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The production of fresh produce in Africa for export to the United Kingdom: mapping different value chains

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The production of fresh produce in Africa for export to the United Kingdom: mapping different value chains

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Executive summary

- In 2005, sub-Saharan African (SSA) countries (excluding South Africa) exported 73,788 tonnes of vegetables worth £105 million and 209,555 tonnes of fruit (mostly bananas) worth £89 million to the UK.
- This represents a relatively small volume in the context of the overall UK trade for fruit and vegetables (F&V) valued at £4.7 billion. However, the trade from SSA to the UK is of enormous benefit to an estimated 715,000 resource-poor small-scale growers (SSG), workers and their families (Table 1). If exporting SSGs and their dependents from South Africa (an important supplier of fruits to the UK) were included the figure would be substantially in excess of one million.
- No overall data exists for the wider impact of high-value export horticulture on African small-scale growers but individual studies have shown significant income benefits for SSGs involved in export horticulture. For example, in Zambia 73 per cent of smallholder farmers fall within the category of those experiencing money income poverty with an average per capita income of £70 per annum. However, smallholders involved in export of peas and baby corn to UK supermarkets had incomes ranging from £1,000 to £7,500 during the 2003-2004 season with most growers having an income of £2,000 to £3,000 per annum from export horticulture. In Kenya, a study of farmers growing green beans for export to UK supermarkets found incomes ranging from £417 to £1,250 per annum in rural areas where an annual household income of approximately £100 is considered normal.

Table 1. Numbers of small (SSGs) and large-scale (LSGs) farmers exporting to the UK retail and wholesale sector and associated numbers of dependents and ancillary workers

Farmer Number	Market	Ghana	Kenya	Tanzania	Uganda	Zambia	Other SSA	Totals
SSGs	Wholesale	3,438	2,815	2,070	1,800	10		10,193
LSGs (Large-scale growers)	Wholesale	10	191	1	12	2		216
SSGs	Retail	160	4,140	2	200	0		4,502
LSGs	Retail	10	191	0	2	2		205
Dependents & ancillary workers		70,433	171,237	30,330	29,963	6,948		308,910
Total		73,691	178,574	32,397	31,609	6,954	392,165	<u>715,390</u>

- Data from the UK Office of National Statistics show that in 2005 F&V sales (including processed products) totalled £20.6 billion of which retail sales accounted for almost £12.2 billion (59.1 per cent) compared with £8.4 billion in wholesale and foodservices markets (40.9 per cent). The retail sector is dominated by the major supermarkets with sales of £11 billion, which represents 53.4 per cent of total UK F&V sales and 90 per cent of retail sales.
- In the recent past, accessing the high-value supermarket sector has been an important income-earner for SSGs from Africa, particularly Kenya. However, the opportunity for SSGs to access these high-value markets has reduced dramatically over the past 6 - 18 months. The number of SSGs supplying the UK supermarket sector has declined significantly to some 4,500, markedly less than half the number of SSGs supplying the wholesale and foodservice sector (Table 1).
- Most of the decline has occurred in Kenya, despite the large amount of donor support. Kenyan SSGs supplying UK supermarkets have declined by a half to 4,100 in the past year indicating how procurement patterns can change rapidly. This indicates the harsh reality and high risks of supplying this highly demanding sector. The SSG decline reflects the increased costs and managerial burden associated with meeting private sector standards and the decrease in external funds to maintain smallholder participation.
- Although the number of sub-Saharan African SSGs supplying retailers is less than those delivering produce to the wholesale sector, the volume and value of produce they supply is more, reflecting the high value associated with these products (Table 2).

Table 2. Volume and value of fruit and vegetable export from target case studies to UK in 2005 destined for retail and non-retail markets.

Market	Ghana	Kenya	Tanzania	Uganda	Zambia	Total	Percentage of total
Non-retail volume (tonnes)	19,445	8,166	287	2,800	0	30,689	47
Non-retail value (£'000)	11,760	18,511	288	566	0	12,633	31
Retail volume (tonnes)	5,920	24,498	670	240	3,444	34,772	53
Retail value (£'000)	2,940	55,532	912	3,050	7,400	69,883	69

- There are some initiatives that are trying to increase the involvement of SSGs in the high-value export sector but this is taking place at a time when some in the industry believe that in three to five years the market for procuring high-value produce could shift away from sub-Saharan Africa.
- In contrast to the decline of smallholder involvement in the retail sector, more than double the number of SSGs are accessing the non-retail market. Nearly 25 per cent of the volume of produce imported from the case studies in SSA now flows into the catering sector (Table 3). Since smallholders are an important supplier of produce into the foodservice sector, there would appear to be some opportunities for market entry to replace the trade into supermarkets.

Table 3. Summary of final retail and non-retail destination of fruit and vegetables exported from the five case study countries to the UK in 2005.

Country/ commodity	Total volume (tonnes)	UK final use (tonnes)		
		Supermarket	Foodservice	Stores & markets
Volume of produce exported	65,363	38,707	14,851	12,281
Percentage of total		59.2	22.7	18.8
Less yams	57,061	38,707	14,021	4,810
Percentage of total		67.8	24.6	8.4

- However, the non-supermarket supply opportunities for SSGs are beginning to face the same pressures as in the retail sector since the major catering suppliers have begun to assume greater governance over the supply chain, requiring compliance with the same private sector standards. In addition, there are growing demands for greater local sourcing.
- Although opportunities for SSGs may continue in the traditional wholesale markets and some parts of the foodservice supply chain, this sector presents a complex supply arena encompassing traditional wholesale market activities (now dominated by ethnically-based traders) and the increasingly dynamic foodservice sector supplying the growing catering trade. There is negligible data (both published and un-published) defining the patterns of procurement. There is acknowledgement within the sector that it has received considerably less attention and support from donors and merits more detailed analysis to assess the size and needs of the sector and the opportunities for smallholders.

- Some new procurement models involving SSG are being developed with the support of retail category managers (as long as they are fully EurepGAP certified). However, category managers are no longer willing or able to provide direct management support and are looking for third party involvement for both technical and managerial support, often research institutions and NGOs, respectively. For this reason, examples from Tanzania, with the development of the Market Intermediary Concept (based on public- private sector partnership), provide an important approach for involving smallholders. However, the applicability of other procurement models should be analysed, particularly with respect to accessing markets other than supermarkets.
- Some in the industry feel that Fair Trade is an attractive approach to secure greater returns for smallholders and create a more sustainable basis for their participation in high value markets. However, both Fair Trade and organic production are niche markets that cannot absorb the larger volumes associated with conventional markets.
- The development of new approaches to procurement must address the need to take account of how produce is transported to the UK. Nearly 90 per cent of SSA produce imported into the UK is transported by air (Table 4). Opportunities should be explored to make use of new storage technology to allow the use of sea transport but the ability to manage these new systems plus the additional cost may be a negative factor in their uptake.

Table 4. Mode of transport for the delivery of produce from five case study countries to the UK in 2005.

Country	Air (Tonnes)	Sea (Tonnes)
Kenya	31,807	1,508
Ghana	7,117	3,982
Tanzania	3,866	2
Uganda	2,965	101
Zambia	3,444	0
Total	49,200	5,594
Percentage of total	89.8	10.2

- This study to map produce flows from sub-Saharan Africa into UK markets has shown a disturbing trend towards decreased procurement by supermarkets of fresh produce from small-scale growers. This is mainly due to a continuing rise in requirements of private standards with associated increases in cost and capacity to show compliance. The question must be asked whether these trends are inevitable or whether alternative options

exist? In order to assess options within the supermarket supply chain there would be merit in investigating in more detail how best to support small-scale growers to meet the requirements of private standards in a cost effective and sustainable manner.

- Notwithstanding the importance of the high-value supermarkets, it is necessary to examine in greater detail the wholesale and foodservice markets as potential alternatives to supermarket retail especially as the foodservice market is growing in size and value. Analysis is required particularly in the supplier countries to improve understanding of the mechanisms of produce procurement that is destined for non-supermarket UK outlets. Greater information is required on the governance of these chains and the costs and returns available to different players.
- At the UK end of the chain, surveys undertaken under the current study showed a general ignorance of the new EU regulatory mechanisms amongst players in the major UK wholesale markets. Enforcement agencies may focus resources on high risk products of animal origin and the current situation of loose enforcement for fresh produce may remain the same. It would be useful to establish a dialogue with the relevant agencies and market associations to explore this area in more detail. In a few cases, primary importers in the Western International market in London are already requesting higher standards and one importer had mentioned future requirements for EurepGAP. If regulatory requirements become stricter or private standards become a feature of wholesale markets it will have negative implications for African smallholders.
- The foodservice market is a growing sector, but there is a need to characterise current and future trends on food safety and quality requirements to determine if this sector will offer opportunities for African smallholders. Given the difficulties experienced in establishing a dialogue with players in this sector, it would be essential to involve appropriate sector organisations to conduct the survey work. Also it will be necessary to provide a reason for the industry to participate in such an exercise. Given recent problems with the unreliability in terms of food safety and quality of some raw ingredients used in mass production of ethnic foods a possible line of promotion would be to present the study as aimed at understanding the needs of the foodservice sector and then determining cost-effective means by which the supply base can meet the challenge of higher standards. This could be presented as a winning scenario in terms of protection of brand image and avoiding problems with supply like those experienced when the EU changed the regulatory requirements for Bombay duck in 1995 (avoiding another Sudan1/Parared incident).

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Abbreviations and acronyms

ACP	African, Caribbean and Pacific countries
billion	Billion
BRC	British Retail Consortium
CA	Competent Authority
CBI	Centre for the Promotion of Exports from Developing Countries
DEFRA	Department of Environment, Food and Rural Affairs, UK
EC	European Commission
EHPEA	Ethiopian Horticulture Producers and Exporters Association
EU	European Union
EurepGAP	European Retailers Protocol for Good Agricultural Practice
F&V	Fresh fruit and vegetables
FLO	Fairtrade Labelling Organisations International
FPC	Fresh Produce Consortium
GAP	Good Agricultural Practice
G2G	Gateway to Growth
GEL	Gomba Estates Limited, Tanzania
GROTETU	Ghana Root and Tubers Exporters Union
GYPEA	Ghana Yam Producers and Exporters Association
GROCETU	Ghana Root Crops and Tubers Exporters Union
GSP	Generalised System of Preferences
HACCP	Hazard analysis and critical control point
ICM	Integrated Crop Management
IFOAM	International Federation of Organic Agricultural Movements
IPM	Integrated Pest Management

LOD	Limit of determination
LSGs	Large scale growers
MIM	Market Intermediary Management
million	Million
MRL	Maximum Residue Level
NRI	Natural Resources Institute
NZTT	P33 original text
NGO	Non-governmental organisation
ONS	Office of National Statistics (UK)
PMO	Primary marketing organisation
PSD	Pesticide Safety Directorate
SPS	Sanitary and Phytosanitary measures
SSA	Sub Saharan Africa
SSG	Small scale growers
TOR	Terms of Reference
UK	United Kingdom
UKROFS	UK Register of Organic Food Standards
UN-ECE	United Nations Economic Commission for Europe
VREL	Volta River Estates Ltd.
YTL	York Farm Ltd.
ZEGA	Zambia Export Growers' Association

Part 1: Main report

1 Introduction

1.1 Background

Objectives and rationale

The DFID/IIED/NRI project “Small-Scale Producers and Standards in Agrifood Supply Chains “is primarily about finding ways to apply political leverage to make positive changes to existing systems that lead to more favourable conditions for access to high-value EU markets by small-scale growers (SSG) in sub-Saharan Africa (SSA).

One aspect of the initial work is an activity to map the involvement of African SSGs in supplying produce to UK markets (with emphasis on detailed characterisation of UK markets) by determining origin of product, types of product, volumes, values and numbers of SSGs (and their dependents) involved and destination markets. The Terms of Reference (TOR) for the study are contained in Appendix 1.

The study is important because there is strong evidence that *exporters and importers are moving away from the smallest growers*, not because of product quality or productivity, but because of transaction costs associated with private retailer standards. This includes both managing the implementation of, and demonstrating compliance with, the standards. At present, it is not clear whether production by small-scale farmers throughout Africa destined for export to retailers abroad can remain viable.

Over the past two decades many sub-Saharan African entrepreneurs and farmers have endeavoured to develop and expand export horticulture, supported by governments and donors, who see horticulture as an important source of employment and export earnings. Horticulture, particularly vegetables, makes intensive use of land and labour, especially women, and can produce high output value per hectare. SSA has several advantages in horticulture production, including suitable soils and climate, water for irrigation, low labour costs and relative proximity to growing horticultural markets in Europe and the Middle East. However, SSA producers are facing increasing competition from other producers especially from North Africa and Asia who have easier access to EU markets.

Methodology and timing

The research for this report was undertaken between June and October 2006 and involved two major components.

The first component was desk research on the structure of the horticultural sector and food retailing in the United Kingdom (UK). A detailed analysis of import trade data provided by Eurostat and UK Customs and Excise data was carried out with special emphasis on the volume and value of imports into the UK and EU from SSA and other competitive countries as well as exports from selected Africa countries. Literature reviews were undertaken dealing with both the UK and European Union (EU) horticulture markets as well as the horticulture sectors in a range of SSA countries that were exporting to the UK.

The second component involved structured interviews with a wide range of stakeholders in the supply chain including importers, exporters, primary marketing organizations, category managers, supermarkets, horticulture sector consultants, food safety experts and visits to wholesale markets and retail outlets. Appendix 2 contains details of the various contacts made, although for confidentiality reasons some companies and individuals have not been named.

Structure of the report

The study is divided into two parts: Part A is the main body of the report and Part B contains five SSA country briefs, namely Kenya, Ghana, Tanzania, Uganda and Zambia. Part A is made up of five chapters. This introductory chapter also includes (in Section 1.4) an overview of trade in F&V to put the role of SSA producers and the UK market in context. Chapter 2 provides an overview of the UK fruit and vegetable market and structures, including the volume and value of the fruit and vegetable market and the relative importance of domestic and imported supplies. Retail and non-retail supply chains are both outlined.

Chapter 3 quantifies the flow of horticultural produce from SSA, excluding South Africa, to the UK. A summary of the key points and trends relating to the selected SSA country suppliers is outlined. This includes a quantification of the role of smallholders and their dependents in African export horticulture and employment multipliers. Chapter 4 outlines trends in produce sourcing providing a snapshot of the flows and trends of produce to the various broad UK market sectors including supermarkets, foodservice, wholesale, ethnic shops, convenience stores and discount supermarkets, and London and regional markets. The role of various stakeholders in the value chain, especially category managers, and trends with regard to private standards and EU regulations are also outlined. In addition, some of the procurement models used to source smallholder produce for export are summarised. Chapter 5 summarises the study's findings including key present and future trends and risks

influencing smallholders' competitiveness, the competitive incentives facing key sectors; consumption, procurement and production trends; as well as the structural changes in the sector including horizontal and vertical integration and consolidation and development in standards, EU regulations and transportation. Finally information and data gaps are identified and a series of recommendations made.

Part B includes the five country briefs which provide some background to SSA countries exporting to the UK along with estimates of smallholders and others dependent on export horticulture. The countries analysed include Kenya (Chapter 6), the major SSA exporter to the UK, along with Ghana (Chapter 7), Tanzania (Chapter 8), Uganda (Chapter 9) and Zambia (Chapter 10). This is followed by four appendices which contain the TOR (Appendix 1); a list of individuals and organisations contacted (Appendix 2); details of literature and data sources consulted (Appendix 3) and trade data for countries exporting to the UK other than SSA countries (Appendix 4).

1.2 An overview of global and EU fruit and vegetable consumption and trade

It is important to place SSA exports of fresh F&V and United Kingdom F&V imports in the context of overall global F&V production and trade.¹

Production and international trade in F&V has grown by 43 per cent and 37 per cent respectively in volume terms over the last decade. The volume of trade has grown more than for any other agricultural commodity group. The annual volumes of F&V entering international trade is approximately 73 million tonnes – equal to just over 5 per cent of production – while the value is approximately US\$45 billion.

The annual value of international traded fruits in 2003 was \$26.4 billion compared with \$18.3 billion in 1993. During the past decade exports of “non-traditional” tropical fruits (e.g. mangoes, papayas and pineapples) have been one of the fastest growth sectors with values doubling over the past decade to \$2.6 billion (excluding bananas).

Growth of temperate fruits (e.g. apples, stone fruit) and traditional sub-tropical fruit (e.g. bananas, and citrus) has been more modest.

International trade in fresh vegetables during the decade has increased from \$11.5 billion to \$18.7 billion, with the fastest growth being in the category of chillies and green peppers. The fastest growth of all has been in “green beans not for shelling” with export growth of 3,577

¹ The analysis is based on FAOSTAT, CBI 2005, Hallam *et al.*, 2004 and Stichele *et al.*, 2005

per cent over the decade.

Developing countries dominate F&V production and account for approximately a third of global F&V trade. However, this trade is very concentrated with approximately two thirds of developing country exports accounted for by eight countries only one of which is African, namely South Africa. There are no least developed countries among leading F&V exporters although within Africa, Egypt, Kenya and Morocco are important exporters (See Appendix 4 for data on exports to UK).

Factors cited for the growth in developing countries F&V supplies include:

- Low labour and input costs;
- Improved storage techniques;
- Improved input use e.g. irrigation, seeds, fertiliser and pesticides;
- Better production techniques;
- Improved logistics and transport including refrigerated bulk sea freight services and, increased demand from developed countries.

A range of growers and production systems are involved in F&V exports. This can range from smallholders to very large-scale farmers employing modern crop management systems. Larger producers are often involved in most aspects of pre- and post-harvest operations while smallholders adopt a range of practices including selling their produce to local operators or traders; exporting their produce jointly with other smallholders or undertaking outgrowing or contract farming for larger operations.

The countries that are successful in exporting F&V have more developed infrastructures and mostly rely on large-scale commercial farming and an integrated supply chain. In contrast smallholders have been less able to meet quality standards, price, volume and delivery schedules of the developed country buyers.

Real prices for horticultural commodities have declined over the past decade but much less than other commodities. Tropical fruit prices have shown sizeable fluctuations compared with vegetables which have shown relative stability.

EU consumption and trade

EU fresh fruit and vegetable consumption in 2003 totalled 25 million tonnes and 30 million tonnes, respectively. Despite the trend towards healthier diets consumption has been relatively stable over the past decade. Per capita F&V consumption is often well below recommended levels and there are wide variations between countries in consumption levels. Thus, F&V consumption is relatively high in Italy and Germany and low in Scandinavian countries. In the UK, F&V consumption is typically low but there have been divergent trends in the types of F&V consumed. Thus, fresh fruit consumption increased by 23 per cent between 1990 and 2000 while consumption of potatoes and fresh green vegetables decreased by 29 per cent and 13 per cent respectively over the same period. Tropical and off-season F&V have shown an upward trend alongside a growing demand for convenience F&V products (e.g. prepared and pre-packed vegetables, salads and fresh fruit).

The EU is the world's biggest importer and the second largest exporter of F&V. Overall EU (and UK) consumption of F&V has remained relatively stable over recent years but there has been a growth of F&V imports from developing countries making them an increasingly important source of supply.

The leading imported fresh fruit is bananas accounting for a quarter of EU fruit imports. Annual EU imports are approximately 5 million tonnes predominantly from Latin America and the Caribbean. In 2002, EU imports of fresh fruit from developing countries accounted for 35 per cent of all fruit imports and totalled 6.9 billion tonnes valued at almost US\$ 5 billion. Developing countries are major EU suppliers of bananas, pineapples, papayas, tamarinds and lychees, dates, guavas, mangoes and passion fruit. The leading suppliers of fresh fruit from developing countries to EU markets in order of importance are South Africa, Costa Rica, Ecuador, Chile and Colombia.

Tomatoes are the leading imported fresh vegetable accounting for 22 per cent of total EU vegetable imports. EU imports of fresh vegetables amounted to 696 million tonnes and US\$ 793 million in 2002. Developing countries account for 10 per cent of all EU imports with Morocco as the supplier followed in order by Kenya, Turkey, Egypt and Thailand.

2 Overview of the United Kingdom fruit and vegetable market

2.1 Introduction

This chapter provides an overview of the UK F&V market and structure. A brief overview of market structures is provided in section 2.2, including the importance of various retail and non-retail outlets, which are analysed in greater details in Chapter 4. In Section 2.3 there is a review of the volumes and values of UK F&V imports and the relative importance of domestic and imported supplies. Section 2.4 analyses UK consumption trends for F&V.

2.2 Market structure

Despite the perishability of fresh F&V, there are a range of different actors in the supply chain e.g. producers; exporters; transport and distribution companies; importers; commission agents; auctions; wholesale traders; importers including category managers; sorting, processing and packaging companies. The sector is dynamic and the different functions of exporter, importer, wholesale trader and distributor are becoming increasingly blurred as mergers and acquisitions bring them under individual company control. Thus, the wholesale trade has become almost completely excluded from supplying the major retail supermarkets with the growth of direct links between producer, importers and retailers.

Fresh horticultural² produce flows through a number of routes to reach consumers. In the UK, based on sales value, 57 per cent of fresh produce is sold via multiple retailers, 11 per cent in wholesale market, and 32 per cent through foodservice (FPC, 2003). These observations are borne out by data from the UK's Office of National Statistics (ONS) which has a slightly higher percentage in the retail sector but this does include all types of processed fruit and vegetables. The ONS data for the sales of F&V passing through retail and wholesale markets are shown in Table 2.1. In 2004, total F&V sales including processed products totalled £20.6 billion, with retail sales accounting for just over £12 billion (59.1 per cent) of which supermarkets sales came to £11 billion (53.4 per cent), compared with £8.4 billion in wholesale markets (40.9 per cent).

² Unless otherwise stated "horticulture" refers to fresh fruit and vegetables.

Table 2.1 Sales of fruit and vegetables passing through the UK retail and wholesale market in 2004

Sector type	Outlet	Fruit (£million)	Vegetables (£million)	Total (£million)	Percentage of total
Retail	Non specialised stores	3564	7454	11,018	53.4
Retail	Specialised stores	642	466	1,108	5.4
Retail	Non-stores e.g. stalls & markets	18	52	70	0.3
Non Retail	Primary & secondary wholesale markets	N/A	N/A	8438	40.9
Total				20,634	

Source: UK Office of National Statistics

Multiples account for an increasing share of the UK and the next most important outlets are greengrocers, cooperatives and market stalls with volumes (values) of 247,000 tonnes (£258 million), 219,000 tonnes (£258 million) and 158,000 tonnes (£149 million), respectively (TNS Worldpanel data). Developments within the UK retail and wholesale markets are discussed in more detail in Chapter 4.

Sales of food in the UK are more concentrated than in any other European country with four supermarket groups accounting for almost three quarters of food sales. Market shares in 2004 were Tesco (28 per cent), Asda/Walmart (17 per cent), Sainsbury's (15 per cent), and Safeway-Morrison (14 per cent). Market shares are changing but concentration is increasing and by 2006 Tesco's share had increased to 30 per cent. One strand of Tesco's strategy, and also Sainsbury's, is to buy up local convenience stores, which intensifies competition for smaller and independent stores, with the result that 2,157 independent grocery stores closed in 2004 (equal to 7.4 per cent of all grocery stores). (Stickhele *et al.*, 2006).

