MARKET ACCESS AND SUNFLOWER MARKETING: CHALLENGES AND PROSPECTS TO SMALL SCALE FARMERS IN TANZANIA

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ABSTRACT

Using data drawn from a sample of 229 small scale farmers in Singida region- Tanzania, this article presents findings regarding an assessment of market access in developing countries like Tanzania, an imperative aspect which seems to hinder small scale farmers from accessing both domestic and international markets. Based on the analysis, it was established that the perceptions of sunflower producers as regards identification of sunflower buyers and quantity demanded was pessimistic as indicated by a whopping 76.6% of respondents, an attitude that implies poor coordination and clarity of information flow between sunflower producers and buyers. On the other hand, respondents were asked to rate whether there were buyers' quality preference specifications attached to the sunflower produced. Responses indicated no clear association between buyers and producers of sunflower on the aspect of quality. 64.2% of respondents disagreed while only 18.8% agreed that there were buyers' specifications on quality. Majority of sunflower producers however agreed that sunflower value chain essentially contributed to value addition as well as cost reduction. 57% of respondents ascertained that the sunflower value chain facilitated them in value addition while 79% implicated that it aided the cut down of operational costs.

Key Words: Market Access, Smallholder farmers, Value chains, Information flow and Consumers

Introduction

The largest proportion of Tanzania's population subsists in rural areas where poverty and deprivation have become a way of life. Majority of all rural households depend directly or indirectly on agriculture and agribusiness which are key components for rural based economic growth and development. It is from the above backdrop that small scale farmers in Africa remain

at the centre of pro poor development policies amidst the possibility that farmers in the continent can potentially be active participants for both global and domestic markets upon empowerment (Geraffi, 1994). In developing countries, markets remain the major means for ensuring that smallholder producers of agricultural products are effectively integrated into the mainstream of their national economies. Markets provide continuous opportunities for farm products to contribute to poverty reduction through income generated from sales of farm produce. Markets serve as a drive for continued production as farmers strive to meet the demands of consumers and end-users in terms of both quantity and quality. (Van Schalkwyk et al, 2012).

Nevertheless, while agriculture-led growth played a significant contribution in reducing poverty and transforming many economies of Asian and Latin American countries in previous years, the same is yet to be achieved in Africa and Tanzania in particular. Diao and others in a research report number 153 (IFPRI, 2007) examined whether conventional wisdom on agriculture's role in the development process would apply to the contemporary circumstances faced by most African countries. They however argue based on findings that both agricultural productivity and growth require fostering linkages between the agricultural and nonagricultural sectors of the economy. They cite factors that led to poor performance of the agricultural sector to include: under investment in physical, institutional, and human capital factors, similar findings were established by Magingxa and Kamara (2003) and Pote (2008). Growth in agriculture production must generate forward production linkages when agricultural output is supplied as input to aid nonagricultural production. Agricultural growth can therefore contribute to the expanding agro processing and processed food marketing which provide new engines of growth and opportunities to substitute for imports. Agriculture also creates backward production linkages through its demand for intermediate input such as fertilizers and marketing services. According to ICRISAT, a non-profit and non-political organization that conducts agricultural research for development in Asia and sub-Saharan Africa argues that, increasing farm production alone is not a lasting solution to ending poverty in Semi-Arid Tropics. It suggests an inclusive marketoriented development approach since dysfunctional markets thwart small scale farmers from enjoying better incomes and livelihoods as shown in figure 1.

Implementing Inclusive Market-Oriented Development (IMOD) is a pathway through which value-added innovations (technical, policy, institutional and others) will enable the poor to capture larger rewards from markets while managing risks and in a ripple effect motivate the adoption and impact of these innovations. This model emerged from broad consultations in the International Crops Research Institute for the Semi-Arid-Tropics (ICRISAT), a strategic planning process between 2010-11 as a unifying conceptual model to guide research-for-development in the dry tropics of Africa and Asia (http://www.icrisat.org).

