

WORKING PAPER 308

Private Standards, Small Farmers and Donor Policy: EUREPGAP in Kenya

John Humphrey
July 2008

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John Humphrey

Summary

Food safety has moved up the policy agenda in industrialised countries in recent years. Governments have tightened both product and process standards, and businesses have had to respond to ever more stringent public food safety standards and the need to maintain consumer confidence. Private voluntary standards developed by groups of companies are one response to this challenge. Complying with process-based standards and certification at the farm level has become a market access condition for access for some products. Failure to meet these challenges will undermine rural development strategies predicated on expanding agricultural production and introducing high-value products. An analysis of the EUREPGAP standard for horticulture links this standard to the development of European Union food safety regulations. It is also bound up with the management of horticultural value chains that link together and coordinate the activities of producers, exporters, importers and retailers. As a pre-farm gate standard, EUREPGAP creates new challenges not only for farmers, but also for the exporters that play a key role in the horticultural value chains supplying European supermarkets. When some European supermarkets began to insist that Kenyan suppliers be certified, the potential impact on small farmers in Kenya was recognised by numerous development agencies. However, to the extent that their responses focused directly on the problems of small farmers rather than on certification as a value chain coordination issue, some of their interventions were ineffective. The future challenge for donors will be both to understand better how the global food business is organised into value chains that link together dispersed economic agents, and to devise policies and programmes that recognise the possible trade-offs between business vitality and poverty reduction and identify the roles and responsibilities of public and private actors in ways that allow these trade-offs to be overcome.

Keywords: horticulture; trade; private standards; globalisation; small farmers.

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This case study of EUREPGAP in Kenya is one part of a broader project on European Union standards and their impact on producers in developing countries. A second case study has been carried out on shrimp production in Indonesia and Thailand. Field research for this second case study has been carried out by Dias Pradamira at The Center for Eastern Indonesian Studies (Puskit), Universitas Hasanuddin, Makassar, and by Rungroge Kamondetdacha, who is currently studying at the University of Sussex. Pepijn van de Port from the Vrije Universitat in Amsterdam has been a partner in the work on shrimp, and his ideas and insights have greatly informed the analysis of trends in global standards and the links between public and private standards contained in this working paper.

Field research necessarily relies upon the good will of respondents. Trying to get to the bottom of both private voluntary standards and then interventions in Kenya required in-depth interviews with respondents from firms in the horticulture industry, institutions working in agricultural development and donors based in Kenya. In some cases, multiple lengthy interviews were conducted at different points in time, and the author is grateful for their collaboration. Many of these wish to remain anonymous. However, the author wishes to acknowledge the continuous support, encouragement and commentaries provided by Heike Hoeffler of GTZ and Steve Homer of Flamingo UK. Their support has been greatly appreciated.

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Acronyms

ADHEK	Association of Developing Horticultural Exporters of Kenya
BSE	Bovine Spongiform Encephalopathy
BSMDP	Business Services Market Development Programme
CAC	Codex Alimentarius Commission
CB	Certification Body
DFID	Department for International Development, UK
EC	European Commission
EU	European Union
EUREPGAP	Good Agricultural Practice standard developed by Eurep group of firms
FPEAK	Fresh Produce Exporters Association of Kenya
GFSI	Global Food Safety Initiative
GLOBALGAP	The new brand name of EUREPGAP
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit, German technical cooperation agency
GVC	global value chain
HACCP	Hazard analysis and critical control point
HCDA	Horticultural Crops Development Authority, Kenya
ICIPE	International Centre for Insect Physiology and Ecology, Kenya
ISO	International Organization for Standardization
JICA	Japan International Cooperation Agency
KEBS	Kenya Bureau of Standards
KEPHIS	Kenya Plant Health Inspection Services
MRLs	Maximum residue limits (for pesticides)
PMO	Produce Marketing Organization
PIP	Pesticides Initiative Programme
PVS	Private Voluntary Standards
QMS	Quality Management System
SPS	Sanitary and Phytosanitary Standards
SQF	Safe Quality Food
TNC	Tesco Nature's Choice
WTO	World Trade Organization

1 Introduction

Food safety has moved up the agenda in all industrialised countries in recent years, partly as a result of a series of food scandals: dioxins, BSE ('mad cow' disease), pesticide residues, cyclospora contamination in raspberries, salmonella in eggs, contamination of dairy products, etc. These have led to a crisis in consumer confidence that both governments and food companies (producers, manufacturers and retailers) have struggled to address (Jaffee 2005; Caswell and Hooker 1996). In response to these food safety scares, a new global food safety regime has developed.

Global, or international, standards are not new. Compliance with the food safety standards of importing countries has been an issue for food exporters since the nineteenth century. However, this new regime can be distinguished from its forebears by three novelties. First, this new regime is characterised by a shift away from product quality/safety controls in favour of controls on the processes involved in food production and processing. Risk-based quality and safety assurance schemes such as the Hazard Analysis and Critical Control Point (HACCP) approach and the ISO 9000 quality systems are being applied by food chain operators all over the world. Second, the new food safety regime is extending controls to primary agricultural activities, imposing process standards right down to the field or to the aquaculture pond. Third, the new regime increasingly involves both public and private actors as standards setters and enforcers. Whereas governments once claimed all responsibility for food safety in its territory, at present food safety assurance is sought by a complex interplay between public and private actors.

This poses new challenges both for farmers and for actors (processors and exporters) downstream in the value chain. Securing and demonstrating food safety becomes an issue for the whole of the food value chain and for the regulatory processes that contribute to its governance – both public and private. The new approach not only implies that controls operate at different points along the chain, but also that food safety depends upon the integrity of standards being maintained as products move between companies and countries in their journey from farm to fork.

The increasing prevalence of these standards and the way that they are implemented has direct consequences for food production systems in developing countries. First, they have become a condition for access to export markets. Both public and private standards (see below) have become conditions for access to important markets. Public standards have long been criticised for the demands they place on developing country producers and governments. Private standards have now become important enough for the WTO's SPS Committee to discuss whether or not such standards fall within the scope of the SPS agreement (WTO 2007). The report of the Commission for Africa (2005) also highlighted the importance of standards as barriers to trade and potential obstacles to Africa's food exports. Second, even if some (or many) developing countries are able to meet the emerging food standards, one can expect profound distributional consequences from the growth of international food standards. There are widely held concerns about the new standards regime impact on small farmers because

of the capital costs of compliance, increased bureaucracy and the costs of certification itself. Might small farmers be squeezed out of global markets by, in particular, the new wave of private standards? Similarly, some countries might be better able to adjust to the new demands imposed by developed countries. Once again, the report of the Commission for Africa raised the concern that African countries would lose out to competitors from regions such as Latin America if they were not able to adapt to the new standards regime (Commission for Africa 2005: 265–6).

The efficacy of the responses by both public and private actors in developing countries to these challenges will determine which producers and which countries will be able to gain access to developed country markets, and which will become increasingly marginalised. Failure to meet these challenges will undermine rural development strategies that have been predicated on expanding agricultural production, introducing high-value products and tapping into the fast-expanding sectors of global trade. While the potential for diversification is clear, realising it will require effective answers to the challenges posed by the emerging global standards regime.

Food standards are, then, a development issue that concerns both national governments and international development agencies. Policy responses are called for and frequently offered. However, the nature of the new challenges posed by the new food safety regime and philosophy are not well understood. Furthermore, an effective response to these challenges requires cooperation between national governments and development agencies on the one hand, and private sector actors on the other. Making food value chains compliant with the new food safety regime involves governments working with the private sector actors, both large and small, that are responsible for food production. This report focuses on the challenges and on the interactions between state and private sector involved in meeting them.

It focuses particularly on EUREPGAP in Kenya. The introduction of the EUREPGAP private voluntary standard for export horticulture was particularly important for Kenya. Horticultural exports to Europe have been a major contributor to the growth of the rural economy in Kenya since the 1980s, but EUREPGAP created major new challenges, particularly for smallholder horticulture. As a pre-farmgate, process standard, it required substantial changes in farming methods and greatly increased control over farming practices. These concerns increased because of the January 2005 deadline for EUREPGAP compliance, leading to a flurry of initiatives to support small farmer compliance with the new standard. This case study focuses on these initiatives, highlighting both the profound ways in which EUREPGAP affects small farmers and the extent to which these initiatives were based on a good understanding of both the challenges created and the role of the public sector in meeting them.

1.1 Outline and methods

In order to explore these issues, this Working Paper addresses two key areas. First, it examines the development of private standards. The sequence of this analysis moves from the general tendencies in global food safety standards to the

impact of one important standard, EUREPGAP, at farm level in Kenya. It starts, in Section 2, by providing an overview of trends in global food standards. This is followed in Section 3 by an analysis of the development of private voluntary standards in the food industry, which analyses the motivations that lead groups of firms to develop food safety standards and links this process to developments in public food safety regulations. In Section 4, the impact of the introduction of EUREPGAP in Kenya, and in particular its consequences for the organisation of production at farm level, are analysed.

Sections 2–4 identify the challenges posed for small farmers by the introduction of EUREPGAP, but situate this challenge firmly in the context of a horticultural export value chain in which European retailers and importers on the one hand, and Kenyan exporters on the other, operate a complex and integrated food system that is designed to manage (or contain) a range of risks. These risks not only relate to food safety, but also to the reputations and brand images of food retailers.

The second part of the paper focuses on the response of donors to the apparent threat that EUREPGAP posed to small farmers in Kenya. In Section 5, the reasons why donors felt that they had to intervene are outlined, and the broad range of interventions they undertook are analysed. This is followed in Section 6 by an evaluation of donor interventions and the logic that underlay them. It is argued that failures to understand how both the characteristics and organisational implications of EUREPGAP itself, and the way in which the export horticulture sector was organised into a complex and highly coordinated value chain in which exporters played a pivotal role meant that donor interventions were less effective than they might have been.

The research leading to this paper is based predominantly on in-depth interviews with key informants. Some of these were conducted in Germany and the UK, but most were carried out in Kenya. For the exporters, interviews were conducted with 13 managers from six different companies. Nine people connected with donor programmes were interviewed. Six people working as or with service providers were also interviewed. Ten farmers working with one of the independent PMOs were also interviewed. This interview material was complemented by the extensive documentation available on the internet.¹

2 The changing nature of food standards

One driver of the increasing prevalence and stringency of standards in developed countries in recent years has undoubtedly been increasing consumer fears about food and health following a string of well-publicised food scares and the consequent efforts of both governments and the food industry to allay consumer concerns. A non-exhaustive list of these scares is shown in Table 2.1.

¹ See Appendix 1 for more details.

Table 2.1 Examples of major food safety ‘events’ in industrialised countries

Year	Event	Country
1987/1988	Beef hormone scare	Italy/EU
1988	Poultry salmonella outbreak/scandal	UK
1989	Growth regulator (alar) scare for apples	United States
1993	E. coli outbreak in fast-food hamburgers	United States
1996	BSE links to human brain disease	UK
1996/1997	Microbiological contamination, berries	United States, Canada
1995–1997	Avian flu spreads to humans	Hong Kong Special Administrative Region, Taiwan Province of China
1999	Dioxins in animal feed	Belgium
2000	Large-scale food poisoning, dairy	Japan
2001	Contaminated olive oil	Spain

Source: Jaffee (2005: 16).

Food scares not only endanger consumers but also threaten to undermine consumer confidence in the economically and politically important food industries. Food safety authorities have responded by introducing and strengthening controls over the processes by which food is grown, processed and distributed. This has led to a broader change in how standards are implemented, what they aim to achieve, who develops them and how they are enforced.

The number and complexity of standards relating to food has increased remarkably. A broad range of overlapping standards have originated from private companies, business organisations, regional governments, national governments and supra-national organisations.² There is also a proliferation of bodies, both public and private, that are concerned with generating, requiring, conforming to and checking food safety standards.

² See, for example, the analysis of food standards in European countries produced by the European Union Directorate General Joint Research Centre (EU/DG Joint Research Centre 2005: 27–31).

2.1 New tendencies in public standards

Four clear trends in the global food standards have particular relevance for small farmers in horticulture.

- 1 Expansion of the range of issues addressed by standards and tightening up on permitted limits. In the case of the European Union, increasing awareness of food-related health risks has led to a tightening-up of product standards: the specifications that food reaching the consumer has to meet. Controls on pesticide residues have been tightened up, as well as limits for residues of veterinary drugs and concern with microbiological contamination such as salmonella and vibrio cholera (Manarungsan *et al.* 2004: 14–19). A similar tightening of controls has been seen in other countries. According to Jaffee (2005: 21), 'A parallel tightening of pesticide-related regulations has occurred in the United States', and as in Europe, food safety legislation has addressed new concerns such as heavy metal contamination and mycotoxins.
- 2 There has been a shift from controls based on inspection to controls based on risk assessment in order to tackle food safety problems at source. HACCP is the key element in this approach. Busch *et al.* define this succinctly in the following terms: 'HACCP principles stress identifying Critical Control Points (CCPs) where hazards are likely to occur in a processing chain, establishing critical limits for each CCP, establishing preventive measures to be taken to keep hazards within critical limits at each CCP, record keeping, and continued validation and updating of the HACCP system' (Busch *et al.* 2005: 18). Process controls provide a more efficient way of providing assurances that products meet the standards expected. According to Unnevehr, 'There is growing adoption in the food industry of management practices that focus on prevention and control of food safety hazards. Many hazards are expensive to test for and may enter food products at several points in the production process. Therefore, documented production practices, that are verified to prevent and control hazards, are becoming accepted as the most cost-effective means of reducing food safety hazards. While testing and verification are essential for establishing good process controls, testing can never be practical as the only means of monitoring safety' (Unnevehr 2000: 235).
- 3 The increasing importance of traceability is directly linked to the development of process controls as a means of achieving standards. Traceability is an important element of a food safety system in its own right. It allows both the tracing back of problems to their source, and consequently the chance of eliminating them there, and also traceability forwards from the source so that other potentially dangerous foods can be taken off the market. But, with the increasing importance of risk-based process standards, traceability acquires a new role in the integrity of the food safety system. If food safety is dependent upon controls over processes along the food chain, then system integrity depends upon assurances that only food from certified establishments and processes enters the chain. Traceability is essential for this. As process controls are extended back to the farm level, so traceability has to be established from the farm.

- 4 The extension of process-based controls to the farm. Much of the focus of risk-based food safety controls has, hitherto, been focused on food processing. Process-based food safety standards and regulations applied at the farm level have been well-established for the meat industry. They are increasingly evident in the seafood industry, where government regulation of the shrimp industry in countries such as Thailand also involves regular inspections and a code of conduct for shrimp farming. We will show below that process standards are also being applied at farm level.

We will argue later that trends in public standards are important drivers of the rapid evolution of private standards in the food industry.

2.2 The changing nature of EU standards

The tendencies outlined in the previous section and their consequences for food safety and food standards are clearly evident in recent evolution of food safety legislation in the European Union, where new measures have been introduced in the past few years. Some of these measures relate to product standards. One of the most important changes in product standards was EU directive 42/2000/EC on Maximum Residue Limits (MRLs) for active ingredient/commodity combinations, which came into force in July 2001 as part of the EU pesticide regulation harmonisation programme. This directive has had a substantial impact on the horticulture sector. In the case of shrimp, the use of all nitrofurans, with the exception of furazolidone, was banned in the EU in 1993, and furazolidone banned two years later. This has caused repeated problems for exporting countries ever since (Kennedy 2004).

More importantly, new regulations have introduced new process standards. The European Commission's White Paper on food safety, published in 2000, led to a broad range of legislation on both product and process standards. From 2002 to 2005, new EU legislation on food addressed issues such as food and feed controls, hygiene and animal health.³ The Commission has been at pains to emphasise that much of this legislation merely harmonises previous legislation across the EU, and the guidance notes on food hygiene and official food controls, for example, state categorically the key controls were already in force before January 2006 (European Commission 2006: section 3). Nevertheless, these regulations do incorporate a new and distinct EU food standards philosophy.

2.2.1 EU standards philosophy

The regulations setting up the European Food Safety Authority (CEC 2002) illustrate the change in the EU's approach to food safety. The preamble to the regulation identifies four key principles:

3 Consolidated text of EU legislation with all the amendments, can be found at <http://europa.eu.int/eur-lex/en/consleg/index.html>. For guidance documents on legislation, see http://europa.eu.int/comm/food/food/foodlaw/guidance/index_en.htm.

- 1 Food safety is to be ensured by focusing on the food value chain as a whole: 'In order to ensure the safety of food, it is necessary to consider all aspects of the food production chain as a continuum from and including primary production and production of animal feed up to and including sale or supply of food to the consumer because each element may have a potential impact on food safety' (paragraph 12). A later summary of import conditions for seafood state this in simpler language: 'the food law of the European Union implements the principle of quality management and process-oriented controls throughout the food chain – from the fishing vessel or aquaculture farm to the consumer's table. Spot checks on the end product alone would not provide the same level of safety, quality and transparency to the consumer' (European Commission n.d.: 1).
- 2 Food safety is based upon the principle of containing risk. Elimination or avoidance of risks to health requires risk assessment, risk management and risk communication (paragraph 17). In other words, food safety is to be achieved through identification and control of risk, which means a process control approach, rather than a testing approach. The HACCP (Hazard Analysis and Critical Control Point) methodology is central to this.
- 3 Traceability. Control of risk and rectification of problems requires traceability. This is secured through identification of suppliers and customers for all products incorporated into food or feed (paragraph 29). This in turn requires record-keeping and labelling (article 18, paragraphs 1 and 2), so that information can be supplied to the authorities on demand. The EU insists on having traceability in place: a paper trail through which food (components) can be traced back to the farm/field/pond from which they originated.
- 4 Private sector responsibility. Paragraph 30 of the preamble to the General Food Law legislation states that: 'A food business operator is best placed to devise a safe system for supplying food and ensuring that the food it supplies is safe; thus, it should have primary legal responsibility for ensuring food safety' (CEC 2002: L31/3). However, the precise impact of this legislation varies from country to country. The Guidance Principles on the General Food Law note that the precise ways in which this liability is implemented in particular EU countries depends upon national legal orders: 'Though the requirement laid down in Article 17 (1) is directly applicable from 1 January 2005, the liability of food business operators should flow in practice from the breach of a specific food law requirement (and from the rules for civil or criminal liability which can be found in the national legal order of each Member state). *The liability proceedings will not be based on Article 17 but on a legal basis to be found in the national legal order and in the specific infringed legislation* (CEC 2004: 6). In the UK, the Food Safety Act changed this liability. Prior to the 1990 Act, 'food legislation contained the so-called "warranty" defence. A person accused of an offence would escape conviction if he could prove that, when he bought the product, he obtained a written warranty from his supplier that the product could be lawfully sold or dealt with; that there was no reason to believe, when the offence was committed, that the true position was otherwise, and that the product was in the same state as when he bought it' (Humber Authorities Food Liaison Group n.d.: 4–5). The

1990 Act put food business operators under 'strict liability' to sell safe food, but there is a statutory defence (i.e. one which is specified in the legislation) of due diligence. If all reasonable precautions are taken, the strict liability does not apply. In many European countries a positive case of negligence has to be proved. So, food business operators in countries which have not implemented strict liability are not subject to the same level of risk as in countries that have.⁴

This philosophy is incorporated into EU directives that have created domestic regulatory systems in Member states and ensured the EU-wide implementation through mandatory registration of food processing establishments, and subsequently by making the implementation of HACCP-based controls a pre-condition for registration. Only primary producers are excluded from these requirements. These process controls are complemented by an inspection system that uses sampling to check on the effectiveness of both the individual operators and the food and feed chain as a whole (CEC 2002). These checks are the responsibility of the competent authority in each country. The EU expects food exporting countries to implement quality systems that create the same level of confidence in the quality of their exported food as might be expected from food produced within the EU.

These measures, focused directly on the feed and food chain, are accompanied by further controls to ensure that harmful substances or agents cannot enter into the food chain:

- Standards for the quality of water sources, surrounding surface waters and effluents, and a monitoring system for this.
- A system for the approval and registration of agro-chemicals such as fertilisers and pesticides and animal antibiotics.
- Monitoring and control of the occurrence of contagious diseases, both veterinary and human through the public health system.

In other words, food safety is based not only on controls over food production, but also the environment in which food production takes place.

2.3 The growth of global standard setting regimes

Nils Brunsson has defined standards as 'rules outside organisations', and Brunsson and Jacobsson (2000) argue that such rules are now omnipresent in the modern world:

There are plenty of people in the modern world who know what is best for everyone else. Self appointed experts and pressure groups abound, all with their own good causes and all trying to convince states, corporations, and individuals how much better off they would be, if only they would follow certain specific rules of behaviour ... the pundits of the Worldwide Fund for

⁴ I am grateful to Nina Rodmann of the University of Cologne for clarifying this point.

Nature (WWF), the International Women's Rights Watch, the International Standards Organization (ISO), the International Football Association (FIFA), the International Labour Office (ILO), OECD and many more cannot perhaps force us to follow the rules, but they still often managed to get us to do so. Even powerful organizations like states and large corporations go by rules that others have provided about how to organize, what policies to pursue, what kind of services to offer, or how to design their products.

(Brunsson and Jacobsson 2000: 1)

There are many rules, but some are more important than others. Because food safety affects both citizen welfare and international trade, it has been a matter for government and inter-governmental negotiation since the nineteenth century. As a result, food safety standards are regulated by agreements about what can be formulated in the context of the WTO, how rules are to be enforced, how laboratories are to be regulated, etc. These rules not only regulate the food safety system within the context of inter-governmental agreements, but also specify how the integrity of the global food standards system is maintained.

2.3.1 The role of the Codex Alimentarius

A good place to start the examination of the global food standards system is the work of the Codex Alimentarius Committee (CAC). The CAC is at the centre of the system, promulgating meta-standards and providing the basis for inter-governmental negotiations around standards.

