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Making GLOBALGAP smallholder friendly

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Glossary

COLEACP	Comité de Liaison Europe-Afrique-Caraïbes-Pacifique
CP	Control point
CPCC	Control point & compliance criteria
DFID	Department for International Development (UK Government)
EU	European Union
GBP	Pounds sterling (UK currency)
GLOBALGAP	A privately owned family of standards for primary production
IIED	International Institute for Environment and Development
MRL	Maximum residue limit
NRI	Natural Resources Institute (United Kingdom)
PHI	Pre-harvest interval
PIP	Pesticide Initiative Programme (EU funded programme)
PPP	Plant protection product
QMS	Quality management system
REP	Re-entry period
RF30	Fire resistant for 30 minutes
SPS	Sanitary and phytosanitary
SSG	Small-scale grower
TBT	Technical barrier to trade
WTO	World Trade Organisation

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Picture credits – Title page: - Mrs Fungisai Chinofumbuka, a smallholder with 0.2ha of productive land, grows crops for both local and export markets on her farm near Mutoko in Zimbabwe (picture by Andrew Graffham).

Summary

GLOBALGAP and smallholders in sub-Saharan Africa

GLOBALGAP has become the most successful family of private voluntary standards for the primary production of a wide range of agricultural products. It has over 80,000 certified producers in 80 countries. Overall, the content of the fruit and vegetable modules (all-farm, crop-base, and fruits and vegetable) is well designed and suitable for large-scale commercial growers.

However, small-scale growers, especially in sub-Saharan Africa, can find it difficult to comply with all the requirements. Smallholders who are not well supported by their exporter struggle with GLOBALGAP. Evidence from Kenya has shown that most either fail to certify or drop out of the compliance system within one or two years of being certified because of the complexities of the standard and the high costs of compliance. Some large export companies are switching from procuring from smallholders to focus on a small number of large commercial farms. This is because of the high costs of testing for pesticide residues on every farm site, and requirements for traceability back to individual farms or even plots, despite their very small production volumes.

What are smallholder and exporters' views on GLOBALGAP and smallholder compliance?

Our surveys of smallholders in Kenya have shown that virtually all smallholders see many advantages in being GLOBALGAP compliant. They would like to be certified as long as problems with high costs and the complexity of some control points can be resolved. Similarly exporters said that smallholders were a valuable part of their export strategy and they do not wish to stop procuring from them. One exporter summed up the general level of concern as follows ***"We must put up a strong case for changes to the standard otherwise we are going to wipe out the smallholder supply chain"***.

Can GLOBALGAP be simplified and compliance costs reduced?

It is unlikely that a truly smallholder-friendly standard can be created that small-scale growers could operate cost effectively without external support. This is simply because the drastic changes in content required to meet the needs of smallholders would seriously undermine the integrity of the standard and would make the modifications unacceptable to the buyer of the end product.

A balance must thus be achieved between the producers' need for simplicity and low costs and the buyers' desire for high levels of control and guarantees of integrity. We assessed GLOBALGAP's control points and compliance criteria, and also sought feedback from stakeholders in Kenya. Based on this, we make the following suggestions for striking this balance:

- Match levels of control to the risks associated with different crop types and production practices. Most small-scale production in sub-Saharan Africa

would fall into low risk categories and thus merit a reduced level of control with consequent savings on compliance costs.

- Permit sharing of first aid kits and trained first aiders in areas where large numbers of farm sites are clustered together.

- Allow vertical traceability to the level of the producer group (rather than individual farms or plots) in cases where individual growers produce very small volumes.

- Reduce the requirements for pesticide residue testing to a realistic level, matched to the level of risk on the specific farm. This would be the biggest single cost reduction measure.

- Remove the fire resistant requirement for smallholders' pesticide stores, and possibly accept locked metal cabinets in place of dedicated stores if various risk control measures are met. These provisions would be justifiable for small-scale growers as they handle such small volumes of chemicals.

- Provide clearer guidance on the design of toilets permitted under the standard and make provision for low cost options. This would reduce the cost of field toilets by 60-80%.

- Reduce the frequency of inspection to every two years and reduce the number of farm sites visited under Option 2 for growers with low risk operations who have a proven track record of compliance for at least two years.

These suggestions would mean significant cost savings. Most imply linking the level of control to evidence-based assessments of the real risks associated with particular crops and production practices. However, the standard owners must be willing to change and to compromise where suggested modifications could slightly reduce the integrity of the standard.

Even if the suggested modifications are adopted in full, most smallholders groups will still need to associate with a well-resourced exporter who can assist in managing complex areas such as the Option 2 QMS system. The most successful GLOBALGAP compliant smallholder schemes have several common factors:

- The farmers in the scheme are highly committed to a commercial approach to farming, are well organised into strongly managed producer groups and are linked to a large, well-resourced export company.
- The exporter does more than just buy the produce; they also provide extensive technical support and cost sharing.
- The bulk of the compliance costs are met by the exporter, who also manages more complex parts of the standard such as operating the option 2 QMS scheme, risk assessments and much of the organisation behind the documentation and traceability components of the system.

How can these recommendations for change be taken forwards?

To have a chance of success it is essential to work within the GLOBALGAP system to demonstrate to food retailers that change can benefit all parties without undermining the integrity of the existing standard. For this reason close links have been maintained with the GLOBALGAP African Smallholder Observer and the GLOBALGAP Smallholder Taskforce. The proposals for change discussed in this document were submitted as part of the GLOBALGAP Smallholder Taskforce call for proposals for change to GLOBALGAP in February-March 2008. Under this call the proposals have been independently reviewed and then submitted to the relevant sector committees of GLOBALGAP for further discussion and final approval. Representatives of the retail sector dominate the sector committees and there are food industry representatives within the GLOBALGAP Smallholder Taskforce thus ensuring that any proposal approved via this process will be acceptable to the retail industry.

1. Introduction

1.1 What is GLOBALGAP and how does it work?

GLOBALGAP (formerly known as EUREPGAP) is a private sector body that sets voluntary standards for the certification of agricultural products around the globe. 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.[1]

GLOBALGAP has become the most widely respected and accepted family of standards for primary production of agricultural products. Today there are more than 80,000 GLOBALGAP certified producers in 80 countries. GLOBALGAP certification has become virtually a mandatory market access requirement for producers wishing to sell to GLOBALGAP's 38 food retailer members which include virtually all of the major players in the EU and Japan. GLOBALGAP has standards for a wide range of products, including 229 fruits, vegetables, combinable crops & herbs. Other GLOBALGAP standards include coffee (green), tea, flowers & ornamentals, cattle, sheep, dairy, pigs, poultry, farmed fish (salmon & trout), plant propagation material, livestock transport and livestock feed manufacture.

This study is only concerned with GLOBALGAP's application to fruit and vegetables, as this is the longest established scope and has had the most impact, particularly among small-scale producers in sub-Saharan Africa. The GLOBALGAP standard is subject to a three year revision cycle to take into account technological and market developments. The latest GLOBALGAP update (version3.0-Sep 07) was made in March 2007 and is valid until 2010. For fruits and vegetables there are now 235 control points in the main standard. Of these, 76 control points are classified as major controls which require 100% compliance on the day of audit. The rest are classified into minor (122) and recommended control points (37) respectively.