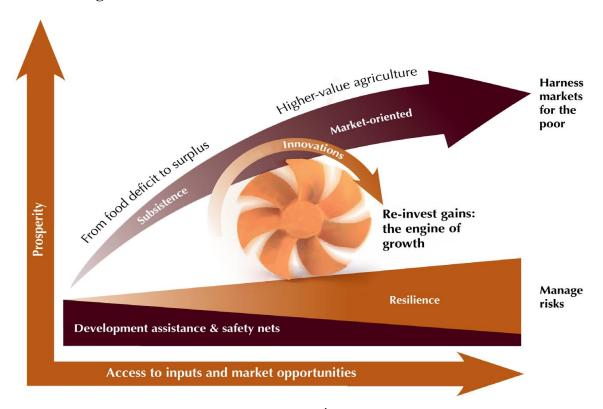


Figure 1: Implementing Inclusive Market-Oriented Development (IMOD) in the CGIAR Research Programs

Source: Downloaded from www.icrisat.org on 26th December, 2013

Markets could play a crucial role in alleviating rural poverty in semi arid tropic (SAT) regions however, many other constraints along the value chains such as lack of appropriate infrastructure, policies and strong institutions for capacity building and the access to technologies and capital need to be addressed if smallholder agriculturalists are to benefit from agricultural markets. Pote (2008) citing Pingali et al (2005) similarly argue that should small scale farmers surmount constraints associated to production, then they may be capable of penetrating markets as a result of improved productivity efficiency.

On the other hand, an International Association of Agricultural Economists stresses that promoting growth of smallholder agriculture in Africa through increased participation in growing world markets for high-value items will require significant vertical integration of small scale farmers into processing and marketing firms (Delgado & Siamwalla, 1997).

Theoretical Framework for Market Access

In the 1990s, many sub-Saharan African countries liberalized their markets in an effort to improve efficiency and enhance market linkages with smallholder farmers. With all good intentions however, there was hardly any enthusiasm and positive expectation from the private

sector especially in areas challenged by market infrastructure setbacks. The functioning of markets in many countries was constrained by higher costs and coordination problems along the producer-consumer value chain (Bekele, S. et al, 2008, Van Schalkwyk et al, 2012 and AGRA, 2013).

According to Pote (2008) if agricultural markets are not properly explored and the requirements met, such opportunities will remain elusive to most farmers. Furthermore, if there is information asymmetry, lack of infrastructure, credit facilities and high transaction costs among others; small scale farmers will be rendered vulnerable to various types of market imperfections. Bekele and others (2008) propose institutional innovations to strengthen producer organizations and the formation of collective marketing groups as a way to remedy pervasive market failures in rural economies.

Theoretically, when markets are efficient and fully coordinated, national economies will be most efficient and in turn facilitate growth. Productive resources such as land, labour and capital are said to be allocated effectively between alternative and competing uses, specialization also occurs according to the principle of comparative advantage and the benefits of growth in one area of the economy will be effectively translated to other parts (DFID Policy Division, 2004). Additionally, economies will generate maximum benefits to individuals – including the poor since markets provide the vehicle through which people can engage in a growing economy. Nevertheless on a practical perspective markets rarely, if ever, never work in the perfect stylized manner described above. In most cases, markets do 'fail', and the degree of market failure will determine how well the economy can grow and generate economic opportunity. When markets approach the theoretical ideals of efficiency and coordination, they are more likely to contribute to economic growth and the generation of opportunity even for the poor.

On the other hand, when a market is characterized by inefficiency and poor coordination, slow growth with fewer economic opportunities will be realized. Experiences in Africa and Asia demonstrate that 'coordination' is unlikely to result from an 'invisible hand'. Indeed, the Green Revolution in Asia would not have achieved such dramatic results if it had received only a 'light touch' from the state; in fact, most countries were heavily involved in the coordination of input and output markets (DFID Policy Division, 2004), an argument shared by Magingxa and Kamara (2003).

Pote (2008) cites Ahmed et al (2005) who identified eight different types of market imperfections which farmers in developing regions are likely to encounter and these can be evaluated against perfect competition characteristics. Perfect competitive market characteristics include homogeneous products, many buyers and sellers, market transparency and freedom of entry or exit. According to Ahmed, et al (2005), different types of market imperfections include the following:

