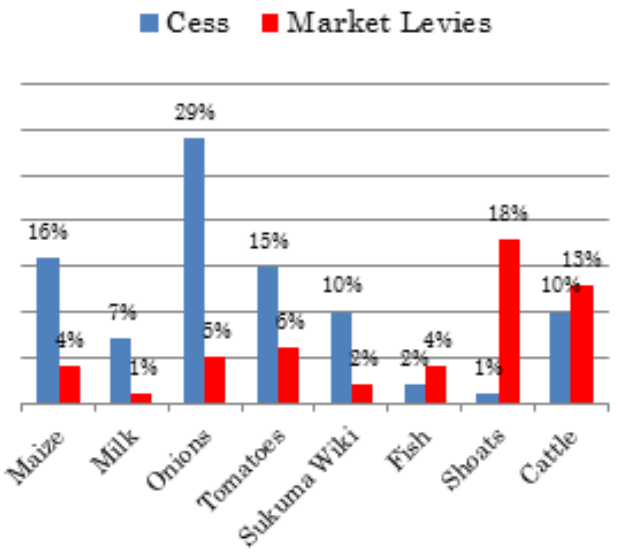

Figure 3.17: Comparison between cess and other market charges and levies as a percent of distribution cost

Source: Survey data, 2016

Finding 4: Cess burden vary by commodity and by county

Traders in urban counties located away from the major production areas faced higher cess as a percent of profit. This indicated existence of multiple taxation along the trading routes.

The highest cess burden was on Onions in Mombasa at 4.7% of the profit. This is attributable to the high taxation rate of onions in Mombasa and multiple cess charges along the trade route.

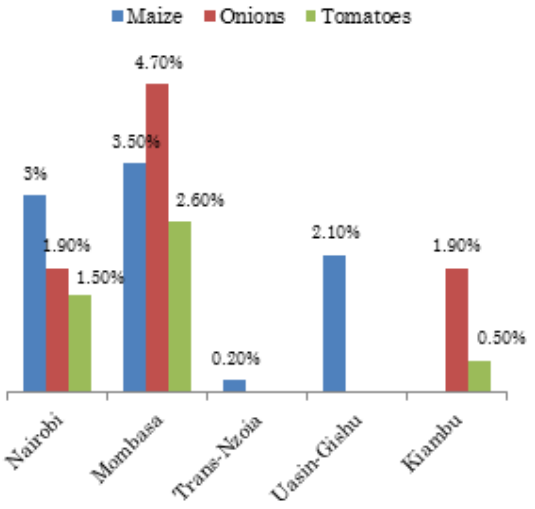

Figure 3.18: Variation of proportion of cessin total distribution cost by county for selected commodities

Source: Survey data, 2016

3.5 THE IMPACT OF CESS ON DISTRIBUTION AND PRODUCTION COSTS: REGRESSION ANALYSIS

Finding 5: Produce cess significantly increased the average cost of distribution.

A one percent increase in cess is associated with a 0.8% rise in the average cost of distributing a product.

This implied that average cost of distribution increases with increase in rate of cess but less proportionately. This is consistent with information from key informants and the focus group discussions which indicated that the rate of cess charged was

not too heavy, except for traders who moved their merchandise across counties and encountered multiple cess levying points.

Indeed traders who obtained their supplies and sold the same within their counties could completely avoid cess. For example, a maize trader in Trans Nzoia who obtained his/her maize from within the county and sold to consumers within the county, avoiding Cereals and Produce Board and the Millers, would avoid cess. However, if he/she obtained supplies, say from West Pokot, he/she would only pay cess in West Pokot of Ksh 3000 for 28-ton truck or Ksh 1500 for 10-ton truck. This is apparently lighter and may not impact much on the overall cost of distribution. However, a trader who got supplies in West Pokot, offloaded in Kitale for drying, bagging and storage then transported the same maize to Nairobi for sale would attract cess in West Pokot, Trans Nzoia and Nairobi, amounting toKsh 12,000 for 28-ton truck. That's Ksh 3000 in West Pokot, Ksh 3000 in Trans Nzoia and between Ksh 6000 and Ksh 22000 in Nairobi (depending on the miller that the trader sold to and their modality of cess-levying). Thus, the amount of cess chargeable per 90-kg bag would range between about Ksh 40 and Ksh 90.

Thus, the insensitivity of the cost of distribution to changes in cess may be explained by the fact that traders may have options to avoid cess. But this should be viewed from the point of view that escalation of cess and multiplicity of levying points may prevent traders from exploring markets that promise better returns. This ultimately reduces welfare of market participants and the general public.

Regression results of the impact of cess on cost of distribution are displayed in Table 3.4.

Table 3.4: Impact of Cess on average cost of distribution

Variable	Average cost of distribution	
	Coefficient	*t*-statistic
Amount of output sold	-0.3***	-13.69
Cess	0.8***	17.96
Age	0.01***	2.71
Years of schooling	-0.01	-0.92
Family size	0.02	1.36
Male gender	0.05	0.52
Constant	3.1***	8.01
Observations	741	
R-squared	38%	

Note: *** Significant at 1%

Source: Survey data, 2016

Disaggregated results showed that 1% increase in rate of cess was associated with 0.8%, 0.76%, 0.52%, 0.41% and 0.9% increase in average cost of distributing maize, milk, livestock, fish and vegetables, respectively (See Annex 6.1).

This shows that different products have different sensitivity levels to changes in the rate of cess. The sensitivity is highest in vegetables, followed by maize and milk.