The Codex Alimentarius has different types of rules, as shown in Table 2.2. Although the Codex is primarily concerned with government regulations, the types of rules it applies are also relevant to private voluntary standards, and many of the Codex principles are incorporated into private voluntary standards. The first row in the table refers to rules about products. For example, the Codex Alimentarius contains a rule about veterinary drugs in meat: the CAC provides a table which recommends that the maximum residue level for the veterinary drug, Abamectin, in the kidney tissue of cattle is 50 micrograms per kilogram (Codex Alimentarius Commission 2006). This product standard can also be thought of as an outcome standard. The output of a food quality and safety system should result in a residue of this particular veterinary drug no greater than the recommended limit. Note that this rule has no direct legal force. It is a recommendation aimed primarily at governments to guide their own rule-making. Its force actually comes from a different set of rules, discussed below. National governments can make rules (develop standards) that differ from these recommendations, but these are open to challenge within the SPS framework and should be justified by science-based concerns. Note also, that within this category of rules, the Codex Alimentarius Commission's own summary of its rules includes rules (or recommendations) about analysis and sampling. In other words, as well as defining rules about product characteristics, it also suggests ways in which these rules should be implemented through testing procedures.

Table 2.2 Three types of rules in the Codex Alimentarius

1	<p>Codex standards.</p> <ul style="list-style-type: none"> a Referring to specific commodities. Standards for specific products. b Referring to ranges of commodities. Standards for ranges of products. c Codex methods of analysis and sampling.
2	<p>Codex codes of practice for production, processing, manufacturing, transport and storage.</p> <ul style="list-style-type: none"> a For individual foods. b For groups of foods. c General principles for all products, such as the Codex General Principles of Food Hygiene.
3	<p>Codex guidelines.</p> <ul style="list-style-type: none"> a Principles that set out policy in key areas. b Guidelines for the interpretation of these principles or for the interpretation of other Codex standards. c Interpretative Codex guidelines for labelling and claims about food. d Guidelines for interpreting Codex principles for food import and export inspection and certification, etc.

Source: Codex Alimentarius Commission (1997a: 10–11).

Within this first group of rules, the Codex also contains non-mandatory product standards that are more concerned with establishing common reference points. The issue here is not whether one reference point is better than another, but that everyone uses the same one in order to facilitate transactions, interfaces between products, etc. The CAC, for example, has a standard for asparagus that not only defines minimum requirements, but also distinguishes between three grades of asparagus (Codex Alimentarius Commission 2005). The importance of this type of standard has been analysed by David (1995).

The second line of the table refers to Codex codes of practice for production, processing, manufacturing, transport and storage. These are the meta-standards that are incorporated into specific standards. These refer to processes – the means by which products are produced, handled and processed on their way to the consumer. Process controls have three main objectives. First, as was noted above, process standards provide a means of controlling quality and safety in a way that is more cost-effective than testing (Unnevehr 2000: 235).

Second, process standards are a means of controlling for food safety hazards that are either impossible or very difficult to detect. Busch *et al.* (2005: 15) cite the cases of a hepatitis A outbreak caused by green onions in the United States in 2003 and microbiological contamination in general. There is no reliable test for hepatitis A in green onions and microbiological contamination is hard to detect. The response is to implement food safety and hygiene regulations at source to reduce the risk of contamination.

Third, process standards allow the monitoring and control of characteristics that are extrinsic to the product; these have no physical presence in the product, and are therefore not revealed by inspection. As Liddell and Bailey argue for the case of standards in the pork industry, 'Extrinsic qualities do not affect either food safety or the intrinsic qualities of the meat product but may still affect the value of the product. Extrinsic qualities could include assurances about animal welfare, environmental preservation, or other inputs or absence of inputs used to produce the meat product' (Liddle and Bailey 2001: 288). Process standards are indispensable in such cases because the characteristics do not show up in the final product.

The Codex codes of practice for manufacturing, processing, etc., referred to in Table 2.2 are frequently expressed in guidelines that have been drawn from best practice on food safety, codified by the CAC and incorporated into many standards. These meta-standards include Good Agricultural Practice and Good Manufacturing Practice, which are then adopted by both private standard setters and governments (Busch *et al.* 2005: 16; Henson 2006: 11).

The third group of Codex guidelines listed in Table 2.2 are more general, setting out principles and providing guidelines for interpreting principles. In effect, these are rules that specify the ways in which food safety rules are formulated and implemented. The following is taken from the CAC's 'Guidelines for The Design, Operation, Assessment and Accreditation of Food Import and Export Inspection and Certification Systems':

Controls on imported food and domestically produced foods should be designed to achieve the same level of protection. The importing country should avoid the unnecessary repetition of controls where these have been already validly carried out by the exporting country.

(Codex Alimentarius Commission 1997b: Section 5, Paragraph 11)

These recommendations have particular force because the CAC has a special status within the WTO SPS system as the body that sets international standards for food safety. Governments are expected to comply with its recommendations and justify deviations from them. While the CAC's recommendations are primarily addressed to governments, private standards for food safety are also constructed around these same principles. There are at least three reasons for this. First, these guidelines represent best practice, and private firms often participate in their formulation through their membership of bodies such as the ISO or through their participation in the formulation of national policies that are taken by their governments to the CAC. Second, private voluntary standards for food safety, as will be argued further below, are often responses to government regulations and are aimed at the same outcome. Third, by building on the framework of public

standards, private standards are able to reduce the cost of standards formulation and enforcement. Private standards can use the facilities provided by the public infrastructures for standards: for example recognition of laboratories or rules regulating Certification Bodies.

The standards system for food safety is multi-layered. Different and sometimes competing bodies create standards, while the formulation and implementation of standards are themselves regulated (or standardised) by another level of standards. This complexity can best be understood through the analysis of standards as a rules system.

2.3.2 The global food safety system and its layers of rules

If the global food safety system is a set of rules, then it can be analysed in terms of the questions set out in Table 2.3. This distinguishes between the different stages in the formulation and application of rules relating to food safety (in the left column), who implements these processes, and rules that regulate how the four rule operations are implemented.

Table 2.3 The rules operating in the global standard system

Rule operations	Who decides	Rules about rules: integrity
Formulation	Many different bodies can formulate rules, public and private, national and international.	There are rules about what constitutes legitimate rules.
Adoption	Adoption usually requires the power to insist that others conform to particular rules. This can be legal power exercised by states, or market power exercised by firms or groups of firms.	Some bodies, particularly national governments, face constraints about the types of rules they can adopt.
Implementation, monitoring and enforcement	Some entity is expected to follow the rules adopted by others. How is this checked and enforced?	How will compliance with rules be monitored and enforced? How are the monitoring and enforcement of the rules themselves monitored and enforced?
Equivalence	How is the equivalence of different standards established?	What are the rules for ensuring that system equivalence is fairly and speedily recognised?

The introduction and operationalisation of a standard requires the formulation of a rule, a decision by an organisation to adopt it (i.e. to require that it be followed by another organisation), the implementation of the rule by that other organisation, with monitoring and enforcement of the rule, and procedures to establish equivalence. At each stage, there are procedures to guarantee the integrity of the rules system. These different steps may be taken by many different organisations.

A standard, such as the EUREPGAP standard may be developed by a technical committee, adopted by some retailers, implemented by farmers and exporters, monitored by certification bodies (who are themselves monitored by accreditation bodies). The equivalence of other standards to EUREPGAP is decided through procedures involving EUREPGAP itself, its members and an Accreditation Body (Sheehan 2007). The sequence of standards definition and application is as follows:

- 1 Formulation. Transnational organisations play a particularly important role in the formulation of standards and guidelines for standards. The guidelines produced by these international bodies do not prevent other organisations from creating food standards. Any organisation can create such a standard. Nation states (or supra-national bodies such as the EU or ASEAN) also set standards on food safety, and they frequently differ. Non-governmental bodies can also take initiatives around standards. These vary enormously in scope and ambition. At one end of the scale, there is the Michigan food processors' standards for microbiological contamination in blueberries (Bain *et al.* 2005: 78–9), designed to eliminate risks for processors making uncooked products, such as fruit yoghurts and ice cream. At the other end, there is the Global Food Safety Initiative (GFSI),⁵ which benchmarks different standards in order to facilitate the sourcing practices of its members, which are major global food retailers and processors.
- 2 Adoption. As Brunsson and Jacobsson have argued anyone can create a standard. The impact of the standard depends upon how extensively it is adopted. In adopting a standard, organisations make a decision to require it as a condition of access to territories or markets over which they have some jurisdiction. For governments, this is the capacity to make standards mandatory for producers within their territory and to impose such standards on foodstuffs imported into their territory (the SPS agreement forbids them to do the latter without the former). Guidelines or voluntary standards developed by others become mandatory. In the case of imported products, these standards are not addressed directly to producers in exporting countries, but rather to the trader that imports them, and/or to the authorities of exporting states. It is these two groups that are expected to comply with the standard.
- 3 For nation states, decisions to make particular standards mandatory (legally binding) are governed by the SPS agreement of the WTO. This allows states to deviate from the standards set by the Codex Alimentarius Commission, but such deviations have to be based on scientific risk assessment and are subject to mandatory notification and consultation with relevant trading partners. Adoption is also regulated by rules concerning the notification of such standards.
- 4 For companies, the situation is much easier. As private bodies they are not regulated by the SPS agreement, although since 2005 there has been discussion in the WTO's Sanitary and Phytosanitary Measures Committee

5 See www.ciesnet.com/2-wwedo/2.2-programmes/2.2.foodsafety.gfsi.asp for more details.

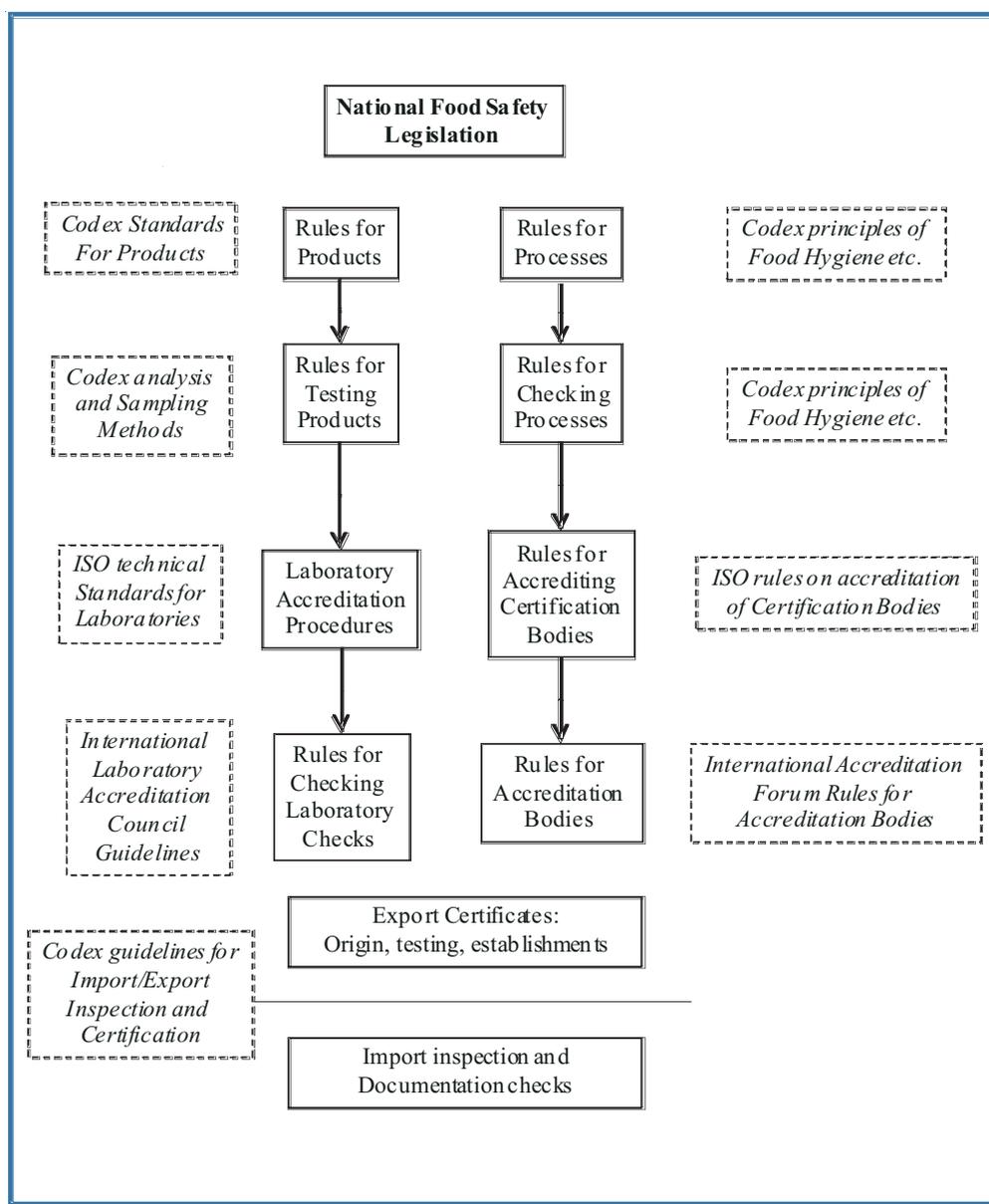
about this issue.⁶ For companies, a decision to make a standard obligatory for suppliers only means making a decision about what they are willing to buy or sell. The key challenge is a market one. If they want to insist on certain standards for the goods and services they purchase, can they find suppliers who fulfil this requirement, as well as others (such as price or delivery or quality)? For suppliers, adopting a standard depends on whether or not they can find a buyer who is willing to pay a price that covers the cost of the standard.

- 5 Enforcement. The credibility of any standard depends upon enforcement. The process of monitoring has to be credible and subject to rules of good practice. The credibility of inspection also depends on its quality. Accordingly, rules concerning the operation and licensing of testing laboratories are also part of the standards system. Similarly, the integrity of the third-party audits that formed the basis for most process standards is based on the accreditation of Certification Bodies (CBs) in accordance with ISO regulations on certification. The National Accreditation Bodies responsible for the auditing should, according to ISO recommendations, be members of the International Accreditation Forum. Here again, we see a multi-layered system of public regulation, in which international bodies such as the ISO provide recommendations which not only define procedures for establishing standards, but also for assuring the quality of the inspection and of the inspection of the inspectors.
- 6 Equivalence. Finally, given the many national and international bodies, both public and private, involved in food safety standards, the issue of equivalence becomes critical for two reasons. First, the proliferation of standards imposes costs, and for this reason there are many initiatives to benchmark standards. Second, establishing equivalence in national, mandatory regulations is critical for international trade. Once again, there are guidelines for establishing equivalence issued by the CAC (Codex Alimentarius Commission 1999), and this issue is included in the SPS agreement (WTO n.d.: Article 4).

The way in which international bodies provide a framework for national food safety legislation is shown in Figure 2.1.

6 The SPS agreement does not explicitly limit its scope to public standards, but equally its rights and obligations apply to 'Members', which are governments (WTO 2007: 4). While some member states sought to bring collective private standards into the purview of the SPS system, Henson (2008) argues strongly that the case for doing so is weak.

Figure 2.1 The role of international guidelines in food safety



3 Private standards and food safety

Private standards coexist alongside the public system of food safety regulation. The growth of private standards is shown in Table 3.1, which was prepared for the WTO SPS Measures Committee. The table shows, firstly, that there are many private standards. The table also distinguishes between different types of private standards. First, there are standards developed by individual companies. These are frequently presented to consumers in the form of labels that identify products as having superior characteristics to products sold by competitors. Although only two such standards are cited in the report, a study for the European Union identified many such standards across Europe (EU/DG Joint Research Centre 2005: 18). The WTO report refers to these as 'individual firm schemes'. In this

report, they will be referred to as ‘company standards’. Second, there are collective schemes, which bring together groups of actors in the food industry. The WTO report distinguished between national and international schemes. The difference between them is between those standards whose primary creators are within a national boundary, and those standards whose creators and promoters come from more than one country. In terms of their application, however, the so-called ‘national’ standard can be required by, for example, a buyer in one country from a supplier in another. Similarly, standards created by one organisation can be taken up by others in other countries. Within the ‘collective international schemes’, the report includes both standards administered by private sector bodies, such as EUREPGAP and SQF, and the standards developed by the ISO. The collective standards (national and international) administered by private sector bodies will be referred to as ‘private voluntary standards’.

Table 3.1 Examples of private standards in food

Individual firm schemes	Collective national schemes	Collective international schemes
Tesco Nature’s Choice	Assured Food Standards	EUREPGAP
Carrefour Filière Qualité	British Retail Consortium Global Standard – Food	International Food Standard
	QS Qualitat Sicherheit	Global Food Safety Initiative
	Label Rouge	ISO 22000: Food safety management systems
	Food and Drink Federation/British Retail Consortium Technical Standard for the Supply of Identity Preserved Non-Genetically Modified Food Ingredients and Product	Safe Quality Food (SQF) 1000 and 2000
		ISO 22005: Traceability in the feed and food chain

Source: WTO (2007: 2).

In many respects, these standards incorporate the same tendencies as seen for public standards. Process standards based on third-party certification of production, handling and processing are prominent. These standards tie into the meta-standards (such as the HACCP approach) that shape food standards around the world, and they also make extensive use of the public standards infrastructure through their use of accreditation systems and public laboratories. As with public standards, there is also an increasing challenge of establishing equivalence. The Global Food Safety Initiative (GFSI) defines its first objective as promoting convergence between food standards through a benchmarking process.⁷

3.1 Product differentiation versus risk control

Standards, whether voluntary or made mandatory by governments, are devices for coordinating agri-food chains across borders and across companies. Not surprisingly, the literature on global value chains provides a framework for analysing such coordination. This approach recognises two distinct motives for explicit coordination in value chains: product differentiation and control of risks. Humphrey and Schmitz (2001: 23–4) argue that coordination is required when buyers wish to purchase non-standard products. The purchase of non-standard products is often associated with product differentiation. At the same time, value chain coordination is also a means of controlling risk: it provides non-standard levels of assurances about factors such as reliability of delivery, product quality, production processes, etc. In manufacturing, many of the basic processes of total quality management are concerned with controlling for conformity, with such controls extending from within-the-enterprise controls on production processes to inter-enterprise controls that extend along the supply chain. In this literature, introducing global standards such as the ISO 9000 quality standard has the effect of standardising quality systems across countries, so that buyers and suppliers in these countries have a common language to recognise and discuss quality issues. This reduces the cost of vertical coordination and facilitates transactions. At the same time, the standard also shifts the obligations and the costs of meeting the standard from the buyer to the seller. Without an established quality standard, the buyer would have to search out companies that meet its quality requirements and possibly pay a premium for requiring a non-standard level of quality. With the standard, it is the supplier that has to gain certification and bear the risk that the investment in certification may not produce a return. However, by taking this route, the buyer also sacrifices product differentiation. The suppliers will be certified to the quality standard that is available to competing firms.

The literature on agricultural value chains emphasises both product differentiation and risk control, although frequently only one is emphasised at any one time. For example, Young and Hobbs emphasise product differentiation as a driver of value chain coordination:

The effects of consumer demand for differentiated food products and of advances in agricultural biotechnology have been to encourage a movement away from commodity production towards the production of food products with diverse characteristics for niche markets.

(Young and Hobbs 2002: 429)

An analysis which associates value chain coordination with risk management is provided by van Roekel *et al.*:

Food safety concerns have led to the development of “integral chain-care” tools such as social accountability, good agricultural practice (GAP), total quality management, and HACCP (hazard analysis at critical control points). Implementation of such tools throughout a cross-border supply chain enables

chain partners to ensure the quality and safety of their products and guarantees' (2002: 10).

Standards are one means of codifying inter-firm communication and achieving value chain coordination. Different needs for coordination lead to different types of standards. Not only this, different types of actors in value chains have different coordination priorities.

An analysis of quality assurance systems in the European food industry has proposed a typology of standards that provides a basis for analysing the differing dynamics of standards for product differentiation and standards for risk control. This work (EU/DG Joint Research Centre 2005) divides standards into two main groups:

- Standards that are 'mainly aimed at differentiating and enhancing the company and/or company product before customers' (2005: 34). In this paper, we will refer to these as 'standards for differentiation'.
- Standards 'mainly aimed at ensuring food safety and controls over company production processes. In this case, the scheme and related processes are not meant to highlight or enhance the product or process characteristics, but on the contrary to guarantee compliance with univocal and predefined standards' (2005: 33). The motivation for this is not only concern for consumer welfare, but also (critically) protecting brand reputations. In this respect, the increased use of 'naming and shaming' with respect to food business compliance with statutory requirements was a powerful motivator for the development of such standards.⁸ In this paper, we will refer to these as 'standards for risk control'.

The analysis also identifies differences in geographical scope, sponsors and links with consumers, as shown in Table 3.2. The authors argue that standards aimed at differentiating products are mainly national, mainly developed by public bodies or groups/consortia of producers and aimed at consumers. In contrast, standards aimed at risk control are mainly supranational, mainly developed by retailers (rarely producers), and mainly business-to-business standards that 'hardly ever reach end-users' (2005: 34).

There are, of course, exceptions to these generalisations, and the use of qualifiers such as 'mainly' and 'hardly ever' reflects this. The most obvious exceptions to the generalisation are company standards such as Tesco's Nature's Choice. They are clearly standards for differentiation developed by retailers and aimed at the consumer. Or, alternatively, some standards for risk control are developed by producer organisations. The British meat industry's 'Red Tractor' standard would be an example. The summary of the Red Tractor standard for beef and lamb says:

8 An undated and unauthored account of a PIP roundtable in Brussels in July 2000 includes a reference to a complaint from EU importers about 'naming and shaming', which was seen as particularly problematic in the UK. Similarly, a BBC report from 1999 refers to 'Supermarkets that sell produce contaminated with pesticides are to be named in a government report next week' (BBC Online Network 1999). This is the climate of reputational risk that EUREPGAP was designed to address. A similar risk faced German supermarkets after a Friends of the Earth campaign highlighted pesticides in food, and most of the German supermarkets joined EUREPGAP in 2007.

Table 3.2 Two types of quality assurance standards

	Standards for differentiation	Standards for risk control
Geographical scope	Mainly national	Mainly 'supranational'
Proposers	Public bodies or groups/consortia of producers	Mainly retailers or retail organisations, rarely producers
Link to consumers	End users targeted by brand or promotion activities	Business-to-business standards not focused on consumers

Source: Summarised from EU/DG Joint Research Centre (2005: 33–4).

