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**Effects of County Cess on Costs and Returns in the Maize and Irish
Potatoes Sectors in Kenya**

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Lilian Kirimi**

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By

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Tegemeo Institute

Tegemeo Institute of Agricultural Policy and Development is a Policy Research Institute under Egerton University with a mandate to undertake empirical research and analysis on contemporary economic and agricultural policy issues in Kenya. The Institute is widely recognized as a center of excellence in policy analysis on topical agricultural and food security issues of the day, and in its wide dissemination of findings to government and other key stakeholders with a view to influencing policy direction and the decision-making processes. Tegemeo's empirically based analytical work, and its objective stance in reporting and dissemination of findings has over the past won it the acceptance of government, the private sector, civil society, academia, and others interested in the performance of Kenya's agricultural sector.

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Executive summary

The agricultural sector in Kenya contributes about 25.4% of GDP, supports nearly 80% of the rural population and accounts for 65% of total exports (RoK, 2015). Despite the importance of the sector to the economy and its potential for improving livelihoods, it faces various constraints including high and increasing production, marketing and processing costs. At marketing level, these costs could be due to high government taxes, among other factors.

Following the implementation of the devolved system of governance in Kenya, county governments introduced various taxes to expand their sources of revenue by charging several fees and levies including produce tax/cess. These taxation measures are important revenue sources, but they could also stifle business growth and trade.

The need for county governments to raise revenue to deliver services to its people has led to escalation of produce cess. Stakeholders complain that cess rates are high, arbitrary and changing from time to time. Another challenge has been the issue of double taxation, where the same product is charged more than once as it is transported across counties. Despite such complaints, there is scanty information on modalities of cess collection and its effects on costs and margins in agricultural value chains. To fill this knowledge gap, Tegemeo Institute undertook a study to gain more understanding about cess and assess how it influences costs and margins within the agricultural sector.

The study adopted a value-chain analysis approach. Value chain analysis focuses on the build-up of costs and growth in value and distribution of returns along the value chain, hence a need to interview all actors in the value chain. Important chain actors for this study were farmers, county governments, and traders/transporters.

The study focused on two value chains, maize and Irish potato for several reasons: they are major staples critical for food security in Kenya; their main production is concentrated in selected regions of the country; and, they are widely traded across counties allowing a value chain analysis approach from production to marketing. Trans Nzoia was selected as a source county for maize, while Narok and Nakuru were identified as source counties for Irish potatoes. Interviews with traders confirmed that the main markets for the two commodities at that time were Nairobi and Mombasa.

Data collection took place in the month of November 2016. The study relied mostly on primary data collected through focus group discussions (FGDs) and key informant interviews (KIIs). FGDs were conducted with farmers in the producing counties, while KIIs were conducted with county officials, cess collectors and traders/transporters. Interviews with traders/transporters were undertaken both at the source county and at the markets.

Results showed that cess was charged at different collection points spread within the source county at a flat rate depending on the agricultural commodity. It was the main levy charged on maize and Irish potatoes, with counties mainly justifying it as a levy to support infrastructure development. However, it was observed that cess collection goes to the general treasury pool to be used together with other funds, not necessarily set aside for infrastructure development. On average, cess contributed about 2% of the total revenue collected in the source counties selected for this study.

Cess collection points in the counties were determined by the convergence of exit routes from the production areas. Usually, cess collectors would estimate the capacities of lorries, as reported by traders without verifying the volume/weight of goods being transported. Cess rates differed between counties even for the same produce. These rates have largely remained unchanged since the time of local authorities and the complaints about their escalation with the advent of devolution is a perception. Cess charged at the market counties was higher than what was charged at the source counties.

While counties argued that cess is important towards their revenue base, the traders were against levying of cess in Nairobi and Mombasa markets as they viewed this as double taxation.. Some of the challenges experienced by counties in cess administration include inconsistency in the amount levied (overall collection is dependent on the seasonality of the production cycle), loss of revenue due to under reporting by traders, lack of standardization for Irish potatoes packaging, and collusion between traders and cess collection clerks.

While farmers had little knowledge on cess, traders largely viewed it negatively, expressing frustration that improvement in services such as upgrading of roads was slow despite them paying cess. They claimed that cess reduces their profits. Consequently, some traders had explored ways to reduce amount paid or evade payment through bribes to cess clerks, use of extended bags (for Irish potatoes) or use of alternative routes without cess collection points.

However, these incidences were rare since the traders were required to produce evidence of payment at the source county as they moved to the destination markets.

A key finding from this study is that cess was only charged in the producing and destination counties and not in every transit county that the produce passed through as is popularly believed. Secondly, there has been no escalation of cess charges under devolution. The rates in both producing and market counties have not changed from what was previously charged by local government authorities.

The survey showed that maize from Trans Nzoia was charged cess at an average of KES 17 per 90kg bag. However, the same bag was charged cess at KES 70 upon entering the market in Nairobi and KES 64 in Mombasa. For Irish potatoes, a 70kg bag was charged cess at an average of KES 17 in Nakuru and KES 27 in Narok. Upon entering the markets, Irish potato cess was charged an average of KES 37 and KES 48 per 70kg bag in Mombasa and Nairobi, respectively. Cess charges were therefore higher in Nairobi market compared to Mombasa.

In addition, cess accounted for different proportions of prices and margins across the two value chains and the various actors. For instance, total cess for maize and Irish potatoes was about 24 and 9 percent of marketing costs, respectively, while it accounted for 9 and 7 percent of farmers' margins, respectively. On the other hand, cess was equivalent to 51% and 24%, respectively for maize and Irish potato traders' margins. Proportion of cess was low at 4 % of farm gate price for both maize and Irish potatoes, and 2 % of retail price for Irish potatoes.

Several recommendations can be drawn from this study. The study showed that cess rates differed across counties, which calls for standardization that would bring about predictability for traders. Cess charged in Nairobi and Mombasa markets was double that charged in producing counties for Irish potatoes and about four times more for maize and hence, there is need to assess the reasons for this escalation.

The study also showed that there was loss in revenue in cess collection and it could likely constitute a bigger proportion of county revenue. Since the verification of volumes on transit relied on visual assessment, some traders had found out that the best means of reducing costs was to pack their lorries beyond the normal capacity while reporting lower figures to the collection clerks. This could likely lead to a bigger loss to the source counties.