Finding 6: Other charges found to influence average distribution costs were market levies, payment to brokers and unofficial levies.

A one percent increase in market levies is associated with a 0.7% increase in average distribution cost. A one percent increase in fee paid to brokers is associated with a 0.5% increase in cost of distribution while a 1% increase in unofficial levies is associated with a 0.6% increase.

Figure 3.19 shows the responsiveness of the average cost of distribution to different levies.

Overall, cess, payment to brokers and unofficial levies impact more heavily on maize and vegetables, market levies impact more heavily on milk and livestock distribution.

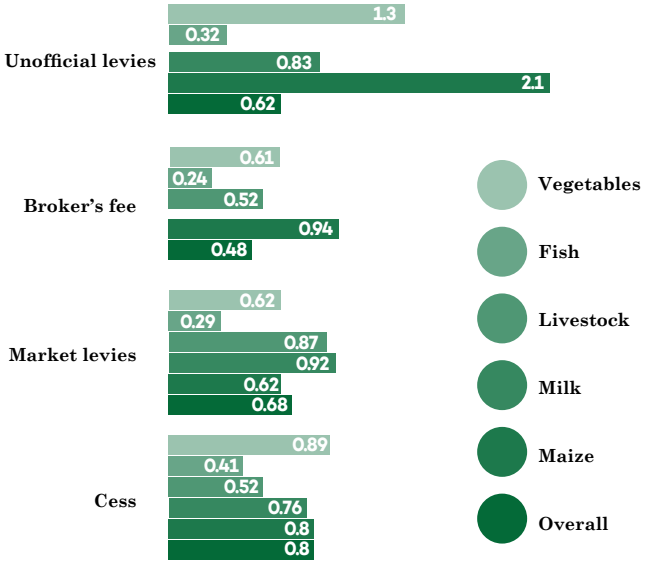

Figure 3.19: Change in average cost associated with one percent change different cost elements

Source: Survey data, 2016

Finding 7: Produce cess increases the average cost of production.

A 1% increase in cess is associated with a 0.2% increase in average cost of production.

Table 3.5 shows a summary of the regression results. The low sensitivity of cost of production to changes in cess could most probably be attributable to the fact that only fewer agricultural inputs attracted cess, and in many cases the cess charged was low. For example, cess per ton of hay or manure was only Ksh 300. Maize seed which attracted cess at different levels only forms a small component of production cost.

It is, thus, not surprising that impact of cess on the average cost of production was low. Moreover, for subsistence farmers, use of certified seed can be avoided although with the consequence of lower yields.

Table 3.5: Factors influencing cost of production

Variables	Average cost of production	
	Coefficient	t-statistic
Farm Output	-0.5***	-18.38
Cess	0.2***	2.98
Age	0.001	0.31
Years of schooling	0.001	0.27
Family size	0.01	0.32
Male gender	0.07	0.67
Constant	6.12***	9.38
Observation	388	
R-squared	53%	

Note: *** Significant at 1%

Source: Survey data, 2016

Finding 8: Average cost of production and distribution declined with increasing level of production or quantity sold. This is consistent with economic theory of the inverse relationship between average cost and quantity produced or sold.

A one percent increase in quantity produced is associated with a 0.5% decline in the average cost of production while 1% increase in marketed quantity was associated with a 0.3% decline in average distribution cost.

4.0 Summary, conclusions & recommendations

4.1 SUMMARY AND CONCLUSIONS

The overall purpose of this study was to generate evidence and information on the nature of cess and other charges, how it is levied across counties and how it influences the cost of production and distribution in the agricultural sector in Kenya. This information would be used to gauge the significance of produce cess and other charges and propose recommendations on how it can be structured to ensure its revenue generation objectives do not undermine the competitiveness of the agriculture sector. To achieve this objective, a total of 763 traders were interviewed across 12 counties covering 8 commodities. In addition, 34 key informants were interviewed and 5 focus group discussions held.

Based on the findings, the study concluded that:-

1. Transport costs constitute the highest proportion of cost of moving the agricultural commodities from the point of purchase by traders to the wholesale markets.
2. Cess is a significant contributor to the average cost of distribution and production. It increases cost of production and distribution of agricultural products, albeit less proportionately. A 1% increase in cess leads to a 0.8% increase in the average cost of distribution and 0.2% increase in the average cost of production.
3. Market levies and charges per unit were lower than cess for all commodities considered in the study except livestock.
4. Contribution of cess to the overall distribution cost varies by commodity and county. Maize and onions had the highest cess burden. Traders in urban counties like Mombasa and Nairobi paid much higher cess than their counterparts in counties closer to major producing areas. Charging cess at multiple levels (different counties and/or different cess points within the same county) amounts to double taxation. This increases the cost of production and distribution of agricultural products with possible consequences of discouraging production of and trade in agricultural products. This is likely to reduce welfare, especially of the actors in the sector.
5. Brokers' fees, market levies and unofficial levies all significantly increase

the cost of distributing agriculture produce.One percent increase in market levies was associated with 0.7% increase in average distribution cost. One percent increase in fee paid to brokers was associated with 0.5% increase in cost of distribution while a 1% increase in unofficial levies was associated with 0.6% increase in average cost of distribution.

6. From key informant and focus group discussion, it was found that the cess collected is not earmarked for improving agriculture as envisaged in the Act. Counties collect cess and simply treat it as one of the sources of revenue which can be directed to any expenditure.