Farmers can apply for individual certification under Option 1, or group certification under Option 2. For Option 2 there is a quality management system (QMS) checklist with an additional 141 control points dealing with the QMS system of the farmer group requiring mandatory compliance. There are also 32 control points dealing with operation of the certifying body during the certification audit. Option 2 is the favoured option for small-scale growers as individual certification under Option 1 is too expensive.

Overall, GLOBALGAP version3.0-Sep 07 is well-designed and suitable as a primary production standard. It presents no real difficulties for large commercial growers applying under Option 1. However, small-scale growers (SSGs), especially in sub-Saharan Africa, have encountered problems with implementing and maintaining GLOBALGAP certification.

[1] For more information see www.globalgap.org

1.2 GLOBALGAP & smallholders in Kenya

Previous studies (Graffham & MacGregor, 2006, Graffham, *et al*. 2006, Cooper & Graffham 2007 & Graffham, *et al*. 2007) have highlighted some of the positive and negative experiences of SSGs with GLOBALGAP in Kenya and Zambia. GLOBALGAP certification has been most successful for SSGs linked to a large, well-resourced export company. Under these conditions implementation and maintenance of GLOBALGAP generally goes smoothly and is readily sustained as the exporter provides a high level of technical support and pays for most of the costs associated with maintaining a GLOBALGAP compliant production system.

In the studies cited above smallholders and export companies in Kenya and Zambia were generally highly positive about GLOBALGAP certification and listed many advantages associated with compliance:

- improved hygiene;
- higher crop revenues due to more stable demand for produce;
- access to credit;
- access to information and training;
- improvements to farm safety especially in the area of pesticide storage and handling;
- improvements in productivity and overall yields; and
- reductions in the cost of agricultural inputs.

In well resourced and supported SSG schemes, these benefits of GLOBALGAP certification were being realised and farmers were generally happy, although most complained about the extra costs associated with compliance and the absence of a price premium.

Problems occurred with SSG schemes associated with smaller, less well resourced exporters who cannot afford to provide the necessary technical and financial support. In these cases farmers were either unable to complete certification or to maintain certification beyond one or two seasons. The reasons given for dropping out of GLOBALGAP were simply that the high investment and running costs of maintaining certification outweighed the benefits or were simply unaffordable.

The majority of larger exporters in Kenya complained that the costs of running GLOBALGAP certified SSG schemes were becoming too high. Several exporters had started to drop smallholders and switch procurement to smaller numbers of larger commercial growers. The high cost of GLOBALGAP compliance was blamed for these developments. However, all exporters said that they would like to continue to source from smallholders if costs could be reduced, as SSGs form a valuable part of their procurement strategy.

A survey was conducted of 102 smallholders who had been forced to drop out of GLOBALGAP certification (Graffham, *et al*. 2007). All respondents listed many advantages of GLOBALGAP and said that they would like to re-enter GLOBALGAP compliance if costs could be reduced to an acceptable level.

1.3 Study objectives

Previous studies conducted under the joint DFID/IIED/NRI project (Graffham, *et al*. 2006; Cooper & Graffham 2007; Graffham, *et al*. 2007) and by NRI[2] showed that GLOBALGAP could be a very useful tool for improving production practices and safety of produce from smallholders' farms. The standard was evidently widely supported by both smallholders and export companies because of the many advantages of compliance. However, these studies also highlighted numerous concerns from stakeholders in Cote d' Ivoire, Ghana, Kenya, Senegal, Uganda and Zambia (Graffham, 2007):

- the QMS system is too complex for small-scale growers;
- the requirements for record keeping are too complex;
- the level of paperwork is too much and requires too much time;
- analysis for pesticide residues is very expensive;
- testing every grower for pesticide residues is too expensive;
- certification costs are too high;
- the time required for Option 2 audits is too long;
- there are no premiums associated with GLOBALGAP, unlike organic and fair-trade standards;
- chemical stores are a big investment and the requirements appear excessive for smallholders;
- auditors' interpretation of control points is variable;
- surveillance audits will raise costs even further;
- is it necessary to have a trained first aider on every farm?;
- some auditors do not accept company personnel as being competent to provide hygiene training for workers, all training must be provided by accredited training institutes.

Because the standard had not been designed with SSGs in mind, many stakeholders found it to be too costly, unnecessarily complex and in need of better application to smallholders.

Therefore our objective in this study was to assess the content of GLOBALGAP version 3.0-Sept 07 for fruit vegetables and to identify ways of making it more smallholder-friendly.

[2] In collaboration with the Pesticide Initiative Programme (PIP), funded by the EU via the COLEACP (Comité de Liaison Europe-Afrique-Caraïbes-Pacifique).

2. Approach

Our ultimate aims were to make GLOBALGAP more smallholder-friendly must be to reduce the costs of compliance and complexity of the standard if possible.

Originally we envisaged two weeks' field work in Kenya to discuss proposals for change in detail with key stakeholders. These included the technical and production managers of the major export companies, and the managers of the farmer cooperatives who have most practical experience of working with GLOBALGAP and smallholder production schemes on a day to day basis. However, the post-election civil disturbances in Kenya in early 2008 made it impossible for UK experts to travel. This was partly on the grounds of personal safety, but also because the industry had more immediate priorities in securing its survival and our contacts were not able to talk to researchers until the political situation had stabilised.

Instead we conducted a detailed assessment of the control points, QMS system and general regulations of the current version of GLOBALGAP to identify areas for improvement. A meeting was held with the GLOBALGAP African Smallholder Observer in January 2008 to discuss ways of making GLOBALGAP more smallholder friendly and to develop a strategy for taking proposals forwards within the wider context of the GLOBALGAP Smallholder Taskforce. We presented our findings in the format used by the GLOBALGAP Taskforce for African Smallholders' recent (March 2008) call for proposals (www.africa-observer.info/documents/080222-Proposal-Form-Public.pdf) as this format was admirably suited to taking account of the needs of both producer and buyer. In addition we contacted key stakeholders (exporters, service providers, certifying bodies and project personnel) in Kenya and Zambia by email (using a one-page survey form) and telephone to seek their views and suggestions on possible ways to improve the standard. Their responses are summarised in Annex 1.

Chapter 3 outlines possible changes to the current version of GLOBALGAP, based on our assessment and on the responses from the Kenya and Zambia stakeholders. A scenario of potential cost savings for a group of Kenyan smallholders is given in Chapter 4.

3. Options for making GLOBALGAP smallholder friendly

We conducted a detailed assessment of the relevant parts of the general regulations, the QMS system for Option 2 and all of the control points and compliance criteria (CPCC) in the all farm, crop base and fruit and vegetable modules. It was very tempting to produce a long list of recommendations for change. While stakeholders at the production end of the system have many concerns over GLOBALGAP (see Section 1.3), not all of these are relevant to GLOBALGAP. For example, laboratory charges and certifying body fees are outside the control of the standard owners. It was also important to determine what might be considered "reasonable requirements" and to achieve a balance between the different requirements of the producer and buyer. This is very important as the producers want simpler low cost standards but the buyer wants high levels of integrity and robust controls with a low risk of failure. Thus the standard could easily be simplified and costs reduced if record keeping and documentation were drastically cut back. This would satisfy the producer but never be acceptable for the buyers who own the standard as integrity and control would be seriously undermined. As a matter of fact we believe the majority of the requirements for records and documentation in GLOBALGAP are reasonable and there is little justification for change in this area.

