Urbanization and transformation of agric-food system: Opportunities for organic producers in developing countries

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Summary

Developing countries especially in Sub-Saharan Africa are predominantly agricultural based. Where the majority of the population resides in rural areas and engaged in agriculture as a source of livelihood. However, recently there has been a growing debate globally on rapid urban population growth in developing countries. The aim of this paper is to present opportunities for organic producers emanating from transformations of agri-food systems in urban area with specific focus on tourist industry. The paper is based on research activities of a project 'Productivity and Growth in Organic Value Chains (ProGrOV)'. ProGrOV is collaboration between universities in Uganda, Kenya, Tanzania and Denmark addressing the need for sustainable development of smallholder farming systems in East Africa with focus on value chains for local high-value markets as well as export chains. The project addresses innovations for improving production as well as market access. The transformations of agri-food systems addressed in this paper resulting from urbanization are evidenced by proliferation of supermarkets, specialized organic-food shops, food supply to alternative markets such as the tourist industry and traditional farmer markets. Efforts for promoting organic products in East Africa have traditionally focused on export markets whereas this paper based on evidence from ProGrOV studies argue that there is opportunity for developing domestic organic product value chains to meet the demand from tourism and transformed agri-food systems.

Background

Developing countries especially in Sub-Saharan Africa are predominantly agricultural based where the majority of the population resides in rural areas and engaged in agriculture as a source of livelihood. The 2002 Tanzania population and housing census indicated that about 77.4% of total population resided in rural areas (NBS, 2011). This population spends about 50% of its time in crop production. To smallholder agricultural producers crop production is not only a source of household food but is also the main cash income earning activity (MAFSC et al, 2012). About 80% of the total number of crop growing households tends to sell a proportion of crops that they produce. The amount of cash income from crop production depends to a large extent on access to markets. It is argued in this paper that urbanization and a parallel growth of middle class consumers has created some new opportunities for smallholder farmers' access to markets. Rapid urban population growth in developing countries is a growing debate globally. In Tanzania the proportion of urban population increased from 6.4% in 1967 to 23.1% in 2002 (NBS, 2011). Urbanization has contributed to the transformation of agri-food systems in a way that agricultural producers need to respond to. From a global perspective agriculture is changing rapidly with respect to the way food is produced, processed, and marketed in response to the transformation of agri-food systems (McCullough et al, 2008). However, in developing countries and especially in Tanzania despite government and non-government efforts only limited changes in agriculture can be observed. Smallholder farmers in developing countries need to respond to changing consumer demands, tastes and preferences. Similarly consumers' personal health and more altruistic environmental concerns among high-end consumers has influenced demand for organic food products in major capital areas of the global South (Siriex et al.,; Kledal et al.,2008 & 2009). In Tanzania only about 0.21% (72, 188 ha) of total agricultural land is under organic agriculture (Kledal and Kwai, 2010). Efforts to promote organic agriculture in Tanzania have focused largely on export markets with interest for smallholder farmers to reap premium prices offered in international markets. However, for smallholder farmers domestic markets can be relatively more easily accessible than international markets, and also utilized as a development path for entering modern export oriented food systems.

In this regard, the tourist industry can be viewed as an alternative export market, but where the high-end consumers are coming to the exporting country per se (Kledal et al., 2013). Thus, Tanzania tourist industry is a lucrative market potential for organic products from smallholder farmers. For example in 2011, the number of foreign tourists was 867,994 which was a 10.9% increase from 782,699 tourists in 2010 (PPPC, 2011). Tourist destinations in Tanzania that attract tourists include Tanzania's best known National Parks in the countries Northern Circuit, Serengeti, Lake Manyara, Tarangire National Parks and the Ngorongoro Conservation Area. Attractions in the Southern Circuit, comprises mainly the Selous Game Reserve and Ruaha National Park. Other areas that attract tourists include Zanzibar and numerous sites that operate as cultural tourism centers. As part of a collaborative project entitled Productivity and Growth in Organic Value-chains (ProGrOV) a study on network organization of the tourist industry and its potential organic food markets is conducted in the Northern tourist circuit in Tanzania. The objective of the study is to make a critical analysis of the social networking in the organic food supply chain for potential linkage to tourist industry. Key informants interviews were conducted in Arusha and Moshi to determine food (focusing on vegetables) supply chains in the tourist sector in Tanzania with the objective of identifying potential entry point for organic food to tourist industry.