7. Market levies charged by most counties are reasonable and are lower that cess. However, in most counties, traders do not get commensurate services. Some markets lack water, electricity, good drainage and security.

4.2 RECOMMENDATIONS

Consequently, the study makes the following recommendations:-

- Building and improvement of road infrastructure by both levels of government should be intensified to reduce the high transport cost.
- Given that cess significantly contributes to increasing the overall cost of doing business and may restrict trade in agricultural products, it may be counter-productive to welfare enhancing policies. Reduced market participation reduces welfare of farmers, who form the bulk of rural households, and traders in agricultural products, who aid transfer of food staples from surplus regions to deficit regions. Thus, at worst, the current levels of cess should be maintained. Where possible, alternative sources of funds may be introduced to help bring down levels of cess on important food staples such as maize and other cereals, vegetables, and milk.
- Cess collection should be synchronized across counties. Once charged in the source county should not be levied on the same goods in any county of transit or destination. Counties should work together through established institutionalized inter-county fora like the council of governors to establish mechanisms for dealing with double taxation. It should be noted that multiple taxation discourages value addition along the value chain. For example, a trader may offload in a county where he/she runs a store to undertake value addition activities like drying, sorting and re-bagging. If

cess is charged again on leaving such a county of operation after having been charged at the source county, the trader may be discouraged from undertaking value-addition which may further contract the profit margins.

- Because collection of cess could be associated with some corruption and delays on the highways and/or cess-levying points, it may be important to explore possibilities of automation or proper systems of monitoring to curtail corruption and avoid inconveniences to traders. But it may also be useful to educate the traders on the usefulness of paying cess and market levies. This may minimize losses of revenue and help counties in improving services to traders and the farmers.
- Counties should establish accounts dedicated for cess to ensure that the money collected goes into the intended purposes. This will motivate the traders and the farmers to pay cess especially if the counties can demonstrate that cess is effectively being ploughed back to the sector.

5.0 Bibliography

Agrist, J., 1997. Conditional Independence in Sample Selection Models. Economic Letetrs 54:103-112

Bahiigwa, G., Ellis, F., Fjeldstad, O., and Iversen, V., 2004.Uganda Rural Taxation Study.Final Report. Economic Policy Research Center (Uganda) Overseas Development Group (UK), and Chr. Michelsen Institute (Norway)

Bardasi, Elena, C.MarkBlackden, and Juan Carlos Guzman. 2007. "Gender, Entrepreneurship, and Competitiveness in Africa." Chapter 1.4 of Africa Competitiveness Report 2007. Washington, DC: World Economic Forum,

Centre for Sustainable Development Initiatives (CSDI), 2013. Study on Produce Cess Taxation in Tanzania. Final Report. Dar es Salaam, Tanzania.

Gurung, C. 2006. The Role of Women in the Fruit and VegetableSupply Chain in Maharashtra and Tamil NaduIndia: The New and Expanded Social and EconomicOpportunities for Vulnerable Groups Task Order under theWomen in Development IQC. Washington, DC: U.S. Agency for International Development.

Khan, M.H., 2000. Agricultural Taxation in Developing Countries: A survey of Issues and Policy. Agricultural Economics 24:315-328

Msuya, E.E., 2011. Produce Cess: A Stumbling Block to Agriculture Revolution in Tanzania. Policy Brief No. 1. Agriculture Council of Tanzania (ACT), Dar es Salaam, Tanzania

Nyange, D., Tschirley, D., Nassoro, H., and Gaspar, A., 2014. Agricultural Produce Cess in Tanzania: Policy Options for Fiscal Reforms, United Republic of Tanzania, The Prime Ministers' Office and the Ministry of Agriculture, Food and Cooperatives. Dar es Salaam, Tanzania.

United Republic of Tanzania (URT), 2013.A Study on LGA Own Source Revenue Collection.Final Report. Prime Ministers' Office: Regional Administration and Local Government. Dodoma, Tanzania

United States Department of Agriculture (USDA). 2014. International Agricultural Trade Report.

World Bank, 2009. Eastern Africa: A Study of the Regional Maize Market and Marketing Costs. Report No. 49831. Agriculture and Rural Development Unit (AFTAR). World Bank, Washington D.C. USA

World Bank, and African Development Bank. Also available at www.weforum.org/en/

initiatives/gcp/Africa%20Competitiveness%20Report/2007/index.htm.

World Bank. 2007a. "Cultivating Knowledge and Skills to Grow African Agriculture: A Synthesis of an Institutional, Regional, and International Review. World Bank, Washington, DC.