The sale of fresh F&V plays a prominent part in the approach to selling produce in supermarket stores, as well as the margins from the sale of the produce. The latter aspect can be seen in the margins made on the sale of mange tout in the supply chain from Zimbabwe to UK (adapted from Dolan *et al.*, 1999):

Producer	12 per cent
Exporter	6 per cent
Packaging	5 per cent
Air freight and handling	20 per cent
Imports	12 per cent
Supermarket	45 per cent

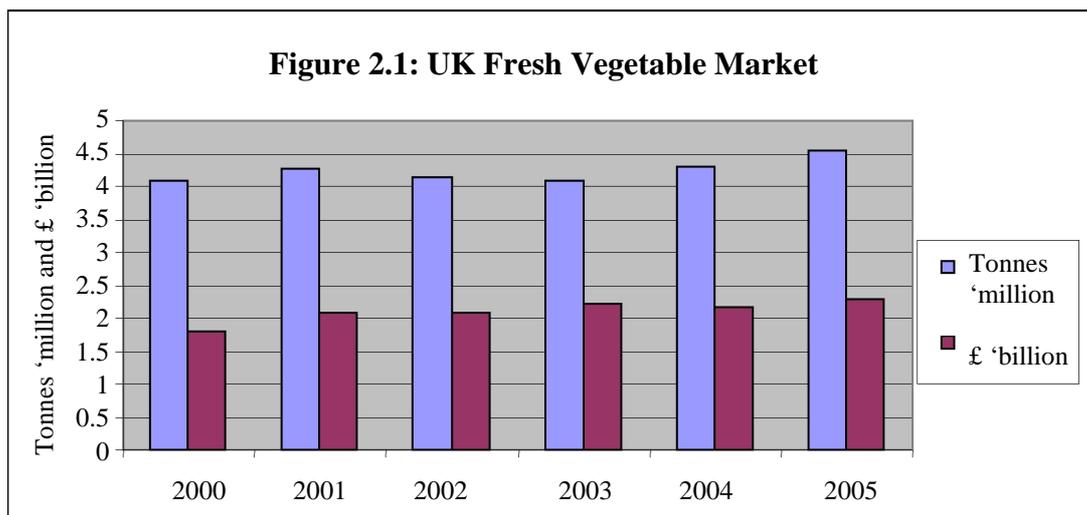
Despite the sizeable margins made on F&V by supermarkets, the latter remain very price

competitive with smaller retail outlets, making it very difficult for the smaller outlets to survive. The occasional price wars by supermarkets intensify these difficulties. Within Europe discounters usually offer F&V at the lowest prices of the supermarket groups. However, their range is limited and they are willing to take a lower margin – one source suggesting 10 per cent compared with 30 per cent – 40 per cent margin by the supermarkets (Cioffi *et al.*, 2004). Discounters have been increasing their market share in Europe since the 1990s. Their overall market share rose from 7 per cent in 1992 to 10 per cent in 2004 but market shares vary considerably between countries. Thus in the UK, discounters (e.g. Aldi, Lidl, Netto) accounted for only 3.7 per cent of grocery sales in 2005, whereas in Germany their share was 32 per cent and rising. (M & M, Planet Retail). Discounters look for the cheapest price available and tend to buy on the spot at wholesale markets and as such do not provide sound mid-term prospects of good prices for producers. However, UK-based discounters do source produce from F&V distributors including category managers.

2.3 UK vegetable and fruit market

The sources and range of horticultural products available in UK retail outlets has expanded rapidly in recent years. Thus, in almost any major UK supermarket there are usually well over a hundred different kinds of horticultural products for sale, sourced from several dozen countries. This has been achieved over the past two decades by a substantial growth in the volume and value of both intra-European Union (EU) trade in horticultural products, and also from third countries. Increasing disposable income has resulted in larger imports of off-season fresh fruit and vegetables.

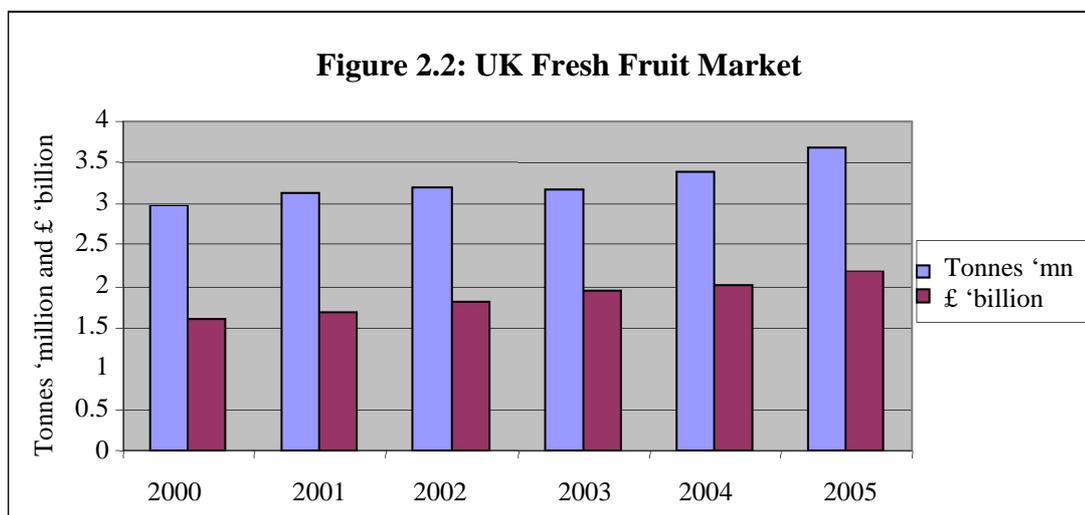
The UK fresh vegetable market is currently trading about 4.5 million tonnes of produce, valued at £2.4 billion (Figure 2.1). Salads account for just over one-third of expenditure on vegetables.



Source: DEFRA as published in the Re-Fresh Directory 2006

UK production of vegetables supplies 62 per cent of the market, with imports providing approximately 1.5 million tonnes. In relation to major African vegetable exports, the market share for legumes (i.e. beans, peas) has remained at 3.8 per cent of total UK expenditure on vegetables over the last three years.

The total value of the UK fruit trade in 2005 was £2.3 billion with a volume of 3.6 million tonnes (Figure 2.2). In contrast to the important role played by UK farmers in vegetable supplies, 90 per cent of fresh fruit by volume is supplied by imports. Approximately a third of expenditure on fruit is accounted for by soft fruit and 9 per cent by tropical fruits.



Source: DEFRA as published in the Re-Fresh Directory 2006

2.4 Consumption trends

In the UK, F&V consumption is typically low. However, fresh fruit consumption increased by 23 per cent between 1990 and 2000, while vegetable consumption remained relatively stable despite sizeable variation between products. With the growing demand for convenience F&V (e.g. pre-packed and cut) combined with growing health concerns, it is anticipated that consumption of prepared F&V (including salads) will grow.

UK consumption of fruit and vegetables

UK household purchases of F&V (excluding potatoes) from 2001/02 to 2004/05 both in grams per person per week (Table 2.2) and pence per person per week (Table 2.3) increased by 0.2 per cent, but the table understates the rise because in previous years some fruit drinks were recorded as fruit juices. While, household purchases of fresh fruit increased by 2.1 per cent, overall fruit consumption (including processed and fruit juices) declined by a similar amount.

Table 2.2: UK purchases of fruit and vegetables 2001/02 to 2004/05

(grams per person per week)

Household Purchases	1975	1990	2000	2001/2	2002/3	2003/4	2004/5	% change 2003/4 to 2004/5
F&V (excl. potatoes)	1,868	2,070	2,336	2,248	2,307	2,269	2,274	+0.2
Vegetables (excl. potatoes)	1,131	1,208	1,147	1,092	1,101	1,079	1,106	+2.5
All fruit (inc. processed and fruit juices)				1,156	1,206	1,190	1,168	-1.8
Fresh fruit	511	624	765	750	794	789	805	+2.1
Eating out purchases								
Vegetables				34	34	34	33	-0.8

Source: UK purchases and expenditure on food and drink and derived energy and nutrient intakes in 2004-05

Table 2.3: UK expenditure on fruit and vegetables 2001/02 to 2004/05

(pence per person per week)

Household expenditure	2001/2	2002/3	2003/4	2004/5	% change into 2004/5
Vegetables (excl potatoes)	167	170	177	182	+2.8
Fresh fruit	150	159	163	167	+2.7

Source: UK purchases and expenditure on food and drink and derived energy and nutrient intakes in 2004-05

Overall UK demand has been relatively stable, but there is growth in specific produce, e.g. exotic F&V, grapes, organic, fair trade and pre-packaged produce, particularly salads.

Overall the UK retail market for F&V is a relatively mature market with steady growth, led

largely by (exotic) fruits and prepared, pre-packaged vegetables. A study of the UK F&V market between 1998 and 2003 showed overall growth in retail sales between 1998 and 2003 of 4 per cent in nominal values, but an actual decline in real terms (Mintel 2003). Since 2003, there has been an increase in market volumes and value for both fresh fruit and vegetables, which may be partly associated with the impact of the government message on fresh vegetable and fruit consumption and the various government-funded campaigns such as the '5 a day' and the School Fruit and Vegetable Scheme initiatives. As one in three people believe that they do not eat five portions daily, there is potential to expand the market. The fresh produce industry believes that fruit will continue to experience a rise in demand, particularly through retail of processed products and demand in the food service sector. Meanwhile, vegetables are seen as having fewer opportunities for growth (Anon, 2006).

The UK, with a population of 60 million, is marked by considerable income and ethnic diversity. It has become a sizeable market for SSA produce. This is partly because of its seasonal marketing windows, attractive prices, diverse consumption patterns and rising demand for certain products. However, fresh F&V consumption varies by income group with growth likely to be more buoyant in higher income groups: the upper income decile consumes, on average per person, over 2.5 times the consumption of the lower decile group (Anon, 2006).

UK society is increasingly polarised between rich and poor; consumption patterns are markedly different between the socio-economic groups ABC1 (who account for about half the population) and Groups C2, D and E. Group ABC1 invariably shop in major multiples and demand premium and convenient food products. Lower income groups are more likely to shop at markets or discount retailers. Non-white 'ethnic' groups are less likely to shop at major multiples for F&V. The five million 'ethnic' people living in the UK have significantly higher per capita F&V consumption than the rest of the population. (Mintel 2003)

UK consumption of organic F&V has been growing strongly and commands a price premium. Sales have been encouraged by environmental concerns, food chain issues and various food scares, and are likely to continue to grow quickly, particularly through supermarkets. However, developing organic production can be difficult and risky and certification (and preparation for certification) is costly, particularly for smallholders. In addition, demand for organic produce varies across the food sector, with the foodservice sector having a low requirement.

3 UK fruit and vegetable imports from sub-Saharan Africa and the role of smallholders

3.1 Introduction

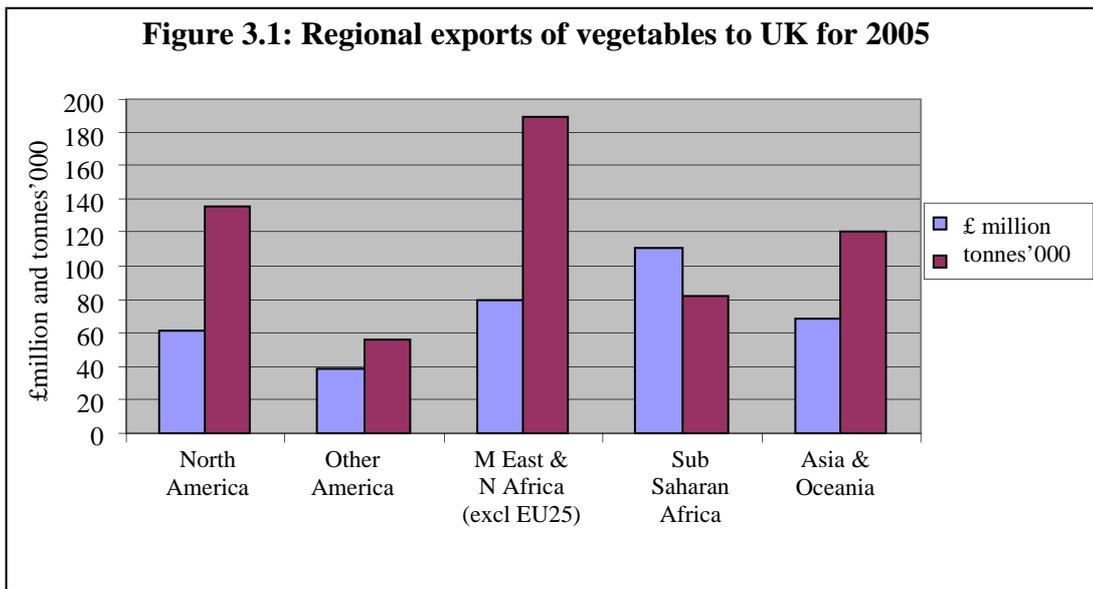
The major aim of this chapter is to quantify the flow of produce to the UK from SSA (excluding South Africa) and evaluate the role of smallholders in SSA export horticulture, including an analysis of employment multipliers and household dependents. The following section provides an overview of the volumes and value of exports to the UK.

In Sections 3.3 to 3.7 some of the key points and trends relating to selected SSA country suppliers to the UK are highlighted. The dominant origin of UK supplies from SSA, excluding South Africa, is Kenya. Other sizeable suppliers are Ghana, Tanzania and Zambia. More details on these countries are provided in Part B of this report. There are other important suppliers of F&V from SSA to the EU, including Ivory Coast, Mali and Senegal but shipments are predominantly to continental Europe and not to the UK. In addition, increasingly supplies of F&V produce are being shipped from North Africa to the EU, including the UK, and supplies from these origins, particularly Morocco and Egypt (see Appendix 4), exceed those of SSA countries, excluding South Africa .

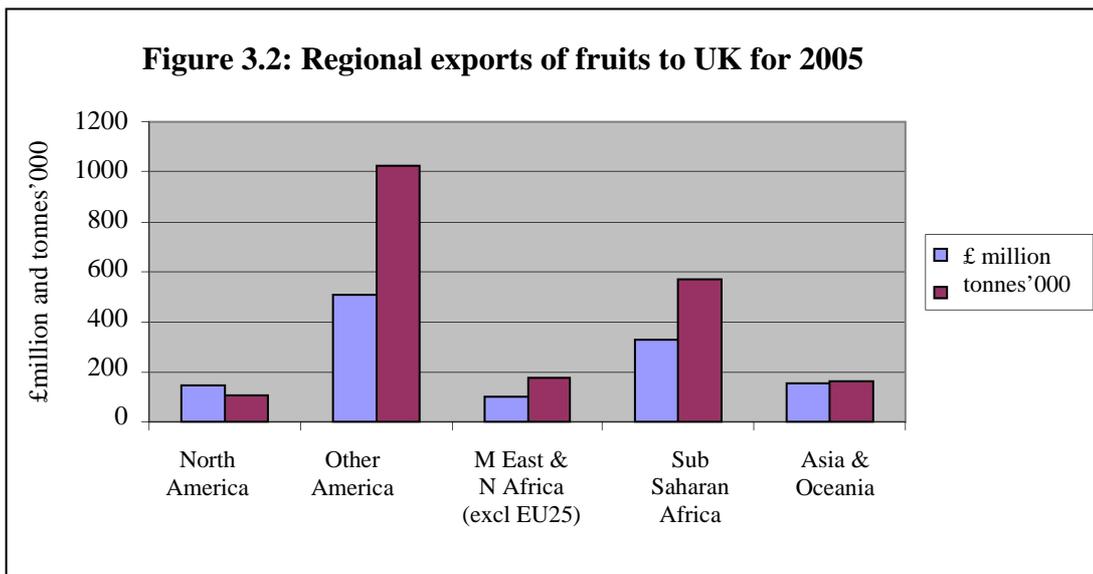
For each of the major SSA suppliers to the UK the role of smallholders in F&V export production is analysed and the findings are summarised in Section 3.7 to provide an overview of the relative importance of African smallholders to the UK supply base. Examples of smallholder procurement models in these countries are reviewed in Chapter 4.

3.2 Exports of fruit and vegetables from Africa to the UK

The UK sources fruits and vegetables globally, and in 2005 the whole of SSA (including South Africa) supplied 654,000 tonnes of all categories of F&V worth an estimated £437 million (Figures 3.1 and 3.2).



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit (for HTS 07 and 08).



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit (for HTS 07 and 08)³

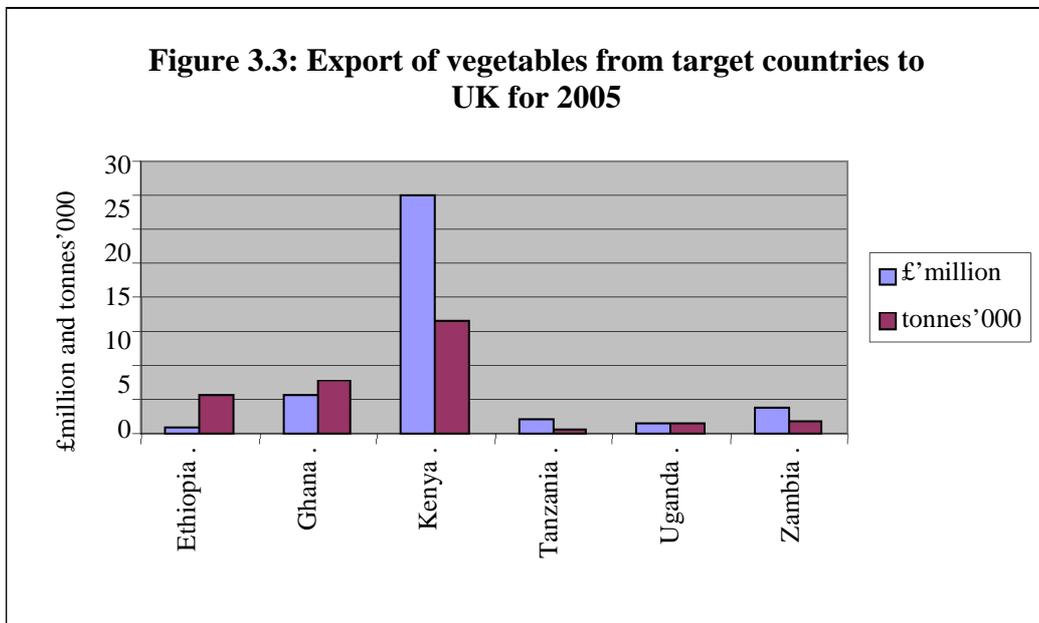
If South Africa is excluded from the data, then in 2005, SSA countries exported:

- ◇ 73,788 tonnes of vegetables worth £105 million;
- ◇ 209,555 tonnes of fruit worth £89 million.

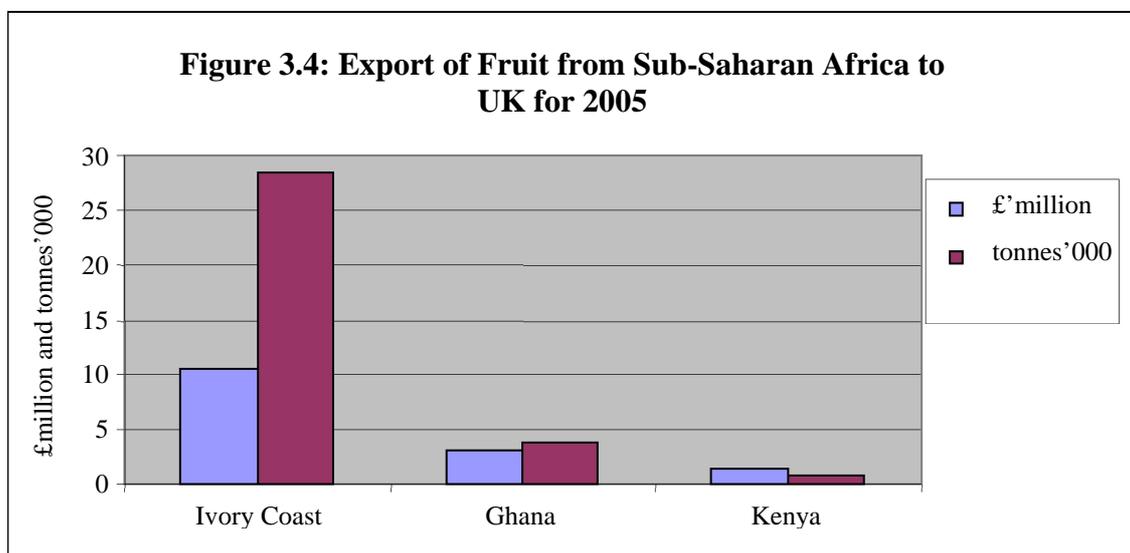
Disaggregating this regional data to focus on the target countries of the project highlights that the volume of vegetables exported from SSA continues to be dominated by Kenya, who

³ Unless otherwise stated all data for each country is from the same source.

exported 30,000 tonnes with a customs value of £70 million in 2005, and this figure has remained fairly static over the last three years up to 2005 (Figure 3.3). The export of fruit (excluding bananas) from SSA is minimal with three countries, Ivory Coast, Ghana and Kenya the major exporters to the UK (Figure 3.4).



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit (for HTS 07 and 08).
(n.b. export from Ethiopia is mostly dried legumes for animal feed.)



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit (for HTS 07 and 08)

Analysis of the export trade based on broad produce categories creates a complex picture with a diverse range of produce, particularly vegetables, and associated supply chains. Most studies and approaches aggregate this complexity and attempt to model the sector as a whole. To avoid this simplification, the supply chains are explored in more detail at the individual

country level and for each specific commodity in the individual country briefs presented in Part B. A summary of the country briefs are presented below.

Almost all imports to the UK are direct from SSA countries, although there are occasionally some re-exports. For example, small quantities of prepared Ethiopian green beans are imported to the UK via the Netherlands but invariably the quantities are very small, for example 17.5 tonnes in 2005 for all legumes (HS 0708). Not only is the role of entrepôts small but it would appear that the limited F&V re-export trade that exists for produce from SSA is not on a regular basis.

3.3 Kenya: the major SSA country supplying the UK

In 2005, Kenya exported some 33,000 tonnes of vegetables and 955 tonnes of fruit to the UK. Kenya is one of the world's leading exporters of fresh green beans (French and runner beans, snow peas and sugar snaps) as well as a minor exporter of tropical fruits (e.g. avocado, papaya and passion fruit). Other vegetables exported include squash, peas, aubergines, chilli, and sweet corn.

Key factors behind Kenya's success are a dynamic private sector that has benefited from structural and macro-economic reforms as well as an efficient transport hub. Approximately 75 per cent of exported produce is marketed through supermarkets, with the remainder entering the wholesale and foodservice sectors (Jaffee 2003).

Exports of fresh produce from Kenya have been associated with significant smallholder involvement. In the 1990s, researchers estimated that three quarters of horticultural export production came from small-scale growers (SSGs). However, smallholder participation has declined in recent years due to the high cost of managing smallholder outgrowers and the need to have a critical size and number. It is readily accepted that smallholder involvement has significantly declined due to pressures from EurepGAP compliance. The results of the project's recent surveys confirm that the number of vegetable SSGs has fallen from an estimated 11,600 in 2004-05 to about 5,500 smallholder growers in 2005-06.

