



ARE STRUCTURED VALUE CHAINS POSSIBLE OR NECESSARY?

Some Highlights from Ethiopian and Kenyan Maize and Legume Markets

Key messages

A core pillar of sustainable agricultural intensification is the farm level financial viability of such intensification. This will (almost surely) be mediated by well-functioning agricultural markets and value chains. This brief highlights four important principles for policy on value chain and for further research.



First, price information systems based on widely accepted quality definitions are needed.



Second, market development policy should focus on improvements in the infrastructure for auxiliary services such as transportation, post-harvest handling and grading.



Third, options for reducing the length of the value chains for farmers to be more fully integrated into wider markets should be explored.



Fourth, future research should focus on determining the business cases and development gains from structured maize and legume value chains

The near absence of key elements of structured value chains in Ethiopian and Kenyan maize and legume markets imply limited profitable business opportunities in these more formalized market activities.

Motivation

In the aggregate, the promise of staple crops value chains in Africa can be deduced from recent reports, which indicate that food markets in sub-Saharan Africa are projected to grow exponentially in the coming decades. Modern value chains with dependable and transparent information systems, quality standards, storage facilities, supportive financial (credit) and other services are important if expanding food markets brought about by urbanization will turn into successful agribusiness and development opportunity.

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Evidence of modernization and structured trade