In the end we prepared a short-list of 16 suggestions for change. This was later reduced to 11 potential modifications designed to simplify and reduce the costs of compliance for smallholders following discussions with the GLOBALGAP African Smallholder Observer in January 2008. Nine of these changes relate to specific control points in the CPCC modules. One relates to the general regulations for certification under Option 2 and the remainder is a more general suggestion to base the level of control more closely on risk assessment. In this section we present the options mostly in the order that they appear in the CPCC modules of GLOBALGAP version 3.0-Sept 07. The all farm, crop base and fruit and vegetable modules are denoted by AF, CB & FV respectively.

3.1 Using risk assessment to set the level of control

The GLOBALGAP family of standards offers a modern approach for proactive management and control of potential risks in the primary production of agricultural products. Under Version 3 of the standard, fruit and vegetable producers must prepare six different risk assessments, including:

- new agricultural sites (AF2.2.1);
- safe working conditions (AF3.1.1);
- safety of organic fertilisers (CB5.6.2);
- irrigation water (CB6.3.2);
- hygiene risk analysis – harvesting (FV4.1.1); and
- hygiene risk analysis for post-harvest handling (FV5.1.1).

These individual risk analyses are linked to various other control points and serve a useful purpose, but they do not affect the overall operation of the standard in terms of level of control. Version 3 of GLOBALGAP applies a uniform level of control,

regardless of crop type, production practices or risk levels. Thus growers involved in low risk production have the same requirements as high-risk growers. This is unfair for low risk operations, which have to cope with a much higher level of control and expense than is really necessary to manage the possible risks on their farms.

The operation of GLOBALGAP could be greatly improved if the level of control applied to individual growers or grower groups was directly related to actual risks present on the farm. Under this system low-risk crops and low-risk practices would be subject to a much lower level of control than high-risk operations. Retailers often perceive smallholders as potentially high-risk operators, but this perception is not supported by the evidence in most cases. In practice many smallholder production systems represent a lower risk for most aspects of the production process and these risks can be managed effectively via a management system such as Option 2 of GLOBALGAP. Examples of reduced risks on small-scale farms when compared to large-scale operations include the absence of complex machinery and the fact that most smallholders have access to only a limited range of chemicals and only store very small volumes on farm.

We therefore suggest that studies are carried out to place crops into a series of risk categories, and to develop a more detailed understanding of the level of risk associated with different production practices, with special reference to ways to reduce risks. Detailed categorisation should be based on studies of the real levels of risks and approaches for risk management, but the following is a rough outline of the types of category that might be used:

1. *Category 1 (HIGH RISK)*: Crops that are often eaten raw, have no protective outer skin that the consumer can remove before eating, often grow close to the ground, and with a documented history of biological or chemical contamination representing a risk to health. Examples of Category 1 crops include salad leaves, vegetable leaves that are eaten raw, fresh and frozen herbs and salad onions.

2. *Category 2 (MEDIUM RISK):* Crops that are often eaten raw, may lack a protective skin that the customer removes before eating or have some risk or history of biological or chemical contamination. Examples of Category 2 crops include baby corn, beetroot, broccoli, cabbage, carrot, capsicum, cauliflower, celery, courgette, cucumber, mange tout, melon, mushroom, pea, radish, raspberry, strawberry, sugar-snap pea and tomato.

3. *Category 3 (LOW RISK):* Crops that are often eaten raw, have a protective skin that the customer removes before eating, grow well clear of the ground or have no significant history of biological or chemical contamination. Examples of Category 3 crops include apple, apricot, avocado, banana, blueberry, broad bean, citrus fruits, cherry, garlic, grapes, green beans, kiwifruit, lychee, mango, nectarine, onion (white & red), papaya, passion fruit, pear, peach, plum, peanut, pineapple, sweetcorn & tree nuts.

4. *Category 4 (VERY LOW RISK):* Crops that the customer will almost ***always*** cook.[3] Examples of Category 4 crops include artichoke, aubergine, Brussels sprout, runner bean, leek, marrow, parsnip, potato, pumpkin, rhubarb, squash, swede, sweet potato & turnip.

These risk categories are based on widely available knowledge and would need to be refined for practical use. Risk factors associated with production practices should also be included as these could raise or lower the level of risk associated with a particular crop. Most of the current GLOBALGAP risk assessments would fit into the system outlined above as this deals with managing food safety risks. The assessment of risks to worker health and safety would be kept separate and used to determine the level of control required in the section of the standard dealing with issues of worker welfare.

It would be highly desirable to develop tools for a more integrated risk assessment process combining the existing requirements for risk assessments. These tools should be designed to deliver a more practical assessment of risks on farm that would allow levels of control to be adjusted to match the level of risk. Reductions in the level of control would be allowed for low-risk operations and increased for the highest levels of risk.

Adopting a more risk-based approach to management and control would make compliance easier for growers falling into the lower risk categories by reducing production costs without compromising food safety or integrity. External audits would be simpler and shorter, thus reducing costs further. This approach would also enhance evidence of food safety as the risk assessment basis of the standard would be much stronger. Integrity would be improved by rooting the standard more firmly in the principles of science-based risk assessment.

Such an approach would also bring GLOBALGAP more into line with international and EU food law. Article 5 of the Sanitary and Phytosanitary (SPS) Agreement administered by the World Trade Organization, for example, states that SPS measures must be based on scientific assessments of risks to human, animal and plant health using risk assessment techniques developed by relevant international organisations (Codex Alimentarius Commission). Scientific evidence for risk assessment should take account of relevant processes, production methods and prevalence of specific hazards to health. Article 6 of the EU General Food Law (EC/178/2002) states that EU food law shall be based on risk analysis, and risk assessments shall be based on available scientific evidence undertaken in an independent objective and transparent manner.

This might not be considered as directly relevant as private voluntary standards such as GLOBALGAP are not within the direct scope or control of either the SPS & TBT agreements administered by the WTO or the EU harmonised regulatory framework of food law. However, it would strengthen the international credibility and recognition of control measures applied under the standard and reduce criticism of the standard by governments and stakeholders who consider GLOBALGAP and other private

[3] A few people will eat some of the Category 4 products raw, for example recipes can be found for Brussels sprout salads, but this is not normal practice for the vast majority of consumers.

voluntary standards to be deliberate attempts to create unfair barriers to trade aimed at producers in developing countries.

3.2 Matching first aid training requirements to farm context

Control Point	Compliance Criteria
AF3.2.4 (Minor) Is there always an appropriate number of persons (at least one person) trained in first aid present on each farm whenever on farm activities are being carried out?	There is always at least one person trained in first aid (within the last 5 years) present on the farm whenever on farm activities are being carried out.

This CP is appropriate for isolated farm units, but often SSGs are grouped together on irrigation schemes or in communities with many farm sites and homesteads clustered together. In these cases costs could be saved by allowing groups to share first aiders as long as certain criteria are met.

The level of first aid provision should be related to a risk assessment of worker health and safety on farm and to the farm's geographical circumstances. For most SSG farms the health and safety risks are much lower than on large commercial farms, which have more electrical hazards and complex machinery. Requirements for training should be based on potential risks of accidents and production practices and equipment used on farm. Full-time five-day first aid courses are expensive and cover many issues that are not needed on SSG farms. Costs could be reduced by specifying training in essential items only, such as crisis management for chemical contamination. This would reduce the length of the course to a half to one whole day. In situations like irrigation schemes, where large numbers of farms are close together, first aiders could be shared to reduce the number of people having to be trained.

There may be some concern that this could compromise worker health and safety standards. But if the depth of training and number of first aiders are clearly related to the likely risks on specific farms there should not be a significant risk of undermining worker health and safety.