Export horticulture represents an opportunity for poverty reduction through income generation among smallholders, rural labourers on larger farms, and unskilled or semi-skilled processing factory workers. A number of studies have suggested that all of these benefit from their involvement in the export horticulture sector, including rural labourers, and packhouse workers (about three quarters of whom are women). Women also tend to play a leading role in vegetable production on smallholder farms, according to one estimate accounting for two-thirds of the hours worked over the course of a season. The total number of workers and their

households dependent on the horticultural export sector is estimated to be of the order of 165,000.

3.4 Ghana

Ghana exports both fruit and vegetables to the UK. It is estimated that the total number of people reliant on horticultural exports to the UK is of the order of 74,000. The range and volume of vegetable (gourds/pumpkins, yam, and chilli peppers) is relatively small, with a total annual value of £10.8 million from a volume of approximately 15,000 tonnes. All of the vegetables are sourced from smallholders by a relatively large number of vegetable exporting companies (via intermediaries), who supply UK wholesale markets. Aspects of yam procurement and export to the UK are outlined in Chapter 4, along with the smallholder procurement methods used by the pineapple export company Farmapine Ghana Ltd.

As regards fruit, Ghana exports bananas, pineapple, melons and papaya to the UK, although the volumes and values are relatively small (e.g. about 5,000 tonnes of pineapple in 2005 worth approximately £2.8 million). The producers of these fruits are both small-scale growers and large farmers/exporters.

The volume of banana and pineapple exports to the UK has increased since 2003. This reflects the advances made by the pineapple sub-sector in achieving EurepGAP accreditation and producing varieties required by the market, and for bananas in meeting EurepGAP and fair trade certification.

The pineapple export trade is dominated by four producer exporters although there are sixty registered exporters in Ghana. Three out of the four producer exporters are large-scale growers, whilst one is a smallholder cooperative (i.e. Farmapine). The large farmers/exporters supply about 55 per cent of the export market from farms that average 120ha in size. Smallholders – about 600 farmers – supply the remainder of the export volume (including EU markets) from farms that devote on average 1.2ha to pineapples.

Some of the constraints encountered by fruit exporters (e.g. pineapple exporters) include:

- Cost of compliance with private sector standards;
- High cost of air freight – about half of the exports are air-freighted;
- Lack of market linkages - better linkages can be achieved through cooperatives such as Farmapine.

3.5 Tanzania, Uganda and Ethiopia

Tanzania

Tanzania's horticultural export production base has two nuclear estates and currently some 2,070 SSGs supplying vegetables to the UK retail (dominant part) and wholesale markets. The number of dependents associated with the export sector is over 32,000 and opportunities for expansion exist.

Green beans represent the major export by far (i.e. close to 700 tonnes worth about £2 million in 2005). Other produce includes peas, chilli pepper, sweet corn, and gourds. Tanzania does not export any significant volumes of fruit.

The production area is viewed positively by supermarkets as an alternative source to Kenya at certain times of the year having different climatic conditions and also possessing the potential for expansion. One of the exporters, Gomba Estates, feels that export expansion can be achieved by involving smallholders and has developed, with external support, an intermediary management organisation, Market Intermediary Management (MIM) Limited. MIM is discussed in greater detail in Chapter 4.

Uganda

Uganda exports a relatively small volume of fresh produce to the UK (i.e. just under 3,000 tons in 2005), okra being by far the main product. Other produce includes chilli pepper, matooke and pineapple. About 500 tonnes of green beans was exported in 2004 but hardly anything in 2005.

Overall, levels of exports over the last three years have remained fairly constant, despite considerable donor-supported projects to the sector (although flower exports have increased significantly under the same programme).

There are seventeen farmer/exporter companies but only one of these regularly supplies the UK retail sector - i.e. Maiyre Estates. Whilst Maiyre Estates is able to access high value retail markets due to its EurepGAP certification, Amfri supplies high value organic produce markets, although it is also preparing for EurepGAP certification.

Together with another eleven companies these two firms also supply the wholesale markets. Most companies are small, exporting 1-5 tonnes per week, but four companies export between 15-25 tonnes per week each.

2,060 Ugandan small-scale growers are active in export production. 1,713 of these supply a

relatively wide variety of produce to the UK market - i.e. mainly the wholesale/catering sector. Nonetheless, an estimated 200 SSGs also supply hot- pepper, chilli, and okra to the UK retailers.

All the Ugandan produce is transported by air to the UK. Constraints encountered by the export sector include:

- Cost of compliance with private sector standards.
- Lack of training of outgrowers in food safety, the safe use of pesticides, traceability systems, and IPM techniques.
- Lack of access to and high cost of air freight.

In total, it is estimated that the number of Ugandan large producer/exporters, SSGs, employees and dependents involved in supplying the UK fruit and vegetable sector are close to 32,000.

Ethiopia

Negligible quantities of Ethiopian produce other than dried pulses are imported into the UK. Based on the rapid expansion of cut flower exports in part through substantial inward investment efforts are being made to expand horticulture exports including semi-prepared green beans. Some semi-processed and packaged green beans are re-exported into the UK from the Netherlands. Some of the green beans are produced by smallholders acting as outgrowers to existing producer/exporting companies. As volumes of produce exported to UK from Ethiopia are negligible, they will not be discussed further as the absence of information does not justify a separate chapter.

3.6 Zambia

Exports of vegetables from Zambia to the UK totalled £7.4 million in 2005, with peas (about 1,300 tonnes in 2005) and beans being the dominant products. Other vegetables include sweet corn, chilli, and courgette.

Currently, production and export of produce from Zambia has been reduced because the rise in the value of the Zambian kwacha versus the pound sterling has rendered exports of produce uncompetitive compared to other African and particularly, Latin American sources. This has had a negative impact on the opportunities for SSG involvement (i.e. only ten SSGs are currently involved in the export sector) and employment opportunities in the large estate sector have also been negatively affected. The number of SSGs, workers and dependents involved in supplying the UK fruit and vegetable sector totals approximately 7,000.

The export production base is currently centred on two large producers/exporters – Borassus

Estates and York Farms Ltd. Both farms have EurepGAP certification, whilst the former also grows organic produce under Eco-Cert. Shipments are handled by ZEGA (Zambian Export Growers Association) and air freighted primarily to supermarkets in the UK, but also to clients in South Africa.

In the past, smallholders exported from Zambia through Agriflora Limited but following the collapse of Agriflora in July 2004 the farmers formed a secondary management level cooperative known as the Lubulima Agricultural Commercial Cooperatives Union (LACCU). LACCU has an active membership of 89 farmers out of a total of 500. The 89 farmers exported via York Farms in 2005, but in 2006 macro-economic problems reduced smallholder involvement in export horticulture to a low level.

3.7 Role of African horticulture exports for smallholders and employment

The main objective of this section is to provide estimates of the role of the export of fresh produce to the UK as an opportunity for reducing poverty through income generation among various stakeholders in the supply chain. In addition to the direct benefit to smallholders, there are various categories of labour that can benefit from the sector and include:

Direct employment

1. Rural labourers are often directly employed by smallholders in producing F&V, many of whom could be seasonal. It should be noted here that women often play a leading role in vegetable production on smallholder farms (i.e. according to one estimate accounting for two-thirds of the hours worked over the course of a season).
2. Labourers and other workers/employees on the larger farms.
3. Unskilled and skilled workers in the packhouse.
4. Workers employed in the provision of ancillary services to the sector e.g. inputs of seed, fertilisers and tools; distribution, irrigation, transport, auditing, banking and credit provision activities.

Direct dependents

5. Invariably, workers in the above category will have a number of dependents who depend on the income of the primary earners – this could include children and other extended family members. The number of dependents will be determined in part by the nature of the workforce (e.g. Kenyan packhouse workers often tend to be young women who have fewer dependents).

Indirect dependents

6. Some people obtain income indirectly from the F&V export sector through income multiplier impact from such activities as provision of food, clothing, building/construction, education, credit to those directly employed in the sector and their dependents.

In the analysis below estimates have been made for categories 1, 2, 3, 4 and 5. It has not been possible to provide estimates for category 6. Moreover, it proved difficult to disentangle the ancillary services provided by input suppliers in relation to horticultural exports to the UK, as compared to services provided to other industries including exports to other European countries. However, we have used a multiplier of 1.9 per worker in the sector based on personal communication with James MacGregor.

Estimates have been made for five of the major country suppliers to the UK, namely Kenya (Chapter 6), Ghana (Chapter 7), Tanzania (Chapter 8), Uganda (Chapter 9) and Zambia (Chap 10). For the remaining countries supplying the UK, where data are not available, a simple multiplier has been used based on the amount of fresh F&V exported from these countries to the UK. Trade data on the level of these exports is provided in Appendix 4.

The estimated number of farmers, workers, their dependents and ancillary workers reliant on horticulture for a living in SSA is estimated at 715,390 (Table 3.1). However, there is a significant volume of produce entering the UK from South Africa and the inclusion of small-scale growers, larger-scale farmers and their workers would take this figure to substantially more than one million.

The number of SSGs entering the supermarket sector has declined significantly to approximately 4,500, considerably less than half the numbers of SSGs supplying the wholesale and foodservice sector. Evidence from large-scale producer/exporters suggests that the demise of the SSGs is closely linked to the increased costs and managerial burden associated with meeting private sector standards and the decrease in external funds to maintain smallholder participation.

Table 3.1: The numbers of small and large-scale farmers exporting to the UK retail and wholesale sector and associated numbers of dependents and ancillary workers

Farmer and dependent number	Market	Ghana	Kenya	Tanzania	Uganda	Zambia	Other SSA	Totals
SSGs	Wholesale	3,438	2,815	2,070	1,800	10		10,193
LSGs	Wholesale	10	191	1	12	2		216
SSGs	Retail	160	4,140	2	200	0		4,502
LSGs	Retail	10	191	0	2	2		205
Dependents and ancillary workers		70,433	171,237	30,330	29,963	6,948		308,910
Total		73,691	178,574	32,397	31,609	6,954	392,165	<u>715,390</u>

Whilst it may appear that the non-retail sector offers a market opportunity for SSGs from Africa it is a complex supply arena encompassing the traditional wholesale market activities (now dominated by ethnically-based traders) and the increasingly dynamic foodservice sector supplying the growing catering trade. The latter is showing a higher rate of growth than the other food sectors but is increasingly a more demanding supply chain with greater governance exerted by the major foodservice supply companies. These companies are under pressure to supply traceable, high quality produce and they are therefore demanding that farmers comply with EurepGAP, BRC or their own in-house standards. These issues are addressed in Chapter 4.

4 Trends in produce sourcing

Supermarkets remain wary of sourcing from small farmers. They realise that failure to meet food safety or ethical trading standards can result in bad publicity and undermine their position in the market place. Because of this, they believe that concentrating their grower base will reduce their exposure to risk by giving them greater control over the production and distribution processes.” (Dolan and Humphrey, 2000)

The export of horticultural produce from smallholders in Africa to the UK is only viable when donors or large producing companies are able to provide some form of support to smallholder operations. (UK horticulture advisor and consultant)

4.1 Introduction

This chapter provides an overview of the trends in the broad UK market sectors including supermarkets, foodservice and wholesale, ethnic shops, and the role of various stakeholders in the value chain, especially category managers (Sections 4.2 to 4.4). Private standards and EU regulations have had an important impact on UK sourcing and their role and trends are outlined in section 4.5, while the impact of possible trade liberalisation is discussed in section 4.6. Various procurement models, particularly those relating to smallholders are presented in section 4.7.

The UK market has mostly become a highly demanding premium quality market. It is strongly competitive and adequately supplied by existing sources. Competition and a shrinking number of importers are driving down margins and increasing the risk that suppliers who perform poorly in terms of quality or reliability of supply will lose market share. In highly demanding, premium quality segments, it is very difficult for new suppliers to enter the market place without sizeable investment and support and certification to satisfy EU laws and retailer standards. Expanding sales in the UK market is therefore a significant challenge for SSA producers and exporters.

4.2 The retail sector

As outlined in chapter 2, some 90 per cent of total F&V trade at the retail level is sold in supermarkets (FPC 2006). The next most important retail outlets are greengrocers, cooperatives and market stalls with volumes (values) of 247,000 tonnes (£258 million), 219,000 tonnes (£258 million) and 158,000 tonnes (£149 million), respectively.

Past

From the 1960s until 1980, supermarkets tended to undertake their purchasing via the wholesale markets, although pioneer work at Marks and Spencer and Sainsbury's was beginning to show the value of buying against a specification, and starting to negotiate directly with large farming groups and major cooperatives in the UK. From 1980 onwards this process accelerated with all of the supermarkets developing programming of UK supplies and later, overseas supplies, as the only way to ensure that their fast growing shelf space remained filled. Much was made of enhancing the 'value' of the name of the supermarket, and at the same time that programming commenced, the first 'auditing' of the supply chain's food safety and technical aspects took place.

Technical staff found that standards needed a significant boost, not least in the UK, where, for example, pressure had to be applied to ensure that all soft fruit growers' provided mobile toilets and hand washing facilities for harvest staff. As the proportion of produce sold via supermarkets rapidly increased, in parallel with the need to control and reduce the cost of head offices, supermarkets increasingly relied on suppliers 'self' audits, backed up with a supervisory visit from the customer. This had evolved by 2002 into a requirement that every farm in the supply chain for every major supermarket submit (and pay for) a third party audit. The audit is either to EurepGAP standards (or equivalent national standard) or to the supermarkets' own standards. Whether, in practice, this is absolutely observed when supplies from usual sources are in short supply is a moot point. At the same time, by 1997, all UK pack houses serving supermarkets had to comply with BRC published standards, while shortly afterwards all pack houses in the supply chain had to be audited and pass the BRC standards.

Current – category managers

The concept of category management came into vogue with British supermarkets in the mid/late 1990s. The often large number of suppliers⁴ of a category of produce e.g. melon which might number 30-35 companies across the year was reduced to a single 'category captain', with two or three 'supporting' companies. The 'captain' would supply about 50 per cent of the total, with the balance supplied by the supporters, and the companies being required to collaborate to ensure a full and uninterrupted supply of the category to the customer. Although the elimination process was harsh on those who lost out, some of whom had many years of loyal supply behind them, nevertheless, for the category captain and supporters, they could expect to be able to plan for the long term, and be able to invest in the supply chain. For the supermarkets, the benefit was to be a lower cost of produce, from 'rationalisation' in the supply chain, and a lower administration burden resulting from a huge

⁴ Suppliers are companies that source, consolidate, pack and distribute produce for retailers. Foodservice suppliers will provide produce to restaurants, cafes, pubs and other catering operations e.g. schools.

reduction in the number of suppliers with whom they were dealing.

Future - auction

Whilst category management has been adopted at differing rates and in a variety of ways by the leading supermarkets, a clear trend has evolved over the last three years. Some retailers offer programmes that may run for an entire season or a significant number of months, giving a degree of stability to the successful suppliers, whilst others offer quarterly reverse auctions, with the programmes going to the lowest bidder(s). All those who supply under either regime are expected to offer fully certified sources of supply. Whilst both systems operate with seeming success, from the farmers' point of view the quarterly reverse auction does not appear to offer long term stability. In the last decade of the twentieth century the trend for UK supermarkets had been to plan supplies well in advance, with pre-selected exporters/growers so that a farm or cooperative entered a season with the assurance that providing they delivered an agreed quality, marketing was more or less assured.

A sign of change may be the recent comment of Helen Browning. In the July 14 issue of the Fresh Produce Journal the Soil Association's food and farming director, Helen Browning, said that Tesco, which was castigated last year for its less than wholesome treatment of suppliers, has since had a noticeable change of heart. "There has been quite a significant change in tactics and a shift in practice and Tesco has committed to longer-term supply," she says.

Other UK supermarket F&V sourcing strategies are constantly evolving with new models being developed. For example, Walmart/Asda is cutting out the intermediary and endeavouring to source directly from exporters and producers.

4.3 The non-retail sector: wholesale markets

Wholesale markets supply many of the smaller independent retail outlets, processors, street markets, catering suppliers and foodservice outlets with fresh produce.

In the UK, where the percentage wholesale market value share (rather than the overall volume of sales) has diminished, there are still some 37 remaining wholesale markets selling fresh produce, with turnovers ranging from £5 million to £300 million a year. While these markets handle mainly domestic fruit and vegetables, they still deal with a substantial amount of imports. Some of the markets in the major cities (e.g. New Covent Garden, Spitalfields and Western International markets in London, and the Birmingham and Bradford markets) handle substantial amounts of exotic, ethnic and tropical produce.

The fortunes of the wholesale sector have varied in the last twenty to thirty years. Their market share for supplying produce decreased dramatically in the 1990s with changes in supermarket sourcing, and many traders exited the business, but on the back of an increase in the foodservice sector, it then experienced a revival, particularly those markets in city centres (see Table 4.1). For example, New Covent Garden in 1974 had some 200 traditional F&V wholesale traders but this declined to 30 who have now experienced an upturn in business through supplying small and medium catering companies and restaurants, often with an ethnic focus.

Table 4.1 Performance of wholesale markets in the UK 1995-2004

Year	Number of businesses	Turnover (£ million)
1995	1,500	5,806
1996	1,789	6,545
1997	2,011	6,442
1998	2,111	7,822
1999	2,151	7,689
2000	2,193	7,654
2001	2,134	7,465
2002	2,094	8,108
2003	2,099	8,571
2004	2,096	8,438

Source: Office of National Statistics

Many new catering distributors have been established in the wholesale markets, often ethnic specialists supplying into parallel restaurants and shops (Jaffee, 2003; FPC. 2006). For instance, in Spitalfields there is a preponderance of Chinese and Turkish wholesalers who supply low priced ethnic produce, with limited added value (compared to other catering sectors). In Western International wholesale market, Asian ethnic wholesalers supply their produce, particularly to west London and secondary wholesale markets in the West Country e.g. Bristol. This growing ethnic community within the wholesale markets may continue to offer opportunities for developing country producers, but it is difficult to predict the volumes required.

A survey in 2002 of the destination of produce from the principal London wholesale markets confirmed the importance of catering for two of the markets (Table 4.2).

Table 4.2: Destination of fresh produce from London wholesale markets in 2002 (%)

	Spitalfields	Western International	New Covent Garden
Retail	35	52	29
Catering	42	14	39
2° wholesalers	19	25	14
Processors	2	2	5
Other	1	7	13

Source: Saphire (2002)

More recent data on the segmentation of produce sold in the wholesale markets are scarce (personal communication, Department of Horticulture, DEFRA). A project survey of some wholesalers based in New Covent Garden Markets indicated an increase in supply to the catering industry (e.g. restaurants, schools, hotels, prisons, etc) varying between 60 per cent and 90 per cent of produce traded by the wholesalers.

It is possible to make approximations of the UK final usage of produce from the target countries in the supermarkets, foodservice and other retail outlets e.g. ethnic stores and street market stalls, based on: the above and other wholesale interviews on the amount of produce being delivered from the wholesale to catering; the returns of the questionnaires from catering suppliers detailing the produce currently imported from Africa; and in- country data and observations (Table 4.3).

Table 4.3 Final retail and non-retail destination of fruit and vegetables exported to the UK in 2005

	Volume (tonnes)	UK Final Use (tonnes)		
		Super- market	Foodservice	Store & markets
<u>Ghana</u>				
Yams	8,302	0	830	7,472
Aubergines	102	0	77	26
Chilli pepper	993	0	745	248
Gourds, etc	5,401	0	4,051	1,350
Banana	5,172	4,655	388	129
Pineapple	4,884	4,640	0	232
Papaya	179	170	0	9
Total	25,033	9,465	6,090	9,466
% of Total		38	24	38
<u>Tanzania</u>				
Peas	330	313	12	4
Green Beans	690	655	26	9
Chilli Pepper	36	34	1	0
Sweetcorn	84	80	3	1
Gourds	60	57	2	1
Total	1,200	1,140	45	15
% of Total		95	4	1
<u>Kenya</u>				
Onions/leeks	312	234	59	20
Cabbages	412	309	77	26
Peas	5,047	3,785	946	315
Beans	19,619	14,714	3,679	1,226
Aubergines	775	581	145	48
Chilli	359	269	67	22
Sweetcorn	360	270	67	22
Asian veg.	5,760	4,320	1,080	360
Total	32,644	24,483	6,121	2,040
% of Total		75	19	6
<u>Uganda</u>				
Chilli pepper	198	0	147	50
Okra	2,633	520	1,948	658
Pineapple	63	0	47	16
Matooke	148	0	110	37

Total	3,042	520	2,251	761
% of Total		17	74	9
Zambia				
Brassicas	32	29	3	0
Peas	1,275	1,148	128	0
Beans	1,157	1,041	116	0
Chilli	277	250	28	0
Sweetcorn	559	503	56	0
Courgette	126	113	13	0
Squash	18	17	2	0
Total	3,444	3,100	344	0
% of Total		90	10	-
TOTAL	65,363	38,707	14,851	12,281
% TOTAL		59.2	22.7	18.8
Less yams	57,061	38,707	14,021	4,810
% TOTAL- less yams		67.8	24.6	8.4

Almost 60 per cent (by volume) of produce enters the supermarket sector, with 22.7 per cent destined for the foodservice sector and 18.8 per cent for the non-supermarket retail sector. If the estimates are made without yams, which are both a large component of the non- retail sector and of minor importance in the catering sector, then the amount of produce flowing to the foodservice sector increases to nearly 25 per cent, with only 8.4 per cent destined for stores and market stalls.

The wholesale suppliers have paid great attention to the varying needs of the many foodservice outlets and their suppliers. This aspect of the wholesale sector illustrates that most wholesale traders have minimal contact with and governance of their supply base but fully understand their customer needs⁵. This has created a wholesale supply chain that is less efficient than the more highly governed supermarket supply chain. It means that producers have less information on meeting new opportunities that exist for supplying specialist retail and catering outlets.

In recent years, with the increase in food eaten outside of the home, companies in the foodservice sector have changed their procurement practices opting for direct supplies in order to meet their customer requirements and the wholesale markets have become less important as suppliers (see below). This has meant both consolidation and a shift of these companies away from the wholesale markets.

⁵ This lack of awareness of the wholesale supply chain was confirmed in project interviews in Spitalfields, New Covent Garden and Western International.

With the catering sector moving towards greater governance of the supply chain and a decreasing reliance on the wholesale sector, the future of wholesale markets is again entering a phase of uncertainty.

Discussions with wholesale traders demonstrated a lack of awareness of the supply side in relation to produce coming from sub-Saharan Africa. Project surveys of traders in both Spitalfields and Western International markets, found that:

- In both markets, SSA produce was available on about one third of the stands, but never in large volumes, except for yams.
- On the great majority of stands with African produce, it was sourced from the primary importer/trader in the market.
- Unlabelled pre-packs of African fine beans, curry leaf, sugar snap and mange tout were all available in August – a traditionally ‘low’ time for imports.