Impersonal exchange



Contract-based transactions



Price information systems



Standardization and quality differentiation

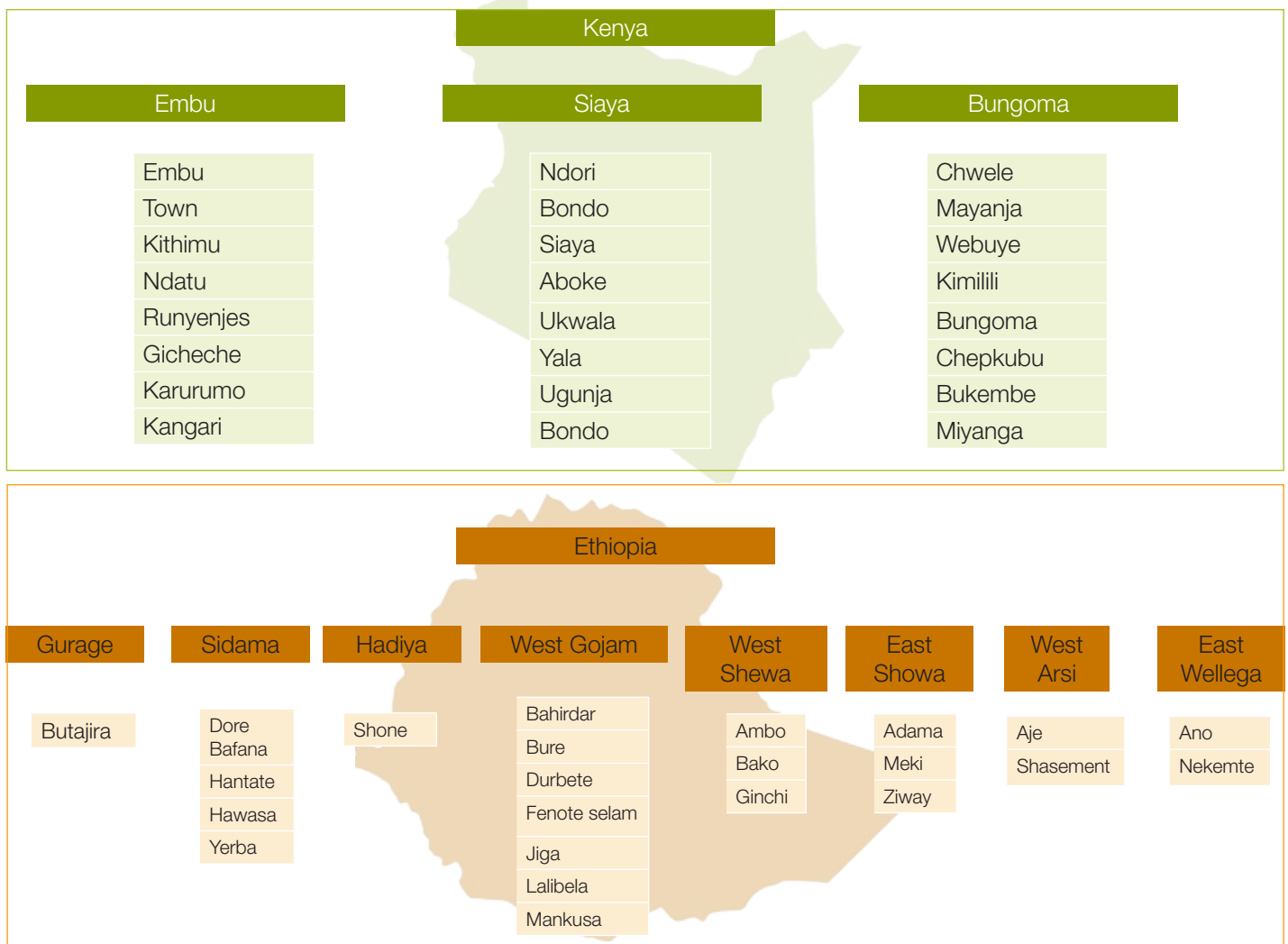
The study

Market surveys were carried out in 2013 under the Sustainable Intensification of Maize-Legume Cropping Systems for Food Security in Eastern and Southern Africa (SIMLESA). Despite the potential of African agricultural markets to capture the demands of a growing urban consumer class, the evidence base on the performance of these markets is still relatively thin. It is therefore important to document the emerging trends to identify opportunities (and impediments) to the growth and development of modern value chains in these staple crops markets. Evidence of modernization and structured trade was summarized in terms of the following parameters: The existence of impersonal exchange, contract-based transactions, price information systems, standardization and quality differentiation.

Data sources and collection methods

The survey was done among maize and legume traders in Kenya and Ethiopia. These markets were selected to coincide with the catchment markets for maize and legumes in the zones where CIMMYT and partners implemented the SIMLESA project. The project focuses on generating information on production options, value chains and policy ideas that can be used by farmers, extension agencies, development organizations, and agribusinesses along the maize-legume value chains in a comprehensive package to achieve sustainable intensification. The markets covered by the survey in both countries are listed in Fig. 1 below. In total 275 and 106 maize and/or legume traders were interviewed in Ethiopia and Kenya respectively.

Figure 1: The most important agricultural output market places in Kenya and Ethiopia



Survey findings: Characteristics of maize trade enterprises in Ethiopia and Kenya

This section highlights the results of the survey in the two countries under four categories aforementioned –the existence of impersonal exchange, contract-based transactions, price information systems, standardization and quality differentiation. The aim is to show frequency of contract-based transactions compared to spot markets, the availability of auxiliary services from market intermediaries, the nature of the price dissemination system and the grading and quality assessment system.

Limited contract-based transactions is likely to imply the predominance of spot markets. In both Kenya and Ethiopia, the survey found that majority of traders operated within a limited locality: 72% to 95% of maize and legume traders operate primarily in local villages and towns. (Table 1). This situation could be as a result of the nature of many businesses that are small and micro.

Traders operating within the local village or town

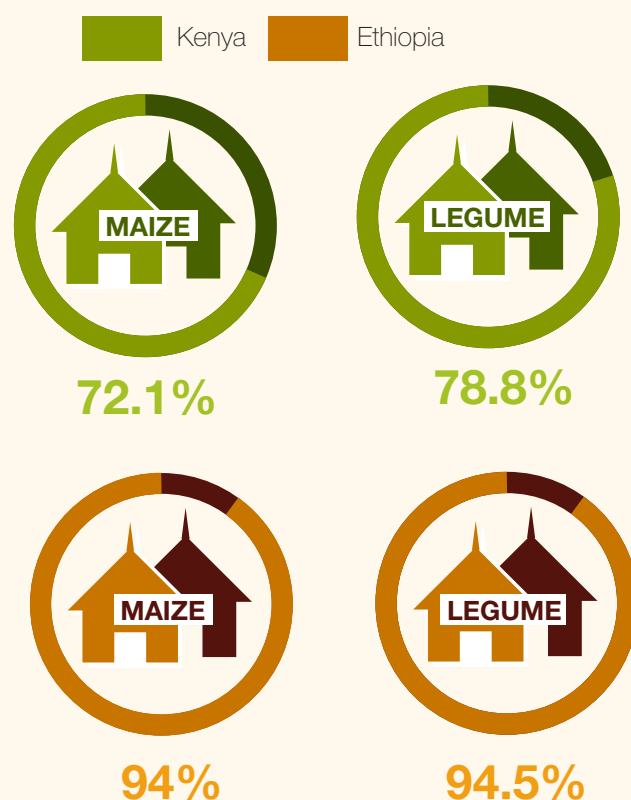


Table 1: The main location of traders' operations and sales (%)