- 1. "Missing markets: this refers to an extreme case of market failure. It also refers to the lack or inaccessibility of a market for a particular commodity produced. This does not reflect absence of a market but rather a household specific related to high transaction costs. Generally, a market will be relatively "missing" to a particular household. Institutional problems such as high transaction costs compound this condition.
- 2. *Thin markets:* This is a result of inadequate demand or supply. Frequently there is failure to attain economies of scale. This market imperfection can be traced to high transaction costs, information asymmetry, and a weak institutional framework as the main factors. In this regard both market development and market access are repressed, hence thin markets.
- 3. *Incomplete markets:* Originate from an "*incomplete*" market environment most often due to information asymmetry. The implication in this case is that an unobservable action which negatively impacts on another party is carried out by the other. Therefore, one party can have an unfair advantage over another in a transaction.
- 4. *Shallow local markets:* These derive from an oversupply or scarcity of a commodity on the local market leading to low or higher prices respectively. This condition may derive from poor infrastructure resulting to high transport costs such that supply of the commodity to (in the case of oversupply) or from (in the case of scarcity) other regions are prohibited.
- 5. *Interlocked markets:* Is a monopolistic sort of markets resulting from a linkage in input and output markets such that a creditor for instance is the sole supplier of inputs and buyer of output. Shortage of such creditors promotes the circumstance.
- 6. Distorted markets: Certain interventions in the market alter the Markets with almost perfect competition: The deviation from completely attaining the characteristics of perfect competition varies with conditions. Markets signaling a "workable" or "contestable" competition are products of an almost perfect competition. In the former, competition is "almost perfect except that there might be diminutive barriers to entry or exit. In the latter, the potential competition on the market controls the monopolistic behavior of existing firms.

Consumers at the Bottom of the Pyramid

In his book Prahalad (2006:1) in a very thoughtful proposition argues that "If we stop thinking of the poor as victims or a burden and start recognizing them as resilient and creative entrepreneurs and value conscious consumers, a whole new world of opportunity will open up". He insinuates that the poor at the bottom of the pyramid (BOP) may as well be the engine of the next round of global trade and prosperity and that the BOP could be a source of innovations. Should the BOP be serviced, consumers will demand innovations in technology, products of products and services as well as business models. More importantly, Prahalad sees the need of large firms to work collaboratively with civil society organizations, development agencies, small firms, local governments and the poor themselves which will lead to unlocked opportunities at the BOP.

Market Access

Access to market is defined as the ability of local farmers in developing countries to participate in local, national, and international markets-http://www.worldvision.org/content.nsf/learn/hunger-glossary-a-e?open&lpos=ctr_txt_drought). It entails the ability to obtain necessary farm inputs and services, and the ability to deliver farm products to buyers (Van Schalkwyk et al, 2012).

Strong links to markets for poor rural producers is fundamental to increasing agricultural production, generating economic growth in rural areas and reducing hunger and poverty. Improved links create a virtuous circle by enhancing productivity, increasing incomes and strengthening food security. Accessibility by small producers to domestic and international markets implies reliability in selling more produce at higher prices. This in turn encourages farmers to invest in their own businesses and increase the quantity, quality and diversity of the goods they produce, (http://www.ifad.org/english/market/).

According to Prahalad (2006) the linkages of wireless devices among the poor in developing countries is a proof of the existence of a market at BOP. The wireless technology and TVs allow people at BOP to acquire access to information and actively engage in dialogue with each other and with firms they wish to purchase products and services and government officials who represent them. Advanced technology further allows farmers to check prices at domestic or international markets.

Pangali et al (2005), as cited by Pote (2008) noted two major situations facing small scale farmers, these relate to the ability to commercialize commodities that in fact require technical change. The second situation has to do with choosing a suitable enterprise at a given time and place. The two situations combined make it difficult for small scale farmers to adapt to modern food marketing systems and consequently failure to penetrate and exploit food markets. In his own words, Geraffi puts it clearly when he asserts that lead firms participation in the commodity value chains offer a pivotal role of controlling access to resources and new technologies. A lead firm is defined as a small, medium, or large firm that has forward or backward commercial linkages with a significant number of micro, small, and medium-scaled enterprises -MSMEs (USAID Micro report number 144, December 2008). The commercial relationship is based on the provision of key products or support to the MSMEs from whom they buy or sell to. Lead firms also control the overall structure of the value chain, its performance by controlling production technology, location of production and product design (Geraffi, 1994).

Van Schalkwyk (2012) cites Van Schalkwyk (2003) who argued that since African countries have their principal economic activities in agriculture, adding value by processing and trade is the only means for realizing the benefits of globalization. He equally conquers with Jooste and Van Zyl, (1999) who opined that 'trade gains are a key source of national wealth' and Dorward et al., (2002) who emphasize that income generation seems to potentially perform much better

for 'sustained and broad-based poverty reduction' when anchored on strategies that improve market access for the poor.