The Assurance Standards are designed to ensure that the animals' welfare needs are not compromised at any stage of its life, the environment is protected and not damaged by the farming activities, the animals are always identifiable and traceable and are moved in clean vehicles so that the beef and lamb produced is free from contamination and safe to eat.

(Source: www.redtractor.org.uk/site/rt_page_wide.php?section_id=3&page_id=59)

An association of the whole industry, including producers,⁹ defines a standard which is clearly aimed at ensuring food safety, and which has a clear consumer orientation through the Red Tractor label.

A slightly different way of looking at this issue is to think about the different motivations of actors in the value chain and the consequences of this for the way in which standards are used and presented. It is worth noting that standards which are very similar can actually be used in very different ways. For example, there is a large degree of overlap between EUREPGAP and Tesco's Nature's Choice standard – so much so that third-party audits for the two standards are often carried out simultaneously on the grounds that (in the words of a manager at one leading exporter in Kenya):

For Tesco, we still have to have Tesco's Nature's Choice. They will claim that it is a higher standard than EUREPGAP, but the fact is that you do the same audit on the same day, with the same person. And 95 per cent of it is common. So ultimately, what they are using it for is a marketing tool.

(Exporter 1, Respondent 1)¹⁰

9 The 'Red Tractor' website identifies the ownership of the organisation running the scheme, Assured Food Standards, in the following terms, 'AFS is owned by the entire food industry. It represents interests from each of the key links in the food chain, including the National Farmers' Union, the Ulster Farmers' Union, the Meat & Livestock Commission, Dairy UK and the British Retail Consortium'. Source; www.redtractor.org.uk/site/rt_page.php?section_id=3&page_id=14.

10 See Appendix 1 for details of the people interviewed in Kenya for this study.

So, the key factor is intent. Tesco ‘sells’ Nature’s Choice to the consumer as identifying something superior about the product. The claim is that the product is better than a standard product. The opening paragraph of the Nature’s Choice web pages states that, ‘Nature’s Choice is our own integrated farm management scheme and is unique to Tesco. Introduced in 1992, it sets environmental standards and specifies shape, size, taste, variety and shelf life requirements.’¹¹ Safety is not mentioned on the webpage. In 2005, on a webpage no longer available on the Tesco site, Tesco identified the ‘seven pillars’ of Nature’s Choice as rational use of plant protection products; rational use of fertilisers and manures; pollution prevention protection of human health; use of energy, water and other natural resources; recycling and re-use of material; wildlife and landscape conservation and enhancement.¹² Once again, the appeal is predominantly an environmental one, not to food safety.

Conversely, the British Retail Consortium is closer to the ‘Red Tractor’ approach, emphasising food safety, but also protecting members. It is very explicit about the function of its ‘Global Standard Food’, and the second sentence on its website states: ‘It is designed to be used as a pillar to help retailers and brand owners with their “due diligence” defence, should they be subject to a prosecution by the enforcement authorities. Under EU food Law, retailers and brand owners have a legal responsibility for their brands.’¹³ The due diligence defence and the transfer of responsibilities for food safety along the value chain by powerful food business operators are also very relevant to EUREPGAP.

With these issues in mind, we can now reformulate and explain the different patterns in standards shown in Table 3.2:

- 1 Retailers want consumers to have confidence in all the food they sell. Food safety is a non-negotiable issue. In the UK, supermarkets have chosen, hitherto, not to compete on basic food safety. Company standards which are designed to differentiate the product of one retailer from another have to appeal to consumers on the basis of other factors, such as environmental impact, animal welfare, healthy eating, etc. However, in Germany, supermarkets are competing on the basis of food safety, making competing claims about levels of pesticides. These claims are not incorporated into standards. When company standards are developed, they appeal to particular national consumer preferences, so even internationalised retailers will not develop international company standards.
- 2 Groups of retailers do develop and adopt private voluntary standards. These cover areas such as food safety, which cannot be presented to consumers as product differentiators. These standards are often ‘defensive’, developed in response to external pressures that could lead to reputational damage. One very significant source of such pressures is public legislation. So, in the case of EUREPGAP, discussed further below, EU regulations on pesticides,

11 www.tescocorporate.com/page.aspx?pointerid=1209EAE16DDB49C0A094A60CFF1FBFA9.

12 www.tesco.com/everylittlehelps/environmentdetail.htm#sp.

13 www.brc.org.uk/standards/default.asp.

combined with increasing company liability for food safety create risks. Given that these risks potentially arise at multiple points along the value chain, it makes sense to view food safety as a value chain issue. This is why the private voluntary standards developed by retailers are value chain focused. The objectives of these private voluntary standards initiated by retailers are: (i) to lower the cost of value chain coordination; (ii) to transfer the cost along the supply chain; and, (iii) in some cases, to transfer liabilities arising out of the changing legal framework for food, notably increasing responsibility on food business operators for the safety of the food they sell. However, risks also arise from other areas, such as consumer perceptions relating to issues such as animal welfare. In such cases, private voluntary standards can be extended to include issues such as environmental impact, labour standards and animal welfare. Given that supply chains are increasingly internationalised, it makes sense for these standards to be international in scope (but still limited to the participating suppliers and buyers).

- 3 Producers, and producer organisations, do have an interest in differentiating their products in terms of food safety and in terms of environmental impact, etc, as well. This explains the huge variety of labels developed by producers. Whereas retailers would not like to claim that some of the food they sell is particularly safe, as it implies that other food in the store is less safe, food producers have an interest in claiming that their food is safe in comparison with the food of other producers. Therefore, they have an interest in promoting food labels that focus on safety. Producer associations tend to be national in scope, and so these standards are more likely to be national.
- 4 Producers and producer organisations do also have an interest in business-to-business standards (invisible to the consumer) to the extent that they provide assurances to retailers about quality, safety and conformance to legal requirements. But these will struggle to gain prominence in the face of retailer-driven standards. Standards presented to consumers act as brands. As Paul Duguid (2003) has argued, the point in the value chain at which a brand is defined has an impact on the options for the different companies in the chain, and through this the returns they can expect to obtain. If a group of suppliers develop a standard that consumers want, the retailer is then forced to source it from the brand owners, reducing their sourcing options and power. Large retailers try to undermine brand power, or try to gain some control over it (one interpretation of how Fairtrade has been mainstreamed in the UK). For this reason, widely dispersed producers have trouble in establishing brands in the face of retailer power.

3.1.1 Private voluntary standards in the era of globalisation

Many issues of food safety would arise even if trade in food was relatively limited. The increasing complexity of food processing and food value chains increases risk, and perceptions of risk and the ability to test for them are also increasing. Nevertheless, increasing trade in food presents particular challenges for food safety. Just as the requirements of national food safety systems are becoming more complex and more oriented to process controls, the geographical coverage

of these rules has extended. Globalisation and the industrialisation of the food industry have transformed food production, processing and delivery. Global sourcing means that food value chains are both geographically extended (moving across more countries) and fragmented across more enterprises. This creates new challenges for food safety and the coordination of increasingly complex food systems:

- 1 Global sourcing creates new sources of risk as food is transported and processed to a greater degree. Transport and storage alone create risk. Increased processing exacerbates this problem: there are more occasions during which food can deteriorate or suffer contamination.
- 2 Food value chains are increasingly fragmented across multiple enterprises and great distances. This creates new challenges for coordination and control. How can control be exercised along food value chains when food travels great distances and passes through many different hands?
- 3 Globalisation brings together quite diverse food production systems that are heterogeneous in terms of producer characteristics, regulatory frameworks, environmental conditions, technical expertise and consumer preferences.

There are various possible responses to these challenges. Individual companies could meet these risks by increasing direct supervision along their supply chains, and this is often the first response to a new food safety challenge. Individual companies could also create their own standards – identifying risks, introducing procedures to address them and creating a system of verifying compliance with these procedures. But, internationalised private voluntary food standards are an increasingly common means of addressing these challenges. In part, this is because this not only has the potential to reduce transactions costs (i.e. reducing the costs of value chain coordination), but also transferring some of these costs from the food business operators who have the prime responsibility for food safety to producers of food products.

3.2 The EUREPGAP standard

The EUREPGAP standard for fresh fruit and vegetables was developed by a European consortium of fresh fruit and vegetable importers and retailers. Eurep, the Euro-Retailer Produce Working Group, was established in 1996 by 13 retailers, and according to van der Grijp *et al.* (2004: 2), the driving force was UK retailers. These companies were partly responding to the demands of the UK's Food Safety Act, which placed new obligations on food business operators to take responsibility for food safety, and to the EU's programme of harmonisation of MRLs for pesticides, which drastically restricted the range of pesticides that were acceptable at any level of detectable residue and greatly reduced acceptable residue levels for others. This, combined with the UK government's policy of 'naming and shaming' retailers whose products were found to have excessive or prohibited residues, created serious reputational risks for these UK retailers (Chan and King 2000).

In the face of this challenge, Eurep was established 'with the aim of making a first step towards European-wide harmonisation of minimum standards for integrated

production' (van der Grijp *et al.* 2004: 2). Its EUREPGAP standard, developed in 1997, focused specifically on fruit and vegetables. According to Healy and Gunningham:

In November 1997, members agreed on the first draft protocol for Good Agricultural Practice (GAP), which represented the first step towards integrated production, and a harmonization of production standards. In August 1999, the first official version of the EUREPGAP Protocol was subject to consultation with growers, produce marketing organizations, verification bodies, agrochemical companies, farmers' organizations and scientific institutions. All comments were considered and many of them were included in the new official GAP Version 2000.

(Healy and Gunningham 2003: 33)

From this beginning, Eurep and the EUREPGAP standard has developed into a broad-based standard, applying to an increasing range of products and benchmarked against other standards around the world. The range of products covered by EUREPGAP certification has also increased to include green coffee, flowers, and (in preparation) aquaculture products. In what follows, reference will only be made to the fruit and vegetable members and activities of EUREPGAP.

3.2.1 The growth and transformation of EUREPGAP

Since 1997, both Eurep and the EUREPGAP standard have changed substantially. The membership of Eurep has changed in two ways. First, the number of supermarkets and their countries of origin have expanded. Most recently, German supermarkets have joined the organisation, largely in response to adverse publicity regarding pesticide residues in vegetables, which is one of the central issues addressed by the EUREPGAP standard.¹⁴ Supermarket membership remains, however, predominantly northern European. In April 2007, 28 of the 31 'retailer and food service' members came from the UK, Ireland, Belgium, the Netherlands, Germany, Switzerland, Austria and the Scandinavian countries.¹⁵

The second significant change has been the incorporation of producers and processors into the EUREPGAP fruit and vegetables system. In April 2007, 109 companies were producer/supplier members (i.e. agricultural producers, processors, traders and their associations, rather than retailers) of EUREPGAP fruit and vegetables. Seventy-nine of the suppliers were from the European Union and Switzerland, but there were 11 members from Africa and eight from Latin America. As important for the organisation, the supplier members are now

14 In 2003, there were six Eurep retailer members in the UK, four in the Netherlands, one in Germany and a further 12 spread across nine European Countries (Campbell 2005: 10). In 2007, there were 31 European retailer members of Eurep, 19 of these were in the UK, the Netherlands and Germany, which have 7, 6 and 6 members respectively (data from www.eurep.org).

15 In April 2007, EUREPGAP had one retailer member in Japan and one in Spain, plus membership from McDonald's Europe. Membership does change over time. Past members not listed in April 2007 include Monoprix from France and Pick 'n Pay from South Africa.

integrated into EUREPGAP's governance structure. Retailer and producer/supplier members are represented equally on the organisation's sector committees, and the EUREPGAP board also has equality of representation from the two groups.

At the same time, EUREPGAP has become an organisation with global aspirations.¹⁶ It describes itself as 'a private sector body that sets voluntary standards for the certification of agricultural products around the globe.'¹⁷ Diversification of the membership, noted above, is only a part of this process. EUREPGAP globalises its standards by benchmarking them against other international food safety standards such as SQF, and negotiating with other global food safety initiatives such as the SAI and the Aquaculture Certification Council. Even more important from the perspective of export agriculture in developing countries, EUREPGAP has adopted a policy of actively promoting benchmarked national standards that are regarded as equivalent to EUREPGAP. These offer the possibility of adapting EUREPGAP's own protocols to national circumstances while maintaining recognition of the national standard's value. By 2005, national technical working groups to work towards developing equivalent national GAPs had been established in nine European countries, plus Argentina, Chile, Kenya, South Africa, Malaysia, Australia, and New Zealand (Garbutt 2007: 19). Further indications of the international scope of EUREPGAP are the 75 countries with certified growers and the 19 languages into which the EUREPGAP protocol has been translated (Garbutt 2007: 8–9). Other countries, such as Thailand, have also developed their versions of EUREPGAP.

The standards set by EUREPGAP have also evolved over time. The range of products covered by its standards has extended beyond fruit and vegetables and into products such as tea, salmon and wheat. EUREPGAP is now a standards-setting body, still controlled by its members, but seeking to maintain its position in a globally competitive standards-setting environment and creating a unified set of standards for agricultural production of which the fruit and vegetable protocol is one module. It defines its standard as 'a single integrated standard with modular applications for different product groups, ranging from plant and livestock production to plant propagation materials and compound feed manufacturing.'¹⁸ Its legal identity is FoodPLUS GmbH. EUREPGAP defines the relationship as, 'EUREPGAP is a global Scheme and Reference for Good Agricultural Practice, which is managed by the EUREPGAP Secretariat. FoodPLUS is a non-profit, industry-owned and governed organization that legally represents the EUREPGAP Secretariat' (EUREPGAP 2005b: 4).

In recognition of fundamental shifts in its objectives and membership EUREPGAP rebranded itself as GLOBALGAP in 2007 (with a slightly different logo – GLOBALG.A.P.). The change was launched at the eighth Annual Conference in Bangkok in September 2007.¹⁹ However, given that the organisation and its

16 At some point, the organisation changed its name from Eurep to EUREPGAP.

17 See www.globalgap.org/cms/front_content.php?idcat=9.

18 See www.globalgap.org/cms/front_content.php?idcat=3.

19 See www.globalgap.org/cms/front_content.php?idcat=9&idart=182.

standard was known as EUREPGAP during the time of the study and the events that it analyses, and given that most of the literature referred to was produced prior to September 2007, this report will continue mostly to refer to EUREPGAP.

3.2.2 The EUREPGAP standard

The EUREPGAP standard was developed initially by and for European retailers in response to external pressures relating to both food safety and the impacts of their supply chains. EUREPGAP is a means of providing assurances for European retailers that the food they were selling conforms to EU food safety standards and that the retailers are meeting their responsibilities as food business operators to ensure that the food they sell is safe. At the same time, EUREPGAP responds to broader pressures from consumers and NGOs not only to provide safe food, but also to meet the increasing concerns about the social and environmental impacts of food production. These issues are particularly important to retailers that trade heavily on their brand image as providers of safe and ethically-produced products.

Version 1 of the EUREPGAP standard reflects these differing pressures by incorporating three different elements:²⁰

- Food safety. European retailers have had to respond to the increased stringency of EU regulations (for example, severe limitations on pesticide residues and concerns about soil contamination) and also changing customer perceptions about food safety following a range of food scares in Europe in the 1990s. Food safety is the core element of EUREPGAP and by far the greater part of the standard is devoted to this.²¹
- Environmental impact. Environmental issues have moved up the social and political agenda in Europe. This is reflected in both the environmental concerns of the EUREPGAP standard and the increasing importance of environmental issues in company standards such as Tesco's Nature's Choice.
- Worker health and safety and worker rights. This issue is not a requirement of the European Union, but it is an issue for NGOs in Europe, particularly in the UK, where the UK government formed a tripartite alliance with NGOs and trade unions to develop the Ethical Trade Initiative (ETI).²²

The standard is revised periodically. Version 2 of the standard retains the core elements of Version 1,²³ but there are differences in language between them, mostly designed to make the audit process clearer and more uniform. There is

20 This analysis is based on English-language Rev02 of Version 1, issued in September 2001 (EUREPGAP 2001).

21 In part, this is product specific. The EUREPGAP standard for aquaculture has much more extensive protocols for environmental impact and impact on local communities, reflecting the many concerns raised about the impact of aquaculture in developing countries.

22 See, www.ethicaltrade.org/.

23 The analysis of Revision 2 is based on the English language Control Points and Compliance Criteria for Version 2.1, revised in July 2005 (EUREPGAP 2005a).

also an increased emphasis on documentation and the introduction of some new requirements, particularly relating to hygiene during harvesting and on-farm post-harvest processing and packing. In their essentials, however, the two versions are very similar.

The crucial features of EUREPGAP standard for this analysis are:

- 1 EUREPGAP is a process standard. It tries to achieve its goals of producing safe food under reasonable labour conditions and without damage to the environment by identifying risk factors and establishing practices to counter these risks. These practices can vary from specifications about work or training to the calibration of equipment, storage of chemicals and hygiene practices for harvesting. Although there is some testing of products, the basic principle underlying the standard is risk identification and risk management through documented rules and procedures. In line with the European approach to food safety described above, process controls are complemented by testing of soil and water used for irrigation.
- 2 EUREPGAP is often described as a 'pre farm-gate' standard. It extends the principles of risk management to farm production by specifically focusing on good agricultural practices relating to preparation, growing, harvesting and packaging, as shown in Figure 3.1.
- 3 It only extends off-farm in the case of farmer groups, where produce is taken to collection centres and graded and stored prior to being sent for processing. A different set of standards – for example, the British Retail Consortium 'Global Standard Food' for good manufacturing practice – applies at the processing stage.²⁴
- 4 EUREPGAP is a private voluntary standard. Unlike regulations developed by national and supra-national (i.e. the EU) governments, it has no legal force. However, increasing concentration in food retailing means that large retailers have economic power and act as gatekeepers between producers and consumers. Grievink (2002) suggests that 110 supermarket buying desks channel food between 3 million producers and 160 million consumers in Europe. Even though supermarkets do not buy directly from producers, their market power and gatekeeper role enables them to transmit requirements along the value chain.
- 5 There is no EUREPGAP label. EUREPGAP is a business-to-business standard which is not made evident to consumers.
- 6 EUREPGAP is based on third-party certification. Producers are audited and certified by accredited CBs (approved by FoodPlus GmbH). The role of the auditor is to check that (i) the farm (or farmer group) has the capacity to follow the rules, and (ii) there is documentation to show that rules have been followed. Documentation of practices, such as records of pesticide spraying, worker training, equipment checks, use of permitted chemicals, decisions

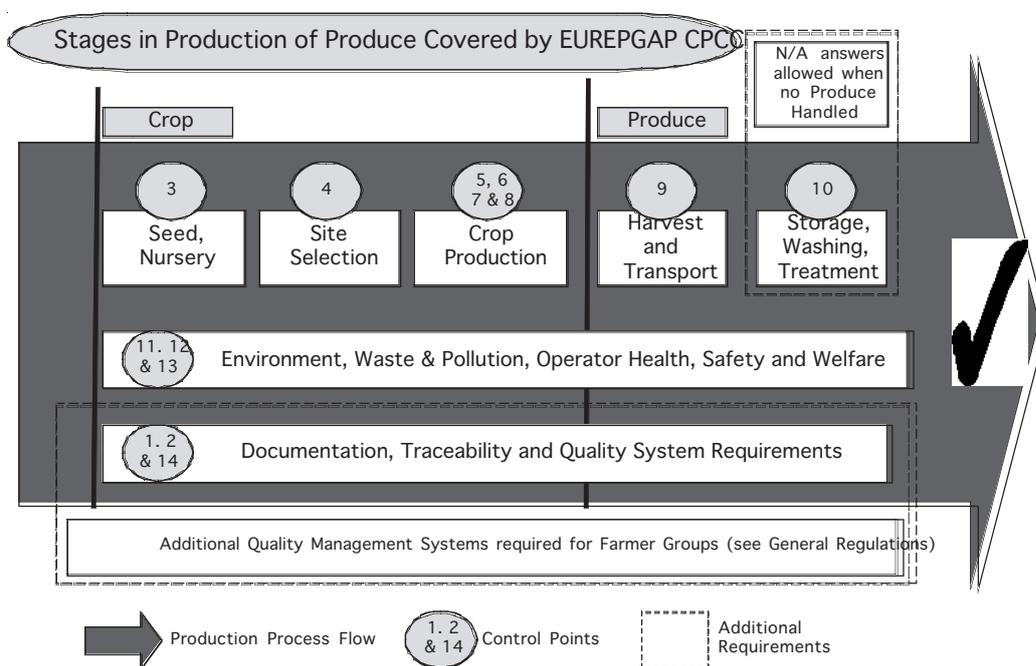
²⁴ Details of the BRC Global Standard Food can be found at www.brc.org.uk/standards/default.asp.

being taken by staff qualified to make them, are largely or entirely based on documentation (for more information, see below Section 4.2).

- 7 The standard is expressed as a set of rules. These are of three types: ‘major musts’ that must be met in their entirety; ‘minor musts’ for which a 5 per cent non-compliance rate is acceptable at the time of inspection, and ‘recommendations’, which are just that (EUREPGAP 2005b: 11).
- 8 As with all process standards, traceability is an essential part. This establishes and maintains the link between the farm (and even the field) of origin and a particular batch of products as it moves forward along the value chain.
- 9 EUREPGAP is a private standard owned by FoodPlus GmbH, but provision is allowed for the development of national GAPs which can then be benchmarked to EUREPGAP.

The focus of this paper is the consequences of EUREPGAP for small farmers in Kenya and the response of aid donors to the challenges that it appeared to create. Therefore a fuller discussion of the implications of EUREPGAP on the farm will be included in the following section which focuses on Kenya.

Figure 3.1 Scope of EUREPGAP



Source: EUREPGAP (2005b: 5).

4 EUREPGAP in Kenya

This case study focuses on the export horticulture sector in Kenya and how aid donors responded to the challenges created by the introduction of the EUREPGAP standard by retailers in the sector's main export markets. It highlights the profound ways in which EUREPGAP affects small farmers and the extent to which donors had an imperfect understanding of the challenges that it posed.