Making these modifications to the requirements for trained first aiders will therefore not compromise the integrity of the standard or safety of the product delivered to the customer.

3.3 Matching first aid kits requirements to farm context

Control Point	Compliance Criteria
AF3.3.4 (Minor) Are first aid kits present at all permanent sites and in the vicinity of field work?	Complete and maintained first aid kits according to national regulations and recommendations must be available and accessible at all permanent sites and available for transport to the vicinity of the work

Full first aid kits are a significant cost for SSGs costing from £8-£10 per kit. Where farms are assessed to be low risk (discussed in Section 3.2 above), they should be allowed a more basic first aid kit with a unit cost of ~£2. Full kits could be held at the group's produce collection centre. For irrigation schemes where many produce sites

are clustered closely together it should be possible to have shared facilities with full first aid kits located at designated points within the scheme.

It should also be recognised that much of the first aid on farm depends more on good practice than on the availability of first aid equipment. For example, the immediate treatment for chemical contamination should be to rinse with water and remove contaminated clothing. Serious cuts should be treated with a combination of pressure and elevation to reduce bleeding, rather than relying on sticking plasters that are only appropriate for small wounds.

Thus, relating requirements for first aid kits to the likely hazards on specific farms could reduce the costs of compliance considerably. These changes will not compromise the integrity of the standard or the safety of the produce delivered to the customer.

3.4 Clarifying training levels for basic personal and food hygiene

Control Point	Compliance Criteria
AF3.2.6 (Minor) Have all persons working on the farm received basic hygiene training according to the hygiene instructions in AF3.2.5?	Both written and verbal training are given as an induction training course for hygiene. ***Training is provided by qualified people.***

The compliance criteria refer to training by qualified people; clarification is needed about the level of qualification required. This also implies the need to bring in external agencies, rather than using trained farm personnel, to provide frequent refresher training for workers. Although this is not clearly stated in the wording of the control point, some stakeholders commented that auditors have refused to accept training by company personnel and demanded that all training is provided by qualified personnel from properly accredited training institutes. This is despite the fact that the level of accreditation for training institutes in some countries falls far short of EU requirements.

Ensuring competence of personnel involved in training is important. GLOBALGAP needs to be clearer about the qualifications for people involved in basic hygiene training. However, requiring that training is only given by approved institutes would be counterproductive and would also increase compliance costs. It would be sufficient for trainers of trainers to have appropriate technical certificates provided by accredited institutes without necessarily being employees of an accredited institute. Training on farm should still be encouraged and should involve highly visual short discussion sessions for farmers or farm workers. They should be conducted by trained growers or farm managers, and repeated often to reinforce training messages. Farmers/farm managers involved in such training should hold a certificate to show that they have completed a trainer of trainers' course for basic hygiene training. This should be based on a hybrid version of the curriculum content found in UK NVQ level 1 to level 2 courses in food hygiene. The short sessions provided to farm workers would be of a much lower standard than level 1, but would still deliver all the information required for maintaining food safety.

Improving the practical delivery of basic personal and food hygiene training would reduce food safety risks arising on the farm, improve the overall integrity of the

standard and make compliance easier for growers. Improving the provision of farmer to farmer training programmes would reduce training costs as more training could be conducted internally with less reliance on paying fees for training courses run by external agencies.

Improved practical training in basic personal and food hygiene has an added benefit in terms of improved worker welfare as food and personal hygiene messages are taken back to the homestead.

3.5 Allowing traceability back to the group, rather than the farm

Control Point	Compliance Criteria
CB1.1 (Major) Is GLOBALGAP registered product traceable back to and traceable from the registered farm (and other relevant registered areas) where it has been grown?	There is a documented traceability system that allows GLOBALGAP registered product to be traced back to the registered farm, or in a farmer group, to the registered farms of the group and tracked forward to the immediate customer. Harvest information must link a batch to the production records or the farms of specific producers.

Vertical and horizontal traceability to farm or plot level is a cornerstone of good practice and should be made mandatory wherever possible. However, for some SSG schemes the daily volumes of produce delivered by each farm to the produce collection centre are very small (1-2kg in many cases), making full traceability to farm or plot level impractical. This forces exporters to drop the smallest growers as traceability is a major control point and cannot be avoided under the current system.

Instead, where daily volumes from individual farm sites are very low, full traceability could be required back to the collection centre rather than to individual farms. Thus the producer group's collection centre would become the traceability unit (farm), and individual growers would be equivalent to fields or blocks on a large commercial farm. If problems are detected, the whole group pays the price for failure as traceability to grower level is not guaranteed. Thus growers have a strong incentive to ensure that all members follow the rules. Through this system growers would still need to keep full production records so that the manager at the collection site would still have a record of which farmers contributed to the consolidated batch sent to the exporter. In the event of a problem each grower's records would be checked for clues to the origin and cause of the problem. If conclusive evidence can be found the individual grower can be sanctioned, but in cases where the origin of the problem cannot be determined, all farmers who contributed to that batch would have to be sanctioned.

Adjusting the requirement for farm/plot level traceability will not reduce costs, but it would make it more practical for growers with small production areas and low daily volumes of produce to comply with GLOBALGAP. Although it would reduce the level of evidence of food safety in terms of direct traceability to grower level, this need not undermine food safety management as individual growers have a strong incentive for self policing within the group and grower records would still enable the likely origin and cause of a problem to be identified.

The key to making this change successful would be to clearly define the criteria to be fulfilled before dispensations on traceability are allowed. For example, it could apply if most farmers have very small holdings (0.1-0.5ha) and grow low volume crops, such as peas, which require consolidation to produce an exportable lot.

3.6 Amending the efficiency of irrigation requirements

Control Point	Compliance Criteria
CB6.2.1 (Minor) Can the producer justify the method of irrigation used in light of water conservation?	The idea is to avoid wasting water. The ***irrigation system used is the most efficient available*** for the crop and accepted as such within good agricultural practice.

The difficulty presented by this control point is that many SSGs cannot afford the most efficient irrigation systems (which are generally surface or embedded drip feed systems). Smallholders who have installed drip feed systems often then lack the necessary resources to pay for spare parts such as replacement filters and other fittings.

Irrigation system requirements need to take account of the grower's financial and technical capacity to cope with complex and expensive systems. The wording of CB6.2.1 could be changed to allow an SSG to be compliant if they use the most efficient system *that the farm can afford to purchase and operate*, rather than the most efficient available. However, this rule should not apply where the risk assessment for crop type and irrigation practice suggests an unacceptable food safety risk. For example, overhead irrigation of salad crops would not be allowed even though this might be the most affordable option for the grower. In this example biological risks are significantly increased as the edible parts of the crop are exposed to irrigation water which cannot be guaranteed to always be potable. In these cases the grower would either have to adopt a safe system for irrigation or withdraw from the GLOBALGAP scheme.

Allowing flexibility to use affordable irrigation systems would make compliance easier and avoid some growers being excluded simply on the grounds of not being able to afford the most modern and efficient irrigation systems.