Issues with African produce mentioned by stand staff included:

- The need for growers to cooperate to achieve volumes;
- Packaging quality – poor quality, insufficient information, brown card, poor printing, lack of bright appearance to the carton;
- Labelling was often inadequate; (recent figures released by DEFRA show that over 70 per cent of rejections on imported produce are for labelling deficiencies);
- Post-harvest cooling;
- Lack of infrastructure and poor logistics (particularly loss of temperature control) between the farm and the airport in some countries leading to produce deterioration;
- The poor handling of cartons at airports in the senders’ country;
- Lack of knowledge concerning certification requirements – e.g. one importer believed that to import organic produce into the UK he had to have his source certified by a UK certification company.

To a lesser extent, some of the above findings were confirmed in discussions with traders in New Covent Garden.

One of the major concerns of SSA exporters was that the F&V wholesale trade invariably involves verbal agreements rather than contracts. This increases the insecurity faced by producers and exporters throughout the sector. In addition many shipments are undertaken on a consignment basis where the exporter/producer pays all the costs (e.g. shipping, insurance, commission, etc.) to deliver the produce yet does not know how much he will receive until the produce is sold. Consignment sales are typical of the wholesale F&V sector.

There are pressures on the wholesale sector to modernise and consolidate in order to compete with retail and direct-access foodservice. For example, New Covent Garden has become a one-stop-shop wholesale market, with the whole range of horticultural produce, meat and fish, with further consolidation expected and increased targeting of marketing and distribution to specific groups, including specialised foodservice and ethnic communities. Efforts are being made to bring in food hygiene standards under the Good Practice Guide, but the sector as a whole is still significantly behind in this area compared with both the retail sector and the increasing demands of quality and traceability from the foodservice sector.

4.4 The non-retail sector: foodservice

In the out-of-home food sector, an estimated 2,267 million meals were consumed in 2005 (TNS data) of which 32.4 per cent required fresh seed vegetables in bars/pubs; fruit salad consumption is highest in hotels (32.8 per cent) compared to only 18.2 per cent in schools. Within the foodservice sector, prepared F&V are seen as a growing and lucrative sector, including targeting public sector procurement. Quick service restaurants, hotels and public houses make up 80 per cent of catering sales and education and health outlets comprise 6 per cent.

Foodservice or catering is commonly described as the provision of these meals outside the home. The foodservice sector is more complex than the grocery retail sector being composed of two broad categories of outlets:

- profit sub-sector: restaurants, pubs, hotels and leisure;
- cost sub-sector: staff catering, education, health care, custodial, government (e.g. Army) and welfare.

In, addition to these outlets, there are a range of different types of foodservice supply companies that deliver food to these outlets. However, the supply or distribution companies operating in the foodservice sector do not necessarily do the same thing. Some companies are called delivered wholesalers, procuring produce either directly from farmers or through wholesalers and supplying produce to the operators i.e. foodservice outlets. Other companies act purely as a contract distributor, and do not take title of the goods but offer only a delivery function.

Some wholesalers do not deliver directly, particularly those in the large markets such as New Covent Garden, but rather provide a cash and carry service.

Traditionally, the intermediary distribution companies for the foodservice sector sourced

F&V from the wholesale market. However, the supply side of the foodservice sector is undergoing the same trends of consolidation with a relatively small number of large companies such as Compass and Sodexo dominating the supply chain, either at point of sale or in terms of processing and/or distribution. These large to medium sized companies have moved out of the wholesale markets and now source their produce directly and have set up regional distribution points. The move to regional market distribution centres, often out of town with everything under one roof, has facilitated a great improvement in hygiene. In addition, this permits customers to browse and order with delivery direct.

There is increased competition within the foodservice sector and the larger companies are forming direct relationships with producers (e.g. Chef's Direct) but these are predominantly with European suppliers. Foodservice sector companies are also setting up fixed price contracts. For example, Compass, one of the world's largest foodservice companies, talks in its public statements about one to two year price contracts with suppliers in its public statements – far longer than supermarkets will go.

These companies work with a range of suppliers, with a tendency for long-term supplier relationships e.g. 5-year plan of production, but their requirements are becoming as stringent as those sourcing the supermarkets. Some companies, such as Compass, set their own standards on quality, safety and traceability, whilst others use wider industry standards such as EurepGAP and BRC. However, in public sector catering, EU procurement rules do allow country of origin to be specified.

The scale of orders and volume for F&V is still relatively small compared to the supermarket sector and should not be viewed as an easier option for producers without access to the retail sector. Tesco probably buys as much produce as the whole foodservice sector combined. There has been a big increase in prepared and pre-packed produce and large companies such as Del Monte Foodservice offer prepared and pre-packed single fruits to a range of customers such as Wetherspoons and British Airways.

Understanding these more fragmented and complex distribution patterns is one key for farmers' access. However, because of this increasing fragmentation and complexity of the sector no data exist on the levels of imports and the category of produce purchased (Anon., 2005a; Finlayson, 2004; Jenny, 2006). The project requested information from over twenty companies from each of the wholesale and foodservice sectors but there was either minimal knowledge or lack of interest in providing information on the produce flows. Nonetheless, foodservice suppliers have identified the need for more research to assess the size and needs of the sector (Anon., 2006). However, there is a difficulty in collecting data since in some wholesale markets there are no statutory authorities obliged to collect such data.

Within the non-retail sector, the foodservice sub-sector is expected to show greater growth in both volume and value (particularly for fruit and salads) than the other parts of the industry, with the emphasis on fresh, good quality produce, ethically produced⁶ and sourced locally. It has been estimated that the demand for fresh produce by the foodservice sector is growing by 4 per cent per annum and could equal that of retail by the year 2035 (Finlayson, 2004). Some farmers and suppliers are increasingly seeing this sector as offering the greatest returns in the future and not the multiple retailers. However, this sector is increasingly adopting similar procurement practices to the retail sector. Traditionally this sector would obtain produce through the wholesale sector but increasingly they are opting for direct supplies in order to meet their customer requirements. Whilst this has meant both consolidation and a shift of these companies away from the wholesale markets, there is a growing ethnic community within the wholesale markets that continues to offer opportunities for developing country producers.

Within both the retail and foodservice sectors there appears to be a trend towards more local sourcing of produce in part encouraged by the increased ease of traceability as well as environmental (“food miles”) and ‘buy British’ concerns. For example “3663” is reported to be giving more attention to this, in part because of “chef’s voicing: (a) environmental concerns and (b) vogue for quality, regional, & British”.

4.5 Public and private standards

UK consumers and regulatory authorities are increasingly concerned about production and processing methods, labelling and product traceability. Increasingly food products have to be monitored from “farm to fork”. This is a major reason why the standards required in the UK (and EU markets) are now very demanding; they have been steadily broadening, across several dimensions, including pesticide residues, environmental impact, traceability and treatment of labour.

Key areas of EU legislation are trade policies, quality standards; food safety where HACCP (hazard analysis and critical control point) analysis is the main tool used; pesticide residue levels and organic standards.

Private sector standards and codes of practice play a key role in F&V supplies. Thus, the supermarkets have established their own non-negotiable standards that are even stricter than the basic EU regulations. UK supermarkets are generally considered the most demanding in

⁶ Organic produce is not showing the same increase in demand in foodservice as experienced in the retail sector.

the EU. The EurepGAP regime (European Retailers Protocol for Good Agricultural Practice) will increasingly be the reference framework against which EU or non-EU producers will be assessed. EurepGAP covers production activities up to the farm gate while BRC (the British Retail Consortium) has developed standards to certify packhouses. Wholesale markets are less demanding and have relatively straightforward purchasing criteria but standards are rising and there is the likelihood that traceability will be enforced. Certainly in the foodservice sector, which used to be predominantly supplied by wholesale markets, there is an increasing demand for BRC and other standards to be met.

Pesticide usage

The harmonisation of European regulations on pesticide residues (Directive 91/414/EEC) has severely limited pesticide usage and has had a major impact on smallholder horticulture exports to the EU, particularly the UK market. The legislation has entailed the revision of some 834 substances, and often results in the removal of pesticides from authorised lists if data have not been developed and submitted in the support of certain crop/chemical combinations. Agro-chemical companies do not see the financial benefits of financing crop-pesticide trials and developing dossiers for minor crops where there is a high risk that the commercial returns would not meet the high costs. Where dossiers have not been prepared the maximum residue limit (MRL) has been set at the limit of determination for a large range of crop/chemical combinations important for African producers. During import controls, all products that exceed the limit of determination are rejected.

In most cases the regulatory authority will not impose any penalty other than the removal of the produce. However, in certain circumstances where the produce can be traced back along the supply chain this can lead to the irrevocable loss of the market for the farmer. This has influenced the use of pesticides in producer countries, with either outright bans or modifications to usage. The harvest interval (HI), i.e. the time between the last application of the chemical and the date of harvest has, for some crops, been increased considerably e.g. from 14 days to 80 days, to ensure the disappearance of any residues. This lessens the protection these pesticides offer against pests and diseases. This has resulted in a considerable increase in the level of rejections. This can lead to considerable loss of revenue and inefficiencies, particularly for fruit where certain diseases (e.g. Anthracnose) are only present symptoms at the point of ripening. This often occurs after the produce has been shipped to the UK. It is not uncommon for whole consignments to be rejected by the importer because of high disease levels where excessive costs that would be required to grade out the diseased fruit. Importers will not pay for any diseased fruit and transport costs are borne by the exporter. Work is needed on the benefits of CA transport in containers that could overcome the problem in a non-chemical way.

The need to control pesticide use has led to a change in procurement practices. It must be recognised that UK supermarkets have forced growers and their suppliers to enhance production, logistics and packaging, food safety, environmental and ethical accountability and full traceability, but this process has eroded the margins of many of those in the supply chain, and has reduced their ability to invest in the source countries for long term growth.

A large number of the current production systems were established with certain varieties and pest and disease management practices, making use of pesticides. In the past, a category manager would have been able to have one producer/exporter supplying for the whole season and only a few suppliers for the whole year, making use of pesticides to control disease throughout the whole growing season. Now the category manager takes produce from suppliers only over a short period (usually a window of four to five weeks) when diseases are not prevalent. As soon as the favourable climatic conditions change, usually with the onset of the rainy season, the category manager will switch to another supplier. Category managers are increasing the amounts spent on testing produce for pesticide residues to monitor chemical use and prevent problems before they arise.

In certain circumstances, importers are unable to source produce even though a demand exists. For instance, category managers are unable to purchase passion fruit from Kenya because farmers, predominantly smallholders, do not have the capability to provide fruit without using banned pesticides and high levels of residues.

Paradoxically, some category managers have responded to the need to expand their supply base by exploring opportunities to increase the involvement of smallholders, ideally in locations where disease pressure is low. This is typically in dry regions making use of irrigation. However, there is concern over:

- o their ability to implement the necessary GAP systems, particularly in relation to pesticide use and management;
- o weakness in running the quality management systems;
- o lack of logistical systems capable of delivering the produce from a large number of smallholders;
- o the long term sustainability of running and meeting the costs of the farming and GAP systems.

4.6 Trade liberalisation

Another impact on the sourcing opportunities for the sector may come from greater trade liberalization, although this may not have much of an impact in Sub-Saharan Africa. The Euro-Mediterranean Partnership Agreement aims to establish a free trade area in the

Mediterranean region by 2010. Vegetable producers in Morocco and Egypt could make use of their comparative advantage to further expand their F&V exports to the EU. Preferential access to the EU has already been granted to Mediterranean Partnership Countries for a range of fresh and processed vegetables: this process may also facilitate growth in other parts of North Africa and the Middle East. This trend may be accelerated by a number of other factors, including:

- o advantages from using road vehicular transport on sea-going vessels, counteracting concerns around carbon emissions from air transport and potential increases in aviation fuel prices;
- o direct foreign investment in production systems;
- o donor support to infrastructure improvements in cold storage and port facilities;
- o proven ability to implement private sector standards such as EurepGAP;

However, modelling the impact of liberalization has indicated that there would be little impact (up to 2.6 per cent increase) on horticulture output from the Middle East and Africa, and a small increase in prices (Anon., 2005b). Reform of the vegetable sector has been predicted to increase the welfare of developing countries by \$15 million compared to \$209 million in developed countries.

4.7 Smallholder procurement models

The export production of fresh F&V is highly fragmented and diversified, ranging from small-scale farmers and farmer cooperatives to large-scale commercial farmers using modern crop management systems and large estates owned by multinationals. The involvement of large scale production businesses varies for different F&V. In some SSA countries, a few large farming operations are responsible for a significant proportion of F&V exports e.g. Homegrown in Kenya (vegetables) and Safina in Senegal (F&V). For a variety of reasons, some of which are outlined above, there has been a tendency for large-scale production of F&V to squeeze smallholders out of the export market. Nevertheless, there are a number of schemes whereby smallholders have been involved in procurement, and some of these are outlined below.

Outgrower and contracting out schemes

A sizeable proportion of Kenya's initial horticultural export production was based on the production of smallholders through contract or out-growing schemes. Similar schemes have operated in export horticulture in other SSA countries including Ethiopia, Ghana, Zambia and Zimbabwe. Under a contracting out scheme, a commercial large-scale grower or exporting company provides the support which would otherwise make it impossible for smallholder horticulture farmers to export, such as inputs of technical advice, finance, seed,

agrochemicals, cold storage, export logistics and marketing services. Outgrower schemes can allow smallholders to benefit from export development. There can be additional advantages to production by smallholders compared with larger commercial farmers: family labour is cheaper; crop care may be better; labour motivation and management may be easier. Also smallholders' plots may reduce weather and disease-related risks because they are more scattered. Contracting out to smallholders can be attractive to exporters since smallholders bear all the production risks. Conversely, the arrangement transfers much of the marketing risks to the exporter.

However, there are major obstacles to expanding horticultural exports to the UK and EU from smallholder farmers. These are associated primarily with the difficulty of ensuring that production meets the demanding buyer expectations with regard to reliability of supply, product consistency and quality, and compliance with health, safety and audit requirements. Providing sufficient support to a large number of dispersed smallholders in order to meet these requirements is a costly and risky challenge for any commercial grower or exporter. In Kenya, these difficulties underlie the contraction of smallholder exports to the UK and EU in recent years and the corresponding concentration of export-oriented production in the hands of fewer larger growers.

In addition, contracting out schemes have faced a number of other problems, including “side-selling” when smallholders sell their product to competing buyers they undermine cost recovery by the exporter who has provided them with inputs; loan default – some smallholders given small loans to purchase inputs have defaulted on repayment; and creditors have been reluctant to legally enforce their rights; high costs of production, for example, irrigation investment and operation costs per hectare may be more costly for smallholders than larger farmers; high post-harvest costs in that collecting output from dispersed smallholdings is likely to entail relatively high transport costs and losses in transit because of produce perishability (Dearden *et al.*, 2002).

The Market Intermediary concept

A major Tanzanian horticultural exporter, Gomba Estates Limited (GEL), sees smallholders as being an important source of export produce. To achieve this GEL has developed, with external support, an intermediary management organisation, Market Intermediary Management (MIM) Limited. The Market Intermediary (MI) concept is a smallholder development method in which processors, traders or exporters promote the establishment of intermediary entities to both access the production from small growers and develop with them the capacity to successfully manage the production of export crops. It is a structured system based on demand sided development of the market chain that argues small grower capacity building should follow, and not precede, identifying and securing an export market.

Market Intermediary Management Limited (MIM) is a Tanzania registered company limited by guarantee, which was set up as a non-profit organization to ensure clarity and transparency. GEL is a group of Tanzanian registered companies involved in the production and export of horticultural crops. At present they are the largest such company in Tanzania. GEL has a 75 per cent shareholding in MIM and has supplied MIM with the GAP capacity, the market and the MI conceptual structure. Gateway to Growth (G2G) is a UK-based NGO specializing in the development of projects to bring African smallholders into the market chain supplying the UK and continental supermarkets. G2G has a 25 per cent shareholding in MIM. G2G has access to a very significant pool of experience in the fresh produce sector in both technical and financial aspects.

Homegrown/Flamingo⁷

High value export horticulture is an attractive option for small-scale growers due to relatively high prices and market stability, many exporters favoured using smallholder farmers for reasons of quality, distribution of risk and political incentives. Prior to the introduction of EU private standards such as EurepGAP, buyer specifications were comparatively simple and not expensive to achieve. However, EurepGAP has caused a massive increase in costs and technical and managerial capacity to achieve standard compliance. Most smallholder exclusions are due to a combination of financial, technical and managerial issues.

One solution to these problems is to develop a paternalistic procurement model where the exporter takes responsibility for all of the technical and managerial elements of EurepGAP compliant procurement and also pays for most of the establishment and maintenance costs associated with a compliant production system. A good example of the paternalistic model would be the Homegrown / Flamingo outgrower scheme in Kenya. The Homegrown scheme consists of 750 small-scale growers (0.01 – 0.03 hectares of beans per week) and 150 larger outgrowers (>30 hectares of productive area) in nine regions of Kenya. Larger growers operate as autonomous units with their own produce collection facilities, whereas the 750 SSGs are grouped (within ~3.5km) around sixty communal collection sheds. The outgrowers grow fine beans, extra-fine beans, peas and baby corn on a rotational basis. In order to manage the smallholder scheme the exporter employs 120 full-time staff, 70 per cent of the activities of these staff are associated with standards compliance while just 30 per cent are associated with production related issues. A summary of the key features of the Homegrown outgrower scheme is provided in Table 4.3.

In essence, the exporter is hiring management and land capacity via the outgrower scheme.

⁷ All material in this section was sourced from personal interviews and the cost benefit analysis of Homegrown conducted by Dr Andrew Graffham in May 2006 as part of the standards project.

The advantage to the exporter is that the farmer is paying for the cost of unwanted produce resulting from fluctuations in market demand and any problems with product quality and land on the exporters own farms is made available for other purposes. In the paternalistic model the exporter takes charge of all the management and technical aspects of the outgrower scheme and pays for a significant share of the establishment and maintenance costs. This has obvious advantages for the individual farmers, but is also useful for the exporter as increased levels of management and control reduce the level of potential risk and increase buyer confidence to accept sensitive products such as peas procured from the outgrower scheme. In the Homegrown scheme individual farmers are responsible for purchase of agrochemicals, pesticide storage on farm and spraying of pesticides according to the exporters instructions. In some paternalistic schemes such as the former Agriflora and Hortico Agri-Systems schemes in Zambia and Zimbabwe purchase and storage of chemicals was centralised and all pesticide spraying was carried out by spray operators employed by the exporter. Centralising all aspects of pesticide application reduces both costs and risks, but costs were borne by the exporter whereas in the Homegrown scheme the costs of pesticide stores, knapsack sprayers and protective clothing were paid by the farmers. Hence the exporter who owns and controls the system is not concerned that 750 separate on-farm pesticide stores cost the farmers £36,000 when this could have been reduced to £2,880 if storage was centralised at the collection centres.

Small-scale growers in the Homegrown scheme have incomes from export vegetable sales ranging from £417 to £1,250 per annum depending on the area planted, frequency of planting and quality of final product (exportable percentage). EurepGAP compliance cost £636 per farmer to establish and £175 per annum to maintain, thus standards compliance accounts for 14-42 per cent of yearly profits and individual farmers said that it took two to three years to get a return on their investment. However, the paternalistic model practiced by Homegrown is heavily subsidised by the exporter. Without support from Homegrown, establishment costs for EurepGAP compliance would have been £1,819 per farmer and £1,314 for maintenance of EurepGAP. The Homegrown procurement model offers a very high level of management and control and reduces food safety risks to a very low level, but the system is too costly and too complex for farmers to operate on their own without the exporter.

Table 4.3. Key features of the homegrown outgrower scheme in Kenya – an example of a paternalistic procurement model

<ul style="list-style-type: none"> • Exporter responsibilities 	<ul style="list-style-type: none"> • Farmer responsibilities
<ul style="list-style-type: none"> • Legal responsibility for standards compliance as the primary marketing organisation (PMO) of the outgrower scheme • Management of the outgrower scheme including an ISO compliant quality management system • Technical advice • Training • Technical support • Farm inspection and internal auditing • Sample collection and laboratory analysis • Maintenance and calibration of knapsack sprayers • Crop scouting • Authorisation for pesticide spraying • Selection and approval of agro-chemicals, volumes, re-entry periods and pre-harvest intervals • Setting harvesting dates to comply with pre-harvest interval of pesticides • Refrigerated transport from collection centres to the main pack-house • Documentation • Vertical and horizontal traceability to plot level • Arrangement and payment for external audits • 50% of overall establishment costs for the outgrower scheme¹ • 87% of overall maintenance costs for the outgrower scheme • 11% of costs for establishment of a EurepGAP compliant system² • 69% of costs for maintenance of EurepGAP compliance 	<ul style="list-style-type: none"> • Provision of land • Provision of water • Provision of labour • Management of farm labour • Basic record keeping • Field markers • Cost of agricultural inputs • Storage of agro-chemicals on farm • Spraying of pesticides • Harvesting • Transport to collection centre • 35% of overall establishment costs for the outgrower scheme¹ • 13% of overall maintenance costs for the outgrower scheme • 61% of costs for establishment of a EurepGAP compliant system² • 31% of costs for maintenance of EurepGAP compliance • Cost of unwanted produce

¹ 15% of the overall establishment costs for the outgrower scheme were donor funded.

² 28% of the establishment costs for standard compliance were donor funded.

Other models in Kenya

In order to reduce costs related to smallholder supplies two of the larger producers/exporters procure produce through an organised smallholders vegetable marketing association called the Fresh Link Marketing organisation using programmed intake volumes throughout the season. The association has six groups of farmers with a total of 181 SSGs, 126 of which have EurepGAP certification. Farm size varies from 0.25 to 1.5 acres. The association provides the managerial and technical support to the SSGs.

Farmapine Ghana Limited

One of the constraints encountered by small-scale pineapple producers in Ghana is the lack of market linkages. Farmapine Ghana Limited was formed to improve market linkages and counteract export uncertainties and improve returns to growers. With assistance from donors and the NGO Technoserve, this export company supports five smallholder cooperatives with 178 members. Through acting as a primary marketing organisation, the company was able to increase the volume exported by the cooperative to the extent that production has reached 3,500 tonnes. Surveys have determined that Farmapine farmers have profits of about US\$450/ha with average member holdings of 2.2 ha, which is double that of non-cooperative farmers. Although positive results have been achieved through the formation of Farmapine, there are concerns that the true costs of funding the scheme and standards certification have been achieved only through significant donor support and long-term sustainability will be an issue once this support is withdrawn.

Ghana Yam Marketing

The yam export market to the UK is solely supplied by small-scale growers and should represent an ideal opportunity for higher margins than the national market. However, the following features of the sector negate this opportunity:

- large national production base but exports represent less than 1 per cent of the national output;
- exporters mainly rely on intermediary traders which means a lack of traceability and opportunities for due diligence;
- poor post-harvest handling practices lead to relatively high losses;
- exports to the UK are mainly by sea although the premium prices obtainable at the start of the season enable produce to withstand the substantially higher air freight costs;
- exporters deal with a limited number of importers in the UK who themselves trade in the wholesale markets in London and the Midlands;
- produce is sold on a consignment basis, i.e. the importer pays for the produce once it

is sold;

- returns from export markets are not passed on to farmers.