It begins with a brief description of the nature and importance of export horticulture in Kenya and then goes on to discuss how EUREPGAP affects on-farm practices and the responsibilities of exporters and importers in the value chain.

4.1 Export horticulture in Kenya

Export horticulture was one of the successes of the Kenyan economy in the 1980s and 1990s. Exports expanded in volume and value and many jobs were created. Kenya has been one of the most competitive African exporters of fresh vegetables, and an industry has grown up which successfully combines large, sophisticated exporters and small farmers. The characteristics of this industry have been described by numerous authors.²⁵ These have emphasised the potential of the sector, its rapid growth, the importance of links to large retailers in Europe and the benefits to the rural economy.

The success of the industry has been in marked contrast to other export-oriented sectors of the Kenyan rural economy. The revenues derived from exports of traditional agricultural products such as coffee and tea were stagnant or declining in the 1990s. In the case of coffee, for example, both the volume and price per tonne of exports from Kenya to the EU fell by about 30 per cent in the 1990s, resulting in an overall decline of revenue from coffee exports to this market of 60 per cent between the end of the 1980s and the beginning of the twentyfirst century (calculated from Eurostat 1998; Eurostat 2002). In contrast, export volumes of fresh vegetables grew strongly throughout the 1990s, and unit values remained firm.²⁶

The performance of the fresh vegetables export sector is shown in Table 4.1. From 1989 to 1999, Kenyan exports to the EU of the two main fresh vegetable categories, HS 0708 and HS 0709, grew at an annual average rate of more than 12 per cent. In this period, Kenya slightly increased its share of total African exports to the EU of both product categories, even though its market share for

25 See, for example, Muendo and Tschirley (2004a), Tschirley *et al.* (2004), Jaffee (1995; 2003), Dolan and Humphrey (2000; 2004), Okello (2005) and McCulloch and Ota (2002).

26 The EUREPGAP standard also applies to fruit. However, fresh fruit exports are only a fraction of vegetable exports and growing more slowly. In 2002, vegetable exports were six times greater than fruit exports (Plantconsult 2003: 17). For horticulture as a whole, The Netherlands ranks with the UK as a destination, but this is because of its role in flower exports. As will be seen below, the UK is the leading importer of vegetables.

both was already high in 1989. From 1999 to 2006, exports from sub-Saharan Africa came under increasing pressure from North African countries, and growth slackened – to 9 per cent per annum for peas and beans and almost to zero for ‘other vegetables’. As can be seen in the table, the sub-Saharan African share of total African exports fell from 76.1 per cent to 55.6 per cent in the case of peas and beans (HS 0708), and from 59.8 per cent to 37.1 per cent for ‘other vegetables’ (HS 0709). However, Kenya did much better than other sub-Saharan African exporters in this second period.

Table 4.1 Imports of fresh and chilled vegetables into the EU from various regions, 1989, 1999 and 2006 (Ecus 000s) ^(a)

	All Africa	Sub-Saharan Africa ^(b)	Kenya
Peas and beans ^(c)			
Imports into EU (ECUs, 000s)			
1989	51,491	40,759	23,939
1999	166,580	126,739	78,590
2006	354,304	197,062	145,861
CAGR, 1989–1999 ^(b)	12.5	12.0	12.6
CAGR, 1999–2006	11.4	6.5	9.2
Market shares (%)			
1989	100	79.2	46.5
1999	100	76.1	47.2
2006	100	55.6	41.2
Other vegetables ^(d)			
Imports into EU (ECUs, 000s)			
1989	26,650	14,351	7,410
1999	82,578	49,399	23,574
2006	168,470	62,458	24,602
CAGR, 1989–1999	12.0	13.2	12.3
CAGR, 1999–2006	10.7	3.4	0.6
Market shares (%)			
1989	100	53.8	27.8
1999	100	59.8	28.5
2006	100	37.1	14.6

Notes: (a) Data refers to imports of the 12 EU member countries in 1989. The Ecu was the European unit of account based on a basket of EU currencies used prior to the introduction of the Euro.

(b) All of Africa, less Algeria, Egypt, Libya, Mauritania, Morocco, Tunisia and Sudan.

(c) Harmonised system 0708: leguminous vegetables, shelled or unshelled, fresh or chilled.

(d) Harmonised system 0709: Other vegetables, fresh or chilled (excl. potatoes, tomatoes, alliaceae vegetables, edible brassicas, lettuce ‘*lactuca sativa*’ and chicory ‘*cichorium spp.*’, carrots, turnips, salad beetroot, salsify, celeriac, radishes and similar edible...).

Source: Eurostat (1998) and Eurostat COMEXT database

(<http://fd.comext.eurostat.cec.eu.int/xtweb/mainxtnet.do>, data downloaded June 2007).

The horticulture market is highly competitive. Kenya, along with other sub-Saharan African producers, has been at an increasing disadvantage compared to

some North African producers, who are much closer to the European market. In some cases, they can ship vegetables by sea and land, which is much cheaper than the airfreight required for fresh vegetables. As Jaffee (2005) has noted, Kenya has responded to this competitiveness challenge by increasing value addition to its products. By producing more sophisticated products (for example, baby leeks), products with a greater technological intensity (runner beans) and by greatly increasing post-harvest processing to produce ready-to-eat and ready-to-cook products and product combinations, Kenya has managed to compete on product differentiation – moving away from the basic vegetables that are increasingly commodity items – and simultaneously reduce the importance of transport costs in the overall price. These products are particularly in demand in the United Kingdom, and Jaffee refers to this strategy as ‘riding the tail’ of the UK supermarkets that are the main buyers of high-quality, differentiated products:

The tail-riding strategy, which appears to have been costly yet rewarding for the firms involved, is essential for the industry as a whole, in view of its inability to compete directly on a cost basis with international suppliers who face substantially lower freight costs.

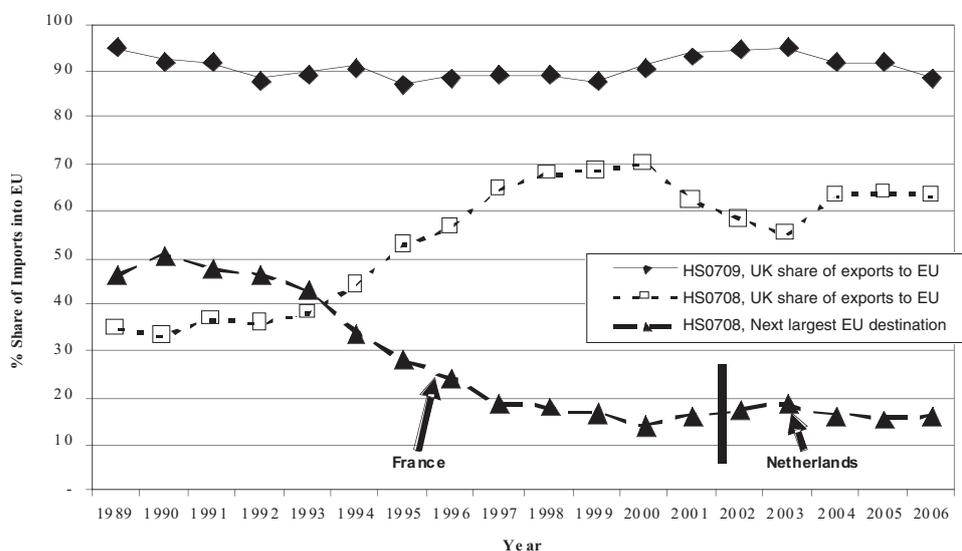
(Jaffee 2005: 86)

The extent of the dependence of Kenyan exporters on the UK market is shown in Figure 4.1. In the case of the ‘other vegetables’, HS 0709 category, the UK market accounted for approximately 90 per cent of all Kenyan exports to the EU throughout the period. For peas and beans, HS 0708, there is a significant shift. Up until 1993, the UK was the second largest EU destination, behind France. After 1993, however, the UK share of Kenyan exports rises rapidly, reaching a peak of 70 per cent at the end of the 1990s. Although this dips to under 60 per cent at the beginning of the new century, it recovers in 2004–06 to nearly 65 per cent. The next largest export market, which after 2001 was The Netherlands, accounts for less than 20 per cent of total exports of peas and beans to the EU. This reliance on the UK and Dutch markets for vegetable exports is also indicated by data provided by the official Kenyan source, the HCDA. Data cited by Nyagah (2007: 5) for 2004 suggest that 70 per cent of all vegetable exports by value went to these two markets.

Certification of farms to the EUREPGAP standard by supermarkets in the Eurep group, introduced in January 2005, has to be viewed in this context. Kenya’s leading customers – the UK and the Netherlands – were also the countries whose retailers were most committed to EUREPGAP. Five leading retailers in both countries were members of EUREPGAP. In the case of the UK, these were the leading retail chains, which together accounted for over 70 per cent of fruit and vegetable sales. In Kenya, perhaps more than anywhere else in the developing world, EUREPGAP would have a very significant impact.

Furthermore, the introduction of EUREPGAP appeared to be likely to reinforce concerns already expressed that the increasing complexity of buyer requirements in the European market was placing demands on supply chains that small farmers would find difficult or impossible to meet. Various studies have highlighted the increasing complexity of safety standards and of buyers’ service requirements (Dolan and Humphrey 2000; Jaffee 2005) and linked this to small farmer

Figure 4.1 Kenya dependence on UK market for fresh vegetable exports: 1989–2006



Sources: See Table 4.1.

exclusion from horticulture value chains. While the extent of this decline has been contested by Muendo and Tschirley (2004b: 2), even these authors agree that a link between complexity of export market demands and small farmer exclusion has been made frequently in the literature.

The news was not all negative. On the contrary, it was also observed that the well-organised and experienced Kenyan exports sector would have a competitive advantage over other countries. The issue for Kenyan producers and exporters is not the absolute cost of compliance, but rather its impact on competitiveness: the costs of introducing and maintaining EUREPGAP compliance in Kenya as compared to the costs in competitor countries. As one senior manager in a leading export company observed in May 2005, EUREPGAP could be a competitive advantage for Kenya:

I tend to be particularly positive about this [certification]. It might sound a bit cynical, but it's an entry barrier to the business. The more standards there are the less competition we are going to have. It's difficult for other people to get them. It's a competitive advantage. It costs us a lot of money. But it is still a competitive advantage.

(Project interview, Exporter 1, Respondent 1)

But, there could be distributional consequences. As well as being a possible advantage for Kenya over other exporting countries, it was predicted that the introduction of EUREPGAP would tend to advantage large exporters over smaller exporters, and large farmers over small farmers.

In fact, the extent of the problem posed by EUREPGAP was viewed at the time as even more worrying. While EUREPGAP is a private standard applicable only to those companies that choose to adopt it, in the run-up to January 2005 many

people in Kenya, including parts of the government and some NGOs believed that it was a mandatory European Union standard. As Wilson Songa, the Managing Director of the government's Horticultural Crops Development Authority (HCDA) observed in July 2005, 'When some of the European retailers first announced their standards for good agricultural practice (EurepGAP) there was panic in Kenya and fears that our produce would no longer be wanted' (Songa 2005: 2).

The confusion is not hard to understand. Leaving aside the similarity in the two names – EU and Eurep – the EUREPGAP standard was related quite closely to the increasingly stringent standards imposed by the European Union for pesticide residues and traceability. Furthermore, the General Food Law regulations (CEC 2002), which introduced traceability requirements, among other things, also took effect in January 2005. In many ways, EUREPGAP was a direct response to the risks facing retailers from the combination of increasingly stringent food safety requirements and the legal responsibility placed on food business operators by EU legislation. If these factors were not enough to sow confusion, Figure 4.1 shows quite clearly that the countries where EUREPGAP had the highest levels of acceptance by retailers, the UK and the Netherlands, were also the countries responsible for a considerable part of Kenyan fresh vegetable exports to Europe. While not all of these exports were channelled through supermarkets (the retailers insisting on EUREPGAP), a very high proportion certainly was.

4.2 EUREPGAP at the farm level

How does the implementation of EUREPGAP affect farms and farmers? What facilities, equipment and procedures have to be in place at farm level in order to meet the requirements of the standard? Clearly, implementing EUREPGAP requires both investments in on-farm facilities:

- 1 Safe handling of chemicals requires a specialised chemical store to be available, the use of suitable equipment for the proper and safe application of these chemicals, and facilities for disposal of chemicals.
- 2 EUREPGAP hygiene standards require running water in the vicinity of produce handling and clean toilets for workers.
- 3 At the post-harvest stage, too, facilities are required for grading, cooling and storage of produce.

EUREPGAP also requires the implementation of appropriate agronomic techniques. The goal of reduced pesticide use and reductions in pesticide residues requires the introduction of improved 'soft' technologies relating to agricultural practices – in particular, integrated crop management and integrated pest management, including the use of natural predators, etc. Such farming practices are very different from those that have been practised widely in Kenyan horticulture, particularly among small farmers, as observed by Okello and Swinton:

Because of the heavy pest pressure in humid tropics and the insistence of European consumers on freedom from pest and disease blemishes, green bean production has relied heavily on pesticides. Prior to [International Food

Safety Standards] era, farmers applied many different types of pesticides (including those unregistered) on green beans, often with sprayers that were old and poorly maintained and dosages that are higher than recommended. Smallholders applied pesticides weekly regardless of need, using scant protective gear, and pesticide containers were either left in the field or disposed in domestic waste pits.

(Okello and Swinton 2005: 6)

Similarly, Nyambo and Nyagah emphasised the extent to which pesticides were a central part of smallholders' production practices:

Surveys in 2002–03 showed that many smallholders growing green beans believed that production was not possible without weekly applications of pesticides (equivalent to 10 applications per cropping cycle). Pesticides accounted for the second largest component of production costs (14 per cent) after labour and over 20 per cent of farmers reported having sought medical treatment for health problems related to pesticide use. Harmonization of EU pesticide legislation in 2000 led to a situation where many of the pesticides widely used in East Africa had their residue levels set at the limit of detection, thus effectively phasing them out for export production. Particularly affected were organophosphate and carbamate insecticides and dithiocarbamate fungicides, all widely used, cheap and available from the rural suppliers used by smallholder producers.

(Nyambo and Nyagah 2006: 10)

However, equally challenging for farmers is the introduction of the risk identification, management and control systems associated with the process standard. Farms have to demonstrate that specific procedures designed to produce particular desired outputs are being followed, and decision-making relating to these procedures is appropriate and informed. This means creating and keeping documentation about skills and record-keeping systems for decision-making activities. For example, the list of requirements for EUREPGAP-certified farms in relation to just one issue, pesticide use, includes:

- A) Show that crop protection has been 'achieved with the appropriate minimum crop protection products input' (EUREPGAP 2005a: Control Point 8.1.1). This is to be achieved through documentation of crop protection product inputs, including the justifications for their use, their targets and the intervention thresholds.
- B) The farm receives assistance with implementation of integrated pest management either through formal, documented training of the technically responsible person on the farm, or from an external consultant whose technical qualifications can be demonstrated (Control Point 8.1.4).
- C) Crop protection products applied are appropriate for the target crop (Control Point 8.2.1).
- D) Only registered crop protection products are used (Control Point 8.2.2).
- E) Crop protection product application records 'confirm that no crop protection

product has been used within the past 12 months on the crops grown under EUREPGAP destined for sale within the EU having been prohibited by the EU' (Control Point 8.2.5).

- F) Confirm that the choice of crop protection products has been made by a competent person, indicated through records as to the person making the choice and documentation of the person's qualification or training. If the farmer makes the choice, his/her competence must also be indicated in this way (Control Points 8.2.6 and 8.2.7).
- G) Crop protection records must indicate the name and variety of the crop treated, the geographical area, the exact date and the name and active ingredient (Control Points 8.3.1 to 8.3.4).
- H) Use of the previous item together with harvesting dates to indicate that pre-harvest intervals have been met (Control Point 8.3.10).

As EUREPGAP is a quality management system, the farm has to prove that it has the capacity to operate this system. EUREPGAP requires that farms (or the PMO in charge of a farmer group) self-inspect (i.e. first party audit) once a year, document this inspection and show that this inspection results in effective corrective action as a result (Control Points 2.2 to 2.4).

These controls are complemented by a traceability requirement. EUREPGAP requires that for farms: 'There is a documented traceability system that allows EUREPGAP registered product to be traced back to the registered farm or, in a Farmer Group, group of registered farms, and tracked forward to the immediate customer' (Control Point 1.1).

Meeting these requirements is checked by means of a third party audit, which is carried out annually. It is this third party audit that results in the certification. From the farm-level perspective, this audit can take two forms.²⁷ A single farm can be the unit of certification. This is referred to as Option One. However, EUREPGAP also allows for group certification, known as Option Two, which is particularly important in the context of small farmers in Kenya. This has both costs and benefits. The main benefits are that the certification audit applies to only a sample of the farms in the group, typically the square root of the total number of farms. However, in return EUREPGAP places further requirements on farmer groups in order to establish that they have the means to supervise and exercise control over the different farms in the group. In particular, the group has to have a Quality Management System in place (accompanied by a QMS manual adapted to the specific farming conditions of the group), traceability, quality control and internal audit (see EUREPGAP 2005b: 34–45 for further details). As summarised by Ouma:

In order for [Option 2 farmer groups] to achieve compliance with EurepGAP control points, the quality control system needs to be documented in a Quality Management System (UMTS) manual containing standardised procedures

²⁷ More accurately, there are four certification options. In addition to Options One and Two, Options Three and Four refer to schemes that have been benchmarked as equivalent to EUREPGAP.

and recording sheets. The requirements of EurepGAP regulations dictate the quality control standards is only achieved when all group members systematically apply to [sic] the individual requirements laid out in the manual. This manual must be based on a practical production system, which takes account of local conditions and common farming practices in the respective country.

(Ouma 2007: 9)

Therefore, while Option 2 (certification in groups of farmers) has some advantages with respect to certification, it also creates its own organisational challenges, which will be discussed further below.

4.3 EUREPGAP and the responsibilities of exporters and importers

As was noted above, EUREPGAP is a farm-level standard. Nevertheless, it does have consequences for exporters and importers. EUREPGAP is a retailer-promoted standard that is specified as a condition of entry to the supply chains of many leading food retailers in the European Union. While exporters and importers do not need to apply EUREPGAP in their own packing and processing operations (they do have to apply it where they have their own farms, which many exporters in Kenya do), they still have responsibility for sourcing EUREPGAP-certified produce. If they want to retain the business of their customers, then they must ensure that they can buy such produce. If, as will be argued below, pre-existing suppliers of fresh vegetables have difficulties in meeting the standard, then it is the exporters and importers that have to resolve the problem. If importers in the key northern European markets for EUREPGAP-certified produce (the UK, The Netherlands and Germany) cannot obtain such produce, then they will be obliged either to switch to suppliers (exporters) that can supply the product, or they will have to work with suppliers so that they become able to meet the EUREPGAP requirement.²⁸ The worst possible outcome for the importer is to be unable to meet the retailer's requirements.

The same pressures are transferred to the exporters. As EUREPGAP becomes a condition of market access, so supplying certified produce becomes a necessity if they want to stay in business. If they can grow such produce on their own farms, or work with large-scale farmers, the problem may be relatively easy to solve. If, as in Kenya, small farmers have been an important and cost-effective part of the export industry, then exporters have to find a way to ensure that small farmers are able to meet the standard's requirements. Whatever the gap between the new requirements and supplier capabilities, it is the exporters, in particular who should be filling it. The cost of doing this may vary from exporter to exporter. For those exporters with well-developed outgrower schemes for small farmers and well-established food safety controls, the adjustment needed to meet EUREPGAP should be less than for exporters with less-developed systems.

²⁸ There are circumstances where importers will be vertically integrated back to production, as is the case with global fruit companies that own their own plantations, but this is typically not the case for most of the fresh vegetables sector.

This transfer of responsibility from the retailer down the supply chain does not apply only to the securing of certification. As was argued in Section 2, the key challenge for a standard system is maintaining its integrity. Exporters and eventually importers will also be held responsible for shortcomings at the farm level. The fact that farmers have been certified is not enough to absolve either importers or exporters from their obligation to provide safe food to the retailers. On the contrary, it is these links in the supply chain that should be reinforcing the controls introduced by EUREPGAP. Here, we see the power asymmetry in the value chain. For the retailers, EUREPGAP offers legal protection by providing a 'due diligence' defence should customers be sold unsafe food. For the importers and exporters, EUREPGAP provides no defence against punishment by the supermarkets for supplying this food.

This, then, is the context in which donors were trying to find ways to increase, or at least maintain, the benefits to small farmers that flowed from participation in export horticulture value chains. How well did the donors identify the context in which they were operating and devise strategies that would create the desired outcome of increasing small farmer participation in export horticulture?

5 EUREPGAP and the donor response

Development agencies, the Kenyan government and NGOs are concerned with promoting the involvement of small farmers in export horticulture in the context of an evolution of agricultural development policies that has led to three, possibly conflicting, goals:

- High priority given to focusing agricultural development on reducing poverty and delivering pro-poor growth. Agricultural development, and in particular small farm development, is seen as a central strategy for reducing rural poverty. This is frequently expressed in terms of a concern to promote small farmers.²⁹
- Emphasis on the potential for reducing poverty through increasing the access of small farmers to global markets, and in particular to the promotion of non-traditional agricultural exports as a means of increasing farm incomes and supporting rural livelihoods. Horticulture is one of the sectors highlighted by such policies.
- Giving greater emphasis to the role of markets and the private sector in agriculture, as indicated by a switch in priority from state-funded extension services to business development services for small agricultural enterprises,

29 For example, a key policy document on agriculture and poverty reduction from DFID observes that: 'Experience has shown that small farms can compete and they must be given every opportunity to do so. Only by doing this will agriculture's full potential for growth and poverty reduction be realised. It is where we must focus our attention' (DFID 2002: 16).

together with greater involvement of the private sector in agricultural development, both as service providers and as customers for small farmers.