Annexes

6.1 REGRESSION RESULTS

6.1.1 IMPACT OF CESS

Variable	Average cost of distribution											
	Overall sample		Maize		Milk		Livestock		Fish		Vegetables	
	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic
Amount of produce sold	-0.3***	-13.69	-0.16***	-5.9	-0.39***	-6.86	-0.3***	-8.01	-0.51***	-10.52	-0.25***	-9.06
Cess	0.8***	17.96	0.8***	6.93	0.76***	7.77	0.52***	3.3	0.41***	5.59	0.89***	12.73
Age	0.01***	2.71	0.003	0.50	0.01	1.21	0.01	0.93	0.03	0.50	0.01	1.31
Education	-0.01	-0.92	-0.02	-0.96	0.03	1.14	-0.02	-1.55	0.03	1.33	0.001	0.001
Family size	0.02	1.36	-0.02	-0.97	-0.03	-0.56	0.03	1.39	0.05	1.54	-0.05**	-2.23
Male traders	0.05	0.52	0.05	0.54	0.2	1.01	-0.00	-0.00	0.23	1.29	0.45***	3.66
Constant	3.1***	8.01	2.2***	3.52	4.96***	4.47	3.99***	3.68	7.1***	6.45	2.69***	3.15
Observations	741		160		109		91		153		228	
R-Squared	38%		34%		35%		43%		24%		48%	
	Average production cost											
	Overall sample		Maize		Milk		Livestock		Fish		Vegetables	
	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic
Amount of output	-0.5***	-18.38	-0.47***	-14.91							-0.62***	-13.18
Cess	0.2***	2.98	0.22*	1.71							0.08	0.97
Age	0.001	0.31	0.002	0.37							0.01	0.69
Education	0.001	0.27	0.02	1.16							0.02	0.82
Family size	0.01	0.32	-0.002	-0.06							0.01	0.23
Male traders	0.07	0.67	0.04	0.37							0.12	0.89
Constant	6.12***	9.38	4.8***	6.98							8.2***	7.47
Observations	388		160								288	
R-Squared	53%		67%								52%	

6.1.2 IMPACT OF MARKET LEVIES-CHARGES

Variable	Average cost of distribution											
	Overall sample		Maize		Milk		Livestock		Fish		Vegetables	
	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic
Amount of produce sold	-0.3***	-10.95	-0.15***	-4.83	-0.4***	-5.55	-0.2***	-6.03	-0.5***	-8.82	-0.28***	-8.06
Market levies	0.68***	10.37	0.62**	2.22	0.92***	3.54	0.87***	6.73	0.29***	3.29	0.62***	6.52
Age	0.01**	2.36	0.001	0.28	0.01	0.49	0.01*	1.67	0.01	1.24	0.02**	2.47
Education	0.01	0.93	-0.02	-0.96	0.01	0.47	-0.00	-0.31	0.04	1.64	0.00	0.05
Family size	0.02*	1.64	-0.03	-1.22	0.02	0.45	0.02	1.53	0.05*	1.88	-0.05*	-1.66
Male traders	0.15*	1.88	0.16	1.47	0.35	1.54	0.53**	2.14	0.21	1.1	0.53***	3.6
Constant	3.97***	8.37	2.1***	2.97	4.9***	3.65	2.7***	2.79	8.4***	7.56	2.8***	2.71
Observations	741		160		109		91		153		228	
R-Squared	53%		19%		43%		68%		58%		48%	
	Average production cost											
	Overall sample		Maize		Milk		Livestock		Fish		Vegetables	
	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statis-tic	Coeff	t-statistic
Amount of output	-0.5***	-18.27	-0.48***	-15.47							-0.63***	-13.36
Market levies	0.07	0.94	0.14	0.53							0.08	0.87
Age	0.001	0.63	0.001	0.24							0.01	1.07
Education	0.001	0.001	0.02	1.10							0.02	0.62
Family size	0.01	0.27	-0.001	-0.13							0.001	0.16
Male traders	0.09	0.93	0.07	0.63							0.13	0.94
Constant	6.1***	12.45	5.00***	7.15							8.3***	7.49
Observation	322		137								185	
R-Squared	52%		67%								52%	

6.1.3 IMPACT OF BROKER'S FEE

Variable	Average cost of distribution											
	Overall sample		Maize		Milk		Livestock		Fish		Vegetables	
	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic
Amount of produce sold	-0.4***	-15.16	-0.17***	-6.12	-0.50***	-7.21	-0.2***	-6.51	-0.55***	-10.78	-0.36***	-11.47
Broker's fee	0.48***	8.55	0.94***	6.72	-0.05	-0.06	0.52***	5.32	0.24***	3.33	0.61***	6.25
Age	0.01**	2.13	0.002	0.56	0.010	0.74	0.01	1.31	0.01	1.28	0.01*	1.90
Education	-0.001	-0.25	-0.01	-0.43	0.03	0.92	-0.02*	-1.80	0.03	1.25	-0.01	-0.33
Family size	0.02*	1.85	-0.03	-1.32	0.02	0.38	0.01	0.99	0.05*	1.97	-0.05***	-2.03
Male traders	0.11	1.27	0.21**	2.16	0.43*	1.77	0.50*	1.88	0.26	1.37	0.43***	2.82
Constant	4.98***	10.14	2.13***	3.36	5.6***	3.86	3.09***	3.04	9.05***	8.24	4.4***	4.31
Observations	741		160		109		91		153		228	
R-squared	49%		36%		37%		64%		58%		47%	

6.1.4 IMPACT OF UNOFFICIAL LEVIES

Variable	Average cost of distribution											
	Overall sample		Maize		Milk		Livestock		Fish		Vegetables	
	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic	Coeff	t-statistic
Amount of produce sold	-0.4***	-16.23	-0.14***	-4.77	-0.41***	-5.55	-0.3***	-7.89	-0.58***	-11.41	-0.37***	-10.91
Unofficial levies	0.62***	5.49	2.1*	1.67	0.83***	2.91	1.1	0.83	0.32**	2.29	1.3**	2.23
Age	0.01**	2.46	0.001	0.27	0.01	0.38	0.01	1.40	0.01*	1.79	0.02***	2.44
Education	-0.01	-1.15	-0.02	-0.86	0.02	0.73	-0.03*	-1.79	0.04*	1.72	-0.01	-0.30
Family size	0.03**	2.18	-0.03	-1.01	0.03	0.47	0.03	1.34	0.06**	2.19	-0.1**	-2.08
Male traders	0.15*	1.75	0.14	1.26	0.35	1.47	0.16	0.53	0.22	1.14	0.59***	3.70
Constant	4.8***	9.83	2.1***	2.88	5.1***	3.80	4.4***	3.82	9***	8.03	4.1***	3.70
Observations	741		160		109		91		153		228	
R-squared	45%		18%		42%		52%		57%		39%	

