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Linking smallholders to high-value crop markets: how does the group approach work?

Dagmar Mithöfer

Dagmar Mithöfer is a scientist at the International Centre of Insect Physiology and Ecology (icipe) and coordinates economic impact assessments relating to the horticulture sector in East Africa.

GlobalGAP certification involves investment not only in human capital – farmer training – but also in infrastructure, such as grading sheds and pesticide stores, and changes in production inputs, such as switching to specific approved pesticides. The initial investments required for certification are non divisible; however, by splitting costs across a group of farmers, the initial investment cost per farmer can be reduced.

Thus certification as a group – through Option 2 or 4 certification[1]– provides the opportunity to achieve economies of scale, which is furthered by being able to purchase inputs in bulk, thereby reducing variable costs.

Theoretically, accredited and certified standards can decrease transaction costs from the supermarkets' perspective. However, at the production level, standards increase transaction costs in terms of implementation and monitoring. These costs increase with the number of producers an exporter deals with. Therefore, unless smallholders are organised as a group, they can lose some of their comparative advantage in relation to larger-scale producers. According to the standards' guidelines, group certification (as opposed to certification as an individual farmer) requires an internal monitoring and control system, thus acknowledging, indirectly, that farmers are single decision-making units. This internal monitoring and control system means that some of the transaction costs are shifted from the exporter to the producer group. This paper summarises findings on organisational issues and challenges faced by exporters and smallholders, related to the latter's link to high-value crop markets. It is based on several surveys in Kenya[2], conducted under the *icipe* project.[3] The paper strives to answer the following questions: i) how can 'successful' be defined in the context of commercial smallholders? ii) what factors characterise successful smallholder groups? and iii) what is the comparative advantage of smallholder production from the exporters' perspective? Answers to these questions are discussed in the wider context of enabling policies in Kenya.

Findings from the exporters' perspective: small farms versus large farms

From the exporters' perspective, farmer groups are deemed successful if they have implemented the exporters' regulations and are able to meet targets without side-selling, be it for certified or non-certified export production. Overall, an exporter's decision about where to source horticultural produce from depends on the production capacity and risks and costs linked to each production option.

Costs and associated risks

There are a number of factors that determine the difference in costs associated with sourcing produce from smallholder farmer groups or larger-scale producers. Large farms have more levels in the management hierarchy than small farms, and thus higher direct transaction costs in terms of staff wages. Additionally, the internal monitoring and control processes required by GlobalGAP for smallholder group certification mean that some of the costs of monitoring are effectively shifted from the exporter to the group – and, from the smallholders' perspective, from the individual farm to the group level. However, the internal control and monitoring system does not entirely take care of the implementation and enforcement of the standards. Exporters also have an elaborate monitoring system over production, which results in higher monitoring costs for exporters when dealing with smallholder groups than with large-scale farms. Each large-scale farm was monitored for about 12 minutes per week per hectare; by contrast, a smallholder farm with only 0.3ha dedicated to beans was monitored for almost eight hours per week per hectare. Comparing monitoring costs per kilogram of produce was even less favourable for smallholder farmers.

There are also cost differentials in contract negotiation: less time is required in negotiations with smallholders than for larger farms. This is because of the smallholders' lack of bargaining power, as well as the higher costs of sourcing smallholder producers from the exporters' perspective. This is

[1] In Kenya, until 2007, two categories of certification were available: Option 1 for individual farmers and Option 2 for groups of farmers. Both of them were linked via an exporter to the European supermarkets. In addition, since 2007, Kenya has had its own standard, KenyaGAP, which is benchmarked against GlobalGAP. A further two certification options are now available: Option 3 and Option 4 give the opportunity to certify individual farmers and farmer groups, respectively, against KenyaGAP, and thus also GlobalGAP.

[2] Mausch, K (2007) 'The influences of group culture on the participation in the export market: A case study of farmer groups producing for the horticultural export market in Kenya'. Unpublished MSc thesis, institution missing. König, T et al. (2008) 'Do EurepGAP Standards favour Large-scale Vegetable Producers in Kenya?' Unpublished MSc Thesis, institution missing. 'Market-driven Development and Poverty Reduction: A Value Chain Analysis of Fresh Vegetables in Kenya and Tanzania.' Seminar for Ländliche Entwicklung, Humboldt University, Berlin.

[3] Paalhaar, J (2007) 'Impact Assessment in Horticulture in Kenya', funded by the German Development Cooperation (BMZ/GTZ).

reflected in produce pricing: prices for produce from smallholders were 16 per cent lower on average than for the contract large-scale farms. Overall, the lower prices for produce from smallholders mean that sourcing from smallholders costs less than sourcing from large-scale farms.

