

# STRATEGIC ALLIANCES IN KENYAN SMALLHOLDER FARMING<sup>1</sup>

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## Summary

*Implementing and complying with standards and certification often increases costs for supply chain actors. These increased costs are caused by upgrading production, logistics and marketing needed to achieve compliance, and can lead to the exclusion of actors from the supply chain. In particular, the exclusion of small-scale growers in developing countries as the result of the expansion and proliferation of private voluntary standards (PVS) used by large procurers has been extensively reported. Costs of PVS are per certification and the unit is usually the individual farm, regardless of its size. In much of the developing world smallholder production dominates domestic food production, and these small farms face proportionately higher costs per unit area for certification and compliance. Benefits of PVS are per production unit, giving benefits to larger farms. Developing world smallholder production tends to be on less than one hectare, giving relatively small production. Compared with the costs per farm, there is an inherent bias in many standards and certification towards larger farms. Standards in export horticulture can, potentially, incentivize a more active role for the private sector in investing in small-scale growers in ways that are mutually beneficial for growers and exporters. Such co-investment is a feature of trading relationships and business models that are inclusive of small-scale growers. In Kenyan horticulture, donors, exporters and smallholders have in some cases managed to leverage PVS requirements into profitable local agricultural developments. In this paper, we use resource-based strategic alliance theory to explain the patterns that have evolved. We propose greater use of cooperation theory*

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*to help make more efficient economic development interventions which are complementary with private-sector investments. We explore how standards might be used to accelerate development initiatives.*

**Key words:** *strategic alliances, small scale agriculture, Kenya, private voluntary standards, GlobalGAP.*

## 1. INTRODUCTION

The implementation of, and compliance with, standards and certification is typically associated with increased costs for supply chain actors. These increased costs are incurred through the necessary upgrading of production, logistics and marketing to achieve compliance. Exclusion of certain actors from the supply chain can be one consequence of these increased costs. In particular, the exclusion of small-scale growers in developing countries as a result of the expansion and proliferation of private voluntary standards (PVS) used by large procurers has been extensively reported.

Costs of PVS are per certification and the unit is usually the individual farm, regardless of size. In much of the developing world smallholder production dominates, and these small farms face proportionately higher costs per unit area for certification and compliance. Due to these problems, there is often an inherent bias in many standards and certification procedures towards larger farms. In those cases where development benefits can be demonstrated, there is potential to leverage donor funding, technical assistance and other support, which can reduce total cost burdens of compliance with standards and certification, but which pose important questions in terms of their long-term sustainability.

Benefits of PVS are per production unit, giving benefits to larger farms. Developing world smallholder production tends to be on less than one hectare, giving relatively small production. Compared with the costs per farm, there is an inherent bias in many standards and certification towards larger farms.

Indeed, considering all the concern about the exclusionary nature of PVS, perhaps the most surprising feature of horticultural exports from East Africa is the persistence of the market *inclusion* of smallholders. The Fresh Produce Exporters Association of Kenya estimates that there are 6000 small-scale growers involved in the production of fresh vegetables for export markets in Kenya alone. In addition to these 6000, many more are involved in the production of non-fresh, standards-compliant export markets. For example, up to 10,000 small-scale growers are thought to be involved in the production of French beans for canned and frozen exports.

Standards in export horticulture can, potentially, incentivize a more active role for the private sector in investing in small-scale growers in ways that are mutually beneficial for growers and exporters. Such co-investment is a feature of trading relationships and business models that are inclusive of small-scale growers.

In Kenyan horticulture, donors, exporters and smallholders have in some cases managed to leverage PVS requirements into profitable local agricultural developments;

in other cases, PVS requirements have led to the exclusion of smallholders, and a collapse of previously existing sourcing arrangements. Using survey data on smallholder farming and large-scale exporters, we use strategic alliance theory to explain the patterns that have evolved.

## 2. BACKGROUND

The production and processing of fresh produce for export to European markets is an attractive opportunity for the agricultural sector in sub-Saharan Africa. In Kenya, the value of fruit and vegetable exports has more than quadrupled in real terms over the past thirty years; horticulture has become the country's largest single source of export earnings, and some 4.5 million people are estimated to be employed in production or processing of horticultural products (Fresh Produce Exporters Association of Kenya, 2013). Until 2003, export companies primarily relied largely on casual purchases of vegetables, either directly from small-scale farmers or through informal supply chains of brokers and middlemen. However, since then the compliance framework for exports to the EU has been getting tighter, owing to food safety issues. The concern is that the tightening of regulations – both public and private – results in the exclusion of SSGs, with wider poverty implications for rural Africa.