6.2 Traders Questionnaire

KENYA MARKETS TRUST (KMT)

Assessing the Impact of Cess on Production and Marketing Costs in the Agriculture Sector

Traders' questionnaire

INTRODUCTORY STATEMENT

Start with greetings and self-introduction and request the respondent to accept to be interviewed. Tell the respondent that this survey is being carried out by the Bayesian Consulting Group Ltd on behalf of the Kenya Markets Trust (KMT). The aim is to understand the impact of produce cess, levies and other charges on production and marketing of agricultural commodities. Explain to the respondent the purpose of this survey is to collect information directly from traders like them on trade related issues with a focus on produce cess, levies and other charges they face.

Inform them they have been selected randomly among many others to participate in this survey based on their experience in trading in _____ **(Maize/Milk/Cattle /Small ruminants/ Fish/Onions/Tomatoes/Kales).**

We assure you that KMT will treat your identity and your responses as strictly confidential and that your responses will be merged with others in discussing the findings. If you agree we will write down your contact information in case some issues in the questionnaire are unclear and we wish to contact you later on.

With the background that I have provided, would you like to be interviewed?

Thank you for your kind co-operation.

Interview date (dd/mm/yr): _____ Start time: _____

Name of Interviewer: _____

GPS coordinates of the interview location: _____

Name of Respondent: _____Gender: _____ [Female=0 Male=1]

Telephone Contact: _____

County _____

Location of interview/market _____

PART 1: GENERAL INFORMATION ON COMMODITY TRADE & DISTRIBUTION COSTS

Instruction: In question 1.1, indicate the type of commodity of interest that the trader deals in.

1.1 The commodity that the trader mainly deals in_____ [1=Maize 2=Milk 3=Cattle 4=Small ruminants (goats and/or sheep) 5=Fish 6=Onions 7=Tomatoes and 8=Kales]

1.2 Where is the commodity produced? (Name County if produced in Kenya or the country if produced outside Kenya) _____

[Multiple sources allowed here]

1.3 Does the source of the commodity vary by season? _____ [No=0 Yes=1]

1.4 If yes in 1.3 above, provide details on the different sources of the commodity in different seasons in the table below:-

Season	Source
1.4 (a) Dry	
1.4 (b)Rainy	
1.4 (c)Others (specify)	

1.5 How do you obtain the product at the source? _____ [Multiple responses allowed]

[1= through brokers/middlemen; 2=directly from farmers; 3=from farmer groups/ cooperatives; 4=from local markets; 5=own production 6=other (specify)]

[Multiple responses allowed here]

1.6 What is the basic unit of purchase for the commodity at the source? _____

[1=liter; 2=90kg bag; 3=kg; 4=small crate (30 kg) 5=large crate (60kg) 6=50kg bag; 7=an individual animal 7=Bales 8=small net (14kg) 9=large net 10=other (specify)]

1.7 From the response in question 1.6 above what is the current average purchase price per unit? Kshs_____

1.8 Does the price you have indicated in 1.7 above vary significantly between dry and wet season? _____ [No=0 1=Yes]

1.9 If yes in 1.8 please indicate the average prices for the two seasons: DRY= Ksh_____ WET=Ksh_____

1.10 Is trading your main occupation? _____ [0=No 1=Yes]

1.11 If No in 1.10, what is your main occupation? _____ [1=Farming

2=Salaried employment 3=Casual employment 4=other (specify)

_____

Instruction: In question 1.12 below we want to get a sense of the costs of trade for an entire calendar year. Where the trader has no records, use shorter periods to probe their recall to help compute the annual costs.

1.12 (a) In 2015, how much of the commodity (what he/she trades in) did you purchase for sale? Quantity _____ Unit _____ Value (in KShs): _____

1.12 (b) Of the quantity purchased, how much was actually sold within the year? Quantity _____Unit _____Value (in KShs):_____

1.12 (c) Of the quantity purchased, how much was lost (e.g. due to pest, expiry, death): Quantity _____ Unit _____ Value (in KShs) _____ [Quantity codes: use units from 1.6]

1.13 Based on the quantities sold (1.12b), indicate the costs incurred:

Cost item	*Unit cost (if applicable, in KShs)*	*Total cost (KShs)*
Storage/rental fee		
Transportation charges (including personal travel)		
Hired labour for loading and/or offloading		
Product Cess		
Road blocks		
Licensing fee		
Packaging		
Bagging		
Payment to agents/brokers		
Telephone charges		
Tips		
Unofficial payment to law enforcers		
Wages and/or salaries		
Market levies/charges		
Any levies by Counties of transit		
Other(specify)		
Grand Total		

1.14(a) If Cess was paid, did it affect the trade in any way? _____ [0=No 1=Yes]

1.14 (b) If Yes in 1.14a, indicate the ways in which there were effects:

Effect	*Response [0=No 1=Yes]*
Cess requirement delayed delivery of the product to the market	
Cess increased the purchase price	
Cess increased the sale price	
Led to extortion by law enforcers	

Reduced profits	
Other(specify)	

1.14 (c) Where did you mainly source the products sold in 2015? _____
[1=Own farm 2=Farm gate 3=primary market 4=secondary market 5=wholesalers 6=retailers]

1.14 (d) If sourced from own farm, indicate how cess may have affected production:

Effect	*Response [0=No 1=Yes]*
Increased the cost of input	
Led to reduction of quantity produced	
Led to postponement of sale of produce	
Other(specify)	

1.14 (e) i. If the product was sourced from own farm (or if the trader and/or household participates in the production of the traded product), indicate the cost of production per acre per year (Only applicable to crops i.e. maize, tomatoes, onions, kales):

Cost item	*Cost (KShs)*
Land preparation	
Seed	
Fertilizer	
Pesticides and/or herbicides	
Hired Labour	
Harvesting	
Other (specify):	
Total Production cost	

1.14 (e) ii. From the one acre cultivated, approximate the following (for an average year):

Harvest: Quantity _____ Units: _____

Farm gate price per unit (at harvest): KShs _____

Total revenue for annual harvest: KShs _____

1.14 (f) i. Estimate the cost of taking care of a lactating dairy cow per day (Only for Dairy):

Cost item	*Cost (Kshs)*
Purchased feeds	
Any cess on feeds	
Supplements (e.g. salt)	
Pesticides	
Treatment	
Labour	
Other(specify)	
Total production cost per day	

1.14 (f) ii. For one dairy cow, approximate the following:

Milk production per day: _____ litres

Farm gate price of milk per litre: KShs _____

Total revenue from milk per day: KShs _____

PART II: DYNAMICS OF PRODUCE CESS AND OTHER RELATED CHARGES AND LEVIES

2. What challenges do you experience with cess, levies and other charges? (List in order of importance and indicate how you have dealt with each challenge and the resultant effect on business)

2.1 (a) Challenge	2.1 (b) Coping strategy	2.1 (c)Effect on business
[0=None 1=too expensive 2=too many levying stations 3=unfair base 4=uncertain amounts 5=associated corruption 6=other (specify)]	[0=None 1=transfer cost to consumers 2=absorbing the costs 3=switched purchase market 4=switched sale market 5=evading cess stations]	[0=No effect 1=reduced demand for product 2=reduced profit margin 3=other-specify]

2.2 How would you like cess to be structured in terms of the following aspect and why?
Use codes below for reason

2.2 (a) Basic unit of charge_____ [*Codes: 1=tonnage of truck 2=per unit (e.g. bag, kg) 3=per trip 4=weight 5=percentage of value 6=other (specify)*_____]	Reason:_____
2.2(b) Interval of payment [*Codes: 1=monthly 2=quarterly 3=every 6 months 4=Yearly 5=Other (specify*_____)]	Reason:_____
2.2 (c) Amount charged_____ [*Codes: 1=reduced 2=left the same 3=increased 4=Other(Specify)*_____]	Reason: _____
2.2 (d) Place of payment_____ *[Codes: 1=cash at the cess stations 2=through the bank 3=through mobile money 4=other (specify)*_____]	Reason:_____

Reason for response codes: 0=No specific reason 1=fair charge 2=predictable payment 3=convenient 4=commensurate with services provided 5=devoid of corruption 6=other (specify)

2.3 Do you have any other comments or recommendations on cess/levies and charges?

_____

_____

2.4 What services do you get from the county that may be directly associated with the cess or levies charged?

Service provided by the county[*0=None 1=improved roads 2=cleaning of the market 3=market stalls 4=water and sanitation 5=security 6=other (specify)*]	Level of satisfaction with the service [*0=not satisfied 1=neutral 2=satisfied 3=very satisfied*]

PART III: SOCIO-DEMOGRAPHICS OF THE TRADER

As we come to the end of the interview, we would like to ask you a few questions about yourself:-

3.0 (a) Are you the owner of your trading business? _____ [No=0 Yes=1]

3.0 (b) If you are not the owner, what is your relationship with the owner of the business? _____ [1=employee; 2=spouse; 3=child; 4=other (specify) _____]

3.1 What is your age (age of owner)? _____ years

3.2 What are your (owner's) years of formal schooling? _____ years

3.2 What is the size of your (business owner's) family? _____

3.3 For how long have you (business owner) been trading in this commodity? _____ years

3.4 (c) Gender of the business owner: _____ [Female=0 Male=1]

End Time:_____.

Thank you for granting us this opportunity to discuss with you.

6.3 Key Informant Interview Tool

KENYA MARKET TRUST (KMT)

Transaction Costs and Coordination Risk in Cereal/Dairy/Livestock/Fish/ Vegetable Trade: The Burden of Cess

Key Informant Checklist

National and County government officials, Farmer association officials, marketing council officials, cess collection agents

Introduction

We are conducting a survey on agricultural marketing for the Kenya Market Trust (KMT) in Nairobi, Kenya. The focus of the survey is to understand how produce cess and other levies impact on production and distribution of agricultural produce.

You have been identified as a key informant to participate in this interview. To improve performance of _____ [cereals/dairy/livestock/fish/vegetable] markets in Kenya it is important to get views of a wide range of experts.

Your expert opinion will be useful in triangulating information from other sources such like previous studies and individual questionnaire interviews.

We appreciate this opportunity to talk to you.