Efforts to regulate yam imports to the UK were encouraged by some of the major UK importing companies who sent a representative to the Ghana in December 2000 with the aim of working with the Ghana Yam Producers and Exporters Association to develop a scheme which would bring greater regularity (and higher prices) to yam exports. A scheme was agreed beginning January 2001 whereby approximately 6,000 boxes (25kg each) of yams were to be shipped every ten days to the UK and the importers agreed to pay a price of £9 per box for Pona and £8 for white yam, with the UK import group paying 50 per cent of the value up-front. It was thought that the Government would promulgate a regulatory mechanism to streamline and regulate exports but this proved to be impossible because of the impending elections. Therefore, the scheme lacked the means of enforcement and as a result some exporters and importers (“free riders”) continued to trade - and in the short term benefited from the higher prices that the temporary ban created. Thus, the imposition of quotas was dependent on moral persuasion rather than legally binding enforcement.

A further attempt at developing a quota system was made based on exporters using their own packhouse to pack the yams in 25 kg boxes which were then despatched to a single Tema packhouse managed by the umbrella organisation of several yam associations. At this transit warehouse the yams were unloaded, X-rayed for drugs, quality checked and put on pallets. However, this system has been abandoned because, according to some sources, some yams were being exported without passing through the packhouse and also quality checks at the packhouse were somewhat cursory.

Clearly more research is required to develop a marketing system that creates more benefits for farmers.

Fair trade

F&V producers and exporters are under pressure to deliver better produce for lower prices that can even fall below production costs. Fair trade (FT) initiatives have been developed in order to pay fair prices mostly to smallholders and a number of F&V products from developing countries are now sold as ‘fair trade’. Fundamentally fair trade aims to benefit primary producers and attempts to sell their produce to a niche market of consumers that are willing to buy goods that are identified as ‘fair trade’ and for the benefit of the producer, often at a premium price.

There are two basic approaches to fair trade, namely the brand approach and the labelling approach. The brand approach usually adopted by alternative trading organisations (ATO) is

a process approach, in which fair trade is expressed through the objectives of the fair trade organisations and their practices. Performance standards are not set; rather the fair trade organisation sets objectives for its trading relationships. In contrast to the ATO criteria, which are based on the aspirations of the ATO for the nature of the trading relationship, fair trade labelling criteria are specified quite clearly.

There are however some general principles that apply to a greater or lesser extent to both the labelling and branding models. These are:

- Pre-payment – smallholders often have difficulty in paying for inputs and so FT aims to offer a percentage of the final price up front to reduce the credit barrier of small producers;
- Good price – aim to arrive at a mutually agreed price; in labelling there is a minimum price, based on the international commodity price;
- Price premium – some FT relationships involve the payment of a premium; this is something over and above the minimum. It may be based on an assessment of what the consumer is willing to pay for a FT product or a percentage of the operating profit of the ATO (e.g. Oxfam Fair Trade Company sets aside a percentage of profits as a fund for trade development);
- Long term trading relationship - FT aims at building up trading relationships that last longer than one buying season.

During interviews with supermarket supplier, a number of category managers saw fair trade as a sustainable opportunity for small-scale farmers to gain a premium that would allow investment in other certification schemes such as organic and EurepGAP.

5 Study findings

“Procurement from sub-Saharan Africa is only secure for 3-5 years, we are developing relationships in South and South East Asia and North Africa. Key factors that will influence future procurement are production efficiencies, transport systems (food miles) and water supply.” Statement from several UK category managers.

The supply of fresh F&V from Sub-Saharan Africa to the UK represents a small percentage of the volume of F&Vs traded in the UK. However, returns from certain produce line, such as green beans from Kenya, have been important income-earning opportunities for those smallholders that can access the high value retail market.

Despite its relatively small size, the trade from SSA to the UK is of enormous benefit to an estimated 715,000 resource-poor small-scale growers (SSG), workers and their families (Table 5.1)⁸. No aggregated data exist for the wider impact of high-value export horticulture on African small-scale growers but individual studies have shown significant income benefits for SSGs involved in export horticulture. For example in Zambia 73% of smallholder farmers fall within the category of those experiencing money income poverty with an average per capita income of £70 per annum (pers. comm., Graffham, 2006). However, smallholders involved in export of peas and baby-corn to UK supermarkets had incomes ranging from £1,000 to £7,500 during the 2003-2004 season with most growers having an income of £2,000 to £3,000 per annum from export horticulture. In Kenya, a study of farmers growing green beans for export to UK supermarkets found incomes ranging from £417 to £1,250 per annum in rural areas where an annual household income of ~£100 is considered normal.

Thus it can be seen that there can be considerable benefits in obtaining a place in the market. However, this position is now under serious threat and the opportunity for SSGs to access these high-value markets has declined dramatically over the past 6 - 18 months. The number of SSGs from the case study countries supplying the UK supermarket sector has declined significantly to approximately 4,500 in the last 12 months, a decline of over 50% (Table 5.1). Most of the decline has occurred in Kenya, despite the large amount of donor support e.g. USAID and EC Pesticide Initiative Programme. Kenyan SSGs supplying UK supermarkets have declined by a half to 4,100 in the past year indicating how procurement patterns can change rapidly. This indicates the harsh reality and high risk of supplying into this highly-demanding sector. The SSG decline reflects the increased costs and managerial burden

⁸ If exporting SSGs and their dependents from South Africa (an important supplier of fruits to the UK) are included the figure would be substantially in excess of one million.

associated with meeting private sector standards and the decrease in external funds to maintain smallholder participation.

The reasons for this are well documented and have their origins, in part, in the UK retailers' response to the need to manage pesticide use. The need to control pesticide use has led to the introduction and widespread demand for compliance to EurepGAP by UK supermarkets that have forced growers and their suppliers to enhance production, logistics and packaging, food safety, environmental and ethical accountability and full traceability. This process and continuing enhancement of the requirements to meet the EurepGAP standards has eroded the margins of many of those in the supply chain and has led to reluctance by category managers and large producer/exporters to invest in supply chain from SSGs.

The decline in SSG participation in the export chain has taken place despite the relatively large number of donor projects aiming to support SSG inclusion by supporting training, infrastructure and certification costs.

Table 5.1: The numbers of small (SSGs) and large-scale (LSGs) farmers exporting to the UK retail and wholesale sector and the associated numbers of dependents and ancillary workers.

Farmer number	Market	Ghana	Kenya	Tanzania	Uganda	Zambia	Other SSA	Totals
SSGs	Wholesale	3,438	2,815	2,070	1,800	10		10,193
LSGs	Wholesale	10	191	1	12	2		216
SSGs	Retail	160	4,140	2	200	0		4,502
LSGs	Retail	10	191	0	2	2		205
Dependents & ancillary workers		70,433	171,237	30,330	29,963	6,948		308,910
Total		73,691	178,574	32,397	31,609	6,954	392,165	<u>715,390</u>

In contrast to the low number of smallholders involved in the retail sector, more than double the number of SSGs is accessing the non-retail market (Table 5.1). It is important to note that smallholders have a significant role in supplying non-retail markets even though this supply chain, from farmer through to consumer, has received little attention to-date compared to the focus devoted to the retail supply chains. The non-retail sector for F&V encompassing traditional wholesale markets, catering and food service sectors may represent a significant opportunity (currently 40 % of all F&V sold in the UK) for smallholders given the lower barriers for entry in relation to private sector standards and

quality requirements (Class 2 is more readily accepted).

Nearly 25% of the volume of produce imported from the five case study countries in SSA now flows into the catering sector (Table 5.2). Since smallholders are an important supplier of produce into the foodservice sector, there would appear to be some opportunities for market entry to replace the trade into supermarkets.

Table 5.2: Summary of final retail and non-retail destination of fruit and vegetables exported from case study countries to the UK in 2005

Country/ commodity	Total volume (tonnes)	UK final use (tonnes)		
		Supermarket	Foodservice	Stores & markets
Volume of produce exported	65,363	38,707	14,851	12,281
% of total		59.2	22.7	18.8
Less yams	57,061	38,707	14,021	4,810
% of total		67.8	24.6	8.4

However, farmers and distributors of imports must be careful not to view these as *ad-hoc* markets which offer an opportunity to offload poor quality produce or surplus to supermarket needs, a process that can ultimately only damage every one in the supply chain. In addition, the returns to smallholders are relatively low and less secure because of the fragmented nature and lack of integration of the supply chain. As noted in Chapter 4, there is little governance in the traditional wholesale market sector. Wholesalers are seldom able to pay great attention to the supply chain, beyond developing linkages with exporters, which has created a wholesale supply chain which is less efficient with more wastage than the more highly governed supermarket supply chain. This means that producers having less information in meeting new opportunities that exist in the supply of specialist retail and catering outlets. However, it is difficult to see within the present market structures who could take the initiative to support sustainable and more integrated smallholder participation in the wholesale supply chain.

In the past, the wholesale markets contained a number of companies that supplied produce to the foodservice sector. This sector has expanded considerably with the increase in consumption of food outside of the home. A few large companies are now beginning to dominate the sector which has meant that the location and procurement practices of these companies have moved away from the traditional wholesale approach. Foodservice suppliers to the catering industry are becoming more like supermarket category managers and have introduced a greater degree of governance to ensure higher quality, reduce the risk of contamination and ensure traceability. A few companies now dominate the sector, with

consolidation taking place as happened in the supermarket sector..

The development of new approaches to procurement must address the need to take account of how produce is transported to the UK. Nearly 90% of the produce imported into the UK is transported by air (Table 5.3). Opportunities should be explored to make use of new storage technology but the ability to manage new systems plus the additional cost may be a negative factor.

Table 5.3 Mode of transport for the delivery of produce from case study countries to the UK in 2005.

Country	Air (tonnes)	Sea (tonnes)
Kenya	31,807	1,508
Ghana	7,117	3,982
Tanzania	3,866	2
Uganda	2,965	101
Zambia	3,444	0
Total	49,200	5,594
% of Total	89.8	10.2

Conclusions

This study to map produce flows from sub-Saharan Africa into UK markets has shown a disturbing trend towards decreased procurement by supermarkets of fresh produce from small-scale growers. This is mainly due to a continuing rise in requirements of private standards with associated increases in cost and capacity to show compliance. The question must be asked as to whether these trends are inevitable or whether alternative options exist? Within the supermarket supply chain there would be merit in investigating in more detail how best to support small-scale growers to meet the requirements of private standards in a cost effective and sustainable manner. In addition, various methods have been or are being developed to procure produce from African smallholders for export. An analysis should be undertaken of these models, particularly with respect to accessing markets other than supermarkets.

The wholesale and foodservice markets should be examined in greater detail as potential alternatives to supermarket retail especially as the foodservice market is growing in size and value. Analysis is required in supplier countries to improve understanding of produce supplies to non-supermarket outlets in the UK. Greater information is required on the governance of these chains and the costs and returns available to different players.

At the UK end of the chain work, surveys undertaken for the current study showed a general

ignorance of EU regulatory mechanisms amongst players in the major UK wholesale markets. Hence primary importers and secondary sellers are currently unlikely in most cases to be pushing for third country suppliers to meet the requirements of the law. As the new regulations were only introduced in January 2006, and implementation is unlikely to be complete until late 2007, this may be a factor of the implementation period that will change by early 2008. Alternatively as fresh produce is generally considered a low risk it is possible that enforcement agencies will focus resources on high risk products of animal origin and the situation of loose enforcement for fresh produce will remain the same. It would be useful to establish a dialogue with the relevant agencies and market associations to explore this area in more detail. In a few cases primary importers in the Western International market in London are already requesting higher standards and one importer had mentioned future requirements for EurepGAP. If regulatory requirements become stricter or private standards become a feature for wholesale markets it will have negative implications for African smallholders.

The foodservice market is a growing sector, but there is a need to characterise current and future trends on food safety and quality requirements to determine if this sector will offer opportunities for African smallholders. Given the difficulties experienced in establishing a dialogue with players in this sector, it would be essential to involve appropriate sector organisations to conduct the survey work. Also it will be necessary to provide a reason for the industry to participate in such an exercise. Given recent problems with the unreliability in terms of food safety and quality of some raw ingredients used in mass production of ethnic foods a possible line of promotion would be to present the study as aimed at understanding the needs of service sector and then determining cost-effective means by which the supply base can meet the challenge of higher standards. This could be presented as a winning scenario in terms of protection of brand image and avoiding problems with supply like those experienced when the EU changed the regulatory requirements for Bombay duck in 1995.

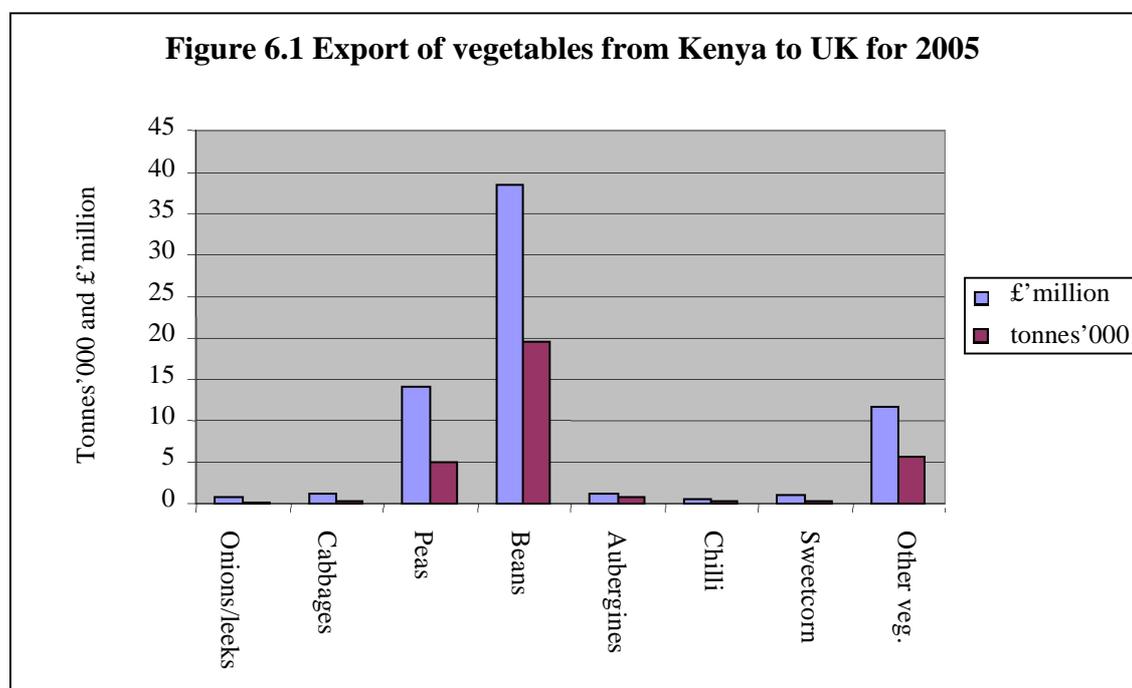
Part 2: Country studies

6 Kenya

After South Africa, Kenya has been the most successful SSA exporter of horticultural products, with exports exceeding \$300 million per year. Kenya is one of the world's leading exporters of fresh green beans (French and runner beans, snow peas and sugar snaps). The EU is the dominant market for Kenyan exports – and after Morocco it is the biggest fresh vegetable supplier to the EU. Other markets for Kenyan exports include Saudi Arabia and South Africa. Key factors behind Kenya's success are a dynamic private sector that has benefited from structural and macro-economic reforms as well as an efficient transport hub.

Vegetable exports

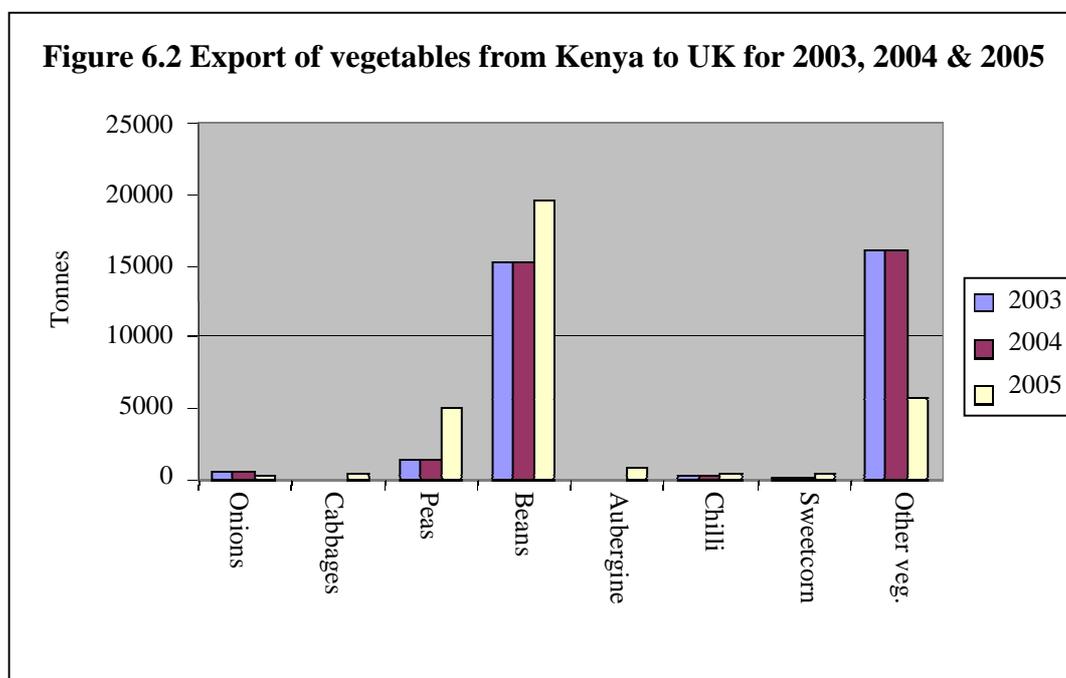
Kenya is the main exporter of fresh vegetables to the UK, exporting a range of legumes (fine and extra fine beans, runner and bobby beans), peas (mange tout and sugar snaps), chilli peppers, aubergines, sweet corn, squashes, okra, dudhi and other Asian vegetables. The customs value of vegetable exports was approximately £33 million from a volume of 70,000 tonnes for 2005 (Figure 6.1). It has been reported that 75 per cent of produce is destined for supermarkets and 20 per cent for wholesale (Jaffee, 2003).



Note: Other vegetable category includes squash, pumpkins, okra and dhudi.

Source: UK Customs and Excise Data

Bean and pea exports have experienced growth in exports over the last three years (Figure 6.2) but not the other categories.



Source: UK Customs and Excise Database

Role of smallholders

Exports of fresh produce from Kenya have been associated with a significant involvement of smallholders. In the 1990s, researchers estimated that 75 per cent of export production came from smallholders (Muendo and Tschirley, 2003). It is readily accepted that smallholder involvement has declined because of the pressures from EurepGAP compliance although there is no firm agreement as to the current levels, with figures varying from 11 per cent to 30 per cent of fresh vegetables and 85 per cent of fresh fruit provided by small scale growers (SSGs). Therefore data were collected directly from the main vegetable producer/exporters, which account for 90 per cent of exports, to determine their current sourcing of produce from SSGs. The results confirm that the number of vegetable SSGs has significantly declined, falling from an estimated 11,631 in 2004-5 to approximately 5,520 smallholder growers in 2005-06 (Table 6.1).

Table 6.1: Kenya: small-scale growers in vegetable export production 2004-06

Exporter	Large Scale Growers	LSG EurepGAP certified ¹	SSG current 2005-2006	SSG 2004-2005	SSGs removed	SSGs Certified ¹
1	150	150	750	750	0	750
2	6	6	300	1,180	880	50
3	1	0	14	400	386	0
4	2	2	360	360	0	0
5	3	3	55	300	245	0
6	2	2	33	107	74	33
7	2	2	182	305	123	126
8	2	2	170	500	400	18
9	2	2	2,000	4,000	2,000	200
10	1	1	0	240	240	20
11	20		1,656	3,489	1,833	N/D
Total	211	170	5,520	11,631	6,181	1,197

Source: Graffham *et al.*, (2006)

¹– As of September 2006, EurepGAP had issued 386 option 1 & 2 certificates for producers in Kenya, this implies that the figure for LSGs is greater than stated above, but it is difficult to determine how many option 2 certificates have been issued as there is no set number of growers per certificate.

Export horticulture represents an opportunity for reducing poverty through income generation among various stakeholders in the supply chain. This can include smallholders, rural labourers on larger farms, unskilled or semi-skilled packhouse workers, as well as others involved in the provision of inputs, transport and other services to the sector. Invariably, these workers will have a number of dependents that could include children and other extended family members. The number of dependents will be determined in part by the nature of the workforce. In the Kenyan export vegetable sector most of the workforce is below 29 years of age (McCulloch and Ota, 2002). Thus, packhouses employ mostly migrant women (65 per cent) of which 86 per cent are less than 29 years old (men employees are also of the same age range). On a typical contract farm, 60 per cent of the workforce is female (84 per cent under 29 years). In relation to household dependents, the average household size for packhouse employees (where the majority have women-headed households) is 2.78 and for large contract farms 2.55 and for SSGs 4.93 (McCulloch and Ota, 2002). Using this dependency information with the data from the project survey presented in Table 6.1, it is possible to estimate that the number of dependents reliant on the vegetable sector is close to 165,000 (Table 6.2) and almost 15,000 in the fruit sector (Table 6.3) making a total of almost 180,000 dependents.

Table 6.2: Kenya: Estimates of numbers dependent on the vegetable export sector

Factor	Participants	Notes
Number of exporters involved	18	Largest 6 producer/exporters provide 60% of exports (Jaffee, 2003)
Number of LSGs currently involved	191	From project survey data
Number of SSGs currently involved	5,520	From project survey data
Number of EurepGAP certified	1,197	
Household dependents of SSGs	21,694	3.93 (excluding worker) from McCulloch and Ota (2002)
No of permanent waged employees of SSGs	11,040	Most labour from family
No of permanent waged employees of LSGs & exporters	41,800	Estimate from project survey. Dolan and Sorby (2003) estimate 30 -32,000 workers
No of dependents of LSG and exporters	72,732	1.74 (excluding worker) from McCulloch and Ota (2002)
Number of ancillary workers in the fresh produce export industry	10,885	Estimate based on multiplier of 1.9 (pers. comm. J MacGregor)
Total number of people reliant on exports to UK	163,880	
No of SSGs excluded by EUREPGAP	6,181	From project survey data
Number of SSG dependants & workers affected by EUREPGAP exclusion	30,472	From project survey data

Although the number of vegetable smallholders has decreased significantly over the last year or two, overall export volumes have been maintained through higher productivity per farm improved agricultural practices and increasing farm sizes.