Loss of revenue can be reduced by curbing corruption at collection points, operating these points all days of the week, both day and night and adopting standard packaging sizes for Irish potatoes. This may call for capacity strengthening in the counties to improve collection through training for cess collection clerks, automation of revenue collection systems and exploring technologies for efficient weight measurement and verification.

This study showed that cess was only charged in the producing and destination/market counties and that cess rates in producing counties have not changed from what was charged previously by local government authorities. Therefore, there is need to address misperceptions about cess being charged in every transit county and that the rates have been escalating. County governments should conduct civil education to enlighten the public on administration and use of cess.

There is need to rethink through the structure of cess and its importance to counties. Currently, it only contributes about 2% to county revenue, yet it has important implications on margins of other value chain actors. There should be a national policy to guide counties on cess charges for specific agricultural commodities. This discussion on cess restructuring should also involve the Ministry of Agriculture in the various counties and not just the Treasury. This is necessary because while the treasury makes decisions on specific revenue sources, agriculture understands better the implications of cess charges to the farmers.

There is also need to re-look at other transaction costs such as transport costs. The study showed that transportation-related costs accounted for the largest proportion of cost. While this is partly due to long distances to Nairobi and Mombasa markets, interviews with traders indicated that poor infrastructure contributed to the high cost of transportation. A possible solution is to ensure that produce cess contributes to maintenance and upgrade of infrastructure in order to reduce transportation costs.

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Acronyms

FGDs Focus group discussions

GDP Gross domestic product

NCPB National Cereals and Produce Board

RoK Republic of Kenya

KIIs Key informant interviews

KES Kenya shillings

1. Introduction

1.1 Background

The agricultural sector in Kenya contributes about 25.4 percent of GDP, supports nearly 80 percent of the rural population and accounts for 65 percent of total exports (RoK, 2015). Despite the importance of the sector to the economy and its potential for improving livelihoods, it is faced by various constraints. These include high and increasing production, marketing and processing costs (RoK, 2015). Some of the expected effects of these rising costs are high farm-gate prices, reduced margins to producers and other players in the value chains, high consumer prices and reduced competitiveness of agricultural products in regional and foreign markets.

At the production level, high costs could be attributed to factors such as high input prices, inefficient production systems and high government taxes. On the other hand, inefficient processing technologies, high taxation, poor infrastructure and high cost of energy are important factors that lead to high processing and marketing costs.

Before the new constitution became effective, Agriculture Act Cap 318, Section 192A gave powers to local authorities to collect produce cess in consultation with and with the consent of the Minister for Local Government. The Act also directed that 80 % of the cess collected be used to maintain and improve infrastructure and other services for the agriculture sector.

The promulgation of the new constitution (2010) ushered in two types of governments, national and the county governments, thus rendering the old laws redundant. Agriculture and Food Authority Act No. 13 of 2013 gave authority to all 47 counties to charge produce cess during the three-year transitional period under the Public Finance Management Transition Act, therefore, replacing the Agricultural Act. After the three-year period elapsed, most of the counties entrenched produce cess as a levy into their legal system through financial bills, which were deliberated and passed by County Assemblies. The need for county governments to have reliable revenue to provide public goods as contained in Article 175 (b) of the constitution is very critical for devolution.

The current constitution provides for provision for taxation by both national and county governments. Under Article 201(1), the national government is authorized to impose income tax, VAT, custom duties and other levies on import and export goods and excise duty. The

constitution allows the 47 counties under Article 209 (3) to impose entertainment taxes, property rates, charges for services provided and any other tax or licensing fee authorized by an Act of Parliament. In the first three years of devolution, the counties managed to raise 13 percent of their revenue from local sources, while transfers from the national government accounted for more than 84 percent (RoK, 2017).

1.2 Agriculture Taxation by County Governments

Following the implementation of the devolved system of governance in Kenya, county governments are continuously looking for means to expand their sources of revenue to supplement transfers from the national government. One of the means used to raise revenue to support local activities is the charging of local taxes or fees that may include market fees, service charges, land rent, produce tax/cess and export fees. County governments argue that devolution has little meaning without the ability to raise and spend funds fully. While some of these taxation measures have been introduced under the devolved governance system, others were carried forward from local authorities though the amounts and rates may have changed.

County governments are expected to rely on the local taxes and fees to a considerable extent, to raise revenue since transfers from the national government are insufficient. Increased reliance on these sources of revenue is expected to raise the cost of doing business by different players along various agricultural value chains. While complaints of high taxation in the sector had been there all along, they have increased following devolution. Of interest is the perceived increase in agricultural produce cess, which is usually administered at the county level.

The produce cess is a form of tax on the movement of agricultural commodities and applies to agricultural farm produce, livestock and products marketed in outlets managed by county governments and sometimes on products on transit within the county. A common argument behind this county levy is that it compensates for the use of infrastructure by goods passing through the county. The money collected is, however, lumped together with revenue received from other sources in the counties and allocated according to county priorities.

Taxation measures have the potential to sustain county government activities but also stifle business growth and trade, further limiting smallholder farmers' income sources, as had been observed in other countries such as Tanzania (Nyange et al. 2014). Concerns raised by various stakeholders indicate that the cess rates and its administration are arbitrary and changes from

time to time. In addition, there are complaints that the rates are high for the agriculture sector, yet it is characterized by low margins. This additional cost may end up being passed on to the final consumers or backwards to the producers in form of lower producer prices. Stakeholders expect that collection of produce cess be efficient, honest, equitable and transparent.

Charging multiple cess levies as produce moves through several counties is likely to have an adverse effect on competitiveness of agricultural value chains and inter-county trade. While counties may be focusing on maximizing revenue, produce from their farming community may be rendered less competitive as it is subjected to similar levies in other counties. There have also been arguments on the legal basis for charging some taxes, especially the agricultural produce cess.

Despite complaints from various actors in the value chain about the administration and rates of agricultural taxes, only a few studies have been undertaken to show how these levies affect costs and margins of various actors in agricultural value chains. Kenya Market Trust conducted a study in 2016 to show how cess influences the cost structure of key agricultural commodities including cereals, livestock, dairy, fish and vegetables in 12 counties.

