



Food-safety standards: A catalyst for the winners - a barrier for the losers? The case of GlobalGAP in horticultural export from Kenya

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Many sub-Saharan African countries have been diversifying their export portfolios away from primary commodities into non-traditional products like horticultural produce to increase their export earning and reduce poverty levels. Several studies have documented the positive role of the horticultural export sector in meeting these targets. However, there are concerns that the proliferation and enhanced stringency of food-safety standards that are imposed by high-income countries can negatively affect the competitiveness of producers in developing countries and impede actors from entering or even remaining in high-value food markets. In parallel with changes in legal requirements, supermarket chains in Europe have developed prescriptive, production-oriented standards, e.g. the EU Retailers Produce Working Group for Good Agricultural Practices (GlobalGAP formerly known as EurepGAP).

To comply with these standards producers have to change their production technology, e.g. switch to less harmful pesticides and invest in structures like grading sheds, charcoal coolers, disposal pits, toilets, pesticide stores etc. Thus unlike larger commercialised farms, smallholder farmers are faced with financial constraints and human resource limitations in complying with standards. Consequently, small-scale producers, which are the very target of many agricultural development programs that aim at poverty reduction in line with the first Millennium Development Goal (MDG), could become losers of this development. Yet in some cases, others argue that such standards can play a positive role, providing the catalyst and incentives for the modernisation of export supply and regulatory systems, and the adoption of safer and more sustainable production practices.

How significant is the cost of GlobalGAP compliance?

We estimated the costs of compliance with GlobalGAP standards incurred by individual farmers and donor and/or exporters contracting the farmers. Data obtained from the household survey and AfriCert, one of the few certification companies operating in Kenya was used. The estimates show that the costs of compliance with GlobalGAP standards for small-scale export vegetable producers operating under option two certification scheme is about 36,600 KSh¹ per individual member of the group and about 8,390 KSh per

group member by the exporters and/or donors. The investment cost borne by individual farmers accounts for approximately 30 per cent of their total annual crop income. The bulk of costs incurred by individual farmers (about 90 per cent) are for investment in infrastructure and equipment that they must have as a pre-condition for implementing standards. These represent the non-recurring costs and are primarily meant for record keeping and in support of internal self-inspection (e.g. office construction and furniture), crop protection (e.g. chemical store, pesticide disposal pit), worker safety, health and welfare (e.g. waste disposal pit, toilet and bathroom) and product handling (e.g. grading shed and charcoal cooler).

Beyond these costs there are a number of wider benefits from compliance with GlobalGAP as perceived by the survey respondents. They perceived that adoption would assure them of markets and higher prices as well as timely payment by the exporters. Many also perceived that implementation of GlobalGAP at the farm level increased quality of production and reduced the amount of buyer rejection. Under GlobalGAP, agrichemicals are stored and handled by trained individuals and many growers felt that their health was better protected this way. Likewise the installation of disposal pits for the waste generated on the farm, clean toilets, baths and handwashing facilities were perceived by the respondents to lead to better hygiene conditions. In addition GlobalGAP adopters expressed pride in the neatness of their farms compared to pre-compliance. Finally, another perceived benefit for the farmers was improved bargaining power with their buyers, which enables them to switch more easily from

¹ The exchange rate at the time of the survey was approximately 72 Kenyan Shilling (KSh)/US\$.

one buyer to another. The question remains whether these benefits are large enough to offset the investments associated with GlobalGAP compliance.

Does investment in GlobalGAP compliance benefit small-scale farmers?