Global Good Agricultural Practice, GlobalGAP (formerly known as EurepGAP) is a private sector body that sets voluntary standards for the certification of agricultural products around the globe (for up-to-date information about their certification requirements, see e.g. GlobalGAP 2013a, 2013b, 2013c, 2013d, and other documents available at [www.globalgap.org](http://www.globalgap.org)). The GlobalGAP standard is primarily designed to reassure consumers about how food is produced on the farm by minimising detrimental environmental impacts of farming operations, reducing the use of chemical inputs and ensuring a responsible approach to worker health and safety as well as animal welfare. GlobalGAP has become the most widely respected and accepted family of standards for primary production of agricultural products. Today there are more than 130,000 GlobalGAP certified producers in over 120 countries. GlobalGAP certification has become virtually a mandatory market access requirement for producers wishing to sell to GlobalGAP's 48 food retailer members, which include most of the major players in the EU, the US, and Japan as well as retailers in China, Russia, South Africa, and other countries. GlobalGAP has standards for a wide range of products, including fruits, vegetables, combinable crops & herbs. Other GlobalGAP standards include coffee, tea, flowers and ornamentals, cattle, sheep, dairy, pigs, poultry, farmed fish (salmon and trout), plant propagation material, livestock transport and livestock feed manufacture.

Multiple benefits for retailers and other supply chain players can be provided by PVS such as GlobalGAP, including the demonstration of due diligence in compliance with public standards such as the EU food laws (showing the close interrelationship between public and private regulation), the creation of smoother business-to-business transactions and ammunition in the battle between branded goods and retailers' own brands. However, research has long shown that the adoption and implementation of pri-

vate voluntary standards is costly (e.g. Borot de Battisti *et al.*, 2009). These costs occur at both the macro and micro levels. At the macro level, these costs are in the form of public investments in standards agencies, upgraded skills required for management in agronomy and infrastructure development, and the monitoring of trades. At the micro level, costs are incurred through producers and supply chain actors ensuring and demonstrating compliance in the form of investments in logistics, production and marketing. Costs of PVS are per certification and the unit is usually the individual farm, regardless of size. In much of the developing world smallholder production dominates, and these small farms face proportionately higher costs per unit area for certification and compliance. Due to these problems, there is often an inherent bias in many standards and certification towards larger farms. There is genuine concern that the proliferation of private standards adds further to the overall costs of, and hence barriers to, trade without adding compensatory value for supply chain participants.

Several researchers have found a falling number of small-scale farmers involved in export horticulture. This decrease has been attributed primarily to the rising costs of production associated with the need to adhere to increasingly stringent standards (Dolan and Humphrey, 2000; Gibbon, 2003; Humphrey *et al.*, 2004). Exporters typically take production in-house to reduce transaction costs and risk, and move away from the more traditional spot-markets that were arguably easier for small-scale growers to access.

The GlobalGAP protocol has several options available for certification. Option 1 is a single farm certification where the farmer takes responsibility for ensuring compliance, whereas option 2 allows for certification of groups of farms under one certificate on condition that the group can demonstrate a centralised management system operating via a primary marketing organisation (PMO) with a GlobalGAP compliant ISO type quality management system in place. Each grower must be registered under the PMO and have signed a legally binding contract to comply with all the control measures for GlobalGAP specified by the PMO. Under option 2, the PMO takes full legal responsibility for GlobalGAP compliance by all members of the group. Option 2 was designed for group certifications (especially among the large cooperative farms of Southern Europe that sometimes have ~2,000 farms sites in one cooperative) and offers advantages in terms of cost savings by allowing for external auditing of a small number (typically the square root of the total number of sites is audited by the certifying body) of farm sites rather than all sites. This option also provides more opportunities for smallholder farmers in sub-Saharan Africa to become certified as part of the supply chain, provided that they become part of a certified group.

In view of the low level of homogeneity between farm sites, group certifications must meet the strict requirements of the GlobalGAP quality management system that only applies to option 2. Under option 2 each farm must pay a GlobalGAP registration fee, a fee must be paid for auditing the quality management system (QMS), and a similar fee is payable for each farm site chosen for audit by the certifying body. The time taken for an option 2 certification varies according to the number of farm sites to be audited but typically requires 2-5 days to complete with obvious cost implications in terms of auditors fees. Another cost for option 2 certification is the need for several random

Maximum Residue Limit (MRL) tests per year, costing £85 – £150 per sample (Graffham, 2007).