1.3 Study Objectives

The study was aimed at assessing the contribution of cess and other levies on the final produce cost. In addition, the importance of taxes on marketing costs, in relation to other transaction costs is not well known. To fill this knowledge gap, we undertook a study with the overall objective of assessing how cess affects costs and margins within the agricultural sector. Specific objectives of the study were to:

1. Understand county governments' motivation and application of cess in maize and Irish potatoes value chains
2. Estimate the contribution of cess to costs and returns of chain actors
3. Make recommendations on how cess can be structured to enhance production and trade in agricultural produce

2. Methodology

2.1 Value chain analysis approach

This study adopted the value-chain analysis approach. In this approach, it is recognized that costs or value is generated by different activities and their interactions during processes of production and sale of a product (Webber and Labaste, 2010). According to these authors, value chain analysis, among other things, focuses on the build-up of costs and increase in value and distribution of returns along the value chain. Hence, value-chain analysis studies include interviews for all the actors within the identified value chain. Important chain actors for this study were farmers, county governments and traders/transporters.

2.2 Selection of value chains and study areas

This study focused on two value chains, maize and Irish potato, whose selection was based on the following criteria. First, these commodities are important in terms of food security in Kenya, with maize being the major cereal crop in the country, while Irish potato is the most important horticultural staple in Kenya. Secondly, the two have main producing counties making it easy to select study regions. The important production counties for maize are Trans Nzoia, Uasin Gishu and Narok (Kilgoris), while for Irish potatoes; it is Nyandarua, Nakuru, Narok and Meru. Third, the two commodities are widely traded allowing a value-chain analysis approach from production to marketing points.

Several steps were followed to select study areas. The first step entailed making telephone calls to agricultural experts at the county level in the major production areas. This was to help identify areas where harvesting had been done already, meaning that traders were on the ground buying produce from farmers. This was necessary since the production cycle may differ across production areas.

Following this consultation, Trans Nzoia and Narok were identified as potential study areas for maize, while Nakuru and Narok counties were identified for Irish potatoes. Upon going to these areas, however, it was realized that Narok County was a deficit county for maize at the time of the study, and hence it was dropped from the study areas for maize, leaving only one source county for maize i.e. Trans Nzoia. Narok and Nakuru counties were confirmed to have harvested potatoes in the near past, and traders were on the ground buying them. Hence, these two counties

were confirmed as study areas for Irish potatoes, with a focus on Narok South and Kuresoi South sub-counties. There were 6 and 9 Irish potato wholesale traders interviewed in Narok and Nakuru interviewed source counties respectively.

In addition to production areas, it was necessary to identify the main markets to establish a trade route that was important for a value chain analysis. Interviews with traders buying maize in Trans Nzoia, and those buying potatoes in Nakuru and Narok confirmed that the main markets for the two commodities at that time were Nairobi and Mombasa.

2.2 Data collection

Fieldwork was undertaken in November 2016. Two research teams were constituted and each focused on one of the two value chains. The study relied mostly on primary data collected through focus group discussions (FGDs) and key informant interviews (KIIs). One FGD was conducted in each county, Narok South and Kuresoi South which are the producing sub-counties with the aim of establishing their awareness and perceptions about agricultural produce cess as well as the cost of production for Irish potatoes. The participants included Irish potato farmers, cess collectors, traders, SCAOs and Ward Agricultural Officers. Key informants contacted and interviewed included county directors of Agriculture, crops officers, agribusiness officers, county chief revenue officers and cess collectors.

The “typical” farm methodology was adopted in establishing the cost of production (Langrell et al. 2012). Interviews were conducted with county officials, cess collectors, traders and transporters. Interviews with traders/transporters were undertaken both at the source county and at the market. For Irish potatoes, a few retailers were also interviewed at the market counties. For maize, however, the main buyers were millers, who were not targeted for interview in this study.

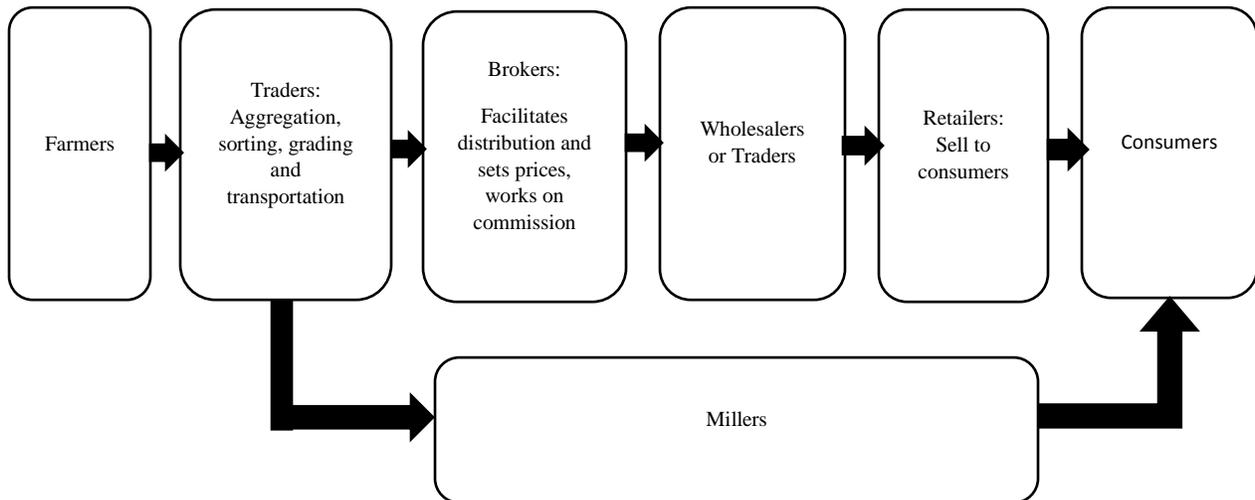
3. Description of maize and Irish potato value chains

3.1.1 Maize value chain

As indicated earlier, main maize producing counties included Trans Nzoia, Uasin Gishu and Narok. Production in these areas is done once a year during the long rains season, though some other areas in the country have a bi-modal rainfall pattern allowing harvesting twice a year.

Trading in maize is a year-round activity. Between November and March, most of the maize traded in the maize deficit regions comes from the major producing areas namely Trans Nzoia, Uasin Gishu and Trans Mara (Narok). During the other periods, maize is usually sourced from other producing areas in Kenya as well as Uganda, Tanzania and Zambia. Traders that were interviewed in Trans Nzoia indicated that their source of maize is determined mainly by availability at any given time as well as comparative margins to be made.