For these agencies, the immediate challenge was to ensure that the implementation of EUREPGAP in Kenya did not undermine these goals. If small farmers were excluded from export horticulture, this would have consequences for the incomes of small farmers and employment on export smallholdings, with broader knock-on effects in the non-farm rural economy. This concern was frequently translated into concern about income distribution and poverty reduction, even though there is some evidence that large scale farms are equally effective as smallholder production in reducing poverty because their waged employment also lifts people in households above the poverty line.³⁰

Concern over EUREPGAP was part of a broader concern with the impact of developed country standards on developing country farmers. This concern was highlighted in the report of the Commission for Africa (2005). Published in 2005, this made explicit reference to the potential impact of private food standards on small farmers in Kenya:

Export markets offer very lucrative opportunities but can be very hard to exploit. Large retailers such as supermarkets in Europe play a decisive role in structuring the production and processing of fresh vegetables exported from Africa. The top 30 supermarket chains worldwide control almost a third of grocery sales. Their informal or private standards can be even more exacting than official ones – such as sanitary and phyto-sanitary (SPS) described later in this chapter – leading to the exclusion of small farmers and concentrating business in the hands of large firms. In 1997, approximately 70 per cent of Kenya's high-value horticulture export earnings were supplied by small-scale farmers. By 2000, the need to comply with international food standards meant this fell to 30 per cent. It is estimated that the effects of the 2005 EU food safety regulations could cost Kenya over US\$400 million annually in lost export earnings. If African countries do not meet these standards (see following sections), a shift in procurement from other regions, such as Latin America, could take place.

(Commission for Africa 2005: 265–6)

The perception of EUREPGAP as a threat to rural livelihoods and poverty reduction seems to have been based on four assumptions:

- Small farmers are less likely to have the financial resources for investment in new equipment, such as latrines, washing facilities and pesticide stores.
- Small farmers' ability to adopt new techniques, such as integrated pest management and crop rotation, is likely to be more limited.
- Both the startup costs and the recurrent costs of certification itself would be relatively high for small farms – relative to the revenue from their sales and to

30 This argument is developed by McCulloch and Ota (2002), who modelled the impact of different farming systems on household poverty through a simulation exercise based on data from a survey of 263 households in Kenya.

their capacity to make the upfront investment in systems development and certification.

- Small farmers tend to have less sophisticated farming systems than large farmers. Therefore the capacity of these farmers to meet the documentation, traceability and skill requirements of EUREPGAP would be less than for larger farmers.
- African countries are particularly vulnerable to the development of private voluntary standards (and food safety standards more generally) because the food safety regimes are less well-developed than those in competitor countries.

The January 2005 deadline for EUREPGAP compliance for farmers exporting to UK supermarkets certainly exacerbated these concerns, even though some farms in Kenya had been certified from the late 1990s. According to a technical manager at one of the leading exporters, its own farms began the certification process with pre-audits in 1998 and were certified as early as 2000 (Exporter Respondent 2). Furthermore, many farms, both large and small, had already adjusted to many of the requirements of export buyers and EU regulations, which meant that they were at least partly on the road to meeting EUREPGAP's requirements. Research by Okello and Swinton in 2003–04 (2005) verified changes in the practices of small farmers working with exporters to meet what they refer to as 'international food safety standards'. Nevertheless, few farmer groups had been certified by January 2005.

The discussion of EUREPGAP requirements in the previous section shows that Option 2 alone would not reduce the challenge of certification. On the contrary, it both required the adoption of new practices at the farm level and imposed obligations with respect to the organisation of farmer groups and the development of a QMS.

In the words of the person in charge of Donor Project 1, there was the sense that donors needed to 'do something' and that hasty action was required if the marginalisation of small farmers was to be avoided. In rather more colourful language, the head of Donor Project 3 described the period in the second half of 2004 in terms of, 'We were panicking about January 1st, of course. Everyone was doing some activity. All of us were running around, panicking. We did understand that there was going to be a deadline. We did understand that this was going to be an important thing.' Similarly, in May 2005, Respondent 2 from Donor Project 4 observed that 'EUREPGAP is like a buzzword now at this moment. Everyone is talking about it.' This respondent went on to observe that 'Smallholder farms, we need them, and to support them we have to get them certified'.

The sense of urgency was heightened by the confusion between EUREPGAP and EU regulations applying to all produce exported to Europe. This confusion is illustrated by this account of 2004:

The National Daily Nation in Kenya of Friday 7th May 2004 contained an article describing the difficulties that particularly smallholders would face in complying with quality standards such as EurepGAP under the title 'EU rules could destroy horticulture'. The article was indicative for the confusion and

pessimistic mood at the time over the effects of regulatory protocols of a group of European retailers. The EurepGAP standards were to become compulsory for all their suppliers by January 2005 and the general perception was that it would lead to a decline in the export of horticultural produce from Africa to Europe and would particularly exclude small scale producers from the export trade.

(Unknown 2006: 1–2)

Some of the agencies working in Kenya contributed to this sense of crisis. According to both Donor 3 and Service Provider 1, one agency promoted its training programmes by telling farmers that they would no longer be able to sell their produce in Europe unless they had undergone EUREPGAP training.

Although this sense of urgency was partly based on a misunderstanding of the distinction between the two sets of regulations that were both due to come into effect on 1 January 2005, it was not actually misplaced – for the reasons offered in Section 4.1. First, EUREPGAP was, in part, only implementing the practices that the EU had made mandatory, including reduction of pesticide levels and the introduction of traceability. The connection was made clear at Exporter 3:

In this situation here, everyone is concerned that the smallholder is going to be marginalised with the EU regulations. This EUREPGAP is not an EU regulation per se. It is being driven by the retailers. The point is that EU regulations put the pressure on importers and puts the pressure on to the retailer. There is a problem, they're the ones who are going to get locked up and they don't want to be locked up.

(Exporter 3, Respondent 1)

Second, the main outlets for Kenyan produce were the northern European supermarkets that demanded EUREPGAP. The mistake, however, was to believe that the small farmers that were exporting via small exporters to small retailers and wholesale markets would be caught up in the EUREPGAP web.³¹

In response to the challenge as it was perceived at the time, many initiatives were undertaken to facilitate certification. In fact, one could say that the attention given to EUREPGAP seemed to focus donors on this issue, and in a rather paradoxical way, the new challenge actually encouraged donors to promote new farmer groups and increase the numbers in export horticulture. It was as if the certification was viewed as a sufficient rather than necessary condition of access to EU markets. In other words, achieving certification was the main goal, and that other challenges, such as finding an exporter willing to buy the product and maintaining the integrity of the quality system over time were minor issues.

31 Asian vegetables would be one example of a product line that was distributed primarily through smaller retail outlets in the UK. HCDA had a programme to link small farmer groups with small exporters using packing facilities at its Nairobi headquarters. Products from this source also reached UK consumers through wholesale markets and the greengrocer shops. Neither of these sources would require EUREPGAP.

This is the crucial point. The focus on certification as the goal led to donors frequently making two errors in their framing of the problem they were addressing:

- 1 The goal of the donors was *not*, in many cases, framed in terms of integrating small farmers and farmer groups into those horticultural export value chains that required EUREPGAP certification. Rather, it was framed in terms of making it easier for small farmers, and particularly farmer groups, to achieve EUREPGAP certification. A consequence of this focus on farmer groups was that the value chain linkages in the export horticulture business and the critical role played by exporters in securing access to those buyers which required EUREPGAP certification were not always fully appreciated, even though donors were much more focused on private-sector initiatives in the horticultural sector than they had been a decade previously. Put succinctly, the default position of numerous donors was to think of farmers as independent producers linked to exporters through arm's length market relationships, rather than as suppliers tightly linked to their buyers.
- 2 This perspective also fails to understand adequately the relationship between EUREPGAP as a certification, and EUREPGAP as a quality management system enforced through certification. Certification is not the end in itself, but rather verification that a quality system has been put in place. It follows from this that, given the complexity of the demands placed on farmers by this quality system and the means by which it is verified (as discussed in some detail in Section 4.2), the challenges for small farmers and farmer groups are particularly severe. It also follows that donors frequently saw the major obstacle as the start-up costs incurred in achieving certification – the cost of certification itself and the cost of new equipment and facilities. When EUREPGAP is characterised as a quality system operating within a value chain characterised by high levels of coordination, a key challenge is how to maintain the integrity and controllability of the quality management system, at the farm level and in the division of responsibilities between farmers and exporters.

It also follows from this discussion that the key actors in the chain are the exporters. A few exporters are responsible for exporting the overwhelming bulk of fresh fruit and vegetables to those European retailers (via European importers). Their decisions about where to source and how to source would be critical. Furthermore, given their obligations to their customers (described in Section 4.3), the costs and benefits of different approaches to the EUREPGAP problem would be most likely to be viewed by them in the context of their overall business and the options available to them, rather than in terms of the economics of the small farmer, as will be shown below.

It will be demonstrated below that the donor framings of the problem failed to place small farmers within the global value chains that link producers to the European retailers that demand EUREPGAP certification and did not fully understand the quality management challenge. This misunderstanding of the nature of the horticulture value chain had consequences for the success of donor interventions.

In the following section, examples of various different types of donor interventions to promote small farmer inclusion into EUREPGAP-compliant production are outlined. After this, the strengths and weaknesses of these interventions are discussed from a value chain perspective. This analysis is then followed by a discussion of the ways in which exporters have developed strategies in response to the challenges of meeting the EUREPGAP standard.

5.1 Donor interventions in Kenya

What is not in doubt is the extent to which donors did respond very actively to the challenge as they saw it. In addition to initiatives funded by government agencies from the European Union, Germany, Japan, the Netherlands, the United Kingdom and the USA, some NGOs were involved along with institutions linked to the Kenyan government and private sector companies. In addition, organisations such as FPEAK (the Fresh Produce Exporters Association of Kenya), KEPHIS (Kenya Plant Health Inspection Services) and KEBS (Kenya Bureau of Standards) were also actively involved in meeting the challenge of conforming to public and private food standards in the European Union. In particular, they were involved in the national technical committee working towards a national equivalent standard, KenyaGAP. The richness of the local institutional environment, the importance of aid donors for the Kenyan economy and Kenyan government, and the widely-recognised importance of export horticulture for rural development, all came together to create rich and varied responses to the perceived challenge of the EUREPGAP standard.

These schemes were aimed predominantly (although not entirely) at small farmers, on the grounds that these farmers were at a particular disadvantage with respect to achieving EUREPGAP certification. The range of these initiatives is shown in Table 5.1. This is drawn entirely from publicly-available sources on the internet. This means that it is certainly not comprehensive, and it is likely to be biased towards interventions, donors, partner organisations and beneficiaries that are inclined to provide information on the web. Nevertheless, the 18 initiatives in the table do provide a good indication of the scope of activities and funders involved in initiatives relating to EUREPGAP in 2004–06. It is a partial list: Exporter 4 claimed that there were over 50 initiatives operating at the beginning of 2005. Similarly, in 2004 alone, Donor 3 had initiated 16 new projects involving 10 different sub-contractors in the horticulture sector. Most of these projects were related to EUREPGAP in one way or another.³²

With any donor activity on this scale, there will be problems. The most familiar ones will be corruption – observed in at least one of the 18 cases in the table according to the donor concerned – and lack of coordination between agencies and inter-agency rivalry. A number of the respondents pointed to this problem. However, the table also points to considerable inter-agency collaboration. One of the parastatal organisations interviewed was able to point to its collaborations with two leading exporters, the exporters' association, FPEAK, and two of the most active donors.

32 Further discussion of initiatives in Kenya and Uganda can be found in FAO (2006: 19–23).

The aim of this analysis is not to evaluate the success or failure of these projects in terms of the issues of aid effectiveness that arise in many development interventions. Rather, its focus is – to repeat the argument made above – on the ways in which the issues were framed by the many agencies involved in responding to the challenge of EUREPGAP and the consequences of these framings for the effectiveness of the interventions. As new standards and new challenges are likely to emerge in the globalised food industry, similar challenges are likely to arise in future, and this is why it is important to learn from the EUREPGAP experience.

The 18 interventions listed in Table 5.1 demonstrate both the range of different agencies involved in the response to EUREPGAP and the many different ways in which the overall goal of facilitating access of small farmers to export markets was addressed. It has been constructed using the extensive materials available in the public domain (as illustrated in the table itself), recent analyses of EUREPGAP interventions in Kenya,³³ and project interviews with some of the key actors concerned (as specified in Appendix 1). Interventions 1–9 are mainly concerned with developing and training farmer groups with a view to certification. The involvement of exporting companies in these initiatives varied considerably. Interventions 10 to 16 are mainly concerned with service provision. Interventions 17 and 18 mainly involve working with exporters.

The analysis will focus on the following issues:

- A) Some interventions were aimed at developing private sector provision of the support services needed for EUREPGAP. How did they contribute to smallholder certification?
- B) Training. This was an important component of numerous interventions. How was it located within the broader goal of ensuring small farmer access to EUREPGAP-compliant export markets?
- C) Creation and operation of farmer groups. This is the basis for certification under Option 2. What are the implications of the QMS requirement for the sustainability of farmer groups?
- D) The economics of EUREPGAP for small farmers. This has been the main focus of recent analyses of the impact of EUREPGAP on small farms. To what extent has the value chain perspective and the role of exporters been incorporated into these analyses?
- E) Exporter responses to the challenges of EUREPGAP. What have exporters done to make EUREPGAP more manageable and cost-effective in the context of outgrower groups?

33 Notably, a DFID-funded study by Graffham *et al.* (2007), a study carried out by researchers based at ICIPE (Asfaw *et al.* 2007; Mithöfer *et al.* 2007), and an evaluation of the lessons learned from intervention 11 in Ouma (2007).

Table 5.1 Publicly available information on EUREPGAP interventions by development agencies in Kenya

P*	Donor	Description	Source	Source
1	DrumNet Kenya Horticultural Exporters Limited (KHE) Farmers	1. Pride Africa (USA) 2. IDRC (Canada) 3. GTZ (Germany)	1. Formation of farmer groups in Mount Kenya region. Project overtaken by introduction of EUREPGAP. 2. EUREPGAP manual translated into Kikuyu. 3. Detailed training modules for the DrumNet farmers. According to Pride Africa, 'DrumNet, a project of Pride Africa, was launched in late 2002 to deliver a set of critical business support services directly to the African smallholder farmers. It is designed as marketing, financial and information services for mainstreaming resource-poor farmers' (Pride Africa 2003).	(Pride Africa 2005) (Ashraf <i>et al.</i> 2006)
2	KHE avocado growers	Kenya BDS Program, funded by USAID ³⁴	'In August 2004, Kenya BDS entered into a Memorandum of Understanding (MoU) with the Kenya Horticultural Exporters (KHE) to develop a commercial market linkages program for avocado farmers ... Under this MoU, Kenya BDS offered to mobilize and train avocado farmers ... to form into viable producer groups which could enter into commercial win-win relationships with KHE as a buyer of their fruits ... The second phase of the program started in October 2005 and had a target 1,000 farmers with 10,000 trees. During this phase, the program has worked with 559 farmers, organized into 25 groups with a total of 5,553 trees'. In a third phase of this programme, one of the goals specified in the terms of reference was 'Total number of MSEs with EUREPGAP certification – 1,000.'	(Kenya BDS Program 2006)
3	Local contractor	Kenya BDS	A tender with the following outputs envisaged was issued in 2007: 'By the end of this intervention, Kenya BDS envisions that in the passion fruit sector 4 groups will have achieved EurepGAP certification with ongoing support and administration from a market linkage service provider that oversees a functioning QMS. In the avocado sector, 6 groups will have achieved EurepGAP certification, supported by a network of 3 market linkage service providers (serving different export markets) that are each maintaining their own QMS. Most importantly, the field staff (Field Coordinators and Group Management Officers) of the market linkage firms will have the necessary skills and experience to reach additional groups linked with their end markets. Through the success of the initial pilot groups, additional farmers will see that EurepGAP certification is not a barrier but an opportunity. Actual results from Phase 2 will be measured against specific indicators proposed by the facilitator, but will contain targets such as: <ul style="list-style-type: none"> • 1 passion fruit QMS Manual developed and certified by AfriCert and adapted for 2 exporter production systems; 	(Kenya BDS Program 2007)

P* Partner in Kenya

34 The Kenya BDS Program is funded by USAID and managed by the Emerging Markets Group, a spin-off from Deloitte Touche.

			<ul style="list-style-type: none"> • 1 avocado QMS Manual developed and certified by AfriCert and adapted for 3 exporter production systems; • 4 smallholder passion fruit groups EurepGAP certified (25 farmers per group); • 6 smallholder avocado groups EurepGAP certified (25 farmers per group); • At least 250 farmers trained in the technical aspects of EurepGAP certification; and • At least 5,000 farmers aware of the benefits derived from record-keeping, traceability, and EurepGAP certification.' 	
4	Gatanga Horticultural Farmers' Group Myner Exporters	HDC (USAID) ³⁵	Group applied to 'HDC for technical assistance and training in passion fruit agronomy, EUREPGAP implementation and certification, market information and linkages in January 2004. ... Achieving EUREPGAP compliance is a major goal of the group and as such they have been working with both HDC and Myner Exporters'.	(HDC 2005)
5	Outgrowers EAGA WONI	HDC (USAID)	'Two HDC-assisted outgrowers, Janet Kajuju and Phalis Kimaita; and two farmer associations, Jericho and Makena Selfhelp Groups, received EUREPGAP certification in May. All have marketing contracts with East African Growers (EAGA) who have now increased their list of certified outgrowers and groups to 30. Additionally, 11 new EUREPGAP extension officers, recruited by WONI Exporters with HDC assistance, began their field work, having received training in all aspects of EUREPGAP compliance.' EAGA and WONI are horticulture exporters.	(Fintrac/ HDC 2005: 3)
6	CARE+ Vegpro (Vegcare)	Including BSMDP	Provision of EUREPGAP services to farmers organised in farmer groups under an earlier CARE REAP (Rural Enterprise Agribusiness Promotion) project initially financed by IFAD. 'Support on possible REAP joint Venture company and EurepGAP certification in Kibwezi'.	(Odo 2006a) www.bsmdp.org
7	Karikoini Green Growers Kenya Horticultural Exporters Limited (KHE)	Fintrac-KHDP-USAID	Karikoini Green Growers, a group of nine women and 24 men located in Kenya's Central Province ... were growing a variety of traditional crops, had low yields, and were selling to informal markets at inconsistent prices. In April 2005, the group began receiving assistance from Fintrac's Kenya Horticultural Development Program (KHDP), which is funded by USAID. The group is linked with Kenya Horticultural Exporters Limited (KHE), a major supplier of fine beans and other fresh produce to the European market. Through the KHDP-KHE alliance, the group became EurepGAP certified in November 2006, a major achievement that enabled sales of French beans into the European market.	(Fintrac 2006)

35 USAID worked through a private sector company, Fintrac (www.fintrac.com). This company set up the Horticulture Development Centre, HDC, which runs the USAID-funded Kenyan Horticulture Development Programme (KHDP). Different documents from this initiative emphasise Fintrac or HDC or KHDP. For more information on KHDP, see Fintrac (n.d.).

8	Ministry of Agriculture HCDA	JICA (Japan)	Training of extension staff on EU regulations and EUREPGAP: 'sensitization and training of field extension staff from the Ministry of Agriculture (MOA) and HCDA on EU regulation and EUREPGAP requirements. This was done through training and workshops that exposed the staff to Quality Management Systems (QMS) – ISO 9000, Environmental Management System – ISO 14000 and Social Accountability – SA 8000. The trained officers can now serve as trainers for smallholder farmers and internal auditors who prepare farmers for pre-audits. Several training and production manuals covering export fruits and vegetables were also developed and all these incorporated Good Agricultural Practices (GAPs). Subsequent to these trainings farmers' groups were trained at district level and group secretaries trained on record keeping, an essential component to attain compliance'.	(Nyagah 2007: 8)
9	Exporter – information not in public domain	CBI (Netherlands) NAK Agro	'NAK AGRO is also active in Kenya and Senegal. By order of the Dutch government and the sector organization CBI (Central Bureau for Commodities) NAK AGRO, together with its partners in these two countries, carries out a project which aims to introduce EurepGAP at small-scale producers'.	(NAK 2007)
10	CARE+ Vegpro (Vegcare) Reach the Children	DFID-BSMDP (UK)	Develop QMS manual for Option 2. Vegpro is a horticultural exporter. CARE and Reach the Children are NGOs. The Business Services Market Development Project (BSMDP) is a DFID-funded programme managed by Cardiff and Vale Enterprises.	(Billing 2007) (Agricultural Review 2007) (Coates 2006) (Odo 2006b&c)
11	Various	DFID-BSMDP GTZ EUREPGAP	Develop generic QMS manual for Option 2.	(Billing 2007) www.gtz.de/en/praxis/9479.htm
12	ICIPE 19 farmer groups KHE Myner Indufarms Greenlands	DFID-BSMDP USAID-HDC	'Candidates were selected from the large number of respondents to a newspaper advertisement; and each of the collaborating export companies nominated one of their field staff to participate. Training started in November 2003 and covers extension communication skills, working with farmer groups, integrated pest management, safe and effective use of pesticides, hygiene standards for fresh produce, business management and EUREPGAP (Euro Retailer Produce Working Group for Good Agricultural Practice) requirements and preparation of outgrower groups for certification. Trainees attached to outgrower groups (one trainee per group) have been able to improve group organisation, linking groups with reliable exporters, preparation for EUREPGAP compliance and providing services to smallholder horticultural producers against payment.'	(ICIPE 2005) (Lenné and Ward 2004)
13	FreshLink	DFID-BSMDP	Support for FreshLink as a vertical marketing organisation. FreshLink is a produce marketing organisation that acts as an intermediary between farmers and exporters.	(Billing 2007)

14	Africert	BSMDP- DFID GTZ	Support development of Africert. Africert is a local certification company, originally spun off from ICIPE.	www.gtz.de/en/praxis/9479.htm
15	Association of Developing Horticultural Exporters of Kenya (ADHEK)	BSMDP	BSMDP promoted and worked with ADHEK to facilitate the access of small exporters to EUREPGAP-compliant European customers. ADHEK's membership focused on the small exporters that used HCDA's facilities at Nairobi airport. BSMDP's work plan included: 'Work with HDC and possibly Kenya BDS to establish actual and demonstrable examples of fully certified PMOs in the avocado and green bean sub-sectors. This may involve working with groups already related to an organization of exporters like or with the more flexible and innovative large exporters. Equally, the project could identify existing groups which are already working towards certification and which could be established as exemplars of the process.' 'To work with [ADHEK] to develop its relationship with its producer groups and to explore how these linkages can be strengthened and grown as part of the process by which smallholder groups can also obtain group compliance with export regulations and the EUREPGAP code of practice.' BSMDP also supported a private sector organisation, Agribusiness and Allied Kenya Limited, whose 2004 business plan defined its mission as 'To be the professional leaders in training and implementation of EUREPGAP standards and ensuring continuous achievement of other market requirements and regulations to farmers engaged in high-value farm production' (Agribusiness and Allied Kenya Limited 2004).	(BSMDP n.d.) (Agribusiness and Allied Kenya Limited 2004)
16	ICIPE	USAID	Training of trainers.	(Nyagah 2007: 1-2)
17	Myner	Pesticides Initiative Programme (PIP) (EU)	'PIP was there to help Myner at every step of the way. A protocol was signed between Myner and PIP in November 2002. That same year a needs assessment study was carried out. A food safety system was implemented in 2003 and by early 2004 a computerised traceability system was also in place. Also in 2004, the company's technical staff and small growers received training on hygiene and traceability issues. EurepGAP pre-audits were also carried out that same year and certification was acquired at the end of the year. All these actions were conducted with PIP support.' PIP, founded in 2000, is managed by COLEACP, a non-profit making organisation set up by the European Commission to help develop the competitiveness of horticultural exports from ACP countries. PIP's programmes long predate the recent concern with EUREPGAP, having been created in response to the tightening of EU regulations concerning pesticide residues in the 1990s. A roundtable on the pesticides initiative was held as early as June 2000 in Nairobi.	(Pesticides Initiative Programme n.d.)
18	Homegrown	PIP	Homegrown has received training for its smallholders and its technical staff through PIP.	(Lenné and Ward 2004)

5.2 Promoting business services

Promoting the development of business services and providing training to small farmers can be considered to be the opposite ends of the intervention spectrum. One targets small farmers directly, and the other focuses on the overall business environment and the provision of specialist services for agricultural development. This sub-section looks at service provision, and the following one focuses on training of farmers.