In contrast, single farm certification audits under option 1 of GlobalGAP require between half and one day and have no QMS component, one registration and certification fee and one annual MRL test for the farm (Graffham, 2007). Many have considered getting groups of SSGs certified under option 1 of GlobalGAP as this would be much simpler and cheaper, but the general regulations of GlobalGAP have always prohibited this for the very good reason that a large group of farm sites with individual owners cannot be considered as having the same level of homogeneity as a single farm with only one management team.

This means that GlobalGAP and other PVS provide strong incentives for consolidation of agricultural production; such effects have been observed in other countries (see e.g. Maertens and Swinnen, 2009, who find clear evidence of this effect in Senegal) and similar effects might have been expected for the horticultural sector in Kenya. From an exporting company's viewpoint, there are two possible routes; either to bring production in-house by acquiring agricultural land for own production, certified under GlobalGAP's Option 1, or to form a permanent or semi-permanent arrangement with smallholder farmers who have a group certification under Option 2. From the viewpoint of the smallholder farmer, group certification, either through an exporter or through a farmer cooperative, is the only realistic means of remaining in horticultural production as an autonomous or semi-autonomous producer; the other options are to opt out of export production and sell primarily to the domestic market, or to sell the land to a (certified) producer and potentially become a farm worker on a larger farm which is certified under Option 1.

Given the obvious transactions costs associated with dealing with a large number of semi-autonomous producers, it might seem likely that an exporter will opt for Option 1; acquiring land and establishing own, certified, production instead. However, as we shall see, in almost all cases that we studied the patterns that have actually emerged are different.

### 3. THEORY

Strategic alliances are ongoing, formalised business relationships between two or more independent organisations that wish to use the alliance setup in order to achieve common goals (Sheth and Parvatiyar, 1992) and therefore establish inter-firm cooperative arrangements in order to jointly accomplish their individual goals (Parkhe, 1993). Any voluntary cooperative agreement between firms that involves exchange, sharing, or co-development can be seen as a strategic alliance, and can include partner contributions of capital, technology, or firm-specific assets (Gulati, 1998; Gulati and Singh, 1998; Lin and Lin, 2010).

Strategic alliances are hybrid governance structures, where interactions are more formalised than arm's length transactions but less formalised than outright acquisitions. Firms may form strategic alliances for a variety of reasons (Elmuti and Kathawa-

la, 2001). Being part of an alliance allows the firm access to complementary resources, making it possible to focus on a small part of the total value system (Porter, 1985) and still be able to offer a larger total value to customers (Gulati, 2007). Alliance formation therefore meets strategic needs and social opportunities, and alliances are more easily formed when there are firms within the alliance led by large experienced and well-connected top-management teams (Eisenhardt and Schoonhoven, 1996). According to Bleeke and Ernst (1995), the likelihood of success is better when alliances are formed between companies that complement each other, while alliances between competitive companies are more likely to fail since strong competition between two cooperating companies increases the risk for opportunistic behaviour.

Das and Teng (2000), in their seminal paper on resource-based strategic alliances, note that the resources available to different firms are frequently crucial for the types of relationships that these firms form. Firms are characterised by having access to different sets of productive resources which are useful in different types of production and which may or may not be easily transferable to other firms. They identify the decision to form a strategic alliance as what can be seen as an intermediary case between outright acquisition and arms-length market-based relationship, where the goal in all three cases is to make use of those of the other firm's productive resources that are useful for the own firm's production. If the services from the relevant resources in the other firm can be purchased efficiently through the market, firms will tend to prefer arm's length transactions where each firm maintains control over, and management responsibility for, its own assets. If the resources themselves can be purchased efficiently through the market, or if firms owning these resources can be purchased easily and the less attractive resources of the purchased firm can then be resold easily, firms will tend to prefer outright acquisition. Alliances become attractive when arm's length interactions with the other firm are inefficient, but the bundle of resources owned by the other firm also contain resources that are irrelevant for the own firm's production process and that cannot easily be disposed of.