Level of	Maize		Legumes	
	Ethiopia	Kenya	Ethiopia	Kenya
Market, village, and town	94	72.1	94.5	78.8
District/Woreda	5.8	n.a.	5.1	n.a.
Zone	0.2	n.a.	0.4	n.a.
Division	n.a.	10.9	n.a.	8.8
Sub country	n.a.	9.3	n.a.	6.9
Country	n.a.	7.8	n.a.	5.6

Secondly, as shown in Table 2 below, transactions based on contracts were absent in both trader-supplier or trader-buyer relationships. The evidence of few contract-based transactions may be symptomatic of unstructured transactions in many maize and legume markets in both countries. The localized nature of many of businesses suggests that local traders are not be able to exploit markets further afield compared to other intermediaries.

Table 2: Prevalence of contracts in purchase or sale transactions by traders

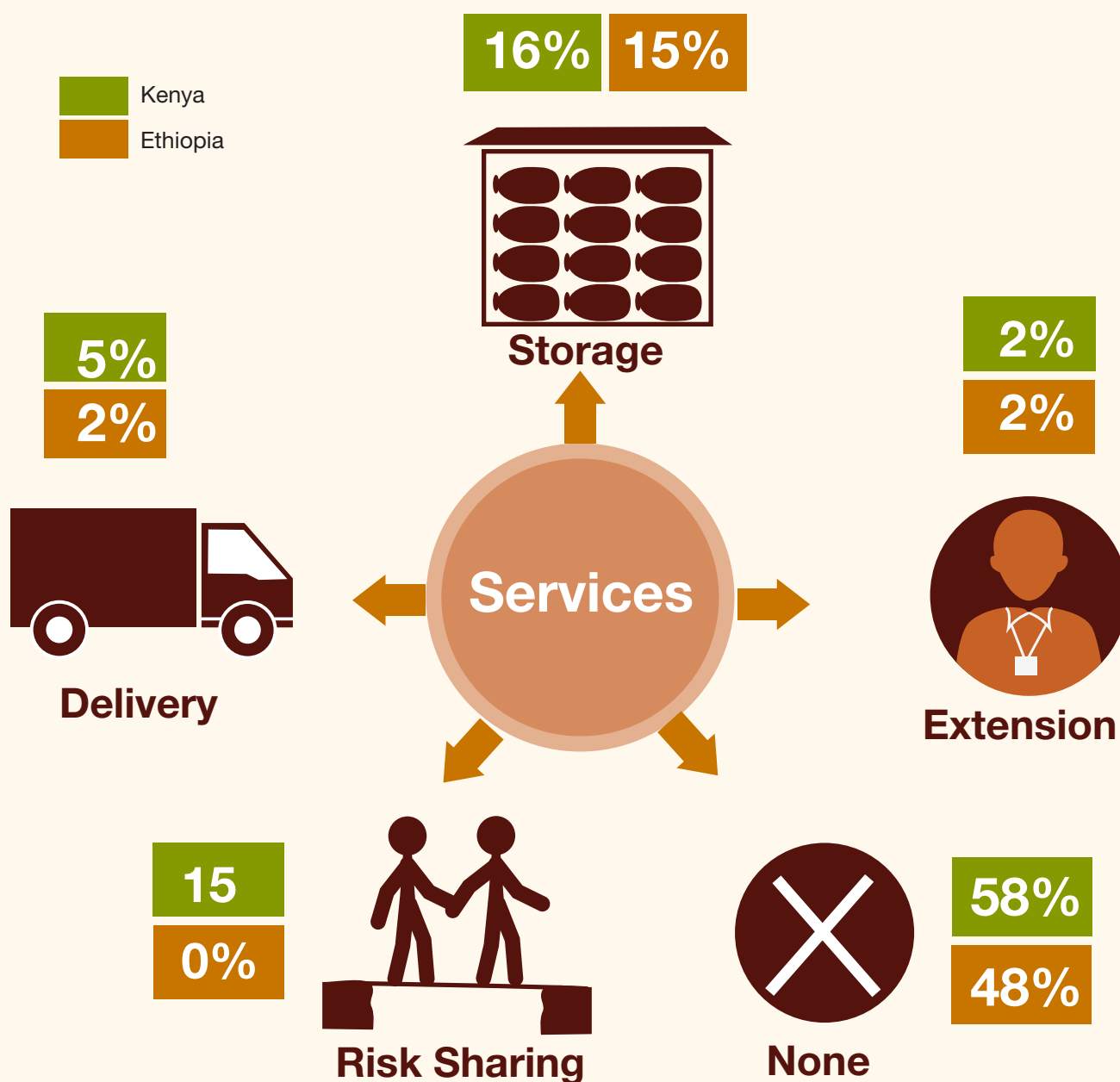
	Kenya	Ethiopia
Do you have supply contracts with farmers?		
No contract (%)	90.6	99.6
Have supply contract (%)	9.4	0.4
Do you have buyer contracts to purchase from you?		
No contract (%)	87.7	96.0
Have supply contract (%)	12.3	4.0