Commercial linkages are facilitated by modern development in globalization, transportation and telecommunication that are creating opportunities to enhance small scale farmers' positions in both domestic and international trade (The World Bank – LCSAR report, 2008). In addition, the report states that small scale farmers from developing countries face various challenges including that of accessing markets to enhance their value chains and value added positions so as to boost income and reduce poverty. Furthermore developing countries' small scale farmers are seen at the bottom of the value chain and their produce is often a small fraction of the value of the end product. The report's recommends that there is a need for the provision of the necessary support needed by small scale farmers as to uplift them and in turn save them from marginalization.

Promoting Access to Markets

As previously discussed, asymmetry in access can lead to the existence of differential transaction costs. According to Delgado (1999) triumphing over the latter is essential for effective access to the essentials small farmers really need to participate in new and lucrative market opportunities otherwise made available to them by macroeconomic reform, growth and the opening of world markets. Small scale farmers require improvement in four kinds of access, as portrayed in Table 1 below:

Table 1: Four key factors and organizational requirements for increased smallholder market participation in Sub-Saharan Africa

	
Access to Assets	Need for institutions to implement a <u>net</u> asset transfer to smallholders that provides an incentive for increased productivity.
Access to Information	
	Need for institutions to overcome the principal-agent problems in sharing production and marketing information
Access to Services	
	Need for institutions to share the risks of service delivery to smallholders and to overcome other economies of scale in production
Access to Remunerative Markets	
	Beyond the removal of artificial barriers, need for
	institutions to overcome economies of scale in
	processing and marketing of high value tradable items

Source: Delgado, C (169: 1999)

Objective of the Study

The theoretical and empirical studies reviewed as regards market access approach for reducing poverty in developing countries such as Tanzania narrates a number of constraints that hinder small scale farmers from accessing both domestic and international markets and these need to be addressed. Thus, the objective of this study is to assess how sunflower small scale producers gain from accessing market for their produce. The study focuses on the effects of commercial linkages between sunflower producers and buyers along the sunflower value chain. The research intends to evaluate how the under mentioned constructs support or do not support commercial linkages.

Research Methodology

The study involved the generation and analysis of data from a sample of 12 Agricultural and Marketing Cooperative Societies (AMCOs) selected from the districts of Iramba, Manyoni, Singida Urban and Singida Rural in Singida region all in Tanzania. The districts are profoundly known and famous for sunflower production in the entire country. Sampling consisted of 229-sunflower growers and data generation criteria for this region and its districts considered the following:

- 1. Level of significance in terms of sunflower production
- 2. Organization and number of AMCOs groups as key principal players in the sunflower value chain
- 3. Accessibility and cost of travel to various villages in the region

Agricultural and Marketing Cooperative Societies (AMCOs) in Tanzania were formed as a result of poor performance of the Cooperative sector in the late 1980s. Their main objective is to organize the supply inputs for agricultural crop production, purchase produce, process, market, distribute agricultural products and facilitate skills for the improvement of the commodity they produce. The sunflower sub sector has taken root in Tanzania because of its food value and low processing costs small scale processors incur; this is because in places like Singida, farmers are not obliged to use expensive inputs like chemical fertilizers. Production of the sunflower seed is predominantly exercised by small scale farmers who own between 1-3 acres. The current move in Singida region is to improve and modernize the sub sector by employing good agronomical practices, field management, and establishment of modern processing facilities.

Using a psychometric scale, the researcher issued questionnaires aimed at investigating small scale farmers' perceptions on accessibility to markets. More specifically, the questionnaire probed how strongly they agreed or disagreed as to whether there was access to market information from potential buyers through business relationships and linkages based on variables such as: identification of buyer and respective quantity demanded, quality of sunflower as specified by buyers, coordination and standard specification of the sunflower, benefits from the sunflower as associated to poverty reduction, partnering with buyers in transacting business and

whether it is cost effective within the sunflower value chain. Secondary data was generated from sources such as books, reports, journals, articles and other publications. Data generated from primary sources were analyzed using the computer based statistical data analysis package, SPSS version 16.0. Data analysis included descriptive (Univariate) analysis and finally, the research was concluded based on the results there of.

Univariate Analysis

Data were generated from 12 Agricultural Marketing Cooperatives Societies in Singida, Tanzania. Distribution by district stood as follows: 73 respondents (31.9%) participated in Singida town, 92 (40.2%) in Singida rural, 24 (10.5%) in Iramba and 40 (17.5%) in Manyoni. 70.7% of respondents were male while 29.3% were female. As regards marital status, 71.2% were single, 22.2% were married and 6.6% widowed. In terms of education level, 88.2% had a basic level of education (primary education), 8.7% secondary ordinary level of education, 0.9% advanced level of secondary education, 0.4% diploma level, 0.4% degree level and 1.3% had no formal education. Distribution by age implied that majority of respondents also from energetic and functional groups concentrated between the ages of 21-50 years old (82.1%).