In terms of the resources owned by a firm, Das and Teng (2000) distinguish between property-based resources linked to ownership (including intellectual property, if protected by law), and knowledge-based resources linked to know-how and skills. While an agent collaborating with other agents in an alliance can usually maintain control over its property-based resources, it will in practice often lose control over its knowledge-based resources once these become available to its allies in the network and these can begin to use that knowledge within their own organisations. This means that an agent which is primarily bringing property-based resources into an alliance will not be overly worried about losing control over these assets, and will be open to a wide range of organisational setups for the alliance. On the other hand, if an agent primarily brings knowledge-based resources into an alliance, it risks losing control over these assets – and thus becoming less important as an ally – once other agents in the alliance have gained access to its knowledge assets, and will therefore tend to prefer either outright acquisition of other agents in the alliance or, alternatively, an arm's-length working relationship with its partners such that they do not gain access to its resources. When both agents bring property-based resources into an alliance, the normal outcome is to have

unilateral contracts specifying the commitments of the respective parties; when one of the parties brings knowledge-based resources into the alliance, equity-sharing arrangements tend to be more common; when both parties primarily bring knowledge-based arrangements into the alliance, bilateral contracts specifying joint knowledge development tend to dominate.

Moreover, the property-based and knowledge-based groups of resources both contain assets that may be either imperfectly mobile, and cannot be shifted easily to other organisations; or imperfectly substitutable, and cannot easily be replaced as part of the production process. Das and Teng (2000) identify human resources as imperfectly mobile and physical resources as examples of imperfectly substitutable property-based resources; we would add to this that in many developing countries, including Kenya, agricultural land is frequently not only imperfectly substitutable but may also be imperfectly mobile, because unclear tenure rules make land transactions onerous and costly. The skills needed to market produce in export markets have also become increasingly immobile; they were difficult to acquire for an individual smallholder even before the advent of PVS and GlobalGAP, but are now completely out of reach.

Prior to the establishment of GlobalGAP and its predecessor EurepGAP, the typical arrangement was an arm's-length supply chain where different agents along the supply chain primarily interacted through market transactions. Exporters purchased horticultural produce from smallholder farmers on a spot market basis, either directly through own procurement agents or indirectly through middlemen (for more details on Kenyan procurement arrangements, see e.g. Dolan, 2001, or Rao and Qaim, 2013). From a resource-based strategic alliance perspective, this pattern indicates that the main "service" provided by the smallholder farms, from the perspective of the exporters, was horticultural produce which could easily be purchased in the market. By maintaining the supply chain as a primarily market-based one, exporters could avoid taking on responsibility for the agricultural process itself. Exporters typically also maintained their own land holdings and their own agricultural production, but nonetheless clearly preferred also buying produce from farmers rather than producing everything themselves; a likely explanation is the fact that smallholders had better knowledge of the local markets and thus could more easily dispose of surplus production there, so that exporters could draw on smallholder production when needed but avoided responsibility for developing the skills needed to maintain domestic sales as well. On the other hand, from the perspective of the smallholder farmers, exporters provided an attractive sales outlet, which provided the "service" of maintaining contacts with foreign purchasers. There was thus a clear division of labour, where different parts of the supply chain maintained control over different sets of resources and provided useful services for each other, while maintaining a high degree of autonomy.

With the advent of more stringent standards in the foreign export markets, the old supply chain relationship began breaking down (Dolan, 2003; Humphrey et al., 2004). The new certification procedures were too costly for individual smallholder farms to undertake on their own. Three potential scenarios would have been, (a) for farmers to form exporting co-operatives to co-manage certification procedures and exporting links (see, e.g., Fulton et al., 1996 for this type of marketing alliance in the US) which

would typically have required financial assets for the initial certification investments, but would also have required the development of a new set of managerial skills in order to develop new, own-managed export businesses; (b) for exporters to acquire more land in order to set up own, certified agricultural production of all the crops needed for export (see, e.g., Maertens and Swinnen, 2009 for this type of outcome in Senegal), which would have required developing the skills needed to sell surplus and discarded production in domestic markets, and would also have meant undertaking the onerous process of acquiring land; or (c) some form of more formalised alliance between the two groups of agents than had been the case in the past. From a resource-based perspective, we can see that option (c) would enable both groups of agents to avoid some of the costs involved in acquiring the productive resources needed to take over the other group's role in the supply chain, and we would therefore expect to see this option become the dominant one. Since both groups primarily provide property-based resources (land, farm labour and access to domestic markets on the one hand, financial resources and access to export markets on the other) we would expect from Das and Teng (2000) that the primary form of alliance should be one of unilateral contracts between exporter and farmer.