Limited credit and other auxiliary market services

The second trend revealed by the survey was that the localized nature of grain markets is accompanied by limited market services reaching farmers from traders. This is a significant finding because farmers are the traders' main suppliers. Consider the fact that the main suppliers to the traders were mostly farmers with wholesalers and rural assemblers or business partners the second largest category (Table 3). As per fig. 2, only a minority of traders offered any of the services that may support greater and structured participation of farmers in maize and legume markets.

	Kenya	Ethiopia
Farmer	67.6	57.5
Local assembler/ middlemen	16.0	12.1
Wholesalers	14.7	30.2
Others	1.8	0.2

Figure 2: The most important services provided to farmers by grain traders (%)



Limited formal price information system

Modern markets rely on equitable information access provided through publicly accessible common outlets. In many places in Kenya and Ethiopia there are limited formal public price information systems. As per Fig. 3, for many traders, conversations with fellow traders was the main source of market information. Alternatively, the price was known at the market place. The latter is a feature of spot markets. The thrust being that gathering market price information is mainly a private undertaking for traders. A publicly accessible price information system appears exceptional rather than the norm in both countries.

Figure 3: Price information sources for traders

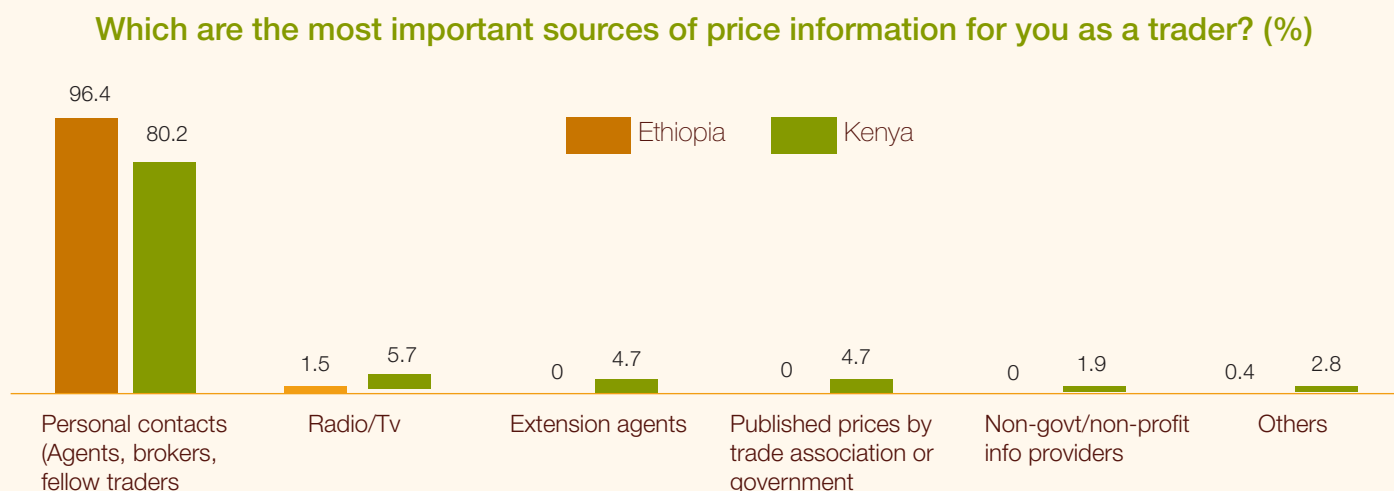
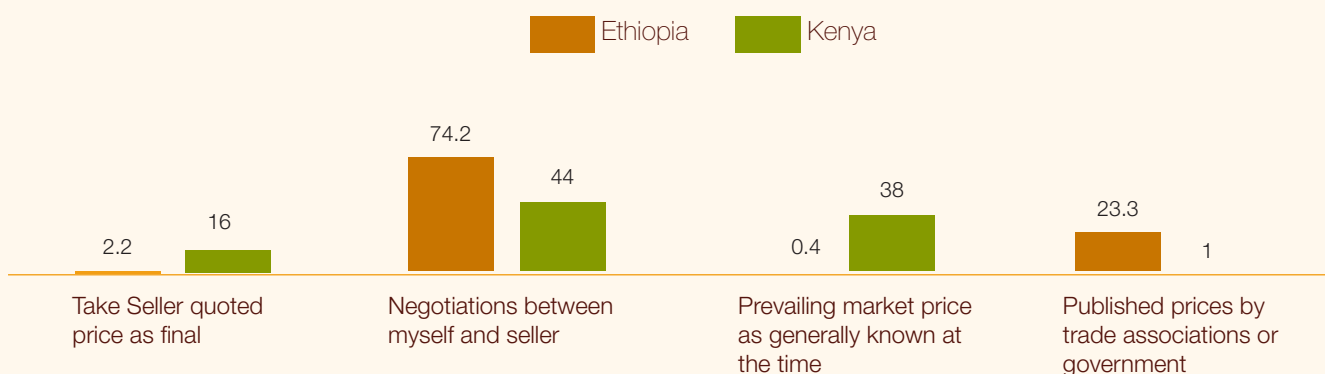