3.7 Amending the requirement for pesticide residue checks

Control Point	Compliance Criteria
CB8.6.2 (Major) Is the producer or producer's customer able to provide current, either of annual (or more frequent), residue testing or of participation in a third party plant protection product residue monitoring system ***which is traceable to the production location*** and that covers the plant protection products applied to the crop/product?	Current documented evidence or records are available either of annual plant protection product residue analysis results for the GLOBALGAP registered product crops, or of participation in a third party ***plant protection produce residue monitoring system which is traceable to the farm.***

The wording of CB8.6.2 implies that every producer must provide evidence of at least an annual maximum residue limit (MRL) test. Given the large numbers of SSGs in many schemes, and the high cost of residue analysis, this can become prohibitively expensive. Each sample costs between GBP80-150 (EUR105-197), which is a very high cost for growers with annual incomes from exports only

measured in hundreds of pounds. For exporters with large SSG schemes involving hundreds of growers, the costs of hundreds of residue tests may prove too high. This is equivalent to asking a large commercial grower under Option 1 to provide an MRL test for every field or block on his farm.

The high cost of MRL testing is the main reason for individual growers withdrawing from GLOBALGAP and the main reason given by exporters for reducing the numbers of smallholders in their procurement programmes.

We should ask how useful an increased level of residue testing is. Modern food safety management emphasises management and control through systems like GLOBALGAP, rather than the old approach of end product testing. Testing for pesticide MRLs should be used for verification purposes and must reflect the level of risk associated with the production system. For SSGs grouped under Option 2, random samples should be taken of produce from a selection of farm sites. The precise number of samples taken should be based on a risk assessment. For example, baby corn is low-risk as its production only involves the possible use of bulldock granules to control stalk borer. Thus it would merit a very low level of sampling. On the other hand, pea cultivation involves several different sprays, raising the risk of problems occurring and thus meriting a greater level of sampling. Spraying management is another variable to consider: centralised spraying by a spray team carries a much lower level of risk than relying on a large number of individual growers to carry out spraying properly.

Reducing the level of MRL testing would reduce costs dramatically, thus making GLOBALGAP compliance much easier for small-scale growers. A cost-benefit analysis we conducted for a large Kenyan exporter with a large smallholder scheme who had done MRL tests for every grower showed that MRL testing accounted for the majority of analytical costs. Laboratory analysis accounted for 17% of establishment costs and 34% of recurring costs for maintenance of certification (laboratory analysis was the biggest single category). Thus, making reductions in this area is of key importance for reducing the costs of compliance.

We should also ask whether reducing MRL testing will reduce the level of evidence of food safety. In a modern risk-based food safety management system the level of sampling should match the level of risk and degree of confidence in the management system. As GLOBALGAP provides a high level of management and control, a reduced level of MRL testing should not have a significant impact on the level of evidence of food safety.

It might be argued that reduced sampling will reduce the integrity of the standard, but this would only be valid if the standard was based on end-product testing. For example under end product testing it would be necessary to take a larger number of samples and to ensure that every farm site was included in the sampling plan as the test results are the only measure of safety. In contrast under modern food safety management systems a smaller number of tests is required to verify that the management system is working as these need not include all production sites. In a modern risk-based food safety management system, integrity will be maintained if the sampling procedure matches the identified level of risk, and the management

system (standard) and auditing procedure is well designed so as to identify and prevent practices that increase the risk of an MRL violation.

3.8 Reducing the costs of building pesticide stores

Control Point	Compliance Criteria
CB8.7.2 (Minor) Are plant protection products (PPP) stored in a location that is sound?	The plant protection product storage facilities are ***built*** in a manner which is structurally sound and robust.

Constructing purpose built PPP stores is a major expense for SSGs. Building a simple PPP store with a wooden door that is not fire resistant accounts for about 37% of a farm's infrastructural costs. For many smallholders the cost of the PPP store is equivalent to 5-10% or more of the annual farm's income from export produce and this cost is normally borne by the grower without external support. In Kenya, growers reported taking loans for building PPP stores and field toilets (see Section 3.10 below) that took two to three years to pay off.

One option for reducing the cost of PPP stores is to construct shared facilities. This works well if the central system is well managed and controlled, but is not appropriate for widely scattered farms or groups with low levels of management. Given the small volumes of PPP held by SSGs (typically 1-5 litres of concentrates and a maximum of 25kg of powder), it ought to be feasible to allow individual growers to use simple lockable metal cabinets with non absorbent shelving (with upturned edges to contain spillage) for PPP storage. Metal trunks packed with chemicals with no shelves or dividers would not be acceptable as chemical separation cannot be guaranteed under these conditions. If small cabinets are approved it will be important to specify where the PPP cabinet can be situated to avoid having it in the same room as produce, fertilisers or harvesting equipment, or within the household. If a suitable location is not available the grower would have to construct a separate store.

Adapting the specifications for the PPP store to SSGs would make compliance easier. There should be no adverse impact on food safety as long as care is taken to avoid locating PPP cabinets in places where chemicals could come into contact with fresh produce, equipment or containers used for harvesting or handling produce.

3.9 Reducing the need for fire resistant pesticide stores on every farm

Control Point	Compliance Criteria
CB8.7.5 (Minor) Are plant protection products stored in a location that is fire resistant?	The plant protection product storage facilities are built of materials that are fire resistant (Minimum requirement RF30, i.e. 30 minutes resistance to fire). No N/A

RF30[4] fire resistant building materials are expensive and this puts a large burden on SSGs who have already invested heavily in constructing simple stores with wooden doors (see Section 3.8 above). The RF30 fire resistance requirement is appropriate for large commercial farms where large volumes of PPP are stored, and would also

[4] RF30 = fire resistant for 30 minutes.

be appropriate for centralised storage facilities holding chemicals for large numbers of SSGs. But given the small volumes of chemicals normally held by SSGs, we must ask whether RF30 materials, such as such as metal-lined doors, are really necessary for smallholders.

Instead we suggest that the requirement for RF30 materials is dependent on volumes of chemicals held in store. Thus CB8.7.5 would not apply to individual SSGs. This measure should not have an adverse impact on worker welfare because the volumes of PPP are too low to represent a significant risk of fire and there are minimal ignition risks in smallholder PPP stores.

3.10 Clarifying field toilet requirements

Control Point	Compliance Criteria
Do harvest workers have access to clean toilets in the vicinity of their work?	Fixed or mobile toilets (including pit latrines) ***constructed of materials that are easy to clean and with catch basins designed to prevent contamination*** in the field are available to harvest workers within 500m and they are in a good state of hygiene.

Building high quality latrine blocks is the largest infrastructural cost of compliance for farmers, accounting for 62% of their infrastructural costs. This could be dramatically reduced by building simple longdrops. For these, the main outlay is for one or two bags of cement to make the footplate;[5] the rest can be made from locally available materials such as mud, thatch and wattle. This type of toilet has been accepted by some auditors, but others have deemed them unacceptable as they are not made from "easy to clean materials". However, while longdrop toilets may not look easy to clean in the European sense, they can still be maintained in a hygienic manner by covering over the entry hole to keep flies out of the catchment basin and using disinfectant to clean the footplate. Other hygiene measures include annual maintenance and locating them away from water sources and downhill from production areas. In addition a simple hand washing area with running water (leaky tin type is the cheapest option) and unscented soap should be provided for workers to wash their hands after using the toilet.

Clarifying the compliance criteria to allow the above building style and hygiene measures could represent a significant saving for small growers, who usually have to meet the full cost of construction without support from the exporter or other external agency. The criteria could be accompanied by clear descriptions, preferably with illustrations, of acceptable designs so as to avoid confusion among auditors and growers about what is acceptable to GLOBALGAP.