#### 4. MATERIALS AND METHODS

A survey of eleven exporters and exporting organisations was carried out in Kenya (for details on the survey work, see Graffham *et al.*, 2007) in tandem with agricultural survey work in Zambia (reported in Graffham and MacGregor, 2007) and in Uganda (reported in Kleih *et al.*, 2007). The surveyed exporters controlled over 50% of the Kenyan export horticulture market and over 80% of Kenyan horticultural exports to the EU. The survey found that there was indeed a drop in the formal participation of small scale growers in these companies' supplier networks. The survey recorded a reduction of over 40% in their reported use of small-scale farmer suppliers to certified markets, from 9342 to 5475. No formal questionnaire was followed; rather a semi-structured interview process was used to elicit answers, views and reflections on financial costs and benefits, production changes, satisfaction with the compliance process and non-financial changes and benefits.

The survey tool collected a range of data and qualitative information to enable analysis of these data to ascertain the incentives involved with export horticulture. Interviews were conducted with company personnel and farmers involved in GlobalGAP compliant smallholder schemes. The data obtained gives a good perspective on the costs of compliance from the point of view of farmers and exporters, and qualitative information on the benefits of compliance and challenges faced by the various stakeholders. The figures for donor inputs only include those known to the exporting companies, and could in reality be much higher as the exporters do not have figures for international consultant costs and costs of running donor projects in the country.

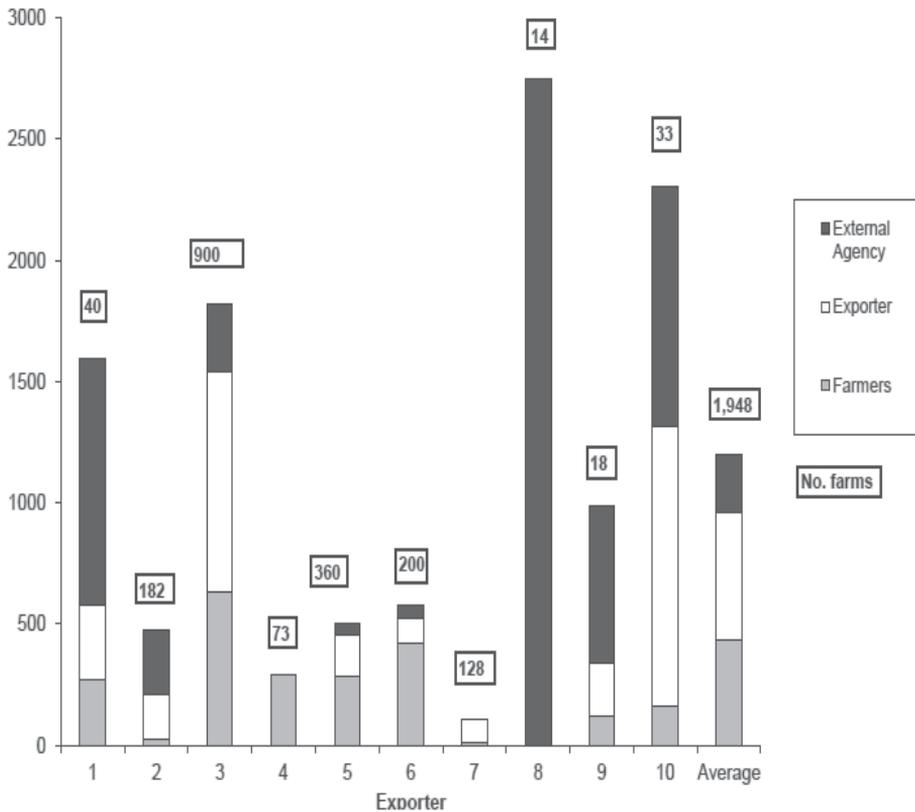
Data on the financial costs and benefits of producing export crops in Kenya were used to illustrate incentives for smallholder farmers to continue being part of GlobalGAP. From the analysis the viability of GlobalGAP compliance for small-scale growers

could be examined, using data on turnover from crop sales (measured as price actually paid for harvested quantity minus discards), initial investment costs associated with setting up GlobalGAP compliant systems, recurring costs associated with compliance activities, production costs, credit costs associated with compliance, and increases in labour costs.

### 5. RESULTS

In eight of the eleven cases surveyed, the exporting firm had set up a contract-based alliance directly with selected smallholder farmers who were given support both for the investment costs needed to become certified under GlobalGAP’s option

**Figure 1: Average initial costs for small-scale growers**



Note: GlobalGAP compliance, based on ten exporters and farmers engaged with them in trading relationships, Kenya, 2006 (from Graffham et al., 2007). Figures in inset boxes indicate the number of farmers sourced by each exporter. “Exporter 2” in the figure is the vegetable marketing organisation mentioned in the text (comprising two exporting firms) while Exporter 6 is the exporter opting for GlobalGAP’s Option 1.