Figure 1. Maize value chain actors

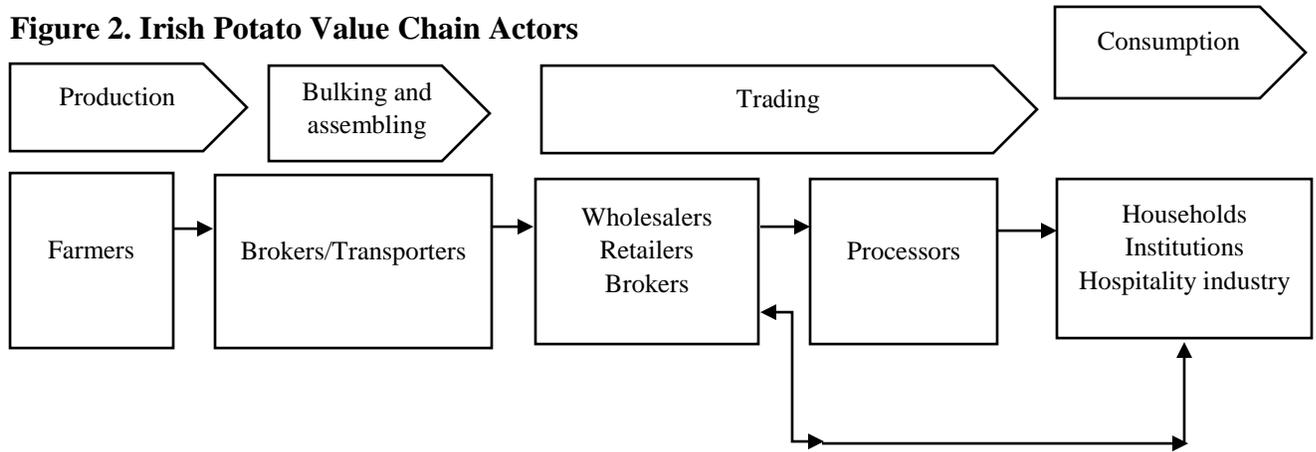


Most of the maize is usually sold to millers, while the National Cereals and Produce Board (NCPB) and retailers (who sell directly to consumers) buy the remaining quantity. Selling to millers comes with extra costs for drying since they are strict on grain moisture content. Maize price fluctuation is mainly due to supply and demand forces, but it is also influenced by the government's announcement of prices at which it would purchase maize for the Strategic Food Reserve.

3.1.1 Irish potato value chain

The main Irish potato production areas for the study counties were Narok South sub-county, Sagamian Ward in Narok county and Kuresoi South, Keringet Ward in Nakuru County. The main variety grown was *shangi* but lack of certified seed was identified as a major challenge at the production level. After harvesting, packaging is normally done in 90kg bags provided by traders. Packaging in extended bags seemed acceptable to both farmers and traders.

Figure 2. Irish Potato Value Chain Actors



Irish potato is traded throughout the year with traders shifting to areas with peak production at different times of the year. Traders normally engage rural scouts (brokers), who source for the produce, aggregate it and provide bags for packaging. However, traders re-package the potatoes to 70kg or 110kg bags, which are the weights accepted in many markets. The main markets for Irish potato at the time of the survey were Mombasa (Kongowea) and Nairobi (Wakulima), with few traders taking the produce to border towns of Isebania and Sirare.

In this study, traders who were interviewed in Narok were mainly supplying the Nairobi market, while those in Nakuru were delivering potatoes to Mombasa market. Some of them were also supplying hotels and institutions within Nairobi and Mombasa. In the markets, traders must go through brokers in order to sell their produce. Brokers normally sell to retailers who sell in heaps, buckets, tins or kilograms rather than bags. Although they did not take part in the survey, some wholesalers supply to the processor when opportunity arises.

3.2 Agriculture taxation with a focus on produce cess

3.2.1 Cess in the maize value chain

Administration of cess in Trans Nzoia County

In Trans Nzoia, agricultural produce cess accounted for 2.3% of the county revenue in the most recent budget. In total, the county collected KES 30 million in the last financial year from cess levied on various commodities. The total collection was combined with other funds in the county's treasury and used according to the budget passed by the county assembly.

Cess within Trans Nzoia County is collected from Monday 8am up to Saturday about 9pm at the major points of exit from the county. During the time of the survey, the county had 7 cess collection points. The levy is paid in cash and physical receipts are issued, which are only valid for a single day. Traders with produce being transported to markets far away such as Mombasa are issued with receipts valid for 2 days. The highest amount of agricultural produce cess in the county is usually collected between November and March, which coincides with the period when maize trade is at its peak.

The county does not have any arrangements with other counties on cess administration and collection. This means that cess rates are different between Trans Nzoia and its neighboring counties. However, the county occasionally works with NCPB to collect cess on its behalf for maize delivered to the depots and remit it back to the source county.

Maize cess collection in Trans Nzoia County

Interviews with county staff showed that cess is the main levy that is charged on maize, but traders also pay a trading license fee. The stipulated cess charge on maize produce in Trans Nzoia is 1% of the value of a consignment, which is determined by the buying price at the source or KES 3,000 and KES 1,500 per lorry with a capacity of 310 bags (90kg) and 100-120 bags (90kg), respectively.

However, the cess clerks do not verify the number of bags being transported, opting to do arbitrary levying depending on the agreement with the transporters. It is a common practice by traders to fill the vehicles way beyond the required capacity to minimize the unit cost. Transiting maize traders are also charged similar rates unless they show a physical receipt as a proof of cess payment at the source or another county.

Evading paying cess is quite difficult since the collection points cover the main exit routes from the county. In addition, some millers refuse to accept the commodity until they are presented with an evidence of cess payment. A few traders in Trans Nzoia County reported that some millers deduct cess and remit the money back to the source county when it has not been paid for at the collection points. It is possible to evade paying cess by exiting the county after 9 pm on Saturdays and on Sundays when collection points are not manned. However, the traders will have to pay cess in another county since they would need to provide proof of payment while on transit and at the destination market.

Upon paying cess in the producing county, maize transporters only need to show payment receipts as they transit through other counties. However, cess is charged again upon entering the market county. In Nairobi, traders are charged KES 71 per bag, while in Mombasa the charges are KES 64 per bag. This amount is charged on maize produce regardless of whether it is destined to a consumer market or to the millers.