Depending on the type of materials used and their availability, an estimated saving of 60-80% could be made over building expensive permanent toilet blocks with cement or brick walls and an iron sheet roof. Low cost toilets should not compromise the integrity of the standard or maintenance of personal hygiene and food safety as long as these procedures are followed.

[5] Some growers have replaced the cement platform with a wooden platform made from termite-resistant logs.

3.11 Reducing frequency and depth of external inspections in some cases

Annual external certification audits represent only 1-2% of the overall costs of implementing and maintaining GLOBALGAP for groups of Option 2 smallholders. However, the cost per individual farmer can be significant when compared to their annual income from exports. Many farmers and exporters have asked why the audit frequency cannot be reduced to every two years if growers demonstrate a consistently high standard of compliance two or three years in succession.

External audits for certification under Option 2 of GLOBALGAP can prove costly for SSG schemes as they can take several days to complete (depending on the number of growers in the scheme and number of farm site inspections required). If the standard was upgraded to take better account of risk assessment in determining the level of control (see Section 3.1), it should be possible to reduce either the frequency of inspections to two years (instead of annually) or the number of farm sites inspected (currently take the square root (√) of the total number of growers or more at the discretion of the certifying body) in cases where certain criteria had been fulfilled. Reduced inspection could be conditional on successful completion of two consecutive annual audits and only be available to lower risk production categories and where there had been no complaints of violations of food safety criteria over the two year qualifying period.

If the system was more closely matched to such a risk assessment, low risk categories could benefit from reduced frequency or depth of audit. However, the converse would naturally apply to high-risk categories, which could expect more in-depth audits and much less potential for reducing audit frequency or depth. The new system would require clear guidelines for relating risk to audit requirements. This would avoid growers feeling that a certifying body's decision to increase the depth of the audit was based on rent-seeking, rather than a genuine assessment of risk. For these reasons too, an independent group of experts should be appointed to mediate in the event of disputes.

Reduced audit frequency and/or reductions in the number of farm site inspections during an Option 2 audit would increase the risk of the integrity of the standard being compromised. However, this would be counteracted by the incentive that growers would have to achieve and maintain a good track record of compliance to reduce certification costs.

If reductions in numbers of farm site inspections were accepted this would reduce the duration and hence cost of the external certification audit.

4. How would these changes benefit small-scale growers?

To give an idea of the potential scale of savings involved in the changes to GLOBALGAP proposed above, we have compared the before and after situation for a hypothetical group of Kenyan smallholders growing fine beans for export to the EU. While the group is hypothetical, the data have been derived from cost-benefit analyses of real groups in Kenya obtained in 2006. A summary of the basic information on the hypothetical farmers' scheme is provided in Table 4.1. In practice this information would form part of a more detailed risk assessment.

It is difficult to produce accurate figures without more detailed investigation as many of the cost savings depend on risk assessments and the management of GLOBALGAP accepting lower cost versions of field toilets and pesticide stores. The exact savings will vary according to the level of risk associated with production and the approach taken to dealing with some of the compliance criteria. For example, centralising pesticide storage and spray operators at produce collection centres offers direct financial savings and also reduces risk. However, this option would not be suitable in all cases.

Table 4.1 Profile of a hypothetical Kenyan smallholder scheme growing fine beans for export to supermarkets in the EU

Number of growers	750
Number of collection centres	60
QMS system for Option 2	1 (operated by the exporter)
Crop grown	Fine beans
Total productive area of the farm	~1.0 hectare
Area planted with export crops	0.01 hectare
Number of plantings per annum	12
Annual net average income per grower from export crops	GBP500
Irrigation	Ground level channels using water from boreholes in every case, no overhead
Pesticide storage	On farm
Quantity of pesticide kept on farm	A maximum of 3-5 litres of liquids & 25kg of powder or granular formulations
Who is responsible for selection of pesticides?	Exporter
Who is responsible for purchase of pesticides?	Purchased in bulk by exporter and sold on to grower
Who is responsible for maintenance & calibration of sprayers?	Exporter
Who is responsible for crop scouting?	Grower, with results confirmed by exporter
Who is responsible for authorising spraying?	Exporter
Who is responsible for pesticide spraying?	Grower
Who is responsible for ensuring compliance with re-entry period (REP)?	Grower – places red marker flags in field; staff trained not to enter marked fields
Who is responsible for ensuring correct pre-harvest interval (PHI)?	Grower keeps records, copies of records kept at collection centre, exporter checks harvest dates against spray record to ensure compliance with PHI

For this hypothetical scheme, implementing GLOBALGAP version3.0-Sep 07 (Option 2) for 750 smallholders organised into 60 groups would cost GBP 1,259,418 in the first year. In subsequent years continued compliance would cost GBP 989,487 per annum, giving a total cost over five years of GBP 5,217,286. This works out at GBP 1,679 per grower in year one, and GBP 1,319 in subsequent years. These costs are too high for individual growers to afford, but in reality the exporter would meet much of them, bringing the price of compliance down to a more affordable GBP 435 for individual growers in year one and GBP 101 in subsequent years. In practice the initial costs of GBP 435 would be paid for via soft loans from the export company repayable over two to three years.

If GLOBALGAP was modified as per our suggestions in Chapter 3, costs would be reduced (Table 4.2), although the exact level of reduction would depend on a detailed risk assessment. Implementation costs in year 1 would be reduced by GBP 241,425 to GBP 1,017,993; an overall reduction of 20% over the current version of GLOBALGAP. The total cost per individual grower would be GBP 1,357 but ***in practice the grower contribution would be GBP 180,492 which equates to GBP 241 per grower for the initial investment. This is a 45% reduction when compared to the individual cost of GBP435 per grower for the current version of GLOBALGAP.***

In subsequent years the individual cost per grower would vary from GBP 105 to 111 per grower. Maintenance costs would be slightly increased due to the need to maintain the thatch surrounding the field and collection centre toilets. Overall auditing costs would be reduced, as external audits would only be conducted in years 1, 2 and 4 of a 5-year period, and the number of field visits would be halved for later audits if an exemplary compliance record had been maintained.

Over a five-year period overall costs would be 11% lower (a saving of GBP 578,395 over five years) for the smallholder friendly version of GLOBALGAP when compared to the conventional version. These costs might be further reduced if the detailed risk assessment indicated there was potential for a reduced level of management and control. However, there are limits to the level of cost reductions as many of the most significant ongoing costs (such as outgrower management and operational costs) are inherent in ensuring management and control of the system and procurement of produce from smallholder groups in remote locations. These costs are unlikely to be amenable to further reduction.

In some cases these changes would require considerable work prior to implementation. For example, it might take six months to prepare the necessary case studies and tools for future risk assessment activities. For this reason it is intended that these proposals for change be submitted to the GLOBALGAP taskforce and other interested parties for further consideration and possible action.