2 and for the subsequent costs needed to maintain certification. Two of the surveyed exporters had set up an alliance through a vegetable marketing organisation, which had been established by the exporters but which subsequently became an independent entity and which helped the farmers handle certification costs. In the last of the eleven cases surveyed, the exporting company had opted for GlobalGAP's option 1 and expanded "own production"; the quotation marks refer to the fact that this was a trial exercise where smallholder farmers retained ownership of their land but were, technically, hired by the exporting company as farm managers of their respective farms and required to implement the GlobalGAP certification standards. Thus, eight of the surveyed exporters had clearly opted for strategic alliances with selected farmer groups; the remaining three had, in theory, not done this, but had nonetheless established similar relationships that were less formalised than outright acquisitions but more formalised than the previous arm's length relationships.

In several of the cases surveyed, donors had provided support to the investment phase associated with setting up the GlobalGAP compliant system. The average investment costs per farmer, and the shares paid by farmer, exporter and donor, respectively, are shown in Figure 1.

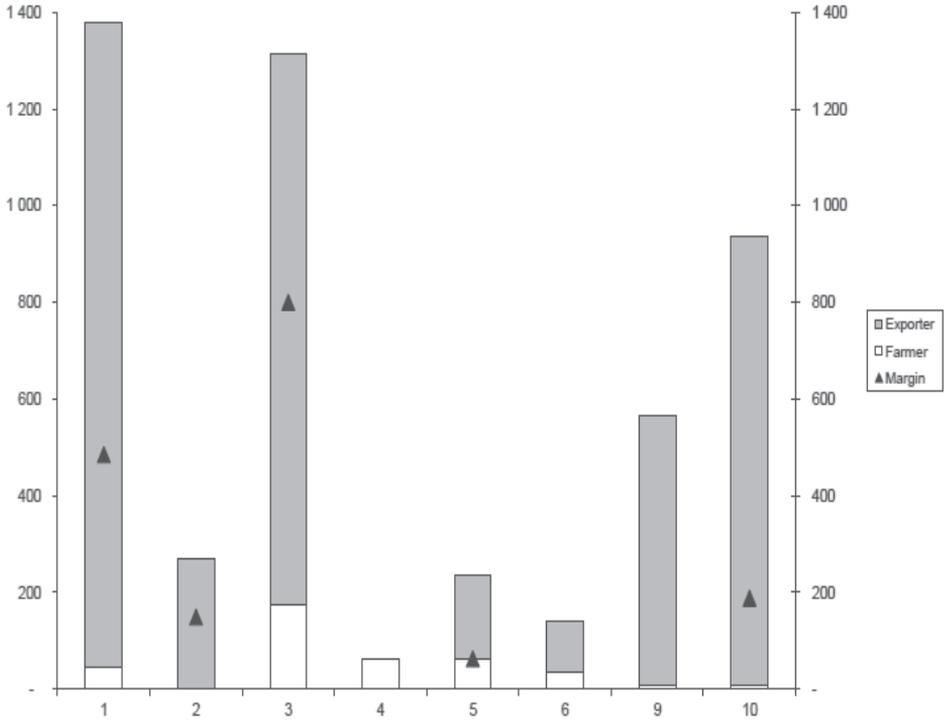
It may be noted that donor support varied considerably between different exporters; smaller farmer groups typically received higher investment support, both as shares of the total and in absolute terms, than the larger groups did. It is not obvious that the donor support made the local distribution of costs more "pro-poor", as several of the schemes with least donor support also saw the greatest share of local costs borne by exporters rather than by farmers.

Donor support can normally only be given to investment costs and not to recurrent costs, so crucial issues are whether the initial support (if any) is enough to make the compliant system financially sustainable and how the recurrent costs of maintaining the system are shared between the exporter and the farmers.

The costs of maintaining GlobalGAP compliance were typically borne almost exclusively by the exporting firm rather than by the farmers (Figure 2); in all but one of the cases for which data on maintenance costs were available, the exporter paid for three quarters or more of the overall maintenance cost. In the (fewer) cases where enough data were available to assess the net margins remaining to farmers before paying for maintenance costs, we find that in most cases farmers could have paid substantially more of the maintenance costs. However, this would have made them highly sensitive to variations in the price of horticultural produce, and would have made the arrangements substantially less attractive for them.