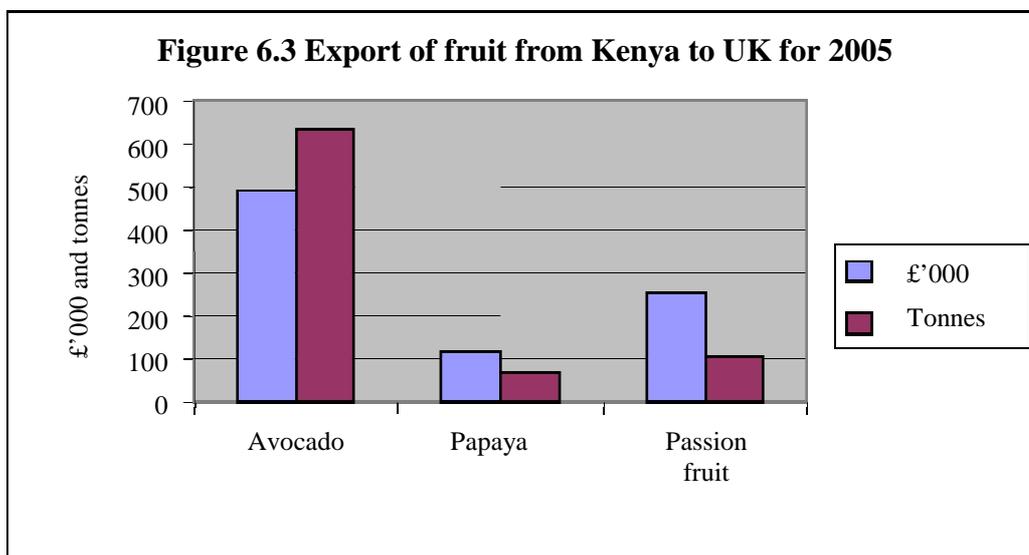
The reasons for the reduction in smallholder participation are well documented in the literature, but one of the stated causes is the high cost of managing smallholder outgrowers and the need to have a critical size and number. Others aspects of outgrower and contract farming operations involving smallholders are discussed in Chapter 4.

In addition to the fresh produce exporters, there are over ten horticultural processing firms in Kenya. The processes include canning, freezing, bottling, solar drying, dehydration or preservation in brine. In the European Union, there is an increased demand for semi-prepared foods, added value preparations/presentation and “easy prepare/easy eat foods”. Increasingly

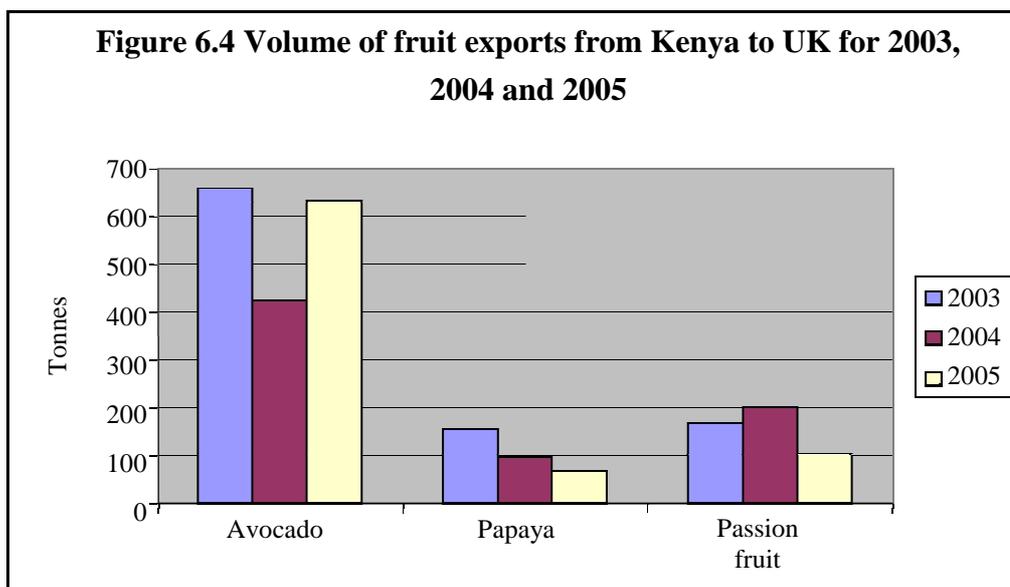
a growing proportion of F&V exports are being further processed at origin. The majority of Kenyan “added value” produce is destined for UK supermarket chains and the trend is likely to continue.

Fruit exports

The volume of fruit exports to the UK has a small commodity range, mostly pineapple, passion fruit and papaya, and a comparatively low volume. However, it represents an important source of revenue for SSGs and an opportunity for growth (Figure 6.3). There have been no consistent changes in the volumes exported to the UK over the last three years (Figure 6.4).



Source: UK Customs and Excise Data



Source: UK Customs and Excise Data

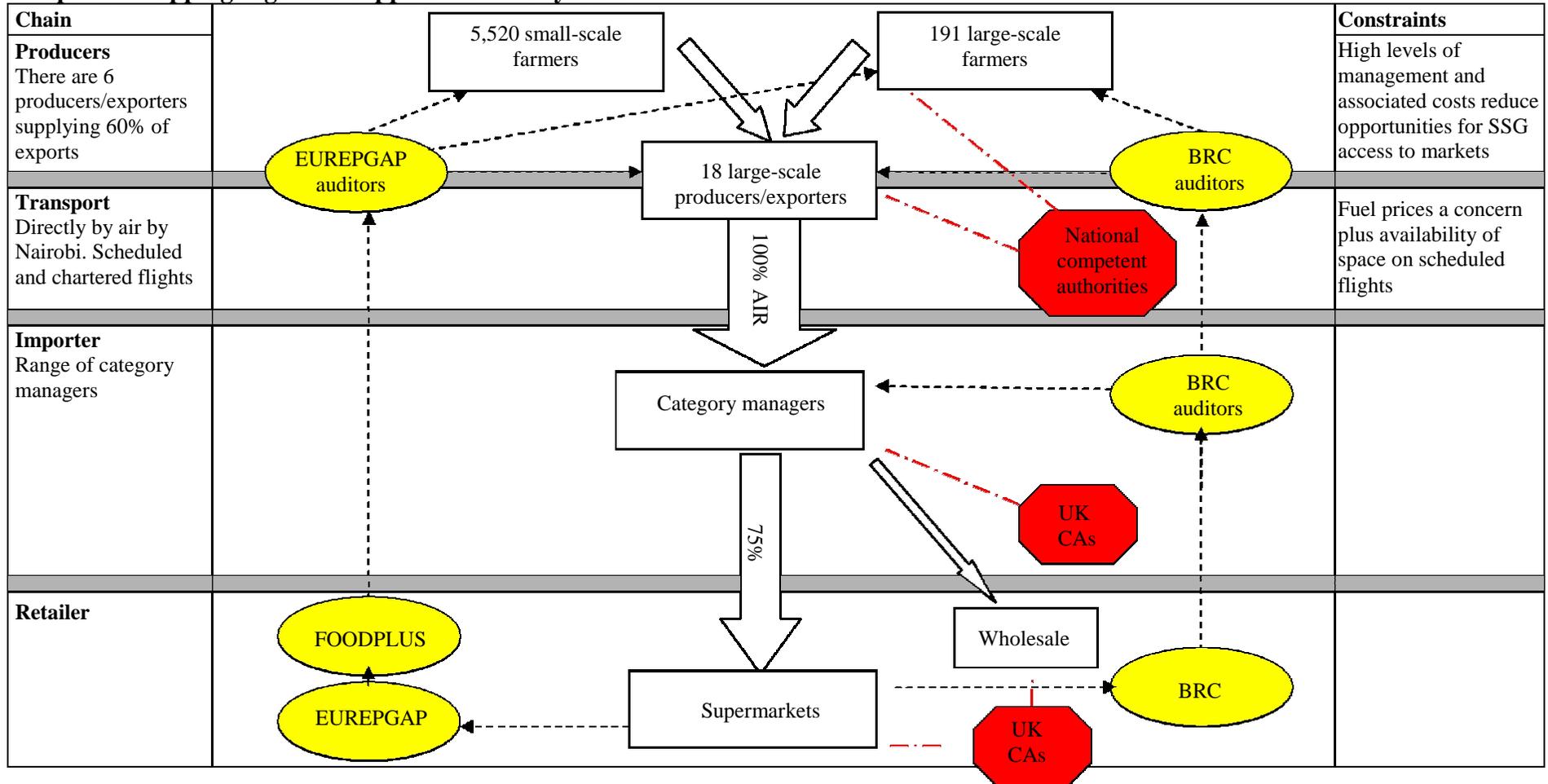
The production of avocados, papayas and passions fruit is predominantly a smallholder activity, although there is little information or data on the structure of the fruit sector in relation to the export market. Of the commodities, most is known about avocado because of its greater importance with an overall export volume of 12,000 tonnes, mostly to France (Dobson *et al.*, 2003). The majority of the avocado crop is exported through six companies; Kenya Horticultural Exporters (KHE), East African Growers, Sunripe, Indu Farms and Vegpro but these companies rely extensively on smallholders (estimated to number 32,000) who supply 85 per cent of the export volume (Dobson *et al.*, 2003). From this data it is possible to estimate the number of SSGs and their dependents to be approximately 1,435 and 12,626, respectively (Table 6.3).

Table 6.3: Number of farmers and dependents in the export of avocados to the UK for 2005

Factor	Quantity	Notes
Export volume to UK	633	12,000 tonnes exported annually
SSGs	1435	Based on smallholder number of 32,000 supplying 85% of exports
Direct and indirect dependents	12,626	Based on average household size of 6.8 in Kenya
Total number of people reliant on exports to UK	14,694	

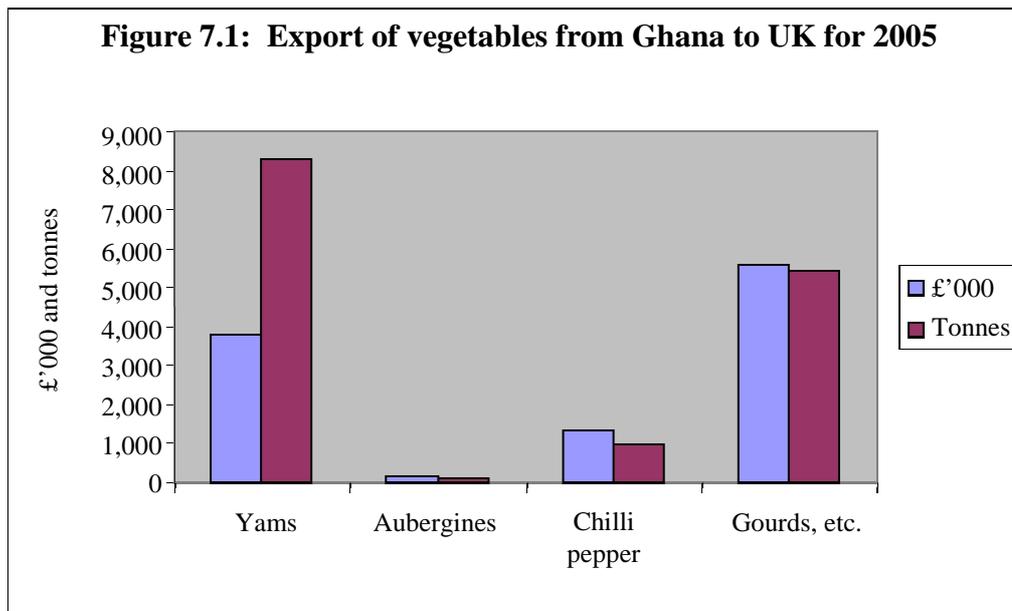
Source: Dobson *et al.*, (2003)

Map 6.1: Mapping vegetable supplies from Kenya to UK



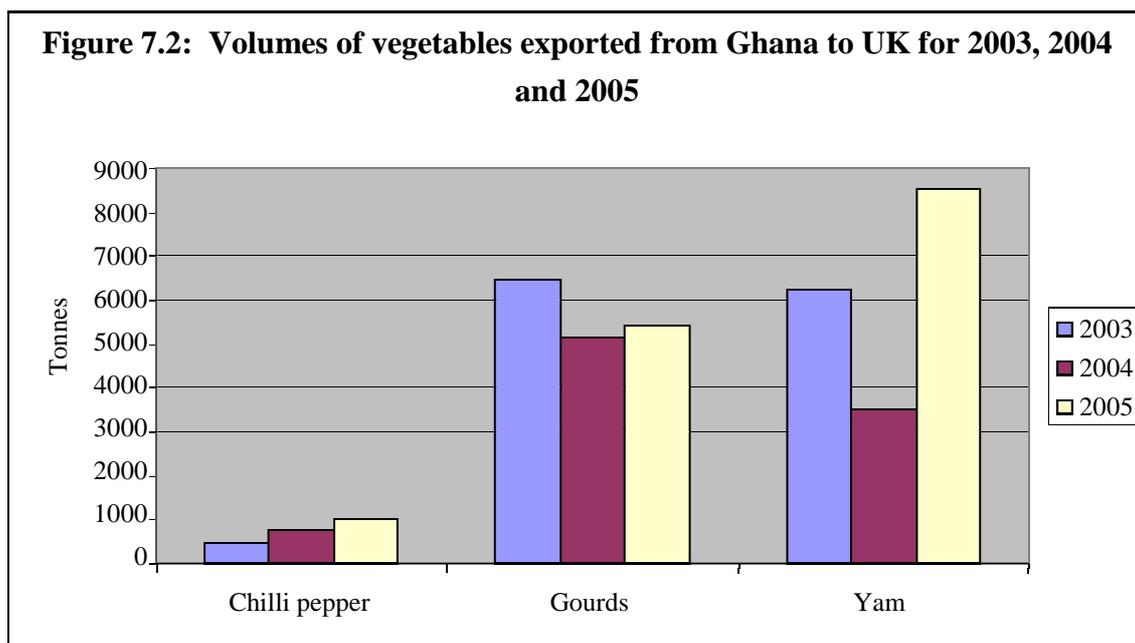
7 Ghana

Ghana exports both fruit and vegetables to the UK. The range and volume of vegetables (chilli peppers, gourds/pumpkins and yams) is relatively small, with a total value of £10.8 million and a volume of approximately 15,000 tonnes in 2005 (Figure 7.1). Smallholders produce all of the vegetables to supply the UK wholesale markets. Ghanaian produce was highly visible in the wholesale markets covered by the survey.



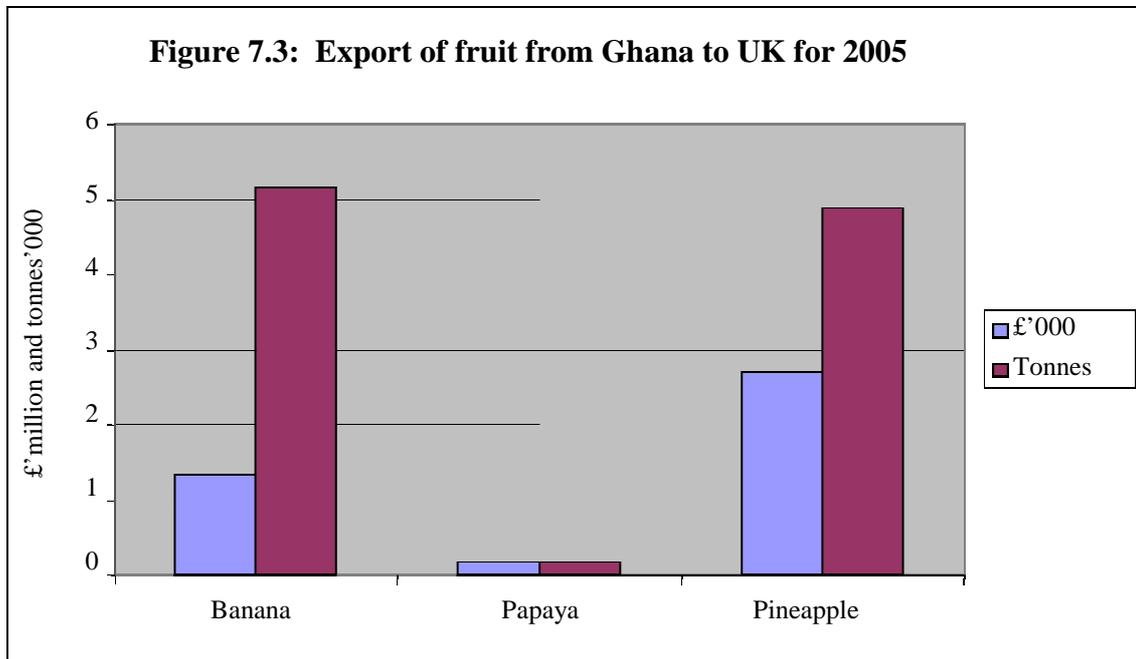
Source: UK Customs and Excise data

The volume of produce supplied to the UK has not shown any consistent trends in the last few years (Figure 7.2).



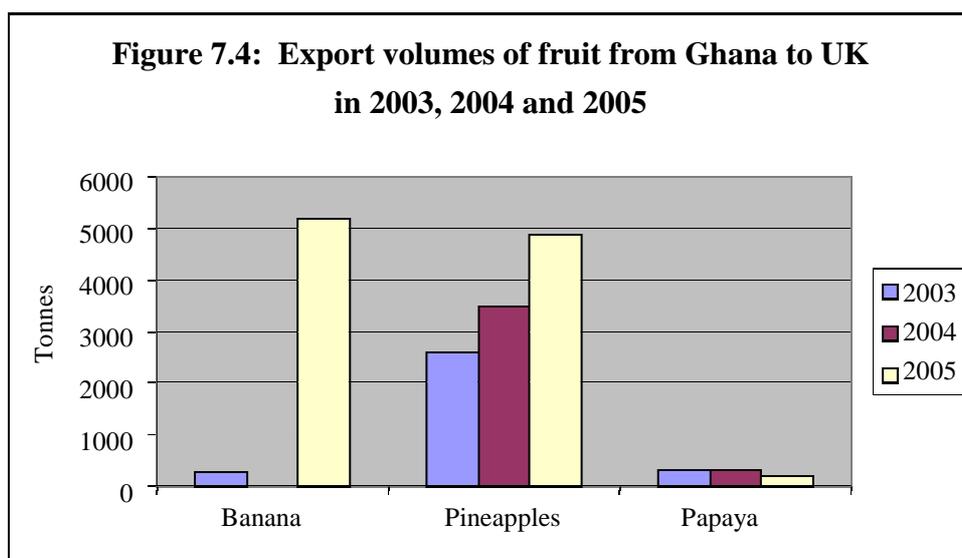
Source: UK Customs and Excise data

Ghana exports bananas, pineapple and melons and papaya to the UK, although the volumes and value are relatively small (Figure 7.3). The producers of these fruits are both small-scale growers and large farmers/exporters.



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit

The volume of banana and pineapple exports to the UK has increased since 2003 (Figure 7.4). This reflects the progress made by the pineapple sub-sector in achieving accreditation and producing varieties required by the market, and for bananas in meeting fair trade certification.



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit Source

The vegetable and fruit sectors represent contrasting supply chain models for the involvement of smallholders in the export market to the UK.

Fruit supply chains

Pineapple exports

The pineapple supply chain from Ghana to the UK is illustrated in Map 7.1. Four producer exporters dominate the export trade although there are sixty registered exporters in Ghana:

- o Jei River Farm – large-scale farmer/exporter
- o Koranco Farms - large-scale farmer/exporter
- o Prudent Farms - large-scale farmer/exporter
- o Farmapine – smallholder cooperative

The majority of production comes from two districts - the Awutu Efutu District and the Akuapim South District. Production comes from about ten medium to large-scale operations (average area of 120ha) and 300-400 smallholder farmers (1ha of production area). Slightly less than half of the total pineapple production comes from the smallholder farmers. Average yield of export quality fruit ranges between 10-20 metric tons per hectare from the smallholder producers and about 30 metric tons per hectare from the large-scale producers (Gogoe, 2004).

Most of the large producers have obtained certification, some encompassing outgrowers under Option 2 certification. The exporters have formed associations to help market and trade their produce. The largest of the exporters associations is the Sea-Freight Pineapple Exporters Association of Ghana (SPEG). SPEG represents the interests of pineapple exporters relying on sea-freight (77 per cent of pineapple exports in 2003) and has been highly successful in developing a regular twice weekly freight service to three ports in Europe.

The majority of the smallholders sell to export companies (except for Farmapine), but the supply chain is mostly non-transparent, with three categories of SSGs:

- o outgrowers who have a direct relationship with exporters;
- o cooperatives who have no consistent direct relationship with exporters;
- o independent growers who sell whenever they can to exporters.

Although surveys suggest that there are over 600 smallholders that could supply the export sector not all are able to gain access to the exporters. Recent project survey work indicates that about 600 smallholders supply the main exporters who send produce to the UK

(personal communication, Graffham, 2006). This estimate could be compared with a survey undertaken by Takane (2004) who surveyed smallholders and found that only 55 per cent of smallholder pineapple farmers (about 300 nationally) were selling to exporters, and the remainder sell at low prices on local markets or to processors, particularly at times of abundant production. Furthermore, even if the exporters bought from the smallholders, payment occurred after the exporter was reimbursed, which usually took several weeks or even months.

In order to counteract this uncertainty and poor return, an export company, Farmapine Ghana Limited, was formed to support five cooperatives of smallholders (with 178 members), with the assistance from donors and the NGO Technoserve. Through acting as a primary marketing organisation, the company was able to increase the volume exported by the cooperative to the extent that production has reached 3,500 tonnes. Surveys have determined that Farmapine farmers have profits of about US\$450/ha with average member holdings of 2.2ha, which is double that of the non-cooperative farmers (Yeboah, 2005). Although this approach has shown positive results there are concerns that the true costs of funding the scheme and standards certification have been achieved only through significant donor support. Long term sustainability will be an issue once this support is withdrawn and full operational costs have to be met. The aspects raised above and other features of the pineapple supply chain to UK supermarkets are presented in Map 7.1.

Banana exports

Ghana has a successful and expanding banana exporting sector centred on one company, Volta River Estates, Limited (VREL). VREL has adopted a marketing approach of certifying produce through fair trade. The premiums achieved through fair trade enable it to compete in the highly competitive EU banana market. Fair trade premiums have provided increased margins to assist in meeting the costs of running the estate and investment in achieving organic certification. In the UK most of the bananas are sold through the Co-operative Society.

Although VREL is a medium-sized company, developmental benefits are being achieved through the creation of 720 permanent jobs in an area where income-earning opportunities are seasonal and limited and additional jobs for some 2,000 women involved in the sale and distribution of bananas from the company sold on the local market.

Vegetable exports

In contrast to the fruit export sector, exports of yams, chilli peppers and gourds are sourced wholly from smallholders by a large number of vegetable exporting companies via intermediary traders and agents. Using yams as a case study (see Map 7.2 for an overview of

the supply chain), the export supply chain has the following features:

- large national production base e.g. the national yam market is supplied by 600,000 farmers producing 3.5 million tonnes annually of which exports represent below 1 per cent of the national output – this creates a lack of competition in some yam-growing areas which leads to low and fluctuating prices for farmers;
- exporters rely on intermediary traders, wholesale markets and itinerant traders to source produce and do not have direct contact with farmers which means a complete lack of traceability and opportunities for due diligence;
- poor post-harvest handling is a feature throughout the whole chain leading to relatively high losses - between exporters and importers, the maximum agreed rejects is between 3 per cent and 10 per cent. Above that limit, the loss is counted as a cost to the exporter.
- exporters trade with a limited number of importers in the UK who themselves trade in the wholesale markets in London and the Midlands. However, there is generally a lack of trust between exporters and importers and between traders in the wholesale markets.

To improve trading conditions, attempts have been made to regulate the market through the formation of the Ghana Yam Producers and Exporters Association, which tried and failed to regulate the market through setting a quota for exports. However, there are over a hundred exporters and not all joined the Association. Other associations have been formed including an umbrella organisation, the Ghana Root Crop and Tubers Exporters Union (GROCETU), which runs a central warehouse through which all exports are supposed to pass for inspection and checking of documents. It is not clear what impact this would have on increasing returns to farmers.