Table 4.2 Summary of cost savings in year 1 from adopting a smallholder friendly version of GLOBALGAP for 750 growers in 60 groups

GLOBALGAP v3.0-Sep07 existing criteria	Cost GBP	Smallholder friendly GLOBALGAP criteria	Cost GBP	Saving GBP
Field & collection centre toilets, concrete base, brick/block walls and iron sheet roof, wooden door, Blair type with ventilation pipe.	120,000	Field & collection centre toilets - concrete platform made from 2 bags of cement with pipe aperture and renewable walls / roof of thatch, walled overlap to ensure privacy, thatch replaced annually.	10,500	109,500
Full first aid kit for every farm site	6,000	Basic first aid materials consisting of plasters to deal with minor cuts at every site, full kits held at each collection centre.	1,500	4,500
Refill for first aid kits on farm	4,800	Replacement of basic materials on every farm site.	1,500	3,300
Pesticide store: brick walls, cement base, bunded entrance, wooden door with lock, metal roof with spaces for ventilation, ~H1.7m / W1.2m & D1.5m.	36,000	Metal box with lock, wall mounted, coated with fire resistant paint, having two shelves with upturned edges to contain spillage, and ventilation holes at top & bottom, minimum capacity 3-5 litres of fluids and 25kg of powders. Box located in outbuilding away from house, produce, fertiliser, harvesting equipment and protective clothing.	7,800	28,200
Silsoe type incinerator for disposal of empty pesticide containers at every farm site.	9,000	Silsoe type incinerator for disposal of empty pesticide containers at each produce collection centre.	720	8,280
First aid training for every farmer based on 30 courses, with 25 participants for each course (based on figures from Kenyan Red Cross).	1,100	First aid training for two persons at each depot so as to provide 120 trained first aiders for 750 growers.	220	880
Pesticide MRL analysis - 1 test per farm site on an annual basis (MRL cost was taken from a real example, but note that costs varied widely — from GBP80-150 per sample — for different schemes in Kenya according to who was doing the analysis)	88,200	A risk assessment of this scheme showed a relatively low risk crop no history of MRL violations and good control of pesticides by grower and exporter. On this basis random sampling of the √ of the total number of growers is recommended (√750 = 27 samples). If violations are detected this could be increased to 1 in 10 growers.	3,175	85,025
Analysis of microbiological quality of irrigation water for every farm site on an annual basis.	1,875	Risk assessment showed a relatively low-risk crop with no history of biological contamination, a low-risk irrigation technique and no washing of produce prior to delivery to the exporter. On this basis random sampling of the √ of the total number of growers is recommended (√750 = 27 samples) twice yearly to cover dry and rainy seasons giving a total of 54 samples per year.	135	1,740

5. Conclusions

5.1 Can GLOBALGAP be made simpler and less costly?

Our detailed assessment of Version 3 of the GLOBALGAP standard shows that most control points and compliance criteria are entirely reasonable, even though they might not be easily implemented by small-scale growers in sub-Saharan Africa. However, we have identified some areas where adjustments could be made that would significantly reduce costs of compliance or complexity of the standard for small-scale growers. It is interesting to note that many of our suggested modifications were also suggested and supported by key stakeholders in Kenya (see Annex 1).

One of the most important adjustments would be to reduce the level of pesticide residue testing to sensible levels and relate sampling to evidence-based risk assessments. This is very important, as overly-demanding levels of residue testing are the biggest factor in excluding smallholders from GLOBALGAP-compliant procurement schemes.

These changes could be made in most cases without compromising the integrity of the standard. In some cases, such as allowing for group level traceability, reduced pesticide analysis and reduced frequency of external audits, the integrity of the existing standard could be undermined. However, this risk could be eliminated by relating the level of control more closely to proper evidence-based assessments of the risks present on farm for different crop types and production practices. Thus, the level of control could be reduced for lower risk crops and farming operations. This would be beneficial for most smallholders in sub-Saharan Africa, as most of their crops and production practices would fall into the lower risk categories.

5.2 Will these changes be enough to make GLOBALGAP truly smallholder friendly?

It must be said that even with the suggested modifications, GLOBALGAP Option 2 would still be too complex to be fully implemented by most groups of smallholders in sub-Saharan Africa without support from a well resourced exporter. For the standard to be simple enough to meet the needs of SSG groups who lack external support, the QMS system, risk assessments and some of the training requirements for the internal farm inspector and auditor would have to be completely removed. These changes would be unacceptable for the standards owners as they would seriously undermine the integrity of the standard.

The key requirement for successful implementation of GLOBALGAP by most SSG groups will therefore always be access to a high level of support from their exporter. In a few cases, where the SSGs have more resources (such as the LACCU farmers' organisation in Zambia), are well organised and have the will to invest collectively in the necessary management systems, it might be possible for them to manage the entire process with little support from the exporter. In addition to working closely with a well resourced exporter, growers need a high level of organisation, commitment and a fairly high level of education to ensure success. Work by NRI in six sub-

Saharan African countries highlighted many examples of problems and failings in farmer groups that were unrelated to the content or cost of GLOBALGAP.

If support for smallholders is to be continued in the future it should be channelled through the export companies with the aim of supporting the development of sustainable partnerships in export horticulture. This approach is already being used by some organisations, most notably the admirable work of the EU-funded Pesticide Initiative Programme. However, some donors and implementing agencies make the mistake of taking a supply driven approach by trying to work with smallholders independently of export companies and in some cases have created producer groups with the hope of linking the group to a market at a later date. This is an error as there is no guarantee that the group will gain access to a market and there is a high level of risk of the smallholders' investments in GLOBALGAP going to waste.

5.3 How are the suggested changes being taken forwards within the GLOBALGAP system?

The contents of this report might be seen as an interesting academic exercise, but this was never our intention. We believe that the best way to present our findings was via the GLOBALGAP Smallholder Taskforce (NRI has been a member since its inception in October 2007) which was convened under the auspices of the GLOBALGAP African Smallholder Observer Project. This route was seen as appropriate as the taskforce has a direct link with retailer thinking via the Sector Committees and includes members from the retail and food industries. In January 2008, a meeting was held with the GLOBALGAP African Observer to discuss ways to make GLOBALGAP more smallholder friendly and to assist in development of a call for proposals for change to GLOBALGAP.

The African Observer Project call was made on 25/2/08 with a deadline of 31/3/08. The contents of this report were re-structured to form 11 proposals for change which were submitted as part of the African Observer call on 26/3/08. Since that time these proposals have been through an independent review process and as of 18th June 2008 were ready for presentation to relevant sector committees of GLOBALGAP by the GLOBALGAP African Smallholder Observer. As part of the review process they have already been seen by representatives of the retail industry, but will be subject to detail discussion and final approval by the retailer members of the sector committees of GLOBALGAP.

Annex 1. Feedback from stakeholders

We obtained feedback from over 30 contacts in Kenya and Zambia who are directly involved in export horticulture (exporters, service providers, certifying bodies and project personnel). They answered the following questions by email:

1. Do you think the new Version 3 of GLOBALGAP is easier or harder for small farmers to comply with than Version 2? Please outline your reasons.
2. Are there any ways GLOBALGAP could be made easier or less costly without making produce less safe?
3. Do the GLOBALGAP auditors sometimes interpret any of the control points more strictly than necessary?

The responses received from Kenya by 20/3/08 are summarised below. The single response received from Zambia is shown separately.

Question 1: Do you think the new version 3 of GLOBALGAP is easier or harder for small farmers than version 2

It's **harder** in terms of cost of compliance, implementation and maintenance. The infrastructure requirement, documentation, training can not be met by a farmer without some substantial capital.

For small-scale farmers the costs are significantly higher than the income obtained from farming; hence the investments involved only make economic sense to medium and large scale farmers.

An uneducated farmer will find it difficult to meet the requirements of GLOBALGAP without employing a manager, which further increases costs.

Version 3 contains 236 control points, of which majority are major and minor must making it hard for the small farmer to achieve 100% applicable major must and 95% minor must.

Training of all workers on health and safety will be an added cost to the small farmer; also most workers are seasonal/casual.