Besides the cost differentials between dealing with smallholders and large farms, there are other factors at play. The logistics of collecting produce are more complex for clusters of smaller production units. This is aggravated by poor access roads to smallholder production areas. On the other hand, smallholder involvement allows for production to be spread across a larger area, thus decreasing climatic production risk, i.e. the risk that a crop in a localised area will be damaged or destroyed because of adverse weather.

Looking at the trade-off between risk diversification and monitoring costs, in the medium to long term, it can be expected that production will take place on medium-scale farms. These may be farms that already have the necessary production area (possibly allocated to other enterprises) or farms growing in size as result of a dynamic land market and the increased renting in and out of horticultural plots.

Findings from the smallholder farmer group perspective: what characterises a successful farmer group and how can this be achieved?

Interviews with various Kenyan horticulture experts have shown that perceptions of what constitutes a 'successful' farmer group differ, depending ultimately on the overall aim of the group and the point of view of the expert. However, the most important factor – apparent across all the studies – is the need for the group to have a constant link to the market, although not necessarily through the same buyer. In fact, in our survey, the most successful group had changed from one exporter (A) to another (B). In this case, exporter B benefited from the fact that most of the investment and learning had already been achieved while the group had been contracted to exporter A.

Contrary to previous research, case studies of smallholder groups showed that, in maintaining the link to the market, 'hard' factors (clear rules, strict penalties and good structure within the group) were more important than 'soft' ones (those that contribute to social cohesiveness such as frequent group meetings and communal plots). Furthermore, groups with external support were more successful because they were better informed and had a better understanding of the rules and regulations.

Other benefits, arising from training on production standards, are better informed decisions about input use, especially regarding the use of agrochemicals; access to high-quality seed; and improved hygiene on the farm. Although record-keeping, as required by the standard, is resource-consuming, it enables the farmers to calculate the profitability of their enterprise, thereby enabling better monitoring of production. It should be noted that these benefits are not necessarily exclusive to those who have received GlobalGAP training, but have also been reported from other training interventions including the farmer field-school training in integrated pest management.

Alternative opportunities for smallholders

Horticultural production in general has been identified as an opportunity for development because of the high returns on land and labour compared to the production of staple crops. Most vegetable production takes place in similar agro-climatic areas with sufficient access to irrigation, inputs and labour. Thus, the most obvious alternative to vegetable production for export is production for the domestic and regional markets.

The East African regional market is becoming more integrated and is supported by the Custom Union, which will be in place by 2010. It is expected that trade will increase in the region with the abolishment of non-tariff barriers. Today, more than 50 per cent of the onions consumed in Kenya are produced in Tanzania, which illustrates the extent of regional and domestic market opportunities. However, prices and profits of domestic crop production fluctuate more widely than those of export crops. Usually farmers have to rely on the Government's public extension programme. This is not as up-to date as the private extension programme put in place by the export sector and also has rather limited resources. Surprisingly, smallholder vegetable producers targeting the domestic market favoured flexibility over certainty, and preferred non-contract-bound independent production.

Key lessons

- Access of smallholders to markets with the highest production standards is tied to their link with an exporter. Smallholders who remain in the certified export system need to navigate a steep learning curve in terms of improving their production system, as well as their business and marketing skills.
- From an exporter's perspective, it is beneficial to work with groups who have already been exposed to production standards under contract with another exporter. This reduces the investment required in capacity-building and infrastructure.
- Successful smallholder groups tend to have a functioning group constitution, which not only defines incentives, but also sanction mechanisms, and supports the success of smallholders.
- Groups can be further strengthened through clear rules and additional goals that translate into benefits such as savings schemes, all of which can increase cohesion and trust within the group.
- Public institutions can play an important role in contributing to the process by providing clear policies for production, marketing, contracts and the implementation of standards. They also need to identify and clarify the role of an ombudsman in case of conflict. The definition and enforcement of national standards would lower the costs to the exporter of implementing and maintaining their standards: multiple sets of related standards decrease marginal costs.

Solutions for improvement and sustainability in the wider Kenyan context

Rather than focusing exclusively on smallholders' participation in export markets, alternatives need to be assessed, including opportunities in regional and domestic markets. When considering GlobalGAP as an investment in capacity-building, it is necessary to assess how sustainable this investment has been and whether an alternative training approach would have been more cost effective. For example, training in GlobalGAP production standards (especially regarding pest management) is very knowledge intensive. Hence there are parallels to training needed for integrated pest management in general, and lessons can be drawn from research in this area.

The evidence on the impact of farmer field-schools (an adult learning approach based on farmer trials over at least one production season) shows mixed results, but experience from western Kenya indicates that there are additional benefits to this method in terms of smallholder organisation and empowerment. A general group approach for farmer training and marketing has grown in popularity, as demonstrated by the Kenyan Government's current focus on investment in common-interest groups. Thus GlobalGAP studies need to be reinterpreted in light of findings from farmer group training and capacity-building. This might help assess which groups and structures to invest in.