Smallholder involvement in the F&V export sector

Due to the nature of the supply chain, very little information is available on the number of smallholders involved in exports. Estimates of smallholder numbers can be calculated based on farm sizes, yields and export data for each of the commodities as shown in Table 7.1 below.

Table 7.1 Estimates of smallholder and large estate involvement in the export sector from Ghana to the UK

SSG or large farm	Product (size of farm)	Customs value (£'000)	Volume exported (tonnes)	Average yield (t/ha)	Total area under cultiv. (ha)	Av. cultiv. area per SSG/large	No. of SSGs	No. of large farmers
SSG	Yam ⁹	3,800	16,400	12	1367	5.00	273	
SSG	Gourds ¹⁰	5,500	5,300	13.4	396	0.20	1,978	
SSG	Chilli pepper	1,200	1,000	4.6	217	0.20	1,087	
SSG	Pineapple ¹¹	1,260	2,196				600	
Large	Pineapple	1,540	2,680	30	179	120.00		10
Total							3,938	10

Even allowing for errors inherent in such calculations, it is apparent that there are more smallholders involved in supplying vegetables to the non-retail UK markets, but their returns may not be as much per farmer as those involved in more high-value markets.

In Table 7.2 estimates are made of the total number of people dependent on export horticulture in Ghana. This is based initially on estimates of the number of smallholders and rural labourers working in the sector and their direct dependents. In addition, there are others involved in related activities e.g. input supply, transport, distribution, and provision of other services. Finally there is the multiplier effect of the income generated from the sector for the creation of other activities, such as food purchases, building activities and transport. The figure in Table 7.2 suggests that some 74,000 people are involved in horticultural exports to the UK.

⁹ Data on farm size and yield from Bancroft, R. and Rees, D.

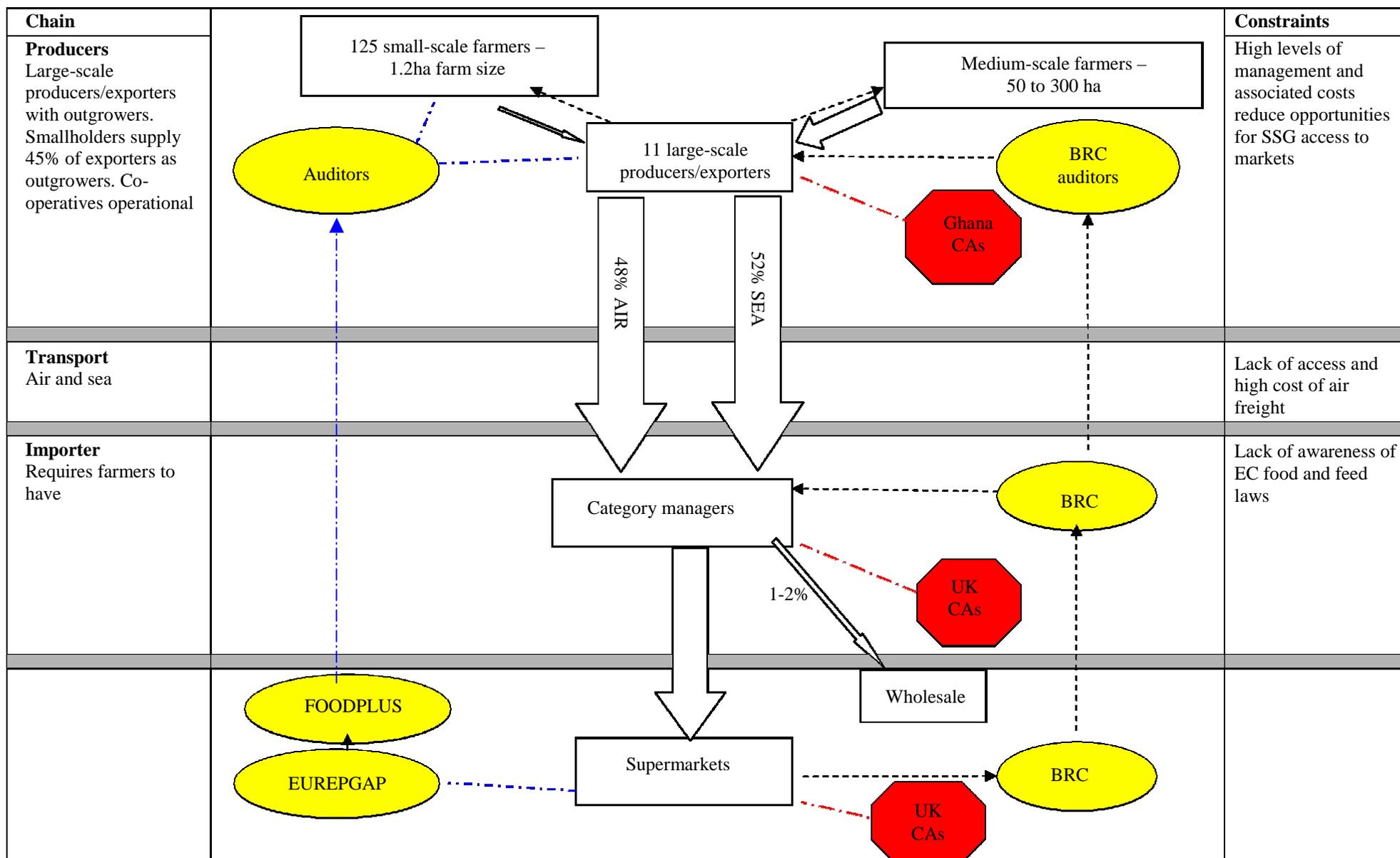
¹⁰ Data on yield of Gourds and chilli pepper from Jalo (2002) Report On Vegetable Crops, Condiments and Spices, Mauritius

¹¹ Data on pineapple farm size and farm yield

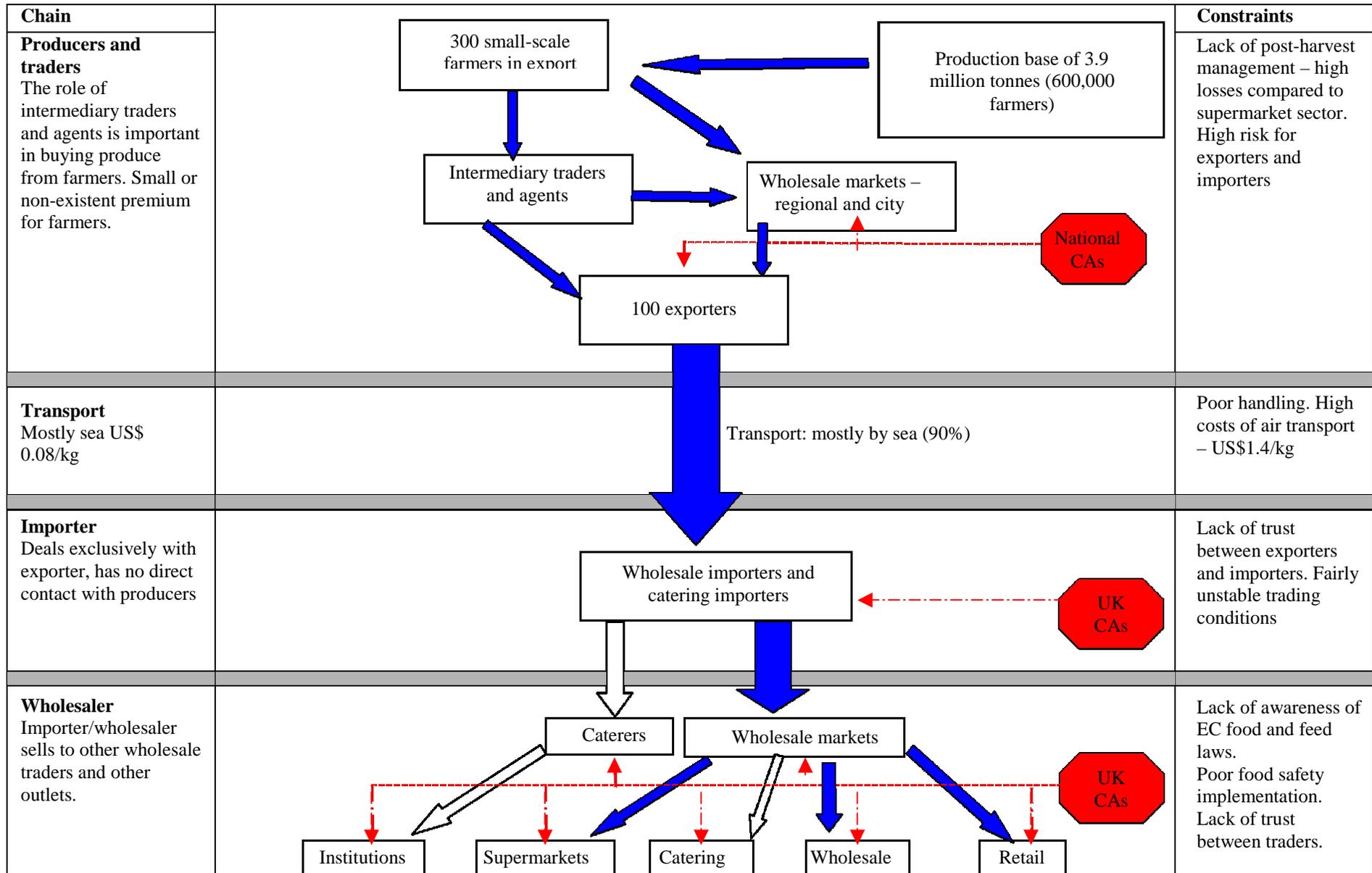
Table 7.2 Farmer, employee and dependent profile of the Ghanaian horticulture export sector supplying the UK market in 2005

Market	Wholesale/catering	Retail	Wholesale/catering
Produce type	Fruit	Fruit	Vegetable
Types of commodities	Pineapple, mango, papaya, melon (pineapple is major export others are minor items)	Pineapple, banana (banana is limited by EC quota only 1 farm involved relies on FT premium to be competitive)	Yams, gourds, chilli, dudhi, speciality Asian vegetables (aubergine, garden-egg, okra, tinda, guar, yard-long-bean)
Value (£) per annum	£1,260,000	£2,940,000	£10,500,000
Number of exporters involved	47	13	420
Number of LSGs currently involved	Same farms as retail sector are involved in production for wholesale markets	10	2
Number of SSGs currently involved	100	500	3,338
No of certified LSGs	0	10	2
No of certified SSGs	0	32	0
Household dependents of SSGs	600	3,000	20,028
No of permanent waged employees of SSGs	200	64	6,676
No of permanent waged employees of LSGs & exporters	Same farms as retail sector are involved in production for wholesale markets	2,000	2,110
No of direct dependents of LSGs & exporters	380	12,000	12,660
Number of ancillary workers	469	994	7,144
Total number of people reliant on exports to UK	1,796	19,517	52,378
TOTAL	73,691		

Map 7.1: Pineapple supply chain from Ghana to UK

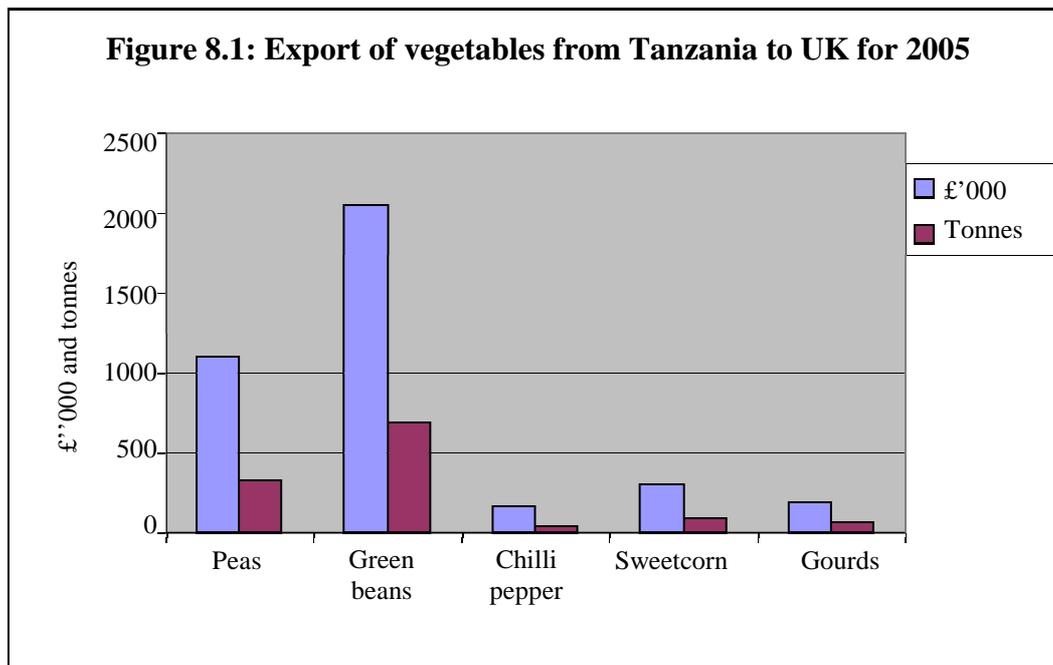


Map 7.2: Yam supply chain from Ghana to UK

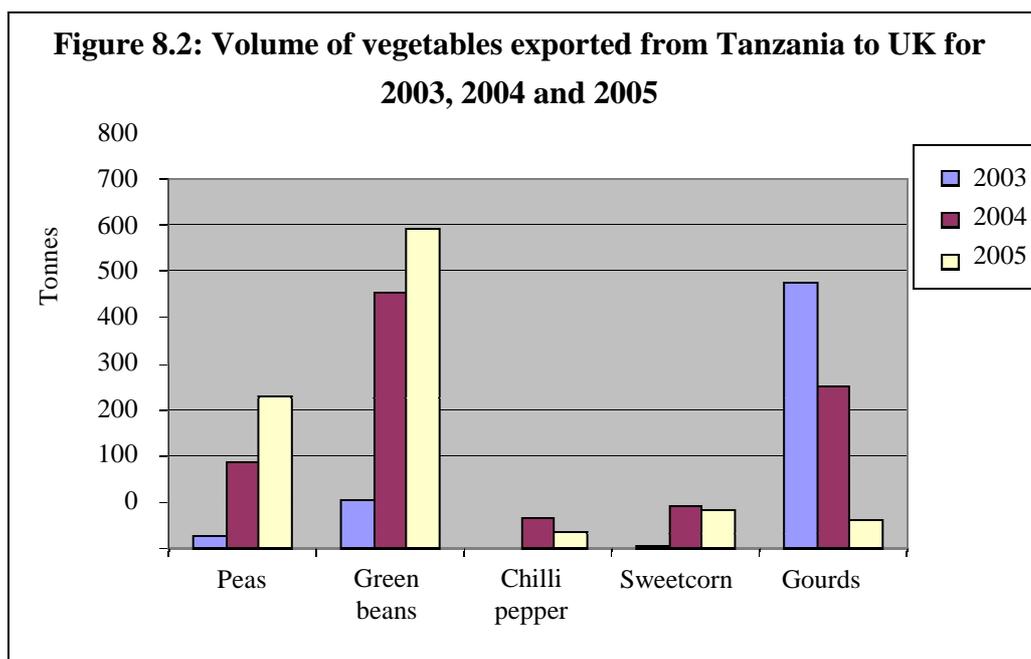


8 Tanzania

Tanzania exports a relatively small volume of vegetables to the UK (Figure 8.1) concentrated on five products, although green beans represent the major export by far, with year on growth since 2003 (Figure 8.2). Tanzania does not export any significant volumes of fruit, although cashews are listed under fruit and nut exports (HTS 0802), with exports predominantly to India.



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit

The production base has two nuclear estates and currently 2,070 SSGs (pers. comm. Dr Alan Legge – Gateway to Growth) supplying vegetables to the UK retails and wholesale markets (Table 8.1). The number of dependents associated with the export sector is over 32,000 and opportunities for expansion exist. The estimates are based on the number of smallholders and rural labourers working on the estates and their direct dependents. In addition, there are others involved in related activities e.g. input supply, transport, distribution, and provision of other services. Finally there is the multiplier effect of the income generated from the sector for the creation of other activities, such as food purchases, building activities and transport.

Table 8.1 Crop, farmer, employee and dependent profile of the Tanzanian vegetable export sector supplying the UK market in 2005

Market	Wholesale/catering	Retail
Types of commodities	Chilli, gourds, green beans, peas	Green beans, peas, baby corn
Number of exporters involved	2	2
Number of LSGs currently involved	3	7
Number of SSGs currently involved ¹²	2,070	0
No of EUREPGAP certified LSGs	0	7
No of EUREPGAP certified SSGs	168 ¹³	0
Household dependents of SSGs	12,420	0
No of permanent waged employees of SSGs	4,140	0
No of permanent waged employees of LSGs & exporters	0	1,400
No of direct dependents of LSGs & exporters	0	8,400
No of indirect dependents on the fresh produce export industry	3,933	0
Total number of people reliant on exports to UK	22,563	9,807
TOTAL	32,370	

¹² Based on information from large estates

¹³ A further 1700 SSGs are being audited for EurepGAP compliance at the end of October 2006 (pers.comm. Gomba Estates Ltd.)

The production area is viewed positively by supermarkets as an alternative source to Kenya at certain times of the year having different climatic conditions and also possessing the potential for expansion. One of the exporters, Gomba Estates, sees that export expansion can be achieved by involving smallholders and has developed, with external support, an intermediary management organisation, Market Intermediary Management (MIM) Limited, which is discussed below.

Supply chain

The supply chain map (Map 8.1.) highlights the steps and issues in the chain from Tanzania to the UK. Exports for retail go through a category manager, a process that supports the smallholder expansion plan.

Case study of managing smallholder entry in the UK market: Market Intermediary Management (MIM)

The Market Intermediary (MI) concept is a smallholder development method in which processors, traders or exporters promote the establishment of intermediary entities to both access the production from small growers and develop with them the capacity to successfully manage the production of export crops. It is a structured system based on demand side development of the market chain that argues small grower capacity building should follow, and not precede, identifying and securing an export market.

Market Intermediary Management Limited (MIM) is a Tanzania registered company limited by guarantee. MIM was set up as a non profit organization to ensure clarity and transparency. It is clearly understood that any profit or benefit developed by the smallholder entities set up by MIM is for the SSG groups and does not accrue to the shareholders of MIM. MIM therefore is a type of ‘firewall’ that allows capacity to flow to small growers from the private sector but ensures that they receive their fair benefit.

Gomba Estates Limited (GEL) is a group of Tanzanian registered companies including Gomba Development (holding) Gomba Export (processing and export) and Gomba growers (farm management) involved in the production and export of horticultural crops. At present they are the largest such company in Tanzania. Gomba Estates is 75% shareholder in MIM and has supplied MIM with the GAP capacity, the market and the MI conceptual structure.

Gateway to Growth (G2G) is a UK-based NGO specializing in the development of projects to bring African smallholders into the market chain supplying the UK and continental supermarkets. G2G has a 25 per cent shareholder in MIM. G2G has access to a very significant pool of experience in the fresh produce sector in both technical and financial aspects.

Market Intermediary (MI) Concept

The MI concept as outlined above is applicable to a wide variety of agricultural crops where there is presently no market access. The core issue is that processors, traders or exporters who have a market for such crops develop production through the creation of intermediaries, or 'Market Intermediaries', which will both access production for the processors, traders or exporters *and* access capacity for producers to be able to comply with the requirements of the exporter, and the ultimate purchasers.

Such a market intermediary role can be played through a number of different legal frameworks (i.e. private entrepreneurs, management teams of cooperatives, private companies and NGO's) the emphasis within the MI system is on the structure of the market chain. In general, processors and exporters need to have a significant economy of scale to be competitive as even locally produced produce is effectively in competition with imports. By definition small growers have a small economy of scale. When growers group together into viable groups they invariably have no means of self developing their capacity. An MI is simply a tool to allow the larger commercial entities that have market hold to interact commercially with the smaller ones and allow capacity and product to flow.

Vision: the MIM vision is to create an entity that connects market to grower through creating growers' groups specifically tailored to fulfil contracted market undertakings. As MIM has a connection to its first client (GEL) to create MIs for their supply, a track record is available to encourage other processors and exporters. Experience in the EU market shows products suitable for the area, namely baby corn and mangetout/sugarsnap peas are very much in demand. Experience on the ground shows productive capacity is very much under-utilised. The MIM vision starts with a market in the commercial sense, an entity that is ready to buy, and works logically back from their developing a market chain that can also fulfil the transfer of capacity back to the farmer.

Principal constraint: the infrastructure and technical capacity of farmers in Tanzania, for export crops to meet the requirements of the EU market is in need of improvement.

However, the principal constraint in Tanzania is actually a cultural – political one in that Tanzania is still in the process of change from a socialist to a market oriented economy. At the same time the socio-economic cultural background is overwhelmingly subsistence agriculture. These two aspects of the present developmental status of the country promote a strong focus on smallholder development and a particular reluctance to let go of preconceptions. This reluctance is evident all the way from the smallholder through the social and political hierarchy. Developing smallholder market oriented programs has in the past concentrated on trying to help them to grow better, rather than promoting those structures which will bring market to them. A successful model needs to be built on developing demand, not supply.

Method: The MI concept approaches the constraints in two ways both of which are based on its core concept. This core concept is about the definition of market. To the MIM the term ‘market’ is *actual* commercial contracts and transactions. The MI concept then takes a real contracted commercial opportunity and moves step by step creating the capacity in each entity. MIM applies this core concept two ways, namely communication and flexibility.

Communication: the attractiveness of starting with a market in hand is clear to everyone in principle, though it does not immediately dispel the established preconceptions. MIM’s approach is to make sure that everyone is approached. A dialogue is undertaken with the growers, the village authorities, the district authorities, the key officials, the Ministers and the Donors.

The second important element is flexibility and MIM works in a structured manner moving step by step from the established demand to supply. At each point of development the system needs flexibility so that the structures created are appropriate. For instance the first MIs are management teams of coops but in other circumstances they could be individual entrepreneurs. In the first cases the farmers put forward 0.15ha at a time, which was generally no more than 40 per cent of their land, but in other circumstances this could be very different.