Empirical results show that resource-poor farmers with limited access to information and services are less likely to adopt standards and could potentially be marginalised from the lucrative export market. Nevertheless, farmers who adopt standards enjoy a substantial income benefit. The question is whether these benefits are sufficiently large to cover non-recurring and recurring costs of obtaining and maintaining the certification standard and to render the investment profitable. This is analysed by considering two scenarios taking the planting schedule of smallholders in Kenya into account. Scenario one assumes that smallholders plant three export crops per year, which is the most frequent case in Kenya and scenario two considers the worst case situation of two cropping seasons only. Assuming a constant impact of GlobalGAP on net-income in all cropping seasons of 8,727 KSh², the annual net-income attributable to GlobalGAP adoption is approximately 22,443 KSh in scenario one and 14,962 KSh in scenario two. Using the cost data presented above, the Financial Internal Rate of Return (FIRR) and repayment period are determined.³

First, it is assumed that farmers pay all the costs including auditing, training and the tests. Considering three-cropping seasons per year and a constant net-income over the life span of the investment, the estimated FIRR is 33 per cent for a conservative five years of investment and 42 per cent for an upper limit of ten year life span of investment. However when two-cropping seasons per year are considered the FIRR declines to minus 1 per cent for five years and 15 per cent for a ten year life span of investment.

Second, it is assumed that external agencies cover the annual audit fees, training and the tests as has been the case for small-scale farmers in Kenya. In this case, the FIRR is high ranging from 30 per cent for scenario two and up to 66 per cent for scenario one. The repayment period analysis demonstrates that smallholders can recover their investment cost in two to three years in the three-cropping seasons scenario and up to seven years for two-cropping seasons without any donor/ exporter support (this analysis did not incorporate the risk inherent to the investment and compare the findings against alternative investment options that are available to smallholders, due to lack of information). However, comparing the FIRR to the medium-term lending rate by banks in Kenya, which is about 12 per cent, we can

² We used different micro-econometric modeling techniques to obtain the income effect of adopting GlobalGAP among smallholders in Kenya.

³ The FIRR is an indicator to measure the financial return on investment of an income generation project and is used to make the investment decision. The FIRR is obtained by equating the present value of investment costs (as cash outflows) and the present value of net incomes (as cash inflows) and thus determine the break-even interest rate. In general, the higher the percentage compared to the minimum alternative rate of return, which could be the lending rate in the bank, the better it is.

generally conclude that investment in standards compliance is beneficial for small-scale producers in Kenya even in the absence of external support.

Yet, the question remains whether many small-scale farmers in Kenya can finance the initial cost of about 37,000 KSh to start up the implementation of the protocol and at the same time the donor/exporter continue their financial and technical support.

Policy implications

The above discussion has one major message for policy: it is the asset-poor with limited access to information and services that may be left out from participating in export market value chains. The government and private sector can help farmers expand and upgrade their range of assets and practices to meet the new requirements of supermarkets and other coordinated supply chains. Options include public investments to increase farmers' productivity and connectivity to markets, and public-private partnerships to promote collective action and build the technical capacity of farmers to meet the new standards. Up until now, the role of the public sector in this development was rather limited compared to the private sector. Nevertheless if it is the policy goal of the Kenyan government to keep as many smallholders as possible in the export market by helping them to become certified with the emerging standards, the question is at what cost can this be achieved and what the alternative may be. So far donors have supported the smallholders to attain standards and some exporters have also helped farmers overcome their asset constraints and improve their business image by providing technical assistance.

Although the financial support by donors or private companies is crucial for smallholders to achieve certification, subsidising GlobalGAP certification among smallholders may not be justified from a development perspective for a number of reasons.

- First, donor support may be insufficient to offset the increased smallholder disadvantage. There is also a danger that farmers won't maintain their level of certification once donor support ends rendering smallholders' involvement in GlobalGAP production unsustainable.
- Second, large farms growing vegetables employ large numbers of labourers, who are often poorer segments of rural population than the farmers adopting GlobalGAP. Thus, subsidies for smallholders can have a digressive impact on income distribution among the rural poor.
- Third, it is not yet clear who is benefiting most from the subsidies in the supply chain and it is possible that farmers are indirectly paying for the subsidy through lower product prices. This does not mean that financial and technical support for small-scale producers is unjustifiable, but it requires further research that assesses the costs of helping a larger part of the smallholder population to achieve food-safety standards and compare these with alternative options for attaining poverty alleviation and rural development.