Table 5.1 identifies seven initiatives related to various aspects of service provision (interventions 10–16). Work in this area was led by two pre-existing donor programmes for promoting business services: the DFID-funded Business Services Management Development Programme (BSMDP) and the USAID-funded Business Development Services Program (BDS). In both cases, EUREPGAP became the focus of some, but not all, of their work. The BDS defines its programme in more general terms:

Specifically, the program will select subsectors of high growth potential for MSEs, and identify market inefficiencies along the value-chain. As critical constraints are identified, the program will facilitate the delivery of appropriate business services to rural MSEs on a commercial basis.³⁶

As can be seen from the BDS website, it did work directly with small farmers and exporters, and it worked both directly and through the development of service providers, to identify and eliminate value chain inefficiencies.

The BSMDP also promoted a wide range of initiatives, focusing on EUREPGAP as it became evident that it would be important for market access: 'findings [other study commissioned in 2001 on green beans] led to a change in focus [of the horticulture programme] from only green beans to all export vegetables and an implementation strategy development designed to ensure small holder producers are maintained in the export value chain, and focused on in the identification of interventions that address issues related to EurepGAP'.³⁷ These included promoting a local CB by cooperating with a leading local institution, ICIPE, to spin out its expertise on certification into an independent company, Africert. This was seen as a means of reducing the cost of certification, which up to that point depended upon certification companies from Europe or South Africa. However, some UK supermarkets insisted on specifying particular certification companies, and this was a particular constraint for companies auditing simultaneously for EUREPGAP and TNC.

In addition to this, BSMDP promoted smaller exporters and other local service companies. One of these initiatives is summarised in item 15 in Table 5.1. ADHEK is an association of medium-sized exporters supported by a DFID BSMDP programme. The same programme also promoted Agribusiness and Allied Kenya Limited, whose 2004 business plan defined its mission as 'To be the professional leaders in training and implementation of EUREPGAP standards and ensuring

36 www.kenyabds.com, program overview

37 <http://bsmdp.org/winner.asp?pcat=subsectors&cat=exportsector&sid=117>.

continuous achievement of other market requirements and regulations to farmers engaged in high-value farm production' (Agribusiness and Allied Kenya Limited 2004). Seven different horticulture initiatives, all relating in one way or another to EUREPGAP are listed on the website.³⁸

While these interventions are not always directly focused on small farmers, they do seek to enhance the possibility of small farmer incorporation into EUREPGAP-compliant value chains. By promoting the development of independent service suppliers, they also point to the possibility of de-linking small farmers from particular exporters. If many of the support services for farmer groups could be provided by such independent service suppliers, then it might be possible to support farmer groups that could, in principle, work with one or more exporters. This issue will be considered further in Section 6.3 below.

Service promotion did, however, face two challenges. The first came from the donors themselves. By subsidising the services offered to smallholders in order to reduce the costs of certification, and also by bringing in 'experts' from their home countries, some donors undermined the local market for EUREPGAP-related services. The second came from the exporters. Exporters expanding EUREPGAP-certified production were in the market for qualified local staff. According to one local service company:

BSMDP and BDS are business service creation – and that, therefore, is not direct assistance to getting people through EUREPGAP. They are creating service providers who will then go through EUREPGAP. [A donor] has put quite a lot of money into training individuals as service providers. As soon as they've been trained, they get snapped up by the exporter companies as employees ... These export companies will come and grab them and say, 'you have a permanent job'.

(Service provider 1)

These service provision initiatives may increase the local stock of knowledge, but it is less clear whether they will create the potential for independent service suppliers. Furthermore, it is not clear to what extent the services are required by those exporters that are linked into the supply chains of the European retailers that require EUREPGAP.

5.3 Knowledge gaps and training

Training is clearly essential for farmers that are going to be incorporated into EUREPGAP-compliant production, whether as individual farmers under Option 1 or as part of a farmer group in Option 2. Training initiatives were widespread. Farmers in groups supplying Service Provider 5, for example, reported having received one-day training courses in record-keeping, pest management, storage and handling, hygiene, group management, fertiliser application, farming techniques and knowledge about EUREPGAP, although not all the farmers

38 <http://bsmdp.org/winner.asp?pcat=subsectors&cat=exportsector&sid=118>.

interviewed had taken all these courses. Financial support for this Exporter's development of farmer groups was provided by Donor 3. Training (both for farmers and for technical staff) was also the focus of the PIP initiative. Although this programme had been developed to address EU regulations rather than EUREPGAP specifically (one respondent suggested that the term 'EUREPGAP' had to be avoided in approaches to PIP), it was used by exporters, as indicated by projects 17 and 18 in Table 5.1.

The intervention most clearly focused on training was the collaboration between JICA and HCDA (project 8), focused on the training of trainers (extension officers) and the training of the secretaries of farmers groups in order to reach farmers in farmers groups. One estimate of the reach of this programme was that it was possible to reach 1,507 groups and 45,000 farmers. Another estimate supplied by a respondent in Kenya suggested that 2,500 farmers were trained. According to Service Provider 5, the training took place over three days, with farmers being paid to attend, but there was no further follow-up. These interventions were accompanied by a translation of materials into the local language to facilitate training. This was done by JICA and also in the case of the IDRC-funded translation of the EUREPGAP manual (project 1).

Training was also the initial focus of the work of Donor 4. According to Respondent 2 from this donor, who was interviewed when the company hired for the work was making its initial scoping visit to Kenya, the goal of this intervention was to train 500 farmers. The intervention was to be limited to this. Subsequently, the focus of this intervention changed, and much greater emphasis was put on working with an exporter in Kenya and developing an innovative approach to the challenges of securing certification for farmer groups.

There is no doubt that training of small farmers is attractive to donors. It reaches the target beneficiaries directly and is well targeted to the rural poor, who are a priority group for the overall donor goal of reducing poverty and achieving the MDG poverty reduction goal. One service provider highlighted the way in which training and consultancy were priorities for the donors:

The problem is, everybody focuses on training and consultancy. If I come up with a budget for EUREPGAP, there can be 6 million [Kenyan shillings] to training and consultancy, no questions asked. But if I put in 300,000, for example for a 40 foot container which we convert into a grading shed and a water tank on a concrete slab, it's a big issue. They can't fund it. I don't need a consultant for £650 per day to talk to 30 smallholders about EUREPGAP. Plenty of people can do that. Biochemical [experts] come for free to train our farmers. And this is more or less the issue. Consultancy, no problem, everybody will empty their pockets, because there's plenty of money. But when it comes to a proper infrastructural input, you can't do it.

(Exporter 5)

The shortcomings of training lie in two areas. The first is that providing farmers with some knowledge about EUREPGAP is not the same as providing them with the equipment, procedures and techniques to meet the standard. As was shown in Section 3.2, the standard is set out as a series of control points. Translating

information about these control points and introducing them to farmers is neither sufficient nor necessary for EUREPGAP certification. On the one hand, training in this area does not provide the knowledge and resources to implement the rules and procedures laid down by EUREPGAP. For example, being provided with the information that the EUREPGAP auditor will check to see 'whether or not the choice of crop protection products has been made by a competent person, indicated through records as to the person making the choice and documentation of the person's qualification or training' is a long way from being able to implement this requirement. Who will train the competent person? How will records be kept of both this person's activity and his/her qualifications? On the other hand, in a well-managed system (managed by an exporter, a produce marketing organisation or the management of a farmer cooperative), people and procedures could be put in place to ensure that a competent person (or persons) is available to scout fields and identify problems, decide on the course of action and use the appropriate crop protection products. The farmer would not necessarily have to make any decisions on these issues.

The second major problem relates to the link between the farmers in groups being trained and export markets. Donor 5 had through its previous interventions provided resources which had enabled small exporters to access parts of the European market. These small exporters were able to hire facilities for packing on a daily basis, and the donor's Kenyan partner had a programme to link them with small farmer groups. This rather effectively increased the access of exporters and farmers to segments of the European market not targeted by the larger exporters. However, these segments of the European market did not require EUREPGAP. Therefore, even if the scheme had been successful in enabling farmer groups to obtain EUREPGAP certification, it would have substantially increased farmer costs, without necessarily providing access to the export market segments that required EUREPGAP. In other words, even if successful, the scheme would have created additional costs without any obvious additional benefit.

Other initiatives that have focused on training have avoided some of these problems by linking directly with exporters and training either farmers in exporter outgrower schemes, or exporter staff who will then implement EUREPGAP. Initiatives 2, 3, 4, 9 and 12 in Table 5.1 fall into this category.

Nevertheless, the challenges associated with developing farmer groups turned out to be substantial (as will be discussed further below). Realistically, EUREPGAP training becomes intensive and focused on relatively small groups, rather than extending to large numbers of farmers. One of the people involved in a project listed in the table argued subsequently in a reflection on rural producers in the context of globalisation and supply chain integration that:

Niche markets are usually highly specified markets with potentially high margins and relatively dynamic elasticity of demand (fashion or longer term trend?). Yet, from the development perspective training farmer, traders and processors on quality production and handling has a poor cost-benefit ratio: relatively few people are finally highly specialised under relatively high costs.

(Höffler 2007: 1)

This conundrum will be considered further below.

5.4 Support for the development of farmer groups

Given the importance of farmer groups for Option 2 certification, one of the ways that donors pursued their overall goals of rural development and poverty reduction was to try to facilitate the entry of new farmer groups into export production. In some cases, these farmer groups were formed with the support of local and international NGOs and then supported by donors. In other cases, they involved reorienting existing farmer groups to EUREPGAP production. To what extent were the challenges facing farmer groups in the context of EUREPGAP correctly understood? In particular, were the challenges arising from the implementation of a quality management system (QMS) (as outlined in Section 4.2) and the maintenance of system integrity fully appreciated and addressed?

Farmer groups existed in Kenya prior to the introduction of EUREPGAP, both linked to exporters and as independent groups. For example, the groups formed by HCDA linked to smaller exporters (mentioned above) pre-dated any concern with EUREPGAP. However, EUREPGAP created new challenges. The first, and most obvious one, was that in order to qualify for Option 2, group certification, the group had to be a legal entity that could enter into a contractual arrangement with an exporter. Legal status was, however, only the first requirement. The groups also needed to function effectively, and here EUREPGAP placed demanding new requirements. In particular, the QMS system depended upon the capacity of the group to maintain group discipline, while EUREPGAP system integrity required the maintenance of a control system that would satisfy the exporters' needs. Problems arose in both of these areas.

The development of a farmer group QMS was itself a challenge. For some people in the industry, this could only be achieved with the help of the exporters:

The key thing that the exporters provided is the knowledge of how to get through EUREPGAP. Outgrower groups in [various districts of Kenya] just would not know how to go about getting EUREPGAP qualified. Now, I have a view that it is only the exporter and/or people like ourselves [service providers] who can get a group through. I think it all revolves around the exporter. No disrespect to the Ministry of Agriculture or HCDA, they cannot provide the immediacy, the knowledge, the current commercial information to get a group through EUREPGAP.

(Service Provider 1)

This view reinforces the importance of the initiatives around service provision. Without such initiatives, the process would be completely in the hands of the exporters.

Donor interventions did, generally speaking, address the knowledge and capacity issues facing farmer groups. There is less evidence that the implications of EUREPGAP for group discipline were fully understood. Across the different donors, there were two approaches to the promotion of farmer groups for EUREPGAP. The first was to focus on the maintenance of existing exporter farmer groups in the export business. Given pre-existing pressures towards the marginalisation of small farmers and the role of outgrower groups as the bedrock of small farmer export production, just preserving existing levels of small farmer exports was a

challenge. The second approach was to support the creation of new groups and draw them into export horticulture. In part, this was because EUREPGAP was being seen as an opportunity rather than a threat – in effect, as a sufficient condition for access to this market, rather than a necessary one. In part, it was because some donors saw working with exporters as excluding other small farmers. In the words of Donor 4, Respondent 2, ‘I know we’ve been told that we should work through the exporters, but on the other hand, because it’s been said that the exporters have their own little niche, then what happens to the others?’

In either approach, the challenge is to create groups that can enforce discipline. The QMS requirement is not simply that a system is in place, but that the group enforces it through discipline – a point expressed powerfully by Service Provider 2:

The group must have discipline. You have a manual by which you are going to manage your group. In other words, what you do with the individual grower, grower Z, who doesn’t obey your rules, who sprays an illegal pesticide, who breaks your rules. Each group must not only meet the EUREPGAP standard, but they must have their own code of practice by which they run their group. So it is actually, I think, is more difficult to go through EUREPGAP certification as a group, because you then also have to have this code of practice that is run by the group. The group has to be strong enough to implement their code of practice and have the discipline and to understand why they have to have a code of practice...

Everyone joins a group, because someone comes along and says it’s a great idea, but then when the crunch comes, they have to stick by the letter of the law, i.e. by this code of practice, there’s quite likely to be a high wastage within the group because they’ll have to throw people out.

On this point, there was broad agreement about the problems involved in creating and maintaining farmer groups. Donor 5, respondent 2 referred to ‘group dynamics’: ‘They come together, they are very happy but after a time they start fighting – for leadership and all these things. Some of them, they agree and continue performing well. But others break completely.’ Donor 2 referred to the failure to emphasise leadership training for groups, and the evaluation of the QMS Manual project highlighted the importance of group dynamics (Ouma 2007: 33). Groups that are subordinated to exporters, which can offer a secure outlet for their produce but which can also threaten expulsion, may find it easier to keep group discipline.

The issue of discipline is also important for controlling side-selling. Once again, this has been a long-established and widespread problem in outgrower schemes. Although exporters frequently criticised outgrowers for doing this (it was a complaint raised explicitly by Exporters 3, 4 and 7), it is also something that some exporters, including some of those who complain about it, sometimes encourage. The basic logic of side selling is well-known. If exporters running outgrower schemes provide seed, fertiliser, etc., and also provide a fixed year-round price, then farmers have an incentive to sell produce to other buyers when the spot price is higher than the fixed-price. This is inconvenient for the exporters. But with EUREPGAP, the stakes are raised much higher. On the one hand, the investment

by exporters in farmer groups is greater (discussed further in Section 6 below), and the losses from side-selling higher. On the other hand, the integrity of the system is compromised if, when the spot price is lower than the fixed-price, farmers sell produce from non-certified sources as though it were their own. As highlighted by Exporter 5:

You don't need to own anything to become an exporter [referring to the phenomenon of briefcase exporters] ... That mentality is still here, and as long as it's here, the smallholder will always have the temptation to buy from outside when other farmers do not have a market, which is more dangerous even than in selling outside. When he sells outside, I might lose my orders for that week. But when he's buying from outside he makes extra money because his neighbour doesn't have a market, and I am still there to collect. But in the meantime, his neighbour has not sprayed the right chemicals and I'm going to be in trouble when I do my MRL testing.

Similarly, the Kenyan counterpart of Donor 5 emphasised how much the side-selling mentality was prevalent in groups and how attempts to control this were one of the causes of friction within the groups.

Exporters tend to manage this problem by keeping track of the quantities of seeds issued and the yields from different plots. Given the need for continuity of production, farmer groups will be continually planting and picking on a 12-week cycle for green beans. The records for each block (the sub-unit of an outgrower's farm which is planted at the same time), when compared to other blocks will indicate outlining yields that may indicate side-selling or side-buying.

In other words, these problems can be limited through exporter controls. However, these controls eat up resources. This leads on directly to the issue of the economics of EUREPGAP certification for small farmers.

6 The economics of EUREPGAP certification for small farmers and farmer groups

The economics of EUREPGAP certification in Kenya, particularly as it applies to small farmers, has been the focus of a number of recent studies. The concerns of donors about marginalisation of small farmers have led to studies of the cost of small farmer and farmer group certification being commissioned by some of the donors involved in Kenya. These focus mainly on the cost of small farm and group certification, the extent to which these costs are borne by exporters and donors, and the financial viability of small farms. The results of two of these studies are discussed in Section 6.1. We will argue that the economics of EUREPGAP need to be viewed from the exporter perspective, which provides a very different view of both the nature of the costs involved and how they might affect decisions about who produces fresh vegetables exported from Kenya. This discussion is taken up in Section 6.2.

6.1 Recent studies of the costs of EUREPGAP certification

Two recently published analyses of the economic implications of EUREPGAP have attempted to quantify the costs of compliance and their impact on farm incomes. The first of these reports was commissioned by DFID. A four-country study undertaken by Graffham, Karehu and MacGregor (2007) examined the introduction of smallholder EUREPGAP schemes by 11 exporters in Kenya, including all of the largest Kenyan horticultural exporters. It provided a detailed analysis of the costs involved for introducing EUREPGAP schemes for small farmers, covering both the start-up costs for introducing EUREPGAP and the recurrent costs of maintaining schemes beyond their first year. It examined the cost levels and the sources of finance for these costs – farmers themselves, exporters and donors.

The second study was carried out by researchers based at ICIPE in Kenya (Asfaw *et al.* 2007; Mithöfer *et al.* 2007) with collaboration from the University of Hanover. It also focused on the costs of introducing EUREPGAP, sampling a total of 539 small farmers in five districts of Kenya. The sample was divided between farmers supplying the domestic market, export farmers not certified and export farmers who were either already certified, or working to certification. In addition to these groups, the survey also looked at 18 contract farmers and eight farms belonging to exporters. The study focused as much on the characteristics of farms that adopted, or did not adopt, EUREPGAP as on the costs of adoption.

The findings of these reports with respect to costs are mostly consistent and can be summarised as follows:

- The costs of introducing EUREPGAP are substantial, although they vary significantly from exporter to exporter. Graffham *et al.* (2007: 21) find variations in the cost per farm of different schemes ranging from £100 per farm to £2,800 per farm. These variations are partly the result of different scales: schemes involving more farmers reduce the per farm cost, and the cost per farm reduces substantially when more than 50 growers are involved (2007: 26). However, it seems likely that in addition to inconsistencies in the way that companies calculate costs there were also substantial differences between the preparedness of different exporters. Exporters with highly organised outgrower schemes would already have had in place many of the elements required for EUREPGAP, and this point will be discussed further below.
- The extent of donor support for initial costs varied very substantially between exporters, ranging from 100 per cent of the initial costs of one scheme to 0 per cent for others. Across 10 exporters, donor support for initial costs averaged 20 per cent. The farmers themselves contributed 36 per cent and the exporters 44 per cent (Graffham *et al.* 2007: 20).
- As might be expected, donor support focused more on start-up costs. The Graffham *et al.* study found no donor support for recurrent costs. These were divided between exporters and farmers. In fact, exporters covered 86 per cent of these costs, and in eight cases for which data is available, exporters covered all these costs in three of them (2007: 23).

- Notwithstanding the high level of exporter contributions to recurrent costs, these still represent a substantial burden for small farmers. Graffham *et al.* calculate that the true cost per farm of small farmer certification is over £1,000, and that the 36 per cent of total cost contributed, on average, by farmers works out at £433. They further calculate that this initial investment would have to be financed out of a production margin for small farmers of only £182 per annum (before labour costs). Similarly, Asfaw *et al.* found that the initial cost per group member for EUREPGAP, together with the recurrent cost came to one third of farmers' annual income even when exporters and donors paid for substantial costs such as external auditing, certification, training and soil analysis (2007: 12).
- These findings lead Graffham *et al.* to the conclusion that the financial viability of EUREPGAP is marginal and that without substantial initial subsidy, it would be impossible for farmers to be financially viable. Financial viability is very sensitive to both the share of initial costs borne by farmers and future variations in recurrent costs.
- The ICIPE study compared farmer groups and larger farms. It found that, even with substantial support from exporters and donors, the break-even period for small farmer investments in EUREPGAP was three years, compared to one month for exporter farms and 12 months for large contracted farms (Mithöfer *et al.* 2007: 4). Second, there are substantial differences in the incidence of recurrent costs for the different types of farms. The time spent on monitoring was 3.5 hours per week per acre for farmer groups, compared to only 0.1 hours per week per acre for large contracted farmers (Mithöfer *et al.* 2007: 5). So, EUREPGAP reduced the cost advantage that small farmers are generally held to possess in the production of fresh vegetables, particularly green beans.
- Both of the studies cited point to some positive outcomes for small farmers of the introduction of EUREPGAP. Some costs are reduced, particularly those relating to reduced pesticide application. Furthermore, there are clear gains with respect to health and safety of both farmers and family members.

