Linking African vegetable smallholders to high value markets: Potentials and constraints in smallholders' integration into GLOBALGAP-certified and/or domestic African high-value supply-chains

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Background

The global food economy has changed substantially within the last decade. Birthal et al. (2005) summarize this as due to a combination of rising demand in industrialised countries for fruits, vegetables and other high value products including processed foods, as well as a growing demand for high-value agricultural products within developing countries. In addition the restructuring of food marketing channels is affecting both markets (Fresco, 2006).

In Sub-Saharan Africa as well as in the other emerging and developing regions, these developments have led to a shift in production from traditional export commodities like coffee, sugar, cotton and tea towards non-traditional products from high value agriculture (HVA). These include dairy and meat products, fruits and vegetables, fishery products, spices, herbs and non-timber forestry products such as nuts. HVA products are the fastest growing components of international agricultural trade. For example the export value (in relation to all agricultural exported crops) of traditional tropical products, like coffee, cacao, tea and sugar from developing countries fell from 40\% to 19\% between 1980 and 2000. In the same period, the export value of horticultural products from developing countries increased from 16\% to 21\% (Davis, 2006). For Sub-Saharan Africa these figures may not match exactly, but the trend towards HVA is the same. Thus HVA has moved from a niche phenomenon to the mass market.

The production of fruits and vegetables can bring significant development benefits, and there has been rapid growth in their production during the past three decades. Producing fruits and vegetables is profitable and smallholders can earn significantly more than by growing traditional staple food crops (von Braun, 1995, Weinberger and Lumpkin, 2005). Fruit and vegetable production is also labour intensive and has the potential to provide significant employment as well as income (Weinberger and Swai, 2006). Increasing fruit and vegetable production can not only bring improved economic opportunities for smallholders, but their increased consumption can also help overcome widespread micronutrient deficiencies in the developing world (Weinberger and Lumpkin, 2005).

Across Eastern Africa the export-oriented horticultural sector has grown considerably in recent years. A well-studied example has been the green bean export industry in Kenya. The global demand for year-round availability of vegetables has propelled the emergence of the export vegetable sub-sector in Kenya. The main market for this produce is Europe, and there has been increasing concentration of retail sales there through major supermarket chains. As a result of consumer pressure and increased liability issues these European retailers have enforced food safety and food quality requirements on
their suppliers by implementing private agricultural standards such as GLOBALGAP (formerly known as EurepGAP) or BRC (Henson and Reardon, 2005). With the formulation and implementation of production and processing standards the retailers have significantly altered the supply chains. This has resulted in increased vertical integration between the producers and the retailers and in some cases to an increased competitiveness between producers (Jaffee and Maskure, 2005). The large retailers now effectively govern the value chains by virtue of the private standards they now enforce on suppliers to protect themselves and consumers (Ponte and Gibbon, 2005).

It can be difficult for smallholders to comply with ever rising standards and to participate in this demanding business environment (Cacho, 2003, Temu and Marwa, 2007). So development agencies like USAID, DFID and GTZ have become involved in projects to link smallholder farmers to these potentially lucrative markets by focusing on compliance with GLOBALGAP or other standards. GLOBALGAP has two certification options, one for the individual farm and one for farmer groups. In the latter case the farmer group’s internal control system is audited and a randomly selected numbers of individual farmers are audited. This measure aims at reducing the cost of compliance with the standards. As these standards are being rapidly implemented and requested by major European retailers, compliance with GLOBALGAP is perceived as the entry ticket for accessing the export market. For smallholders, the hurdles to achieve compliance are considerable: Besides the direct cost for the auditing which amounts to a few hundred US dollars per farmer, there are also the indirect costs for modifications on the farm and changes to its management such as the implementation of a thorough record-keeping system. All these compliance costs have to be covered while no specific price premium is paid, since GLOBALGAP is a viewed as a minimum standard.

Recent impact assessments of smallholder integration into GLOBALGAP-certified vegetable production in Kenya and Zambia concluded that the market volatility and the annual drop out rate of smallholders is very high, even with the heavy investments of development donors (Graffham et al., 2006, Graffham and Macgregor, 2006). Doubts have been raised whether it is justifiable to invest development funds into linking smallholders to these capital and knowledge intensive value chains (Temu and Marwa, 2007).