Main chapter

Organic food supply chain

Organic food supply chain in Tanzania is dominated by high value products including vegetables, spices and to a lesser extent fruits. The most important organic vegetable producing areas in the mainland Tanzania include Lushoto District in Tanga region, Moshi rural, Same, Hai and Siha Districts in Kilimanjaro, and Arumeru districts in Arusha. These districts have relatively better climatic conditions for production of a variety of vegetables. Organic vegetable production is dominated by smallholder producers some of whom are organized into groups and/or cooperatives to secure a 'critical mass of supply' often required by urban oriented retailers and supermarkets. Producers are supported in terms of training by local extension services but to a large extent by NGOs operating in respective areas. To smallholder farmers the short growing season (3-4 weeks) for most vegetables is attractive especially to women who are responsible for most daily household cash requirements as well as to the youths who want quick returns from their investment. During a study visit in 2012 to smallholder farmers beneficiaries of NGOs' support in Moshi Rural District and Lushoto District, it was noted that farmers were trained and had acquired on-farm skills and knowledge for preparation of a range of organic inputs using locally available materials (some of which are farm waste products from crop and livestock). The inputs include organic fertilizers and pesticides for soil fertility improvement and pest and disease control respectively. Some of these inputs will be tested on farm as part of ProGrOV research activities. In Moshi rural district about 240 small-scale farmers have benefited from the organic vegetable farming through NGO initiative and sell most of the vegetable in the local markets within the district and regional capital town of Moshi. In the local market most of the organically produced vegetables including onions, tomato, cabbage, carrots, green pepper, spinach and Chinese cabbage are sold as conventional. The vegetables are produced in small plots of less than an acre around homesteads and nearby farm plots. Organic food supply chains are generally very short involving few actors. The main actor often includes very few organic input suppliers, relatively many producers/farmers, few wholesale traders and few retailers (often not specialized organic retailers), and a limited number of consumers. Consumers are differentiated between individual consumers who purchase directly from retailers, and consumers who purchase from supermarkets, and hotels/restaurants.

In Lushoto District about 220 organic vegetable producers are organized into small farmer groups. Farmers produce a very wide range of vegetables including cauliflower, cabbages, carrots, capsicum, celery, chilli and tomatoes. They produce organic vegetables individually and sell through a farmer organization called Usambara Lishe Trust (ULT). ULT transports the vegetables mainly to retailers, green glossaries, and hotels in the capital City of Dar-Es-Salaam. Important to note is that during the study visit there was no mention of organic vegetables being sold to tourist industry in the Northern circuit. Some of the interviewed farmers in Lushoto even indicated that often they have surplus organic vegetable production to the extent of selling to conventional markets. This is an indication for critical analysis of the chain from both the supply/production of organic vegetables and the demand in the tourist industry. The next phase of the study on network organization of the tourist industry under ProGrOV intends to analyse the demand side and mechanisms through network analysis to link organic vegetable production and tourist industry.

Food Supply and Tourist sector

Tourist sector in Tanzania is growing fast creating potential for linkages with other sectors especially agriculture through food supply. However, so far in Tanzania this linkage is very weak. Organic food market studies (Kledal and Kwai, 2010; EPOPA, 2004) have considered domestic market for organic food as being very small. In addition, analysis of domestic organic market in Tanzania through a study commissioned by EPOPA (EPOPA, 2004) identified tourists as the smallest segment of the domestic organic market. Supply of organic food (vegetables) in tourist sector requires that supply chain actors be informed and abide to specified requirements. Organic vegetable supply chain actors are expected to have the ability to supply a number of vegetable varieties under single procurement contractual arrangement, and each vegetable type must meet specified characteristic as well as volumes. Networking among the actors is one possible strategy to meet such requirements. A study conducted in Zanzibar (Anderson and Juma, 2011) noted that only 23% and 25% of local suppliers of beef and chicken respectively, supplied to tourist hotels and restaurants. Quality of the meat was one of the limiting factors where it was observed that about 57% of meat suppliers were not familiar with meat quality requirements in the tourist hotels. Quality as well as safety attributes to meet the requirements of the customers/tourists cannot be compromised in the tourist sector. Other challenges included consistency in procurement volumes, prices and meeting contractual agreements. Given that organic producers are highly specialized it is expected that if they are provided the required orientation they can be linked to the tourist food supply chain.

Institutional support

Organic vegetables produced in Tanzania were mainly destined for export markets and NGOs and projects like Export Promotion of Organic Products from Africa (EPOPA) among other things have made efforts through various projects in training smallholder organic producers to meet the requirements for the export market. In the case of EPOPA the concerns were on how smallholder farmers can comply with international standards and therefore get certified. The cost of certification and meeting the standards were major issues. In 2004 Tanzania Organic Certification Association (TanCert) a local certification organ was established followed in 2005 by the establishment of Tanzania Organic Agriculture Movement (TOAM). TOAM provide leadership and coordination in developing and promoting the organic sector in Tanzania. Farmer organizations and NGOs also play an important role in supporting the production of organic vegetables.

Core messages and conclusions

The focus of ProGrOV project in Tanzania is on productivity of organic production as well as aspects related to alternative markets as well as the domestic and export oriented markets for organic food products. The focus on the tourist sector as an alternative export market at home is based on the fact that the linkage between the organic food supply chain and the potential food demand in the tourist sector is unclear. Tourist sector contribute about 14 % of GDP and receives approximately 800,000 tourists annually. The tourism sector is an untapped potential for integrating the organic supply chain and the tourist sector with ultimate impact on the livelihoods of the actors including smallholder organic food producers. Preliminary analysis of the net work organization of the tourist industry has so far indicated that there are specific requirements that suppliers of food to the tourist industry need to fulfill. These include adherence to specified quality attributes and maintaining specified quantity for each specific product under contract. The supply chains of vegetables that link to the procurement procedure of tourist industry involve intermediaries or actors with different roles in the chain. However, key actors include producers, traders (buy from producers and supply to tourist business) and tourist business. Traders maintain contracts with producers as well as tourist business and are responsible to ensure and maintain requirements set by the tourist business. A detailed analysis of the network organization including contractual arrangements and transaction costs, will provide a further understanding of its economic organization and various constraints hindering the prospects of growth of organic products to the tourist sector in Tanzania.

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