PART I: PRODUCE CESS AND OTHER CHARGES/LEVIES/FEES ADMINISTRATION

i. Are you familiar with produce cess?
ii. What is your general understanding of produce cess administration?3(Tips: how is it charged, how are amounts for different commodities assessed and determined (is it by volume? value?), frequency, who is it imposed on-farmers, traders, other agencies, are there different rates on same product across counties and why?, what determine setting up of cess points (list cess points etc.?)
iii. What kind of agricultural commodities attract produce cess and at what point are they charged? (provide list of commodities).
    a. How are rates to be charged determined?
iv. Is produce cess charged on inputs as well?
    a. Which inputs attract cess and how is the rate that is that is charged

[3] **For national level officials the response will general. But for officials in Counties, they should respond in reference to their Counties.**

determined? (provide a list of inputs related to the specific value chain)

v. Do you understand other charges/levies/fees along produce marketing channels? (yes/no) (e.g. business licenses, daily market fees, movement permits etc.)
    a. Which other charges/levies/fees are these and at what point are they applied?

vi Are there any costs incurred in collecting produce cess and other charges/ levies/fees? (yes/no).
    a. If yes, which costs for produce cess?
    b. Is revenue collected from produce cess exceed cost and vice versa?
    c. If yes, which costs for other charges/levies/fees?
    d. Is revenue collected from other charges/levies/fees exceed cost and vice versa?

PART II: CONTRIBUTION OF PRODUCE CESS AND OTHER LEVIES TO COUNTY REVENUE AND ITS USE

vii. In your opinion, what is the extent of produce cess and other charges contribution to the overall county revenue? (small contribution, a lot etc.)

viii. What does the county do with the revenue it collects from produce cess and other charges/levies/fees? (e.g. provision of rural feeder roads, marketing facilities, etc.)

ix. In your opinion, are there disadvantages with produce cess and other charges/levies/fees? (tips- on agricultural inputs, marketing of agricultural produce, competitiveness of produce).

x. Are there alternatives to raise revenue other than produce cess and other charges/levies/fees?

PART III: CHALLENGES TO PRODUCE CESS AND OTHER LEVIES/ CHARGES/FEES ADMINISTRATION

xi. What are some of the challenges in implementing produce cess and other levies/charges/fees?

xii. How are these challenges being addressed?

xiii. How effective are the measures being put in place to address these challenges?

xiv. How best would these challenges be addressed?

6.4 Focus Group Discussion Tool

KENYA MARKET TRUST (KMT)

Assessing the Impact of Cess on Production and Distribution Costs in the Agriculture Sector

FGD Checklist

FOCUS GROUP INTRODUCTION

Welcome

Thank you for agreeing to be part of the focus group. We appreciate your willingness to participate.

Introductions

Moderator; Assistant moderator; participants

Purpose of Focus Groups

We are conducting this focus group discussion as part of a study on the impact of Cess on production and mar keting costs in Kenya. We the Bayesian Consulting Group Ltd are conducting this study on behalf of the Kenya Markets Trust (KMT). The reason we are having the focus groups is to get an in-depth understanding of the impact of produce cess and other market levies on the cost of production and distribution of agricultural produce. We are particularly looking at five value chains (maize, vegetables (onions, tomatoes and kales), dairy, livestock and fish) across the country. The information collected will inform lobbying for appropriate policies for the benefit of traders and producers of agricultural products.

We need your input and would like to urge you to share your honest and open thoughts with us.

Ground Rules

1. You will do the talking, we will do the listening.
    - We would like everyone to participate.
    - We may call on you if we have not heard from you in a while.
2. There are no right or wrong answers.
    - Every person's experiences and opinions are important.

- Speak up whether you agree or disagree.
- We want to hear a wide range of opinions.

3. What is said in this room stays here.
    - We want people to feel comfortable sharing when sensitive issues come up.
4. We shall record the proceedings of the group.
    - We want to capture everything you have to say.
    - We will not identify anyone by name in our report. You will remain anonymous.

Insert Ice breaker here (to increase comfort and level playing field)

Overview of the commodity trade (Refer to the produce being discussed)

Question 1

How are the traders organized? (Cover aspects of traders' associations, roles of the associations, management of the associations, decision-making process, conflict resolution, gender issues).

Question 2

What are the main sources of the product traded? (Cover the different product sources and their relative importance, variation of sources with seasons of the year, means of obtaining the commodity from the sources (need for agents/brokers, transport), forms in which the product is available).

Question 3

Any value addition activities?

Cost of trade

Question 4

Kindly highlight the costs incurred in the business.

Cost item	Cost/unit	Remarks (rate whether too high, modest, affordable)
Transport		
Storage		
Bagging		
Packaging		
Cess		
Market levies		
Road blocks		

Unofficial levies		
License		
Loading/offloading		
Agents/brokers fee		
Communication		
Hired labour		
Others (specify)		

Question 5

How have the different levies affected trade (indicate which levy is most burdensome)?

Question 6

If cess and/or other market levies were to be restructured, how would you like them to be structured? (Cover aspects of basis of the charge, mode and place of payment, frequency of payment, amount of the levy, others)

Challenges encountered in the trade

Question 7

What are the main challenges experienced in this trade? How are you coping with the challenges?

Way Forward

Question 8

Any suggestions for improving this trade?