3.2.2 Cess in the Irish potato value chain

Administration of cess in Narok County

The county of Narok does not have a specific legislation regarding administration of cess on agricultural produce and inputs. Instead, they rely on the county financial bills prepared and passed by the county assembly every financial year. The Narok county financial bill stipulates the amount of cess charged, which has not changed since the devolved systems were established. A proposed financial bill 2015/2016, whose rates were very similar to those administered by the defunct local authorities was at its final stages of development.

Cess contributed 2.3% of the county budget of KES 6 billion in the 2014/2015 financial year, with wheat being the largest revenue earner. Cess is normally levied per unit i.e. per bag for agricultural produce such as maize, potatoes, wheat and barley. Tomatoes taxes are levied per crate, while sugarcane and tea taxes are levied per ton. There are 68 cess collection points within the county, 15 being road barriers and the rest at the markets. The location of collection points is determined by the convergence of common and frequently used roads making it difficult for traders to evade paying levies. A physical receipt is issued upon payment of cess.

Officially, the Narok County indicates that it charges cess at a rate of KES 40 per 50kg bag of potatoes. Traders have devised various ways to minimize the amount of cess paid by using extended bags. A standardized bag for potatoes weighs 50 kg but traders use extended bags that weigh up to 70 kg and still pay the same amount of cess.

Administration of cess in Nakuru County

Agricultural produce cess accounted for 1% of revenue in Nakuru County for the 2014/2015 financial year. Agricultural commodities contributing to cess revenue in the county are mainly Irish potatoes, wheat, barley, flowers, carrots and timber. While cess is levied per bag for maize, potatoes, wheat and barley, flowers are levied per kg and timber in tons. The county collection clerks provide physical receipts to traders after they pay cess although the transactions are electronically recorded at a central server networked with the portable cash registers.

Nakuru County has a financial bill for 2014/2015, which stipulates which charges the county can levy, among other things. A proposed bill for 2015/2016 financial year had not been finalized by the time of the study but the level of charges in it were very similar to those levied by the defunct local authorities as well as 2014/2015 financial bill. Just like in the other counties, cess collection points are determined by the convergence of exit routes from production areas.

Although evasion was rare, sometimes traders avoided paying cess by changing routes to bypass the barriers especially at night and bribing the cess clerks at the barriers. It is quite expensive for the county to employ more staff and deploy policemen during the day and night. Police are usually deployed to ensure that the traders do not forcefully pass through the barriers without paying cess especially at night.

The official cess rate for Irish potatoes in Nakuru is KES 20 per bag regardless of the weight. Usually, cess collectors just estimate the capacities of lorries and do not verify the number of bags being transported. Cess collection points are very active during the night since the traders move around during the day collecting the produce and pass through the cess points mainly at night.

3.2.3 Perceptions about agricultural produce cess

County governments

Across the three counties, cess is regarded as a very important source of revenue, with the main justification for cess being maintenance of infrastructure. However, the counties acknowledged that the cess collected goes to the county treasury where it is combined with other revenue and so it is not necessarily used for infrastructure or agricultural development. The county governments did not think that cess charged at the source counties had any negative impact on producer and consumer prices since the rates have remained the same from the beginning of the devolved units. However, the cess charged at Nairobi and Mombasa markets makes them perceive this as double taxation that tends to make producers less competitive.

Farmers

Although aware about cess, farmers, in particularly the small-scale ones had little knowledge on its specifics. They mostly viewed it as just another tax. However, large-scale farmers, some of whom are traders or exporters had good knowledge on cess. For instance, interviews at the Nakuru County revealed that there were complaints by the flower farmers due to double taxation since they pay cess to the county governments and again pay export tax. Generally, farmers were not satisfied with the way revenue from taxation was being utilized especially because infrastructure where the commodities are obtained remained poor despite collection of cess.

Traders

Traders view on cess was largely negative. Although they understood the need to support the county development initiatives, they wanted the levies reduced. They further expressed frustration that despite these levies, improvement in services such as roads was slow. They also argued that cess reduced their profits since it is not always possible to pass part or whole of this cost to producers or the consumers, traders are often price takers. This creates an incentive for them to reduce the amount they pay by bribing the cess clerks and using extended bags for Irish potatoes.

3.2.4 Challenges experienced by counties on cess administration

Interviews with county governments revealed some challenges with cess administration. The main one is that cess is an inconsistent source of revenue due to seasonality in agricultural

production. The implication is that there are periods of high cess collection, which coincide with peak production or harvest period, which are often followed by lean periods of cess collection. Hence, factors such as climate change and poor access to inputs ultimately affect county revenue. This inconsistency means that counties can only budget on such funds with some level of uncertainty, making it difficult to forecast revenue and plan.

Counties also acknowledged loss of revenue due to underreporting of quantities of produce being transported. They lack the capacity to verify weights and amount of produce being transported. Traders are aware of this, and so they normally underreport the quantities to minimize the amount of cess paid. In addition, lack of standardization for packaging some produce such as Irish potatoes means that traders can reduce amounts paid by packaging in larger quantities. Finally, counties acknowledge that collusion between traders and cess collection clerks results in lower cess amounts collected.

Cess collection also has its costs. There are numerous feeder roads and exit points from the county hence several cess collection points have been installed. This implies the need for more staff and in most cases on two shifts to man the collection points day and night. Some counties also incur extra cost of hiring police officers to tighten security at the collection points.

4. Trading costs and the role of agricultural produce cess

4.1 Maize value chain

Table 1 shows a breakdown of prices and costs involved in the maize value chain from Trans Nzoia to Nairobi and Mombasa markets. Cost of producing a 90kg bag of maize was KES 1,614 when accounting for working capital and KES 1,491 without working capital. The average farm-gate price at the time of the survey was KES 2,350 per 90kg bag.

Table 1. Prices, production and marketing costs for maize sourced from Trans Nzoia (KES/90 kg bag)

Category	Description	Trade Route	
		Trans Nzoia - Nairobi	Trans Nzoia - Mombasa
Production cost	With working capital	1,614	1,614
	Without working capital	1,491	1,491
Farm-gate price		2,387	2,387
Buying costs	Loading & offloading (source)	28	28
	Storage	14	14
	Drying	23	23
	Security	5	5
		70	70
Transport costs	Vehicle hire (incl. fuel & wages)	139	259
	Cess - source County	17	17
		156	276
Selling costs	Offloading (destination)	10	10
	Cess - destination County	70	64
		80	74
Total marketing costs		306	420
Wholesale price		2,867	2,964

Marketing costs comprised of buying, transportation and selling costs at the destination market. Buying costs were incurred at the source county, hence they were the same irrespective of the destination market. Transportation and selling costs differed by destination market, with vehicle hire costs being higher for Mombasa at KES 259 per bag due to longer distance, compared to KES 139 for Nairobi. Normally, traders also incur brokerage fees at the selling point but in this

case, this was not incurred since majority of traders took the maize directly to millers in Nairobi and Mombasa. They also did not incur storage costs at the destination market.