The cost and revenue structure for sampled farmers in Buteko, a fairly typical smallholder farming area in Zambia, can serve as an example of why exporters in a sub-Saharan country might choose to fund such a large share of the farmers' costs (Table 1). Net income among the surveyed farmers is some 669 GBP per year, which is a good income for a smallholder farmer but would only be sufficient to pay an external farm manager if that manager were recruited from some other smallholder farm. Educated external farm managers tend to expect substantially higher pay, so an exporter

**Figure 2: Average maintenance costs for small-scale growers'**



Note: GlobalGAP compliance, based on ten exporters and farmers engaged with them in trading relationships, Kenya, 2006 (from Graffham et al., 2007). “Exporter 2” in the figure is the vegetable marketing organisation mentioned in the text (comprising two exporting firms) while Exporter 6 is the exporter opting for GlobalGAP’s Option 1.

would either have to maintain roughly the same type of labour input as the current smallholder farms have, or acquire large tracts of land in order to utilise economies of scale. An average farm is subdivided over an average of 5.6 different plots, covering a total land area of only 6.2 hectares; thus, acquiring enough land to set up large scale farming would entail purchasing (or renting) numerous different farms in order to merge the different plots, which would not be a simple undertaking in a country where land markets function poorly. Finally, we may note that the average exportable yield is approximately one eighth of the total yield, with the rest being discarded for exports for one reason or another such that it can only be sold in domestic markets. An exporter wishing to set up own farming on this land would need to develop new marketing channels in order to sell produce domestically, whereas the established farmers already have such channels. Thus, there are several problems facing an exporter wishing to set up own production, and continued smallholder production for export can thus be an attractive alternative for the exporters even if they have to support this production financially.

**Table 1:** Descriptive statistics over farming in Buteko area

	Average	Standard deviation	Minimum value	Maximum value
Number of plots	5.62	3.02	2	12
Total land area (hectares)	6.23	6.65	2	20
Total yield (tons)	8.12	5.18	4.09	18.94
Exportable yield (tons)	1.06	0.67	0.53	2.46
Gross income, £	1056	673	532	2462
Production costs, £	387	182	177	752
Net income, £	669	512	229	1709

Source: Authors' calculations based on data from a survey described in Graffham and MacGregor (2007).

Exporters were generally positive about the GlobalGAP system; they felt that good agricultural practice was important and delivered many benefits, especially in terms of good vertical and horizontal traceability, improved hygiene and better levels of worker safety. Exporters with compliant suppliers believed that the risk of being caught out on pesticide residues, microbial contamination or quality related issues is very low. In contrast, two of the biggest exporters in Kenya commented on the risks associated with the old system of spot buying from brokers and farmers where vertical and horizontal traceability was absent. Certification raised the exporters' confidence in the suppliers' ability to meet the EU retailers' requirements. Global GAP compliant record keeping on the side of the farmers was seen as possible but took time to achieve; one of the largest exporters in Kenya reported that it took at least six months to bring a small-scale grower up to the required standard. This made it important to select suitable growers, and to retain trained growers subsequent to completion of the compliance process.

Most farmers were capable of putting in place the required level of farm infrastructure (field toilets, hand-wash, plot markers, field shelter and first aid kit). However, very small farms lacked the finances to put in place these structures and would never get a return on their investment, hence several of the exporters in Kenya had eliminated growers with less than 0.5 hectare farms on this basis. The creation of centralised facilities by many of the schemes in Kenya was seen as beneficial by farmers, as they saved money on inputs such as seed, fertilisers, chemicals and protective clothing via bulk purchasing agreements. Schemes with centralised spray teams recognised the savings made on infrastructure and materials for crop protection. In one of the schemes, group organisation and improved management had been used to improve credibility for accessing credit for purchase of inputs.

Good agricultural practice had been seen to improve efficiency and profitability of farming operations, as yields and product quality had increased and wastage of chemicals had been reduced due to following proper crop protocols. GlobalGAP compliant record keeping enabled farmers to evaluate the profitability of farming as a business and reduce theft of inputs by farm workers. Creation of traceable plots with coded markers linked to records enabled many farmers to calculate the cost of production per plot and hence to obtain a further measure of profitability. Introduction of proper crop rotation had improved soil fertility and reduced the number of pests seen in the crop. Using

proper harvest containers exclusively for produce has improved product quality and income levels because the percentage of rejects has fallen due to less damage in handling.

However, many farmers complained that the cost of compliance was too high when compared to the level of return from fresh produce exports, and that the level of return could not justify the investment made in infrastructure and record keeping. Farmers who had left GlobalGAP arrangements of their own accord primarily cited high investment and maintenance costs and lack of (or inadequate) price premia for certified crops as their main reasons for doing so. Most farmers who had left GlobalGAP wished to continue export crops and many still did so to non-GlobalGAP markets; some had switched to producing for lower-paying domestic markets only, and some had developed other businesses altogether.