The case is somewhat different for high-value domestic value-chains, such as supplying supermarkets, or direct marketing to buyers demanding high-quality products such as upper class hotels and restaurants or specialty shops. The confidence in the reliability of these value chains is based upon the fact that rapid urbanisation is taking place in East Africa with the emergence of small middle and upper income classes (Temu and Temu, 2006). While supermarkets are still small in numbers and their sales are yet relatively modest, it is to be expected that their market share will grow in the future (D’Haese and Van Huylensbroeck, 2005, Weatherspoon and Reardon, 2003). The fact that in Tanzanian supermarkets a considerable share of the fresh vegetables and fruits available are imported from South Africa clearly shows that the opportunity for local suppliers to meet this demand is not being met. Personal communications from such supermarket managers indicate that there is a great interest in sourcing from local producers. However, the crucial criteria to enter into a sustainable business relationship such as delivering the right quality and quantity on time are currently not being met by domestic producers.

Smallholder supply chains are confronted with limited economies of scale no matter what sort of value chain they are engaged in. The constraints range from small production quantities and heterogeneous quality of produce to limited access to input supplies, capital, market information and the necessary farm management skills. To overcome at least some of these constraints collective action through collective organization of some kind is an essential first step (Narrod et al., 2007). However, the literature does not provide more details on successful modes of operation of such collective organisations within high-value agricultural supply-chains in Eastern Africa.
Hypotheses and objectives

Based upon the above analysis we propose a project which is underlined by the following hypotheses:

1. Long-term participation of smallholder farmers in high-value supply chains is feasible and improves the livelihoods of the smallholders’ households.
2. Collective action and thus collective organisation of smallholders is a prerequisite for entering and remaining in high-value vegetable supply chains.
3. Participation of smallholder farmer groups is easier to achieve in domestic high-value value chains, than in export-oriented value chains.
4. External efforts will be generally necessary to get smallholder producers integrated into potentially profitable high-value export-oriented markets which require private standards like GLOBALGAP.

The basic research objective is to find out how smallholders can increase their income from vegetable production. The research project will develop an analytical framework for intervention strategies that will improve the links of smallholders in the pilot countries to high-value markets. A cost-benefit analysis will be done on the profitability and accessibility of certain value chains.

For this purpose the relevant vegetable supply-chains will be analyzed and the requirements for the participation of smallholders specified. This will include all key actors in high-value vegetable supply chains.

Factors that have affected the success or failure of both past and current efforts to link smallholders to high-value markets are also to be identified and analyzed. As smallholder producers lack economies of scale, collaboration among farmers is considered a necessary prerequisite for their involvement in high value vegetable chains. The research project aims to identify suitable modes of collaboration and operation of such farmer groups.

Methodologies and methods

The project will use an exploratory case study methodology. Together with local partners meaningful supply chains will be identified as case studies. The study will take place in Uganda and Tanzania, two East African countries with comparable agro-ecological and agro-market contexts. Planned activities will involve consultation with key stakeholders along the identified supply-chains, especially with female farmers as women are often the responsible persons for the vegetable production and retail sales in African countries. Other activities will include:

- Value chain analysis of selected high-value supply chains.
- Analysis of the institutional mode of operation of the farmers groups participating in high value supply chains

These activities will be implemented using an array of methods including participative workshops aiming to identify potential supply chains, qualitative interviews and group discussions to research smallholders’ institutions, econometric analysis of market potentials, desk research on the development of national and international markets and cost-benefit analysis. A gender sensitive approach is very important and should include things such as having separate group discussions with women only as they are important players in many vegetable supply-chains.

Discussion and outlook

The importance of private food and quality standards is growing significantly and is already the dominant form of governance in global agri-food systems (Henson and Reardon, 2005). Whether African smallholder groups which have been involved in the export of vegetables can keep pace with this on-
going development is questionable. Recent studies indicate that close linkages between smallholders and exporters have been important to successfully linking vegetable smallholders with export markets. Modes of collaborations between smallholders and export business such as contract farming and out-grower schemes appear to be viable options to consider. The question remains whether independent smallholder groups can be linked sustainably to the European market.

For ambitious farmers two options seem to be the most promising. For those targeting the export market, it will be essential for them to strengthen their cooperation with large commercial farms and/or the exporters. Such linkages can help build up the professionalism of the smallholders’ agricultural practices. But dependence on the exporter may impose further risks.

The other, probably more realistic and less demanding strategy would be to concentrate on the high-value domestic markets where quality standards are less rigorous. There are currently no practical and systematical quality controls in the vegetable sector of most African countries and quality judgments are still based on visual appearance. The requirements for smallholder participation are clearly lower and the cost of complying with the buyers’ quality requirements are less. These factors may enlarge the profit margin for the smallholders.

Scientifically validated options have to be found that will allow smallholders to benefit from globalization and the increase in demand for vegetables in Africa as well as in export markets. The crucial question is how to achieve such benefits for ambitious groups of smallholders while also protecting the food quality standards of consumers.

**Literature**