Figure 4: Who sets the price at which trader buys maize or legume from the farmer?



In terms of price discovery and settlement, the results showed the predominant price settlement for the traders (74% in Ethiopia and 44% in Kenya) was through negotiations between traders and their business partners (sellers or buyers). Just about 38% of traders relied on common-knowledge market prices during the transaction to pay farmers in both eastern and western regions of Kenya. In Ethiopia 23% of the traders relied on published prices by trader associations.

Weak quality differentiation

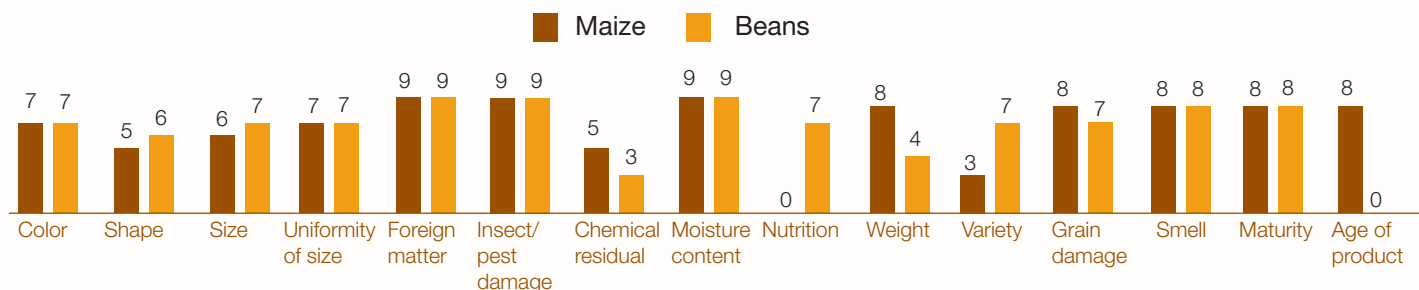
An important issue is that in the absence of standardized quality determination and arbitration, prices in informal market systems are often not based on quality differentials. This is because the various “grades” are not openly known nor are they assessed using standardized procedures. In many markets in Kenya and Ethiopia, grading and standardization are limited to the buyer making visual inspection during the buying process. The result is lack of standardization which means that the prices charged are impossible to compare on the basis of quality differentiation.