It applies to the whole farm, regardless of whether the farm is based on horticulture, agronomy or animal husbandry.

The main challenge is in applying QMS. There are two main issues: internal auditor qualification and unannounced audits. These two requirements far exceed what should be sufficient for smallholder farmers.

GLOBALGAP has adopted definitions for Option 1 for smallholders. This was done so as to avoid conflicts with some of the trials being conducted on African smallholders by some certifying bodies/donors, but on the ground the approach is impractical and is not working. Theoretically it's explainable, but that's all.

The all farm base, crop base, and fruit and vegetables checklists create additional work, which translates into additional costs. More time is also needed to print and use the three documents during an inspection.

The more structured new version is more difficult (for smallholders) to interpret.

One respondent commented that Version 3 had become easier and more direct by separating the crops and farm-based modules, but harder because:

1) Requirements for trained first aid staff are more stringent
2) Majors and minors not as clearly highlighted (distinguished) as in Version 2

Are there any ways Global GAP could be made easier or less costly without making produce less safe?

Yes it could be made easier by:

Having essential clauses within the standard (which do not change as the rest of the requirements are being continually improved)

Reducing the fees paid for registration and certificates and reducing the charges paid by the certification bodies which translate to high audit costs

Reviewing the compliance level of clauses which do not have adverse effects on food safety and downgrading them to recommendations, e.g. CB 7.2, 7.3, 7.4 & AF 3.2.3

Reviewing the GLOBALGAP certificate validity to become three years. However, annual surveillance audits could still be done for major musts, to check compliance. This would reduce the audit man-hours and hence also influence the cost.

Reducing the requirement for annual third party audits. These could be every three years with more customer visits, residue analyses etc in between. Supermarkets could pay for the in-between visits by customers.

Revising the compliance criteria for first aid staff. In Kenya only three institutions can offer first aid training: St John's ambulance, the Red Cross and Ministry of Health.

Accepting experience as compliance – e.g. retired doctors, nurses, or army personnel surely qualify as a first aider on a farm.

Colour coding the compliance criteria – major, minor and recommendations, for easier identification when auditing.

Reducing and merging some records – e.g. pesticide application can have one block history

Settling first on the horticultural sites and giving time to rectify the other "departments/sections" if no direct linkage exists.

Ensuring environmental regulations are entrenched and followed as a matter of urgency. NEMA (in Kenya) needs some practical edge to muster self discipline among farmers

Adapting the standard to smallholder issues, for example emphasising contractual respect and adherence without applying complex QMS/ISO 9000 to farming at such small scales. These two issues will not change the status of food safety levels of smallholders; they just make it harder to get farmers to comply or to sustain compliance. In Kenya, lack of food safety alerts from the retailers in the UK, for example, mean that this is not an issue.

Funding agencies need to continue to help growers directly – e.g. providing hands-on training in integrated pest management.

Other points

CB. 8.6.2: the cost of MRL testing is high for a small-scale farmer because ISO 17025-approved laboratories are in developed countries. The farmer has to send samples to these countries for analysis.

The stakeholders and government need to come up with a system of supporting in the form of funds or any other means to meet the GLOBALGAP implementation and certification costs.

Do the GLOBALGAP auditors sometimes interpret any of the control points more strictly than necessary?

Yes

The requirement for the chemical store to be fire resistant (CB 8.7.5) is subject to different interpretations. Some auditors declare stores with wooden doors, rafters or ceiling as not conforming.

CB8.1.6/7: qualification and competence of the person advising on crop protection products is badly-defined and subject to individual interpretation.

Legal requirements, for example farmer group registration, are not well understood.

There is complete confusion over who qualifies for Option 1 or Option 2.

AF 3.2.3: Auditors request training materials e.g. training programme or manuals to prove health & safety trainer's competence and for approval of the trainer by relevant authorities.

CB 6.2.1: Auditors request a report or research comparing different irrigation system in terms of water quantity vis a vis produce production and depletion from the source to justify why the farmer is using a certain irrigation system.

All pesticide containers need to be disposed by a licensed agent as "local"/on-farm disposal is wanting and often illegal.

Only basis qualified persons should give advice on plant protection products.

There is no agreed interpretation guide or indicators that can guide auditors. Some European countries have developed internal interpretation guidelines, but these are not agreed amongst certifying bodies and auditors. The best example of a standard that has done its best to avoid this is the Rainforest Alliance standard, which has indicators for compliance requirement and has gone further and developed local indicators for smallholders in different situations in Africa.

There is a huge difference in interpretation of the standard by different auditors. For example, one auditor might require a proper store for 35ml of bifenthrin, while another (more sensibly) accepts a strong box. The three different components of the new standard are not always equally strictly audited, with fruit and vegetables being interpreted more strictly than all farm, or *vice versa*.

A representative from a certifying body pointed out that it is often difficult to get clarifications from the management of GLOBALGAP; as a result auditors go for a very strict interpretation to avoid possible criticism that they are certifying non-compliant farms.

Feedback from Zambia received by 20-3-08

1. Do you think the new Version 3 of GLOBALGAP is easier or harder for small farmers than Version 2. Please outline your reasons.

About the same □ Easier □ More difficult

Reasons:

- The number of items to be complied with has increased; this is time consuming.
- The splitting of the standard into All Farms, Crop Base and Fruit & Veg has made the standard more confusing. Some compliance levels contradict each other e.g. FV 3.1.2 versus CB 6.3.5 (minor must or recommendation?).

- Most small-scale farmers have a storage room for produce before dispatch to the main pack hall. I feel the version should be restricted to issues that will help farmers comply or two thirds of the checklist will have Non-Applicable. This can affect the final score for the audit.

2. Are there any ways GLOBALGAP could be made easier or less costly without making produce less safe? Please list three suggestions
(a) The number of questions can be reduced by removing the NAs. With fumigation chemicals being banned, and substrates not being used in most of the Fruit & Veg growers, I feel these sections can also be removed.

(b) Revert to the system of one checklist for FV, Dairy etc, incorporating everything that is expected within the particular mode of production. It sets the mind clear and reduces audit time.

(c) Since recommendations do not attract penalties, it is better to leave them out. Consider major and minor musts.

3. Do the GLOBALGAP auditors sometimes interpret any of the control points more strictly than necessary? Please give two examples.

No

Annex 2. References

Cooper, J. and Graffham, A. (2007) EurepGAP revisions 2007-2008: Implications of version 3 for small-scale exporters of fresh fruits and vegetables in East Africa. *Fresh Insights 14*, available at www.agrifoodstandards.net

Graffham, A. (2007) Technical support to PIP in the development of a COLEACP/PIP smallholder network, the standards working group and a strategy to catalogue elements of standards that have a potentially negative impact on smallholders. Report of the Natural Resources Institute for the Pesticide Initiative Programme of COLEACP

Graffham, A., Cooper, J., Wainwright, H. and MacGregor, J. (2007) Small-scale farmers who withdrew from GLOBALGAP, results of a survey in Kenya. *Fresh Insights 15*, available at www.agrifoodstandards.net

Graffham, A., Karehu, E. and MacGregor, J. (2006) Impact of EurepGAP on small-scale vegetable growers in Kenya. *Fresh Insights 6*, available at www.agrifoodstandards.net

Graffham, A. and MacGregor, J. (2006) Impact of EurepGAP on small-scale vegetable growers in Zambia. *Fresh Insights 5*, available at www.agrifoodstandards.net

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