## 6. CONCLUSIONS

Private voluntary standards such as GlobalGAP present a challenge to horticultural producers and exporters in developing countries. The stricter requirements cause high investment and maintenance costs, which smallholder farmers cannot realistically finance on their own. At the same time, the problems associated with land acquisition and with developing domestic market links in order to sell surplus production discourages exporters from expanding their own production.

What we see in the Kenyan horticultural sector is an externally induced shift from the traditional, spot market based supply chain to a set of strategic alliances in the production and export of horticultural produce. Those exporters who remain in the business, and those farmers who still sell produce in EU markets, have developed formal alliances linked predominantly to GlobalGAP's Option 2 (and in the one case where they have not, the setup is very similar in practice to that chosen in the other alliances). The exporters continue to provide the knowhow and marketing channels that farmers need to sell horticultural produce in export markets, but now also provide financing for large shares of the investments needed for certification, as well as for the recurrent costs that farmers need in order to remain certified. In return, farmers provide land and cheap farm labour for the exporters' production process, but also maintain responsibility for farm management and for selling surplus or discard produce domestically. Both groups maintain control over resources that are important for their continued autonomy, but the strategic alliances now in place also enable both groups to continue accessing foreign markets that neither could have continued to access on their own.

We propose greater use of cooperation theory to help make more efficient economic development interventions which are complementary with private-sector investments. Understanding the nature of markets, and how to intervene with both donor funding and private sector investment, has considerable value, and deserves further attention.

Outside of the exclusionary tendencies of PVS, there are conspicuous advantages to both buyer and seller in the agriculture markets in East Africa which have resonance for other economic sectors. Standards might be used to accelerate development initiatives, align private and donor investment portfolios, and efficiently leverage the power of market forces for poverty reduction.

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## STRATEŠKI SAVEZI KENIJSKIH MALIH FARMERA<sup>5</sup>

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### Sažetak

Implementacija i usklađivanje s normama i certificiranje često povećava troškove za sudionike opskrbnog lanca. Ovi povećani troškovi uzrokovani su unapređenjem proizvodnje, logistike i marketinga koji su potrebni za postizanje usklađenosti, a može dovesti do isključivanja sudionika iz opskrbnog lanca. Konkretno, često se izvješćuje o isključenju malih farmara u zemljama u razvoju, što je posljedica ekspanzije i širenja privatnih dobrovoljnih standarda (engl. Private Voluntary Standards, PVS) koje koriste i zahtijevaju veliki kupci. Troškovi PVS-a su po certifikaciji, a uobičajena je jedinica pojedinačna farma, bez obzira na njenu veličinu. U mnogim zemljama u razvoju u domaćoj proizvodnji hrane dominiraju mali posjednici i oni se suočavaju s proporcionalno većim troškovima po jedinici površine za certifikaciju i usklađivanje. Prednosti PVS-a mjere se na temelju jedinice proizvodnje, čime se daje prednost većim gospodarstvima. Proizvodnja malih posjednika u zemljama u razvoju često se odvija na manje od jednog hektara, dajući relativno malu proizvodnost. U usporedbi s troškom po farmi, ovo je svojstvena pristranost mnogim standardima i certificiranju koja ide u prilog većim gospodarstvima. Standardi u izvozu hortikulture potencijalno mogu pozitivno utjecati na aktivnije sudjelovanje privatnog sektora u ulaganju u male uzgajivače na način koji je obostrano koristan za uzgajivače i izvoznike. Takva suinvesticija je značajka trgovačkih odnosa i poslovnih modela koji uključuju male uzgajivače. U kenijskoj hortikulturi, donatori, izvoznici i mali posjednici su u nekim slučajevima uspjeli pretvoriti zahtjeve PVS-a u profitabilan razvoj lokalne poljoprivrede. U ovom radu koristi se teorija resursa strateških saveza kako bi se objasnili obrasci poslovnih modela koje su razvili. Predlaže se veće korištenje teorije suradnje koja će omogućiti učinkovitije zahvate u svrhu gospodarskog razvoja koji su komplementarni s privatnim investicijama. Istražuje se kako se standardi mogu koristiti za ubrzanje inicijativa za rast.

**Ključne riječi:** strateški savezi, mali poljoprivrednici, Kenija, privatne norme, GlobalGAP.

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