In terms of farming characteristics, 58.5% of all farmers on average cultivated fields of sunflower ranging from two to four acres. 15.3% cultivated fields of sunflower ranging from five and seven acres and 10.5% cultivated only one acre. As regards farmers experience in sunflower production, 63.8% admitted to having experience in the sub sector while 36.2% lacked the same.

As regards the question of who sets the price for the harvested sunflower, 69% of responses indicated that prices were set by buyers and only 21.4% could negotiate set prices with buyers. As regards the selling points, 72.1% of respondents sold their harvested sunflower seeds at a farm gate while 27.1% sold at the AMCOs. Respondents were also asked to state their perceptions of the best and competent market in terms of price to which 87.8% of responses indicated that AMCOs offered competitive prices followed by farm gates at 8.7%. As far as buyers were concerned, respondents were asked to clearly indicate their prospective buyers and responses implied that agents of firms from outside Singida appeared to be the leading buyers. 63.8% of respondents sold their produce via agents, 14% sold via AMCOs, 19.2 sold to small processors around Singida and 2.2% sold to large scale processors. In this category, AMCOs were rated as best buyers as affirmed by 88.6% of respondents.

Operationalization of Theoretical Constructs

Frequency distribution analysis was derived from selected individual variables/constructs of access to market. Responses to access to market of sunflower small scale farmers implies that farmers have access to buyers' quality specifications/standards, trade coordination and information flow between buyers and sellers along the value chain, trade/commodity value addition, trade efficiency (cost reduction) and poverty reduction.

Discussion of Findings

The sunflower sub sector has taken its roots in Tanzania because of its food value and the minimal production costs incurred by a vast majority of small scale processors. The crop producers and processors incur low production costs because in places like Singida, farmers are not obliged to use expensive inputs like chemical fertilizers. Production of the sunflower seed is predominantly exercised by small scale farmers who own between 1-3 acres of land. The current move in Singida region is to improve and modernize the sub sector through the exploitation of modern agronomical practices, field management, and establishment of modern processing facilities.

In reference to the analysis, it was identified that the perceptions of sunflower producers as regards identification of sunflower buyers and quantity demanded were negative. 76.6% of respondents were disagreeable, an attitude that implies poor coordination and clarity of information flow between sunflower producers and buyers. On the other hand, respondents were asked to rate whether there were buyers' quality preference specifications in regard to their produce. There seems no clear association between buyers and producers of sunflower on the aspect of quality response. 64.2% of respondents disagreed while only 18.8% agreed as to whether their existed buyers' specifications on quality.

Majority of sunflower producers however agreed that the sunflower value chain was crucial to both value additions as well as to cost reduction. 57% of respondents acknowledged that the sunflower value chain aided them in value addition while 79% affirmed that it served a crucial purpose in cutting down operational costs. The management approach to long-term success through customer satisfaction, based on the participation of all members of the value chain in improving processes, products, services and the working culture quality grade standards, grading, certification, auditing, inspection, and laboratory analysis are all useful tools that the sector can exploit to assist in the promotion, improvement of communication quality and wholesomeness to consumers (http://www.ams.usda.gov/AMSv1.0/...)

Conclusions and Recommendations

This study aimed to empirically assess how sunflower small scale producers gained from accessing market for their produce. The study focused on the effects of commercial linkages between sunflower producers and buyers along the sunflower value chain. The research intended to evaluate how market accessibility supported or did not support commercial linkages.

Based on theoretical information, data generated and analyzed, it is demonstrated that market accessibility by sunflower farmers in Singida region is constrained by poor information flow and coordination of key players in the sunflower subsector specifically buyers and producers. Majority of farmers were of the opinion that a strong and well coordinated sunflower value chain would elevate their income levels and reduce costs.

The researcher is of a strong opinion that in order to improve market accessibility for sunflower producers, horizontal and vertical linkages of farmers with domestic and export buyers are inevitable. Farmers can gain access to respective markets only if they are well coordinated and empowered with marketing strategies. Coordination and empowerment might help improve the quality/standard of sunflower and negotiation capabilities which are necessary for the improvement of farmers' revenues.

It is also recommended that private and government supporting institutions must support farmers as to improve productivity, production, accessibility to markets and facilitation of market information flow.

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