While cess was levied at an average of KES 17 per bag in Trans Nzoia, there was a mandatory levy of KES 70 and KES 64 per bag in Nairobi and Mombasa markets, respectively, which the traders referred to as cess. Overall, marketing costs amounted to an average of KES 420 for a bag destined for Mombasa and KES 306 for one destined for Nairobi. The maize wholesale price was about KES 100 higher in Mombasa compared to Nairobi.

Table 2 shows percentage contribution to total maize marketing costs. The largest contributor to maize marketing costs was transport at 45 and 62 percent for Nairobi and Mombasa, respectively with overall contribution averaging 54 %. Overall, cess contributed 24 % of total marketing costs, but was higher for maize sold in Mombasa (29%) compared to that destined for the Nairobi market (19%).

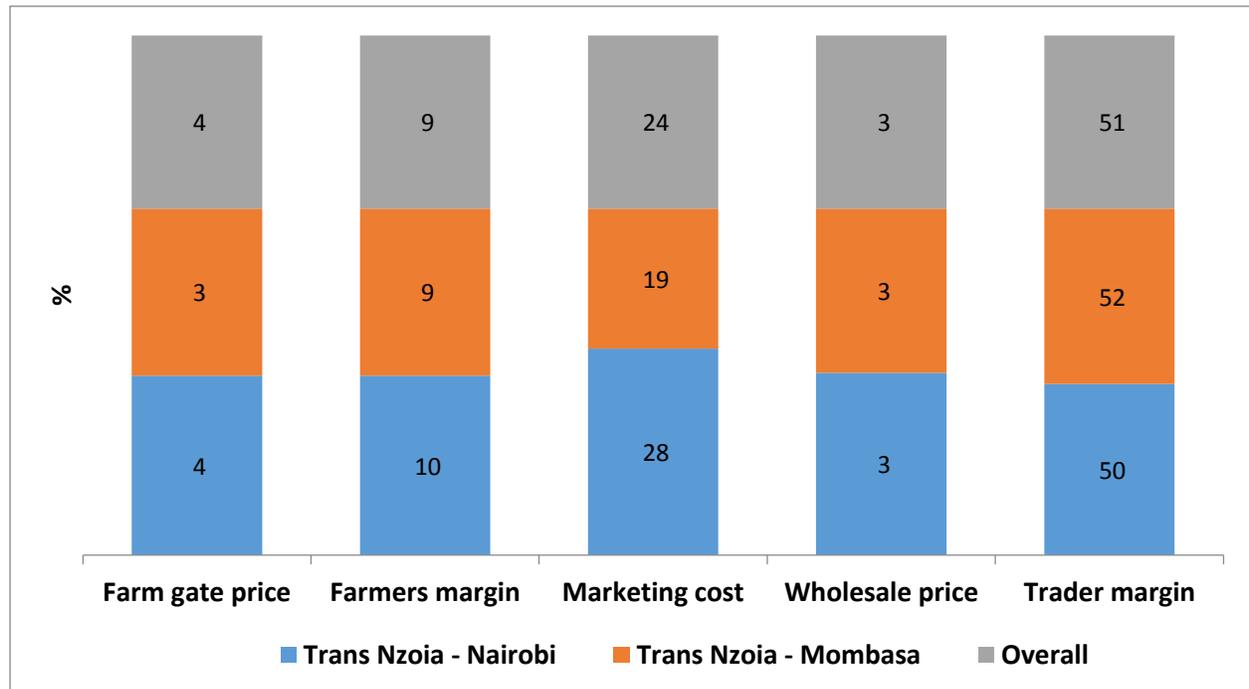
Table 2: Contribution of cost components to total maize marketing costs (%)

Cost category	Description	Trade route		Overall
		Trans Nzoia - Nairobi	Trans Nzoia - Mombasa	
Buying costs	Loading & offloading (source)	9	7	8
	Storage	5	3	4
	Drying	8	6	7
	Security	2	1	1
		23	17	20
Transporting costs	Vehicle hire (incl. fuel & wages)	45	62	54
	Cess - source county	6	4	5
		51	66	58
Selling costs	Offloading (destination)	3	2	3
	Cess - destination county	23	15	19
		26	18	22

Figure 1 looks at the proportional of cess to other costs and margins. While the proportion of cess to farm gate and wholesale prices were low (4 % and 3 %, respectively), it was equivalent to a bigger proportion of farmers' margin at 9 percent. Nevertheless, the larger proportion equivalents were on marketing costs and hence trader margins (24 % and 51 %, respectively). Farmer margins would also increase by 9 % due to removal of maize cess, provided traders would pass on this benefit to farmers through higher farm gate prices. The proportion of cess to

marketing costs was higher in Nairobi at 28% as compared to 19 % in Mombasa. This is attributed to higher cess charges in Nairobi which is KES70 as compared to KES 64 in Mombasa.

Figure 3. Proportion of maize cess to various costs and margin by trade route



4.2 Irish potato value chain

As earlier indicated, two Irish potato source counties, Narok and Nakuru, were visited for the study. Potatoes from Nakuru that were destined for the Mombasa market were packaged in 110kg bags, while the 70kg bag was most common for potatoes transported from Narok to Nairobi market. For comparison purposes, we converted the 110kg bag to the 70kg equivalent. Table 3 shows prices and costs for production and marketing of Irish potatoes. Farmers in Nakuru spent slightly more to produce a 70kg bag of Irish potatoes (KES 454) compared to those in Narok (KES 372), exclusive of working capital.

Farm gate price was higher in Narok at KES 1,556 compared to KES 1,298 in Nakuru. Sorting and sewing of the bags constituted the highest cost component of buying costs. Transportation was the largest component of total marketing costs, with vehicle hire and fuel being the largest contributors. Broker charges and cess were the highest costs incurred by traders in the destination markets.

Similar to maize, cess was charged both at source county and destination market. A 70kg bag was charged an average of KES 17, 27, 37 and 48 in Nakuru, Narok, Mombasa and Nairobi, respectively. Total marketing costs and retail prices were similar for both trade routes but wholesale price was higher in Nairobi market.