6.5Annex Tables

6.5.1 CESS BURDEN BY COMMODITY AND BY COUNTY

Cess burden by County												
Commodity	Nairobi	Mombasa	Trans-Nzoia	Uasin-Gishu	Kiambu	Isiolo	Garissa	Kajiado	Homa-Bay	Kisii	Kisumu	Migori
Maize	3	3.5	0.2	2.1								
Milk	2.1		0.1	0.3	1							
Cattle						0.6		0.3				
Shoats						0.04	0.2	0.8				
Fish	1.3	1.2							1.4		0.7	0.4
Onions	1.9	4.7			1.9					3.4		
Tomatoes	1.5	2.6			0.5					1.3		
Kales	2.7	2.2								0.7		

6.5.2 PRODUCE CESS CHARGES BY COUNTY AND COMMODITY

	Maize (Kshs// unit)	Onions (Kshs/unit)	Tomatoes Kshs/unit)	Kales Kshs/unit)	Cattle Kshs/unit)	Goats/Sheep Kshs/unit)	Milk
Homa Bay	50/90-kg bag	70/bag	80/crate	30/sack			
Garissa					300/head	40/head	
Kajiado		40/net	70/crate		100/head**	50/head**	
Kericho	40/90-kg bag	40/bag	40/crate				20/20-ltrs***
Kisumu	50/90-kg bag	60/bag	50/box		30/head	30/head	
Man-dera	60/90-kg bag				500/head	300/head	100/20-ltrs
Marsabit	50/90-kg bag				100/head	50/head	50/20-ltrs
Mom-basa	64/90-kg bag	10,000 (lorry-over 7 tons)**** 7,500 (3 – 7 tons) 5,000 (3 tons)			200/head	10/head	
Nairobi	70/90-kg bag	80/net	200/large box 80/medium box 70/small box	70/bag	300/head	70/head	
Trans Nzoia	2% of mar-ket value						2% of mar-ket value
UasinG-ishu	1% of mar-ket value of quantity sold (large traders)	30/bag	50/crate				1% of mar-ket price
	30/90-kg bag (small traders)						20/bale (hay)

**Sale yard cess. ***Proposed rate on milk. ****Mombasa vegetables lumped together.

Source: County Finance Acts

6.6 LIST OF KEY INFORMANTS

	Name	Designation	Contacts/Organization
1	AbdiAbdullahiAffey	County Drought Information Officer	0722547379 National Drought Management Authority (NDMA)
2	Joel Okal	County Director of Livestock	0728679816 Ministry of Agriculture and Livestock - Garissa County
3	Abdiwahid Ahmed	Programme Officer	0723991116 Kenya Livestock Marketing Council
4	Mohamed Abdi	Chief Officer	0720617667 Garissa County Revenue Management Department
5	BenardOpe	Revenue Officer	0725515393 Migori County
6	Nicholas Akongo	Market Master	Homa Bay County
7	KeziaOkoth	Director of Revenue	Kisumu County
8	Thomas Obiero		Kenya Market Trust Kisumu County
9	Daniel Ndunga	Overall Market Chairperson	0722343339 Kongowea Market Mombasa County
10	Julius Mutegi	Chairperson	0725289450 Kongowea Market-Tomato Section, Mombasa County
11	Willy Mwangi	Chairperson	0721394187 Kongowea Market-Onion Section Mombasa County
12	Elijah Aol	Chairperson	0724618454 Kongowea Market-Kales Section Mombasa County
13	Chris Silali	Dairy Sector Lead	Kenya Market Trust
14	Silvia Wafula	Dairy Sector	Kenya Market Trust
15	Mulemia Maina	Deputy Director	+254 728475860/734920587 Agri-Experience Ltd
16	Richard Amdam	Trade Officer	0705885580 Ministry of Trade UasinGishu County
17	Sammy Lamai	Licencing Officer	Directorate of Licensing UasinGishu County
18	Ignatius Ireri	County Market Master	0723389949 UasinGishu County
19	Mr. Kebenei	Revenue Officer	UasinGishu County
20	Ann Obare	Market Assistant	0729860281 Ministry of Agriculture- Trans Nzoia County
21	Charles Muna	Chairman	0722402893 Market Traders Association Trans Nzoia County
22	Isaac Nimuta	Director	0724536721 Keekonyokie Slaughter house Kajiado County
23	Benson NgugiKamau	Sub County Market Inspector	0727254029 Kiambu County
24	MilkahWambuiMwangi	Revenue Collection Officer	0711417948 Ruiru Market Kiambu County

25	John Mwangi	Manager Lari Dairies/ Sundale Dairies	0711665107 Kiambu County
26	JohanaNganga	Traders Chairman	0729936888 Kiambu Market Kiambu County
27	Samuel Gatu	Maize Traders Chairman,	0722398211 Wakulima Market Nairobi County
28	Dominic Letimalo	County Billing Officer	Isiolo County
29	Mr. Wario	County Director of Livestock	Isiolo County
30	Felix Muthoni	County Livestock and Fisheries Director	Isiolo County
31	Mr. Kirimi	Director of Marketing	Isiolo County
32	J.N. Githinji	County Director of Veterinary Services	Isiolo County
33	Moses Wachira	Sn. Assistant Agricultural Officer	Isiolo County
34	Florence Njege	Sub-County Agribusiness Officer	Isiolo County

KENYA MARKETS TRUST

Better Markets, Better Lives

14 Riverside, Cavendish Block, 3rd Floor, Suite B, Riverside Drive.
P. O. Box 44817 - 00100 GPO, Nairobi, Kenya.