This perception of the cost burden of compliance with EUREPGAP and the lack of capacity of farmers to meet it was the driving force behind various donor initiatives. Donor 2, for example, financed one project with the following subsidy elements:

- Donor financing of risk assessment and manuals.
- Cost of training guides split equally between donor and exporter.
- Training the trainers programme paid by donor.
- Facilities development cost split equally between farmer and exporter.
- Three audit costs financed half by donor and half by exporter.
- Soil and water analysis paid by donor.
- Certification course paid by donor, except for the auditor's transportation costs which were paid by the exporter.

But the evidence available by late 2006 showed that existing outgrower schemes were under pressure. Graffham *et al.*'s analysis of 10 exporters showed a sharp decline in small farmer groups, as shown in Table 6.1. The authors describe this decline in the following terms:

In 2003 when EUREPGAP implementation started, the exporters sourced produce from 9,342 SSGs [small-scale growers] ... By 2006, 60 per cent of these growers had been dropped by their exporter because of problems with implementation of EUREPGAP. Of the 40 per cent of SSGs retaining access to EU retail markets, 31 per cent [of the 40 per cent] had been certified for EUREPGAP. 15 per cent of the farms that have obtained EUREPGAP certification have since been dumped by their exporter as the costs of maintaining certification were not matched by the level of income from produce obtained by these growers.

(Graffham *et al.* 2007: 43)

Table 6.1 Summary data on small-scale growers (SSGs) excluded from EU retail markets due to the implementation of EUREPGAP, Kenya

Exporter	SSGs prior to EUREPGAP	SSGs in 2006	Certified SSGs in 2006	SSGs dropped
1	750	750	750	0
2	1,180	300	40	880
3	400	14	0	386
4	360	360	0	0
5	107	33	33	74
6	605	237	126	368
7	500	170	18	400
8	4,000	2,000	200	2,000
9	1,200	73	0	1,127
10	240	0	20	240
Total	9,342	3,937	1,187	5,475

Source: Graffham *et al.* (2007: 42).

Although there is a substantial variation between exporters, the three exporters with the largest number of small-scale growers appear to have substantially cut back, and overall only 1,187 out of 9,342 growers were certified by 2006 (over a year after the January 2005 deadline). More intriguingly, the certified small-scale growers constituted less than one third of the total number of small-scale growers still working for the exporters.

These problems do not show that group formation is impossible. A series of 19 case studies of farmers accessing export was produced by WRENmedia in 2007 (2007). These are based on studies originally produced for the Kenyan media and financed by DFID with the objective of stimulating good agricultural practice and good media coverage. However, it is worth noting that many of these case studies are either of individual farms or of farmer groups linked to leading exporters, including the case of Karikoini Greens, which is item 7 in Table 5.1.

Many problems with farmer group initiatives are described by Graffham *et al.* (2007), who point to a number of incidences of group failure, highlighting the extent of the risks involved. Some of them relate to the issues described in previous sections – lack of markets for groups, difficulties in forming groups, groups being too large, etc. However, it is also possible to find evidence of expansion of outgrower schemes. In 2006, Exporter 2, for example, was developing new, certified farmer groups because of a demand from UK customers for EUREPGAP-certified passion fruit. Given that the UK supermarkets definitely wanted to meet this demand, but only from EUREPGAP-certified farmers, the exporter was under pressure to meet this demand as part of the overall package of products it was supplying. It did so with some support from Donor 2 for quality management.

Developments such as these mean that the data presented in Table 6.1 should be treated with caution. There may be information issues: the exit of farmers groups from export value chains may be easier to document than the entry of new groups. At the same time, this data does not seem to accord with views on the ground in Kenya about continuing expansion of small farm horticulture production and overall expansion of horticulture exports. There is a gap between data on limited certification and expanding output. This may be explained by a shift to larger farmers – including a shift towards larger ‘small-scale farmers’ that lease land from their neighbours – but this is not clear. An alternative explanation is that exporters continue to sell produce that is not EUREPGAP-certified, and it should be noted that EUREPGAP retailer members are free to sell non-certified produce.

The underlying logic of inclusion and exclusion should be considered from a value chain perspective. It is quite possible to explain why Table 6.1 shows exclusion from export value chains at the same time as some exporters were scrambling to find outgrowers and develop new schemes. A value chain perspective on the introduction and maintenance of process-based food safety standards would suggest a different perspective on these calculations about where donors should offer subsidies and the extent of the cost burden facing farmers. Farmers are not independent small producers looking to sell their products in a free market. For the products produced to the EUREPGAP standard, they are part of a highly organised value chain. This has implications for cost calculations presented above.

6.2 The value chain logic of certification costs: the central role of exporters

From the previous section it is clear that there are substantial costs involved in meeting the requirements of EUREPGAP. These costs appear to be significant for

small farmers, and so much so that without some form of subsidy their business becomes unprofitable. However, we will argue that both the academic and policy-maker analyses of the impact of EUREPGAP tend to view small farmers as if they were independent small producers. As a result, the cost comparisons are largely based on the perspective of the farmer as the business unit. We will argue that once small farmers are placed in the context of horticulture value chains, a different set of comparisons are warranted. The problems found with the existing comparisons are summarised in Table 6.2. Three sets of issues are raised, and they will be discussed in turn.

Table 6.2 Impact assessment and comparisons used for EUREPGAP

<p>1. What are the relevant cost calculations for the introduction of EUREPGAP?</p>	<p>A. When considering the initial and recurrent costs of EUREPGAP at the farm level, and calculating the impact of these costs, what should be the comparator for total cost? Is it relative to the farmer’s costs and income, or should the calculation be made with respect to the exporter’s costs?</p> <p>B. When calculating the costs of implementing EUREPGAP, what level of preparedness should be assumed? Is the process to be characterised as introducing EUREPGAP into groups of farms already integrated into exporter or outgrower schemes, or to independent small farmers starting from scratch?</p>
<p>2. Initial and recurrent costs?</p>	<p>Because EUREPGAP is based on certification, attention is frequently focused on the cost of certification, particularly audit costs. However, this is only a small part of the total cost of running a scheme.</p>
<p>3. Absolute or relative costs of certification for small farmers?</p>	<p>The real issue for small farmers is the relative cost and the availability of produce from large farms. If exporters want to stay in business, the key decision is who to source from.</p>

6.2.1 What are the correct comparators for EUREPGAP costs?

The first issue raised in Table 6.2 relates to the basis on which cost calculation should be made. Both of the studies cited in the previous section calculate the impact of EUREPGAP by comparing expenditure with farmers’ gross margins or revenues. To varying degrees, the analyses discussed in the previous section take as their starting point (implicitly or explicitly) the individual small farmer who now needs EUREPGAP certification in order to supply the exporters that sell to supermarkets in key North European markets.³⁹ This implicitly assumes that the key decision is whether or not farmers find it profitable to meet the EUREPGAP standard. Asfaw *et al.* characterised the problem in terms of small farmers deciding whether or not to adopt the standard: ‘Faced with high cost of

compliance and complexity of the standard, farmers examine the perceived benefits vis-à-vis the expected cost before making a decision to adopt the standard' (2007: 2).

However, it was argued in Section 4.3 that leading exporters would lose their main customers if they failed to provide them with EUREPGAP-certified produce. Equally, for Exporter 1, Respondent 1, the EUREPGAP requirement was a competitive advantage that would enable the company to gain market share. This means that from the point of view of the exporters, who were the key decision-makers in the Kenyan part of the value chain, the choices were:

- A. Stay in the EUREPGAP segment of the market, or exit it (targeting other markets or exiting the fruit and vegetables business altogether).
- B. If staying in, work out the lowest-cost means of reliably satisfying the customers' requirements.

In 2004–05 the incidence of costs was not clear to the donors, and possibly not to the exporters, either. Donor 6, Respondent 2, for example, argued strongly that the main cost that the farmers could not meet was the cost of certification itself. Training could be provided by government agencies and by donors, but small farmers were completely unable to pay for the certification costs.

The real mistake, however, which is evident in the research on EUREPGAP, is to see the many costs associated with EUREPGAP as falling onto the farmer and calculating the viability of continued production by reference to the farm as the unit of production. If exporters choose Option B above (continue exporting), then the issue for them is not the absolute cost of smallholder compliance in relation to total smallholder costs that is the issue, but rather the cost in relation to the profitability of the whole export business. The acceptance by exporters of the burden of recurrent costs is evidenced by the data provided by Graffham *et al.* (2007). This showed that 80 per cent of these costs were born by the exporters. This could be taken to imply that donors should not be concerned with such costs. This issue will be discussed further below.

The second issue relating directly to costs is the extent to which the cost of achieving EUREPGAP should be calculated on the basis of a small farm(er) without prior preparation or equipment for meeting the standard. Any discussion of the impact of these costs has to make some form of implicit or explicit comparison with an alternative scenario. Such comparisons frequently take one of two forms: (i) before and after, where an inter-temporal comparison shows the impact of the shift to certification, and (ii) with and without, which compares one group to which the policy applies, and another group to which it does not.

These comparisons end up calculating the full costs of meeting the EUREPGAP 'from scratch', including changing farming practices, capital investments, investments in control systems and the costs of maintaining the system (annual

39 While exporters may not export solely to these customers, they tend to avoid operating certified and non-certified production systems in parallel. It increases flexibility if production can be switched between customers.

certification and the daily cost of monitoring, control and form filling). However, the extent of the cost depends upon where farms started in the quality assurance process. What is the baseline?

In some circumstances, this comparison may be more appropriate. The case of new farmer groups developed for passion fruit, cited above, would be an example. Even here, however, the logic is UK supermarkets definitely wanted to meet this demand, while achieving the desired level of confidence that the product would be free of pesticides. For this, they would have to find a supplier. The exporter would take on the business if it were profitable (or if it was imposed as an obligation linked to continuing to supply a broader range of products) and make a deal with growers designed to ensure their commitment. In other words, the farmers' costs are an issue for the exporter, not the farmer – unless, as suggested above, it is possible to source from large farmers.

Nevertheless, for exporter outgrower groups, the correct comparison would be different. An exporter might have existing farmer groups producing green beans, for which the costs will relate to the upgrading of a set of producers that are already used to meeting export demands and incorporated into the exporter's procedures (the exporter will have been under pressure for a number of years to cut down on pesticide residues and demonstrate compliance with supermarket standards), while in other cases (as in the case of passion fruit) completely new groups of farmers will have to be incorporated into the export value chain.

Tightened European safety standards were evident in the 1990s, and well-managed outgrower schemes were a feature of export horticulture at that time. The extent of control by exporters over small farmers was highlighted by Dolan *et al.* (1999) in research carried out in 1997–98. Exporters would have built on these schemes. According to a senior manager in one of Kenya's largest exporters (Exporter 3, Respondent 1), interviewed in May 2005, the introduction of EUREPGAP required only limited changes in practices. Prior to January 2005, the company had already integrated its outgrowers into the private standards of two UK supermarkets, Tesco Nature's Choice (TNC) and Marks & Spencer's field to fork programme.

Not only were these company standards more stringent, but there was considerable overlap between the standards and EUREPGAP. In the case of TNC, the overlap is so great (estimated by Exporter 1 to be 90 per cent) that certification for both TNC and EUREPGAP are carried out simultaneously at both Exporter 1 and Exporter 3. In the case of Exporter 3, all of the various codes to which it was compliant (not only EUREPGAP, but also the Ethical Trade Initiative, ISO 14,001, etc.) were incorporated into a code of practice for outgrowers. The contracts with small farmers included a 35-page manual.

Further evidence of this preparedness is provided by a study by Okello and Swinton (2005), which examines the adoption of international food safety standards on two Kenyan farms – one 'large' (10 hectares) and one 'small' (0.5 hectares). The larger farm supplies the exporter directly, while the smaller farm is part of a farmer group established in 1999 and consisting of 31 farmers in 2004 (Okello and Swinton 2005: 16–19). Based on fieldwork in Kenya in 2003–04, it shows that many of the mechanisms needed for EUREPGAP were already in

place – partly because exporters had been preparing for this in advance, and partly because these mechanisms were needed to meet buyer standards and EU standards irrespective of EUREPGAP. This reinforces the point that EUREPGAP was a formalisation by some supermarkets in the EU of the systems that they already need to be in place to ensure that they would not fall foul of EU food safety legislation. Already in 2003–04, there was a substantial gap between the facilities of farmers working with the more established exporters and those that only have informal arrangements with exporters (Okello and Swinton 2005: 21).

6.2.2 Initial and recurrent costs

Nevertheless, compliance with EUREPGAP standards means additional costs, particularly for supervising small farmers. Not all the donors perceived the importance of these costs. Donor 5, Respondent 2, focused solely on the costs of certification, arguing that other costs, such as training, were being covered by local institutions and donors. For the exporters, however, the costs involved in running outgrower schemes were clear. One of the managers of the outgrower scheme at Exporter 3 described the need for increased resources in the field:

Because of the amount of pressure that compliance is putting on the manager, we have had to get a new role, assistant supervisors. Their main role is just to ensure that the farm is actually complying. We realise that the supervisors in the regions cannot handle both production and the right volumes coming through and at the same time ensure that the farmers are actually complying. So, we have an assistant whose main role is just going out there and ensuring that farmers are complying to the various standards.

(Exporter 3, Respondent 2)

Although this exporter had successfully certified its approximately 1,000 small farmers, the supervisory costs of maintaining the scheme were substantial:

- The number of internal auditors had increased from one person to four.
- The number of technical assistants operating in the regions had increased from 23 to 72.
- Nine new technical managers and nine new assistant supervisory posts had been created.

In addition to the salary costs of these new employees, the company also had to invest in training and transport. The company estimated that the four auditors alone were consuming over 3,000 litres of petrol per month in their travels. This increasing level of monitoring and supervision was needed for an almost constant quantity of outgrowers. The key factor in this greatly increased labour input was the need for continual monitoring, which was a recurrent cost.

A similar level of increased investment was evident in Exporter 2. The outgrower department had grown from six agronomists to 60 people, 'just to police the system on an almost daily basis'. The average farmer group consisted of 30 farmers. One technical assistant and one quality-control person was assigned to cover for such groups. In addition, an agronomist would be responsible for

between 8–14 technical assistants. Continued input was required, partly because the standards themselves continue to evolve and partly because continued monitoring was required to maintain standards. In the words of this respondent, ‘What we have noticed is that it takes about 90 days to train farmers, but if you leave them for a month they go back to the old system. The system needs continuity’ (Exporter 2, Respondent 1).

The increased burden of supervision and control relates directly to the requirements of EUREPGAP, and to maintaining both control over farming practices and securing the integrity of the QMS system, as described in Section 4.2. In the case of Exporter 3 (one of the companies with a well-organised outgrower scheme), the TA in the field visits farmers in an outgrower scheme approximately once every two days, inspecting pesticide stores and pesticide protection equipment, filling in records for each farmer and filling in data sheets that are sent to the company’s outgrower office. If the crop is being picked, the TA checks to see that the crop pickers are trained and are wearing their headgear and have washed their hands. The TA also has regular meetings with farmers to talk about the problems they are experiencing and to reinforce messages about the importance of compliance.

This level of control was then backed up by the internal audit system. Auditors visit each farmer group and check the records, which will include records about scouting (checking crops for problems), irrigation, fertiliser instructions, output, etc. These are checked for consistency and matched with chemical stores and quantities and production for each block (part of a field). The auditor then produces an action plan. In one farmer group supplying Exporter 3, the TA confirmed that the previous audit had produced a plan of 50 actions, which then had to be carried out and later checked (Exporter 3, Respondent 4).

There is the possibility that such costs will make the export vegetable business uncompetitive. It should not reduce Kenya’s advantage relative to other countries that introduce Option 2 (if exporters are right, they are better placed than Kenya’s competitors to introduce and work with this system), but if the costs are heavy and they are not reflected in increased prices to buyers, then the adjustment process in the industry could be painful. This process is unlikely to be one of buyers and suppliers sitting down and deciding whether prices are reasonable in the light of the new costs associated with EUREPGAP. Rather, exporters will be forced in the short term to absorb the extra costs and the adjustment will come, if at all, as suppliers exit the market and supply starts to fail.

Of greater concern for the donors interested in the survival of small farmer export horticulture in Kenya is the fact that these costs differ between small and large farms. This could lead to a shift in sourcing within Kenya, or from countries that use smallholders to countries that do not.

6.2.3 The relative competitiveness of smallholder production

As was highlighted in Section 6.1, Mithöfer *et al.* (2007: 5) reported substantial differences in the time spent on monitoring for farmer groups and large contract farmers. The former required 3.5 hours of supervision per week per acre,

compared to only 0.1 hours per week for the latter. This must have undermined the cost advantage that small farmers are generally held to possess. The preceding sections also highlighted some of the control costs involved in operating Option 2.

In this context, the key decision for exporters is whether to continue working with small farmers or switch production to other types of producers (assuming that they do not stop exporting products hitherto sourced from small farmers altogether). The decisive factor in these decisions is not the percentage increase in pre-farmgate costs for small farmers, but rather the relative cost of production by smallholders compared to other forms of production.⁴⁰

There was certainly potential for this problem to arise. In some cases, exporters have shifted production to large contract farms. Exporter 5 had done this, citing not only the costs of EUREPGAP, but also continuing problems with side selling (which becomes more problematic with EUREPGAP, as described above). Exporter 4 had drastically reduced sourcing from small farmers, citing side-selling, but really indicating that because of the increasing cost and complexity of EUREPGAP, the problem of 'disloyalty' (as seen from the exporter's perspective) had made sustaining the outgrower relationship unattractive.

Nevertheless, switching to large contract farmers is far from easy. This extensive quote from a taped interview with one of the service providers indicates clearly that access to land remains an issue:

One company, when this [EUREPGAP] first came along said, 'We must bring more supplies on board through our own farms. They're easier to get EUREPGAP'ed, we're in control, we're less likely to get pesticide residue, and we can control the traceability and control the quality management system – if they're our farms and managed by us.' But they suddenly realised that they could not get the volume that way. So they then said, 'Let's look for out-growers, but let's look for large outgrowers who we can assist in getting EUREPGAP'ed.' And so they went through that process. But there are a limited number of large outgrowers that they can find. So, then they've decided that they still can't get the volume, so they are now moving back to the small-scale outgrowers. But whether they're quite the same small-scale outgrowers is not clear. Maybe they're trying to reorganise the small-scale outgrowers into more viable groups, or more viable units in terms of size and location.'

(Service Provider 1)

What this may imply, and it has been suggested by others, is that there will be a switch towards the larger end of the small-scale outgrowers. In other words, there is a shift in outgrower strategy occurring, but it is more about what types of small farmers might be included in Option 2, rather than abandoning such farmers altogether. It might also be the case that outgrowers will be easier to manage for the production of tree crops, such as passion fruit, where the cycle of production is much lower and the control challenges rather less.

40 The option of outsourcing small farmer production will be discussed below.

The issue of land availability, however, has one further implication. It is not possible to generalise across countries about the impact of EUREPGAP on small farmers. The risk of small farmer exclusion is much greater in countries where there is land available for large farmers to use than in countries where land availability is restricted. Although this issue has been well understood in general considerations of supermarket sourcing strategies (see, for example, Swinnen 2005; Humphrey 2007), it has not been raised in the literature on EUREPGAP.

6.3 Further initiatives

While donors worked to facilitate the entry of small farmers into export value chains, the exporters themselves were also seeking to make EUREPGAP viable. Here, more attention was paid to reducing the recurrent cost of managing the EUREPGAP system rather than the start-up costs. As was argued above, Section 5.4 shows that 80 per cent of these costs were born by the exporters and no contribution was made by donors. Exporters were forced to make considerable investments in management and monitoring, even when they had established outgrower schemes in place.

Exporters needed to reduce these costs. Donors, too, recognised the need to reduce the costs of compliance more generally. Separately and together, they devised at least four ways to reduce their costs.

6.3.1 Modifying EUREPGAP

The first set of initiatives to reduce the costs of compliance with EUREPGAP related to changing the impact of the standard itself. The major initiative was to KenyaGAP as a national equivalent standard benchmarked to EUREPGAP. The goal was to create a variant, but benchmarked, standard that would be more in tune with local agronomic conditions and the organisational structure of local production. An example of the latter, widely cited in the industry in Kenya, was the acceptance by Nigel Garbutt, Chairman of EUREPGAP, of water containers with a tap underneath for hand washing in the field as meeting the 'running water' requirement in the standard. The creation of the National Technical Working Group for KenyaGAP, led by the exports association, FPEAK, was supported by donors directly⁴¹ and also through their support for participating organisations. The initiative to develop a national scheme in Kenya is discussed in some detail by Nyagah (2007).

EUREPGAP as an organisation supports these initiatives. It has a scheme to benchmark national GAPs to EUREPGAP, which was outlined by Kylie Sheehan of JAS-ANZ, one of the two bodies used by EUREPGAP for scheme benchmarking, at the September 2007 GLOBALGAP conference (Sheehan 2007).

41 DFID and USAID are cited by EUREPGAP as providing technical support for the National Technical Working Group.

The donors also made representations to EUREPGAP. One plan of action developed by a leading donor agency in Kenya highlighted the need to lobby the EUREPGAP Secretariat in order to reduce the costs of the testing of soil and water samples, and for a reduction of the frequency of testing for pesticide residue levels. More specifically on the challenges facing small farmers, GLOBALGAP, DFID and GTZ have supported the creation of a mechanism to support the articulation of small farmer concerns within GLOBALGAP, as described by Kern (2008). The Africa-Observer initiative is characterised as an 'Ambassador for Smallholders in Developing Countries', whose role is to link small farmer interests and initiatives to the GLOBALGAP sectoral committees.