Table 3. Prices, production and marketing costs for Irish potatoes sourced from Narok and Nakuru

Category	Description	Trade Route		
		Nakuru - Mombasa (110kg bag)	Nakuru - Mombasa (70kg bag equiv.)	Narok - Nairobi (70kg bag)
Production cost	With working capital	779	495	553
	Without working capital	714	454	372
Farm-gate price		2,040	1,298	1,556
Buying costs	Aggregation	33	21	21
	Loading	40	25	40
	Gunny bags	32	20	28
	Ropes	63	40	43
	Sorting and sewing	90	57	50
		259	165	183
Transportation costs	Vehicle hire	450	287	303
	Driver/turn boy wages	26	17	13
	Fuel	213	136	86
	Vehicle maintenance	18	11	16
	Cess - source County	27	17	27
	Police fee	15	9	6
	Parking payments	5	3	8
	Other costs	20	12	9
		772	491	468
Selling costs	Offloading	30	19	20
	Broker charges	78	50	40
	Cess - destination County	58	37	48
	Parking charges	6	4	5
	Security	5	3	1
		175	112	115
Total marketing costs		1,206	768	766
Wholesale price		3,650	2,323	2,600
Retail price		4,400	2,800	2,800

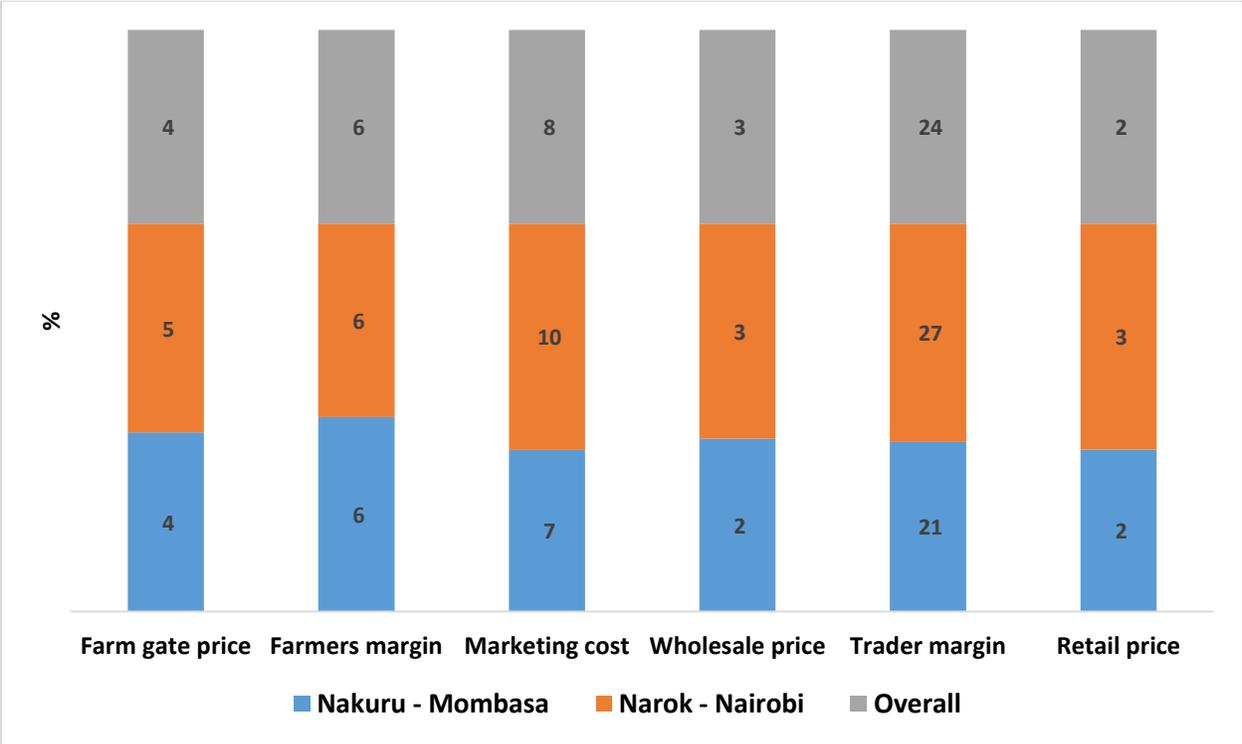
At 63 percent, costs incurred during transportation constituted the highest proportion of marketing costs, followed by buying and selling costs at 23 and 15 percent, respectively (Table 4). Costs associated with vehicles (hire, fuel and maintenance) were the largest component, at more than 50%. Cess contributed an average of 9% to total marketing costs. This is higher for the Narok-Nairobi route at 10% compared to 7% for the Nakuru-Mombasa route.

Table 4. Contribution to Irish potato marketing costs (%)

Category	Description	Trade route		Overall
		Nakuru - Mombasa	Narok - Nairobi	
Buying costs	Aggregation	3	3	3
	Loading	3	5	4
	Gunny bags	3	4	3
	Ropes	5	6	5
	Sorting and sewing	7	7	7
		21	24	23
Transportation costs	Vehicle hire	37	40	38
	Driver/turn boy wages	2	2	2
	Fuel	18	11	14
	Vehicle maintenance	1	2	2
	Cess - source County	2	4	3
	Police fee	1	1	1
	Parking payments	0	1	1
	Other costs	2	1	1
		64	61	63
Selling costs	Offloading	2	3	3
	Broker charges	6	5	6
	Cess - destination County	5	6	6
	Parking charges	0	1	1
	Security	0	0	0
		15	15	15

Figure 4 shows proportion of Irish potato cess to various costs and margins. Compared to various prices, the proportion was low at 4 and 2 % of farm gate and retail prices, respectively. However, proportion of cess in relation to margins of chain players was higher, being 6% of farmers' margins and 24 % of trader margins.

Figure 4. Proportion of Irish potato cess to various costs and margins by trade route



5. Summary, conclusions and recommendations

5.1 Summary and conclusions

In this study, we undertook a value chain analysis with a focus on maize and Irish potatoes to examine types of levies charged in selected value chains in the agricultural sector, estimate the contribution of cess to costs and returns for chain actors, and explore perceptions about cess and its likely effects.