Figure 5 below shows 16 different attributes that different traders considered when purchasing maize or legumes and these were graded as “very important” in affecting prices. In each case no attribute was considered by more than 12% of the traders in either country. Without a common and widely accepted minimum set of attributes, which set the quality and price of maize, it may be difficult to develop systems like group marketing, warehouse receipt systems and commodity exchanges. For example if farmers are to form marketing groups to bulk and transport to the larger markets, their members must bring together grain of fairly uniform and specific quality as demanded by the market. Without a common set of standards the arrangement is likely to collapse.

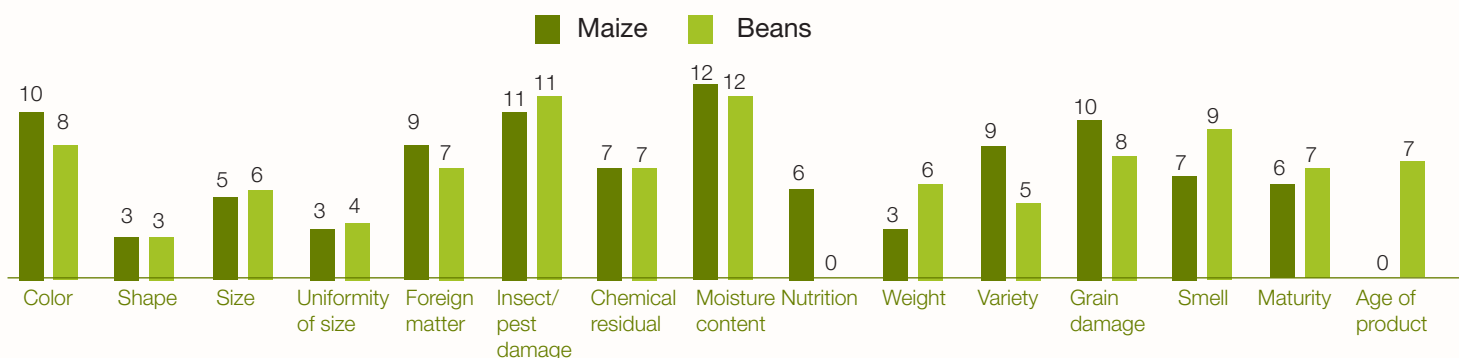
Box 1: Quality standards in Ethiopia and Kenya. The two countries do have formal standards for grain and legumes. The issue seems to be lack of enforcement or application of formal quality and grade assessment methods established by various authorities such as National Cereals and Produce Board, Kenya Plant Health Inspectorate and Kenya National Bureau of Standards or the Ethiopian Commodity Exchange.

Figure 5: Quality attributes considered by grain traders (%)

Quality attributes considered by grain traders (%) - Ethiopia



Quality attributes considered by grain traders (%) - Kenya



Implications: Will value chains modernization always a good thing?

Will the development of contracting and other formalisms always lead to equitable outcomes for smallholder market participation? Where willingness to pay is dictated by consumer preferences, markets will pay the price for higher quality products while producers will decide their willingness to participate in these structured markets based on cost-benefit analysis. It is possible to strike a middle ground with those able to achieve the demands of premium markets and those able to serve the low income market segments. The equity implications of this scenario are not immediately obvious.

Conclusions and lessons for sustainable intensification research in SIMLESA Phase 2

The fact that the elements of structured grain markets are largely missing in maize and legume markets in Ethiopia and Kenya suggests that there are few viable business opportunities in these formalized systems, otherwise businesses would have developed around them. Moreover, the dynamism of the less structured markets with their low entry barriers, offer a more levelled playing field for many small traders and farmers to participate in these markets. The flexibility of less structured markets in meeting diverse consumers' needs and preferences must be emphasized. On balance, the advantages of more structured markets are not straightforward nor not a forgone conclusion.

This survey highlights three important issues for policy on value chain development and for further research: First, price information systems based on widely accepted quality definitions are needed in maize-legume value chains to support quality based pricing. Second, agricultural market development policy should focus on improving infrastructure for auxiliary services such as, forward sales, transportation, post-harvest handling and grading. Third, options for reducing the length of value chains or enabling farmers to be more fully integrated into wider markets should be explored. Fourth, future research should focus on determining the key financial efficiency and development gains from such measures as standardized grades and quality, contracting and vertical integration.

Further readings and literature cited

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ETHIOPIA



KENYA



MALAWI



MOZAMBIQUE



TANZANIA



AUSTRALIA