6.3.2 Reworking Certification Body audits

A second strategy adopted by exporters has been to try to reduce the costs of certification by taking on more responsibility for control. This strategy was undertaken at Exporter 2, with the support of Donor 2.⁴² Working with the certifying body (from outside of Kenya), Exporter 2 has developed a QMS system that shifts the burden of auditing from the certifier to the exporter. According to the head of the outgrower programme at Exporter 2, this meant that the certifying focused more on the exporter's internal audit system, rather than on the outgrower groups themselves. According to Exporter 2 and Exporter 3, the same model had been adopted by Exporter 3.

6.3.3 Certifying farmer groups as fields or a single farm

This is an initiative which has been widely discussed in Kenya. There is an extensive discussion in Graffham *et al.* (2007). It was developed by one of the donors in conjunction with one of the larger exporters as a means of reducing the cost of certification for the growers. As was discussed above, each of the outgrowers in a scheme is classified as a field on a single 'farm'. If all the farmers in the group take water from a common source, then the levels of soil and water testing are reduced to those of a single farm. This is a substantial cost saving. At the same time, there is no obligation to develop the QMS required for Option 2, which is another substantial cost saving. However, for these farmers to be considered as a single farm, then not only does the whole unit have to be under a centralised management, but legal ownership of the product has also to be held by the central management unit. In effect, the individual farmer within the group becomes a combination of employee of the group and lessee of land to it.

At first, this model was considered controversial in Kenya. It was not considered to be compliant with EUREPGAP, and it was not clear whether the ownership of the product and the degree of management control that would be expected on a single farm could be recreated within a farmer group. Nevertheless, in spite of this controversy, the legitimacy of the scheme does not appear to have been challenged by the EUREPGAP Secretariat. If applied properly, however, this

42 Exporter 2 also stated that a similar programme had been developed by Exporter 3.

model does greatly curtail farmer input into the farming system. This approach to certification may have been unanticipated, but it is not necessarily unallowable.

6.3.4 Outsourcing management: the Vertical Marketing Organization (VMO)

One of the insights of value chain analysis is that the set of activities that are required to bring a product to market can be bundled and split in a number of ways. This is reflected in outsourcing, for example, where activities previously undertaken within an enterprise are placed outside it. It is also possible to transfer co-located activities from one legally independent agent to another. For example, one way in which Kenyan exporters responded to increasingly stringent rules on pesticide residues in the 1990s was to transfer responsibility for pesticide spraying from outgrowers to staff employed by the exporter. In the discussion above on the cost of monitoring, the transfer of activities such as scouting for crop problems and decisions about what pesticides to use from the farmer to the exporter, or to specialised workers (who might be self-employed or employed by specialist companies) was also described.

A more drastic adoption of this principle has been the outsourcing by some exporters of the whole management of outgrower schemes. The best-documented example of this in Kenya has been the creation of a PMO called FreshLink. Kevin Billing, working for the BSMDP programme which supported FreshLink, summarises the company as:

a former broker transforming into a registered company providing area based services such as input supply, credit, scouting, spraying, production advice and record keeping. S&S helped develop and implement a EUREPGAP quality management system (QMS) for the nine loose groups working with the service provider – FreshLink.

(Billing 2006: 18)

FreshLink provides, therefore, services to farmers, including the development and implementation of a QMS. According to a presentation by Amos Waweru, a consultant whose company was used to develop the FreshLink model and its QMS system, FreshLink provides services to farmers and farmer groups and finances this through charging a commission on the produce that they sell (Waweru 2006: 26–7). The role of FreshLink includes:

- Farmer groups formation and development.
- Provision of technical advice, including company agronomists, spraying teams and technical assistants working with farmers.
- Facilitation of the construction of facilities such as collection centres, central management unit, spraying services, etc, needed by farmer groups.
- Marketing a farmer groups' horticultural produce, both through logistics (bulking and transportation of produce from farms to markets) and arranging contracts with exporters.
- Arranging farm input supply at lower costs.

In other words, FreshLink is an intermediary, facilitating body, operating between the farmer groups and the exporters. This status is confirmed by the contractual relationships. FreshLink has a contractual relationship with the farmer groups 'which stipulates the terms and conditions of their relationship including payments, produce delivery and commission charged. [Each farmer group] is expected to implement and observe all service provider's policies and procedures and to ensure that its member farmers comply with the contractual obligations' (Waweru 2006: 28). It does not have a contractual relationship with exporters, and it does not take ownership of the product. It brokers the relationship. Similarly, it does not have a contractual relationship with individual farmers, but only the farmer group, which is itself a legal entity.

In principle, this model could overcome the problem of donors directly supporting large exporters because FreshLink can supply multiple exporters – in 2006, it claimed to be facilitating access of farmers to four different exporters. At the same time, the service provision to farmers is de-linked from the exporters, and no direct payments are made to them by donors. If this model were developed on an area-wide basis as suggested by Billing, then it might also facilitate area-wide testing of water and soil quality.

Nevertheless, the model does contain some transactional risks. For the farmers, it offers the possibility of supplying various exporters, and not being tied into the fortunes and strategies of a particular exporter. Conversely, it also means that no particular exporter is committed to these farmers. For the exporters, it also offers flexibility and the possibility of working with multiple farmer groups without the costs of running an outgrowers scheme. But, there is also a downside for the exporters. With this system, there is no assured supply for exporters. Should there be an overall shortage of produce, each exporter would be competing against other exporters for product.

The scheme is also open to control and financial risks. It clearly depends on the extent to which the VMO is able to monitor and control the farmer groups, and the capacity of these groups to exercise control over their members. It was argued above that maintaining the integrity of the EUREPGAP system required constant supervision and control. It is not clear where this control will come from. It seems to reside in the farmer group as an entity, and its potential loss of contracts should it be unable to maintain control over its members and implement the advice provided by the VMO. Financially, this control has to be exercised within the cost constraint imposed by the level of commission that it is able to charge (once the donor subsidy expires). In this respect, the VMO is open to the usual risks of outgrower schemes, such as side-selling, and the more that it develops its control system, the more commission will rise and the more there will be a temptation to side sell.

What the FreshLink VMO model does show, however, is the capacity of firms in value chains to innovate in response to new challenges by bundling and splitting activities and creating new companies. This particular model does not seem to have succeeded, and part of the reason for this seems to have been a withdrawal of donor support at this stage before the project became viable. The success or failure of a single company will not provide definitive evidence on this point anyway. It does, however, point to the potential for service provider development to open up new opportunities for small farmers to access complex markets.

6.4 Was there any case for donor support for integrating small farmers into EUREPGAP value chains?

Kenyan horticulture is probably one of the most studied parts of developing country agriculture. Exporters in Kenya frequently remarked that their 'real' production is matched by an equally large production of paper. The latter is needed for conforming to the demands of the many different standards they are expected to follow. The paper produced by analysts of Kenyan horticulture probably comes a close second to this standards paper trail. The bibliography on Kenyan horticulture is vast.

In spite of this, it is still not possible to say whether or not donors should have supported small farm certification, or what were the consequences of the support that was given. The recent studies summarised in Section 6.1 are not consistent, and they are not conclusive. We know that:

- Specific exporters did receive funds that reduce the costs of introducing management systems for outgrower schemes and obtaining certification for farmer groups.
- Donors supported a range of initiatives directed at creating service providers who could support a range of horticulture sector factors to meet the demands of EUREPGAP.
- Some small farmers who had been working in exporter-managed outgrower schemes prior to 2005 were no longer working in these schemes in 2006–07.

These three facts do not tell us very much about the efficacy of donor interventions. First, exporters were willing to take donor funds when they were offered and use them for a range of initiatives related to outgrowers. There is, however, very little evidence about the additionality of this funding. In some cases, exporters freely admitted that they would have ensured the continued operation of their outgrower schemes irrespective of donor funding because they needed this source of supply to meet the demands of their customers. But it is impossible to say just how much of donor funding failed the additionality test. Second, there seems, as yet, to be little clear evidence about the effectiveness of service providers: the service providers are not always sustainable beyond the period of donor support. Third, the evidence that some outgrower schemes were cut back or discontinued does not establish that EUREPGAP led directly to the exclusion of small farmers from horticultural value chains. Small farmer participation in such chains in Kenya does have a cyclical element to it, and there have been disagreements in the past about both levels of participation and trends. At the same time, the rundown of some outgrower schemes could be compatible with the growth of others. Anecdotal evidence from Kenya seems to indicate that up to the end of 2007 the small farmer horticulture sector continued to thrive, as did the export horticulture business as a whole. All this uncertainty might appear to justify more research, but a clear reason for better understanding what is going on in Kenyan horticulture would have to be established first.

What is clear, however, is that, at the very least, the cost advantage of small farmers in horticultural production is undermined by EUREPGAP. Furthermore, the extra costs to small farmers (relative to large farmers) arising from EUREPGAP

are ongoing costs. They relate not only to the start-up costs of investing in equipment and systems, but also to the continuing costs of monitoring and control. It is also clear that in Kenya, and possibly most of Africa, independent small farmer groups have little or no chance of meeting EUREPGAP requirements, and that the role of processors and exporters is crucial in creating and sustaining EUREPGAP-compliant production systems. This means that donor activities in relation to EUREPGAP must recognise the dynamics of horticultural value chains and find ways of working effectively with the private sector firms that play an important role in them.

7 Conclusions

Food standards are ever more important in the global economy. Private voluntary standards relating to food safety such as EUREPGAP may be invisible to the consumer, but they have direct impact on farmers in both developed and developing countries. They pose a particular challenge to small farmers because of the complexity of their compliance requirements.

The study of the impact of EUREPGAP in Kenya had two main objectives:

1. To investigate the interaction between public and private standards for agri-food products in the context of global value chains. The paper focused on the issue of value chain governance and how public food safety standards are simultaneously a part of this governance and also a source of new coordination requirements in value chains. It identified trends in global standards and explored the linkages between public and private standards. This analysis was informed by the global value chain approach, used in earlier analyses of Kenyan horticulture (Dolan and Humphrey 2000, 2004).
2. To understand the effect 'on the ground' in Kenya of developments in global standard-setting and to analyse the response of donors to the perceived challenge of EUREPGAP to the continued inclusion of small farmers in horticultural export value chains. It asked whether or not the many donor interventions that were designed to alleviate or offset these consequences were adequately designed and whether or not the donors understood how EUREPGAP operated in the context of highly-organised horticultural value chains.

7.1 Public and private standards

By placing EUREPGAP in the context of general trends in food safety standards, and in particular changes in EU legislation around standards, it was possible to identify key drivers for private standards-setting and their consequences for the organisation of agri-food value chains:

1. Two contrasting motivations for the development of private standards and their consequences for private standard-setting were identified. Private voluntary standards created by groups of firms or industry associations are

predominantly driven by the needs of companies to control reputational risk and achieve conformance with external expectations about standards compliance. These expectations are predominantly driven by public standards, although NGOs and other bodies may also raise issues that affect company reputations.

2. EUREPGAP is a good example of a private voluntary standard created (initially) by retailers in response to the increasing range and strictness of public food safety standards and the reputational risks arising from the increased emphasis on food business operator responsibility for food safety in the context of consumer concerns about food safety. In other words, collective private standards and public standards are closely intertwined.
3. It follows that the development of private standards is an issue for the EU. In particular, it has to be acknowledged that private standards are important elements of nontariff barriers to food exports from developing countries. This then has consequences for policy coherence. In effect, a number of EU governments were spending development aid to offset one of the consequences of their food safety policy.
4. As EU regulations relating to food safety become more complex, so the coordination challenges for food business operators increase. They are expected to ensure food safety by exercising control over the value chain, but these value chains are becoming more complex as a result of globalisation.
5. An increasing reliance on private voluntary standards backed up by third-party certification is one way of reducing the cost of coordination and control or shifting these costs along the value chain (or both). Private voluntary standards are designed to reduce the risks of non-compliance and transfer some of the burdens of compliance up the value chain towards producers and exporters.
6. The standards have different consequences for coordination challenges at different points in the value chain. In principle, they simplify the coordination challenge for retailers and exporters because they codify the procedures needed to ensure compliance with public standards and use certification as a means of enforcing and indicating this compliance. In practice, the pressure on importers remains high because no certification system is perfect and importers perceived the consequences of failure as extremely high for them.
7. For exporters and producers, private voluntary standards and third-party certification make the coordination challenge more complex, and in particular it becomes more complex when small farmers are incorporated into the value chain. The EUREPGAP standard requires internal audit and the development and continued implementation of control systems at farm level. Therefore, its impact on horticulture outgrower schemes is to increase coordination and monitoring requirements (and hence costs) and to put a premium on small farmer capabilities.
8. Small farmer compliance with EUREPGAP without outgrower schemes (either administered directly by exporters, or through independent PMOs) is almost inconceivable. Whether or not this leads to the large-scale exclusion of small

farmers from the horticultural value chains that require EUREPGAP is an open question. It depends not so much on the costs of compliance, but on the impact the standard has on the relative costs of small and large farm production and on the availability of land for large-scale farming. Nevertheless, even if small farmers continue to be used by exporters, there will be a tendency towards using the larger small farmers and the more educated and capable small farmers.

9. It should be noted that the problems highlighted in the study of fruit and vegetables are relatively mild compared to those encountered for food of animal origin, such as meat, dairy products and seafood. Here, the complexity of the standards environment is much greater. The draft GLOBALGAP standard for shrimp⁴³ is much more complicated than that for fruit and vegetables.

7.2 The donor response

Did the donors understand the nature of the challenge presented by EUREPGAP? The answer is 'no', and they were not alone in this. The full ramifications of EUREPGAP were not easy to see at the time. Nevertheless, it is important to highlight the shortcomings in analysis and assumptions that underlined the donor interventions.

10. The donors had a strong motivation to respond to the perceived challenge of EUREPGAP. Export horticulture was seen as a success story in Kenya that combined agricultural dynamism, the capacity to compete in the most demanding of global markets, inclusion of small farmers and the creation of substantial urban and peri-urban employment in post-harvest processing. It combined a vibrant private sector with the promotion of improved incomes for some small farmers.
11. There was some ambivalence in the donor response, but this ambivalence is typical of the donor interventions more generally. On the one hand, there is a business case for promoting competitive horticulture that has to remain successful in a complex and dynamic global market. On the other hand, the underlying motivation for promoting this business is the reduction of poverty in the context of the donor priority for achieving MDG 1, halving the number of people living on less than \$1-a-day by 2015. Managing these potentially conflicting goals requires a clear understanding and redefinition of the role of the public and private sectors.⁴⁴
12. The effectiveness of the donor response was certainly compromised by the sense of urgency that descended on Kenya in late 2004. Understanding how to intervene in what was a complex system of production does take time. Furthermore, the sense of urgency seems to have created a misguided sense

43 See www.globalgap.org/cms/front_content.php?idcat=9&idart=298.

44 I am grateful to Heike Höffler of GTZ for making this point to me.

that EUREPGAP and certification was a sufficient condition for access to key parts of the European market, rather than merely a necessary condition. It generated the perverse effect of encouraging more money to be spent on supporting smallholder inclusion in the European market, and in particular the EUREPGAP certified market, just at a time when the barriers to this inclusion were increasing. Overall, it is clear that EUREPGAP does not provide major new opportunities for small farmers. At best, donor interventions were not likely to do anything more than maintain existing levels of smallholder involvement in EUREPGAP-certified value chains.

13. With the rush to 'do something', the donors also failed to ask a fundamental question about small farmer export horticulture in Kenya. Is it worth promoting on poverty reduction grounds? Earlier work by McCulloch and Ota (2002) concluded that export horticulture by smallholders and on large farms were equally poverty reducing. Recent work by Maertens and Swinnen (2006) on Senegal comes to the same conclusion. These conclusions should inform future policy in this area. With respect to EUREPGAP, it is possibly the case that small farmers have more scope for involvement in export value chains for tree crops such as passion fruit rather than fresh vegetables.
14. When developing programmes for supporting small farmers, the donors do not appear to have understood the central issue of quality assurance system integrity, and hence control. In various instances, it seemed to be the case that the donors regarded training as the major issue. Clearly, farmers have to understand what EUREPGAP is about,⁴⁵ but they certainly do not need to ever see the standard as it is codified. Translating EUREPGAP documents would be futile. These documents define the performance characteristics of the quality system. They then have to be translated into particular procedures for different agents operating within that system. Conversely, the critical but under-emphasised challenge is developing a reliable and cost-effective control system. The data from Mithöfer *et al.* (2007) on the time spent per ha. per week on supervision is particularly telling.
15. The central role of the exporters in the process was not immediately appreciated, although some donors did perceive this and involve exporters more actively in later interventions. The basic point is that EUREPGAP is a standard that is only required by a small group of powerful supermarkets in Europe. The supermarkets source their produce overwhelmingly through a limited number of medium and large exporters. Given the role of these exporters as the gateway to the only customers that required EUREPGAP, their role was central. Smallholders working for these exporters would necessarily need EUREPGAP certification. If smallholders not working to these exporters sought certification, they would run the risk of incurring additional costs without any immediate offsetting benefits.⁴⁶

45 Although what they need to understand, and how much, is a moot issue. They certainly need to know something about operating the system on a day-to-day level, even though various parts of quality system operation would be transferred to specialist technical staff. It might be argued that a good understanding of the general principles of quality management would be important to ensure motivation and continued commitment to following procedures.

16. A potential further problem also arose for donors from the value chain coordination challenges of EUREPGAP. The biggest challenge is maintaining the integrity of the food safety system. This implies that the ongoing costs of monitoring and control could be particularly high for small farmers, as suggested above. This in turn could imply that donor support would be needed for small farmers' recurrent costs, as well as the start-up costs that the donors were particularly willing to support. However ongoing monitoring and control costs were identified by exporters as part of their overall business costs, and were predominantly paid by the exporters themselves. Therefore, the issue of recurrent costs did not arise as a problem.
17. Greater appreciation of EUREPGAP as a value chain challenge would also have enabled donors to appreciate the ways in which different functions relating to production and the standard system can be transferred between different actors along the chain. One can then produce strategies for transferring to other actors (specialist crop sprayers, picking teams, technical assistants) those tasks which may be particularly problematic for small farmers.
18. The misunderstanding of the critical role of the exporters leads to shortcomings in the analysis. As was argued in Section 6.2, the real issue is not the cost for farmers of achieving EUREPGAP certification from scratch, but the way in which variations in the costs of certification change the relative competitiveness of Kenyan producers versus other producers and small farmers in Kenya versus large farmers. This is evident in two perceived outcomes of EUREPGAP. First, as Graffham *et al.* (2007) point out, the recurrent costs of EUREPGAP were largely paid by the exporters. Second, there is some suggestion that the exporters that have well-organised outgrower schemes were more likely to stick with them, while the exporters which had relied on looser relations with suppliers were likely to switch to either intermediaries such as FreshLink or larger-scale farmers. The start-up costs for EUREPGAP would be greater for exporters which did not have good systems in place.
19. Finally, it should be noted that the export horticulture sector in Kenya is very much the exception in Africa. It consists of a number of very efficient firms that have sophisticated production and processing operations and strong linkages to export markets. In many other African countries, the export sector is much weaker. It follows that any lessons that one might wish to draw from Kenya may not apply to many other African countries. Promoting exports of high-value products in countries where the existing export sector is weak or non-existent is a completely different challenge.

If one of the lessons of donor interventions around EUREPGAP is that the business linkages involved in small farmer export production, and in particular the role of exporters, need to be better understood and incorporated into donor policy,

46 While there are some agricultural benefits from following the good agricultural practice principles in EUREPGAP, they would be very unlikely to increase efficiency and productivity sufficiently to increase overall income for farmers.

how this should be done is far from clear. Some donors, but not all, still have difficulties in working with the private sector. There is some reluctance to get involved with large farmers and exporters. The poverty pay offs seems to be too small or too indirect. There is a genuine problem. It is far from clear that support for exporters created much additionality. A number of exporters indicated that they were happy to receive funding from the donors, but that it did not necessarily change their strategies with respect to small farmers.

Working with the private sector does not, however, necessarily mean working with a small group of large exporters. Some donors adopted policies designed to enhance service provision and hence develop a supportive market environment that would be open to multiple private sector actors. These could be considered part of a broader strategy of 'making markets work for the poor'. Six examples of such interventions were listed in Table 5.1. It is too early to say whether these interventions will be effective. The challenges of ensuring sustainability beyond the life of the donor interventions are well-known, and it is too early to conclude anything about the effectiveness.

Food safety and private voluntary standards will not disappear. All the tendencies in global food production are moving in the direction of increasing safety concerns in the context of increasingly complex global value chains, with more actors and increasing geographical dispersion. Therefore, the challenge for donors will be both to understand better how the global food businesses are organised into value chains that link together dispersed economic agents, and to devise policies and programmes that recognise the possible trade-offs between business vitality and poverty reduction and identify the roles and responsibilities of public and private actors in ways that allow these trade-offs to be overcome.

Appendix 1 Sources for study

This study was predominantly conducted through lengthy interviews with key respondents. Many of these respondents requested anonymity. The following categories of people were interviewed:

Exporters

Eleven respondents from six different exporters in Kenya. These respondents included company directors, outgrower managers and technical assistants. Two further respondents from one of the exporting companies were interviewed in the UK.

Donors

Nine different donor respondents were interviewed, mostly, but not entirely, in Kenya. These respondents included donor staff, people employed by companies contracted by donors to implement programmes and some consultants hired for this implementation.

Service providers

A third category of interviewees can be categorised generically as 'service providers'. These included specialist companies providing services relating to certification, local NGOs and one independent produce marketing organisation. Six respondents from service providers were interviewed. In addition, 10 farmers working for the independent PMO were interviewed. The Chairman of GLOBALG.A.P., Nigel Garbutt, was also interviewed.

Internet

In addition, it should be noted that the internet is an increasingly important source for materials. Donors and local institutions put an increasingly large amount of material on the web. The extent of this material and its use was indicated clearly by Table 5.1. Such material is not always easy to find. In a number of instances, the key informant interviews provided the information needed to refine internet searches so that the most useful materials were obtained. In addition to information on donor initiatives, many food standards are documented on the web. GLOBALG.A.P. as an organisation has particularly extensive documentation of its standards, procedures and activities. Other standards also provide good indications of objectives and approaches. It was possible to find out a lot about donor programmes and projects in Kenya by exploring the web. Interviews often provided the basis for knowing what to search for. All of this material provides much more extensive resources than would have been available even five years ago.

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