Findings indicate that cess was the main levy charged on maize and Irish potatoes, with trade licenses being the other form of taxation. Cess is normally collected during all days and nights except Sunday, with most counties using manual physical receipts apart from Nakuru, which had adopted electronically generated receipts. Cess collection points in the counties are determined by the convergence of exit routes from the production areas.

Cess rates differed between counties even for the same produce. For instance, amount of cess charged for a 50kg bag of Irish potatoes was KES 40 and 20, in Narok and Nakuru, respectively. In Trans Nzoia, cess on maize was computed as 1% of the value of a consignment; or set at KES 3,000 and KES 1,500 per lorry of 310 and 100-120 bags (90 kg), respectively. Usually, cess collectors just estimate the capacities of trucks but at other times rely on the capacities/quantities reported by traders without verifying the actual quantities being transported.

Maize from Trans Nzoia was charged cess at an average of KES 17 per 90kg bag, and was subjected to further cess of KES 70 and KES 64 in Nairobi and Mombasa markets, respectively. For Irish potatoes, an equivalent of a 70kg bag was charged cess at an average of KES 17 in Nakuru and KES 27 in Narok. Upon entering Mombasa and Nairobi markets, Irish potato attracted a cess of KES 37 and 48, respectively.

For maize, total cess was equivalent to about 24 % of marketing costs, which was less than that for Irish potatoes at 8% on average. However, cess was a significant proportion of actor margins. In the case of maize, it was 9 and 51% of farmer and trader margins, while for Irish potato; it was equivalent to 6% and 24 % of farmer and trader margins, respectively. Cess was also found to be a significant contributor to the average cost of distribution and production.

From the study, we can conclude that transport component contributes the highest percentage of costs from farm gate to the wholesale markets. Transport costs accounted for the largest

proportion of cost which was attributed to long distances and poor infrastructure particularly in the source counties. Maize accounted for 58 % and Irish potatoes 68% which was the highest proportion of marketing costs.

In addition, the money collected is not set aside for improving infrastructure but consolidated together with other levies in one pool. The funds are allocated to different development projects based on the priorities of the county.

Cess rates have largely remained unchanged since the time of local authorities and the complaints that counties have increased cess may be just a perception. What have increased after devolution are the cess collection points.

The view of the counties was that cess was justified as a levy to support infrastructure development and other agricultural services in the counties. However, this was not the case, since it goes to the general treasury pool to be used together with other county funds. Despite the counties outlining how important cess was to them, it only contributed about 2 % to county revenue (2.3 % in Trans Nzoia and Narok and 1 % in Nakuru).

Contrary to opinions held by traders and the public, cess is not charged in every county while maize and potatoes are on transit. It is charged at the source county and destination markets. Transporters only need to show proof of payment at the source county.

While source counties argued that cess is very important to their revenue base, they were against levying of cess at Nairobi and Mombasa markets, since they viewed this as double taxation. Although some of farmers were aware about cess, most of them had little knowledge on the powers given to the county government to impose tax by the new constitution. The only difference they see between the previous one charged by the former local authorities is that cess was subjected in particular markets far from the ward but currently it is charged at every market no matter the size.

On the other hand, traders had a negative view of cess. Although they understood the need for county development, they expressed frustration that despite its collection, improvement in services such as roads was slow. In addition, payment of cess reduced their profits and hence some devised ways of reducing the amount paid or evading payments through bribing of clerks, use of extended bags (for Irish potatoes) and change of transport routes.

Some of the challenges experienced by counties in cess administration include inconsistency since the amount collected depends on production cycle; loss of revenue due to under reporting by traders; lack of standardization for packaging of Irish potatoes; and, collusion between traders and cess collection clerks, resulting in lower cess amounts collected.

5.2 Recommendations

The study recommended the following:

1. Cess levies should be standardized across counties

This study revealed that cess is charged at different rates even by neighboring counties for the same commodities. This gives traders an incentive to evade payment in the source county and pay in the one with cheaper rates, which implies a loss of revenue for the former. Additionally, cess charged in Nairobi and Mombasa markets is double what is charged in producing counties for Irish potatoes and about four times higher for maize. Standardization would bring about consistency, which is important for business, and reduce the rates payable at the market counties.

2. Address loss of revenue in cess collection

This study showed that there is loss of revenue through various means and it is possible for cess to constitute a bigger proportion of county revenue. Means to curb corruption at cess collection points should be instituted. These may include use of electronic receipts which is already being implemented in Nakuru and education for cess collection clerks. In addition, financial disincentives, such as heavy fines on offenders should be considered.

Cess collection points should be manned all days of the week, day and night to reduce evasion. The national government through the Ministry of Agriculture should come up with a legislation which enforces standard packaging of Irish potatoes in all the counties to protect farmers from exploitation by traders/brokers. Cess collection clerks should be stricter on extended bags.

3. Capacity strengthening and use of technology

There is need for capacity strengthening in counties to improve cess collection. This may involve additional training to cess collection clerks, and exploring technologies for weight measurement and verification.

4. Address misperceptions about cess

The perception among the general public is that cess is charged in every county that produce passes through while on transit. However, findings indicated that cess is only charged in the producing and destination counties. Another perception is that cess rates have increased with the counties, which may not necessarily be the case. In the counties visited, cess rates have changed little if at all from what was charged by local government authorities. What has changed is the number of collection points, which could be a basis of this perception. Counties could educate the public on how cess is administered to correct these perceptions.

5. Rethink importance of cess to counties to guide restructuring

While producing counties argue that cess is an important source of revenue to them, it only contributed about 2% of their revenue. This study was not able to establish the contribution of cess to the revenues of market counties, but it is projected to be small. On the contrary, cess is equivalent to 6% and 9% of farmer's margins and 24% and 51% of traders' margins for Irish potatoes and maize, respectively.

A scrapping of cess would result in 24% and 51% higher margins for Irish potato and maize traders, respectively. If some of this was transferred to farmers in terms of higher farm gate prices, maize farmers would receive 9% higher margins and Irish potato farmers 7% more. Thus, elimination of cess would contribute to higher incomes for farmers and traders, possibly encouraging more production and trade. This conversation on restructuring cess should also involve the ministries of agriculture in the various counties and not just treasury.

6. Address other transaction costs

Costs related to transportation were found to be the highest cost components. While this is partly due to long distances to Nairobi and Mombasa markets, interviews with traders indicated that poor infrastructure contributed to the high cost of transportation. Ironically, county governments justified cess collection as funds for infrastructure improvement.

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