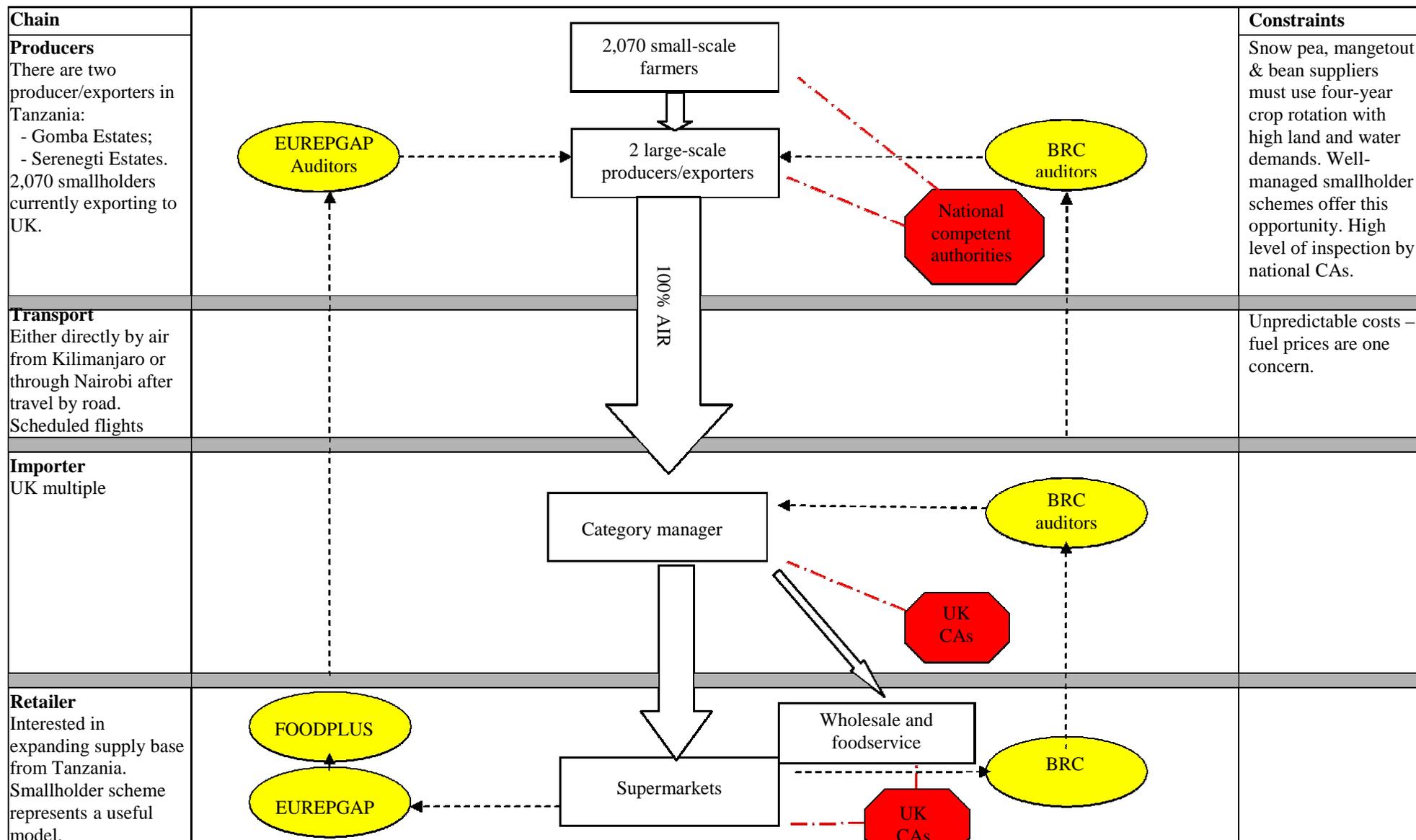
The other way to look at the MIM’s *modus operandi* is in terms of *risk and security*. MIM starts with a firm base of having secured an export market contract, programme or understanding with an importer. At each step the most effective or lowest risk option has to be developed in creating the market linkages. Such an appreciation of developing structures cannot be made without a precise knowledge of what the market wants.

The first crop that the pioneer MIMs were asked to grow was baby corn. The market, obtained by Gomba, existed in Europe, and the crop is straightforward to grow, and the smallholders have been growing maize for years. It has proved a suitable trial crop, allowing systems to be 'bedded down' before more demanding crops, such as mange tout, sugar snap or podded peas are attempted. A future development can be to seek fair trade registration for the grower groups.

The relationship between management and farmers is structured so as to guarantee transparency and self-policing. Both the farmers, who know the price per kilogram at planting, and the management, are present when the crop is harvested and yields are recorded. Every cent goes back to the farmer who can average \$700 over a 16-week programme.

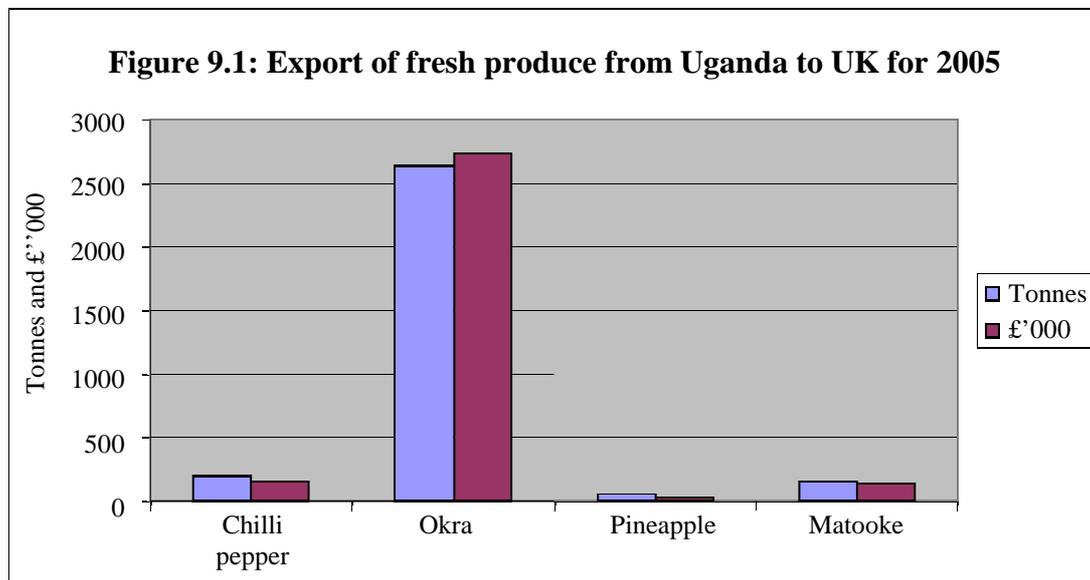
The project was recently visited by Paul Wolfowitz, President of the World Bank, who viewed the project as an innovative approach that shows that using the country's traditional culture is not a barrier to economic progress and supports his point that sustainable economic health in Africa depends on working with local customs and practices.

Map 8.1 Mapping vegetable supplies from Tanzania to UK



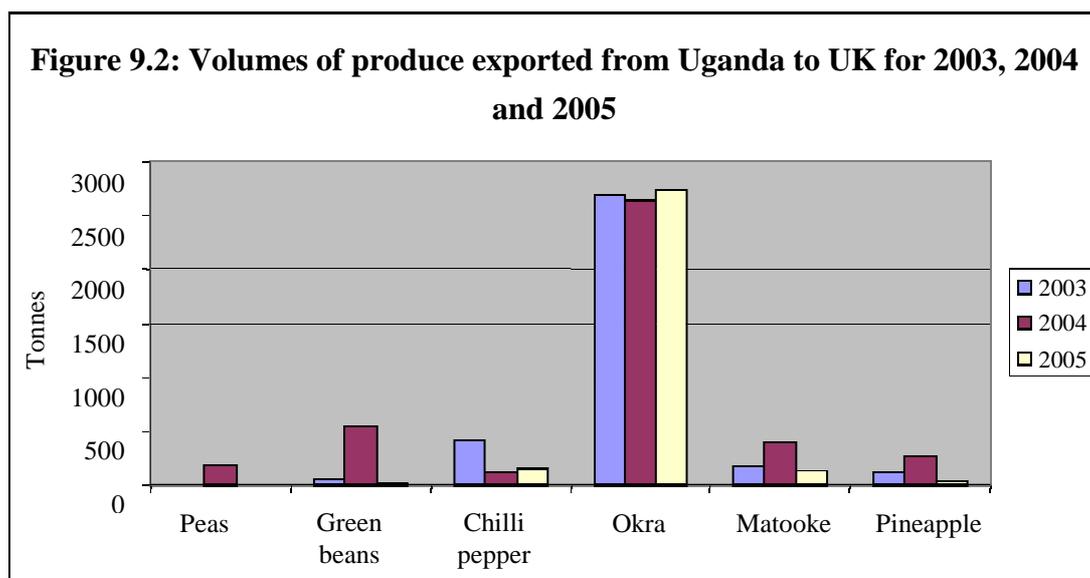
9 Uganda

Uganda exports a relatively small volume of fresh produce to the UK, delivering just under 3,000 tons in 2005 (Figure 9.1).



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit

Levels of exports over the last three years have remained fairly constant (Figure 9.2), despite considerable donor supported projects to the sector (although flower exports have increased significantly under the same programme).



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit

Uganda has a relatively large number of farmer/exporters relative to the volume of produce exported. There are 17 farmer/exporter companies and 2,060 small-scale growers active in export production (Table 9.1). Of these, only one company, Maiyre Estates regularly supplies the UK retail sector. They, also with another eleven companies, supply the wholesale markets. Most companies are small, exporting 1-5 tonnes per week, but four companies export between 15-25 tonnes per week each. Maiyre Estates is able to access high value retail markets, supplying scotch bonnet pepper, chilli pepper, okra, and passion fruit, because it is EurepGAP certified. Amfri supplies high value markets through producing organic produce (IMO certified to EC/2092/91), although it is preparing for EurepGAP certification.

Table 9.1 Profile of large-scale producers/exporters and small-scale growers supplying UK retail and wholesale markets

Exporter	SSG 2005	SSG Future	Tonnes exported per week	UK Retail suppliers	UK Wholesale suppliers
Coseda ¹⁴	120	0	4	0	0
Kakunyu	56	0	5	0	0
London F&V	205	0	15	0	1
Lusaka GR	50	50	8	0	1
Maiyre	200	0	20	1	1
Jaksons	85	0	3	0	1
Aseel	70	0	3	0	1
Sulma	126	74	3	0	1
Zijja	4	0	7	0	1
Sanena	16	14	3	0	1
Uga-fresh	75	0	3.5	0	1
Nami	26	0	1.5	0	1
Me Ent	50	0	0	0	0
Amfri	306	0	15	1	1
Sera	34	0	0	0	0
Flona	35	0	0	0	0
Icemark	602	0	25	0	1
TOTAL UK	2,060	138	116	1	12

Source: Data compiled by A Graffham from interviews with exporters

The number of large producer/exporters, SSGs, employees and dependents involved in supplying the UK fruit and vegetable sector totals nearly 32,000 (Table 9.2). The estimates are based on the number of smallholders and other labour working on the estates

¹⁴ Where companies are recorded as not supplying the UK market, they export to other EU countries.

and their direct dependents. It is not clear whether others involved in related activities e.g. input supply, transport, distribution, and provision of other services are included. Also the multiplier effect of the income generated from the sector for the creation of other activities, such as food purchases, building activities and transport must be taken into account.

Table 9.2 Profile of farmers, employment and dependents in Uganda fruit and vegetable export sector

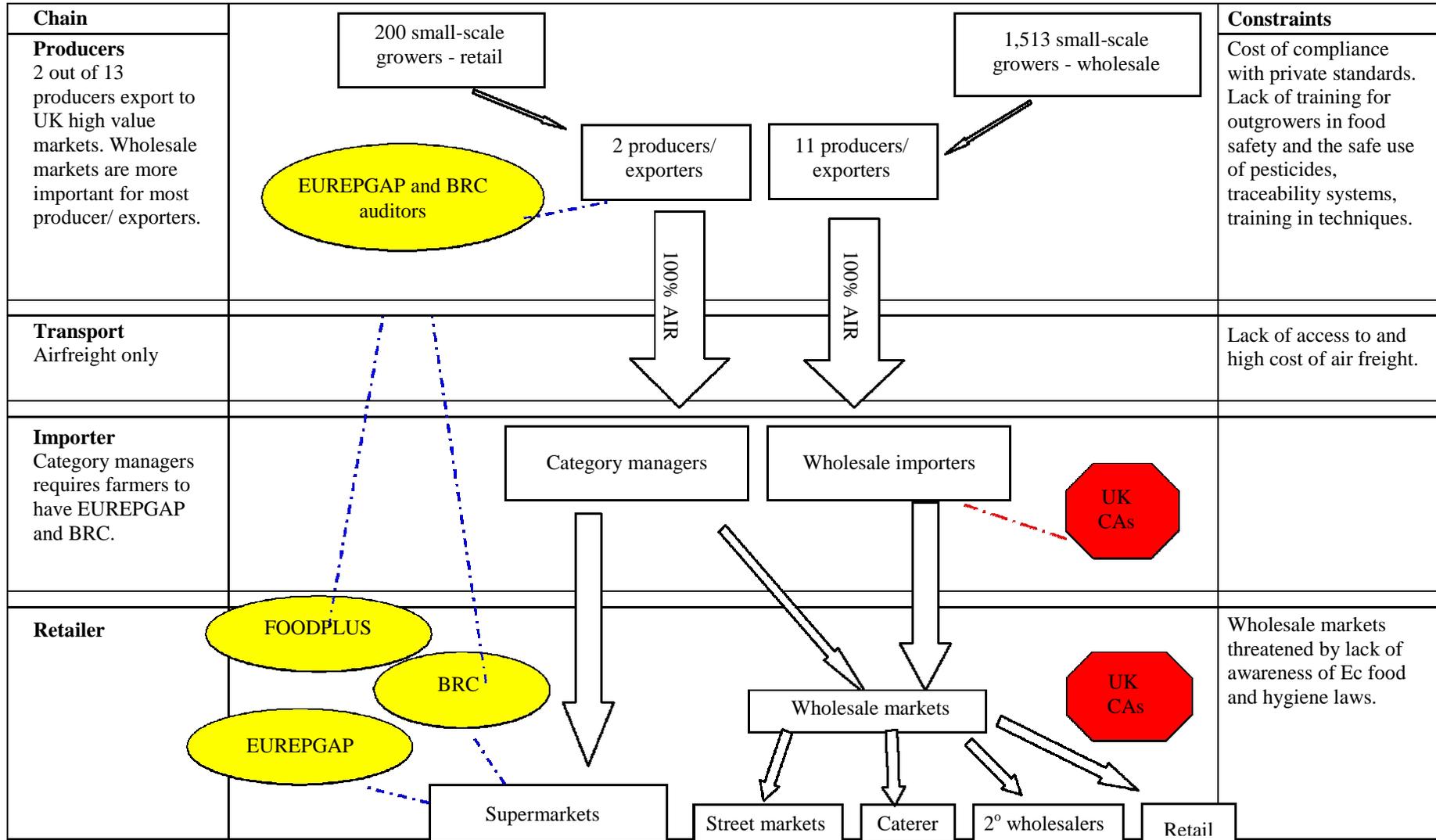
Market	Wholesale and catering	Retail
Types of commodities	hot-pepper, chilli, okra, matooke, ginger, dudhi, sweet potato, red-bean, karela; Pineapple, avocado, passion fruit, mango, apple-banana, papaya	hot-pepper, chilli, okra
Number of exporters involved	12	1
Number of LSGs currently involved	4	1
Number of SSGs currently involved	1,860	200
No of EUREPGAP certified LSGs	1	1
No of EUREPGAP certified SSGs	0	0
Household dependents of SSGs	11,160	1,200
No of permanent waged employees of SSGs	3720	400
No of permanent waged employees of LSGs & exporters	1200	100
No of direct dependents of LSGs & exporters	7,200	600
Number of ancillary workers in the fresh produce export industry	3,564	386
Total number of people reliant on exports to UK	28,720	2,889
Total Dependents in Uganda	31,609	

Source: Data supplied by A Graffham based on farmer interviews.

The supply chain is summarised below in Map 9.1.

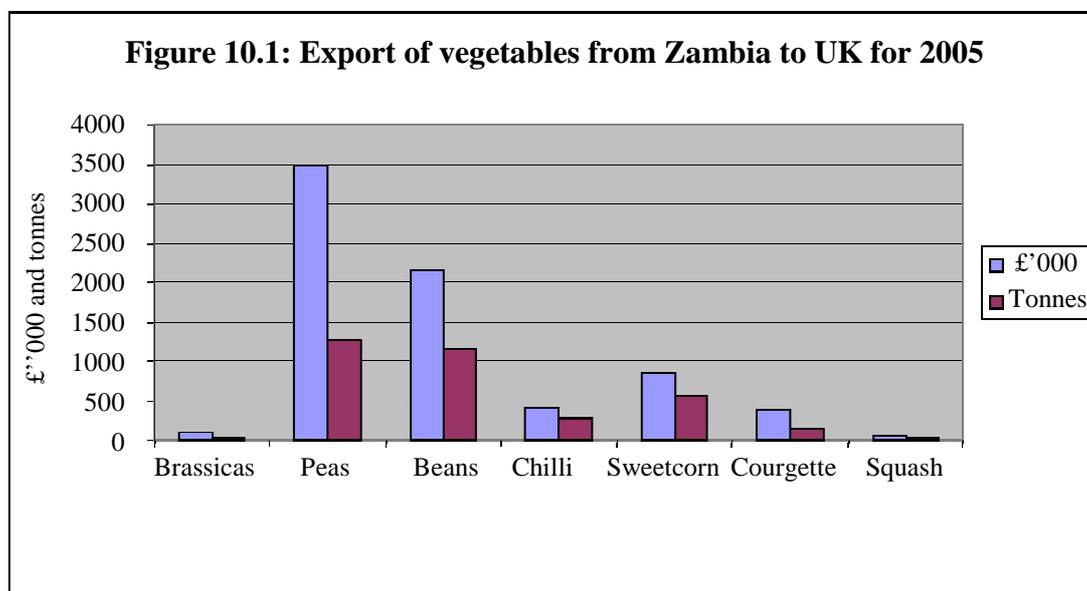
Organic production, led by the initiative of Amfri, is seen as an opportunity for smallholders to gain access to high value markets (large producers tend to concentrate on conventional production systems). However, organic small-scale growers face many of the same problems as conventional small-scale producers in relation to certification costs. In addition, they also face specific problems, such as specific cultivation systems, and transportation and storage costs may be higher, as organic products must be segregated from conventional ones.

Map 9.1 Overview of fruit and vegetable supply chain from Uganda to United Kingdom



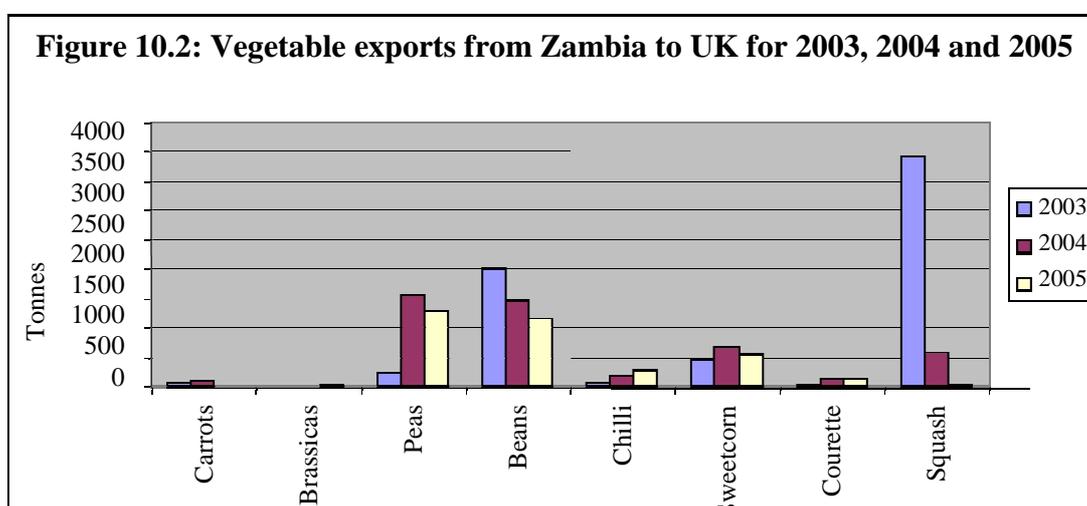
10 Zambia

The customs value of exports for vegetables from Zambia to the UK totalled £7.4 million in 2005, with peas and beans as the dominant commodities (Figure 10.1).



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit

The volume of exports has not exhibited any consistent trends over the last three years (Figure 10.2). Bean and squash exports have shown a decline.



Source: HM Revenue & Customs Statistics and Analysis of Trade Unit

Currently, production and export of produce from Zambia has been reduced to a 'care and maintenance' basis, because the rise in the value of the Zambian kwacha versus the pound sterling has rendered exports of produce uncompetitive with other African and particularly Latin American sources. Exports still continue but margins have been reduced for the producers and exporters. This has had a negative impact on SSG involvement: only 89 SSGs are currently involved in the export sector (Table 10.1). Also employment opportunities in

the large estate sector have declined (Legge, pers. comm.). The number of SSGs and employees and dependents involved in supplying the UK fruit and vegetable sector totals approximately 7,000 (Table 10.1). As explained in chapter 3 the estimates are based on the number of smallholders and rural labourers working on the estates and their direct dependents. It is difficult to estimate the number of other workers involved in related ancillary activities e.g. input supply, transport, distribution, and provision of other services. Similarly no estimates have been made of the multiplier effect of income generated by the sector through the creation of other activities, e.g. food purchases, building activities and transport.

The export production base is currently centred on two large producer/exporters, Borassus Estates and York Farms Ltd, whose operations are briefly discussed below. Ten SSGs have achieved EurepGAP certification in June 2006 and thus are able to export baby corn to UK retailers via one of the major exporters.

Table 10.1 Farmer, worker and dependent profile of the vegetable export sector supplying the UK in 2005

Market	Wholesale/catering	Retail
Produce type	Vegetable	Vegetable
Types of commodities	Negligible amount of pre-cut catering packs of baby-corn (volume and value unknown)	Peas, beans, chilli, baby-corn, courgette, squash
Tonnage per annum	0	3,800
Value (£) per annum	£0	£7,400,000
Number of exporters involved	0	2
Number of LSGs currently involved	0	9
Number of SSGs currently involved	10	0
No. of EurepGAP certified LSGs	0	9
No. of EurepGAP certified SSGs	10	0
Household dependents of SSGs	350	55
No. permanent waged SSG employees	651	98
No. of permanent waged employees of LSGs & exporters	0	800
No. of direct dependents of LSGs & exporters		4,800
No. of ancillary workers in the fresh produce export industry	150	40
No. of people reliant on exports to UK	1,140	5,814
Total no. of people reliant on exports to UK	6,954	
No. of SSGs excluded by EurepGAP	0	437
No. of SSG dependants & workers affected by EurepGAP exclusion	0	3,496

Source: Data obtained by Graffham

Borassus Estates

Borassus Estates specialises in legumes and herbs, producing mange tout, courgettes, sugar snaps, tenderstem broccoli, fine beans, baby corn, and herbs for the UK market. The total farm area is about 380ha, of which 70ha is given over to organic production (Eco-Cert). For the remainder of the farm it has EurepGAP certification (Option 1). All shipments are handled by ZEGA (the Zambian Export Growers Association) whose chilled warehouse ensures the cold chain is kept unbroken. Produce is dispatched by airfreight primarily to two category managers in the UK, but also to clients in South Africa.

York Farm Ltd.

The company consist of York Farm, where a range of vegetables are grown, and a large packhouse where produce is packed for export. The farm is EurepGAP certified under Option 1 to export baby corn, chillies, leeks, onions, courgette, mange tout, sugar-snap peas and fine beans. Packed produce is transported to Lusaka Airport where it is handled by the Zambian Export Growers Association (ZEGA) Ltd and air-freighted primarily to one UK supermarket, and to buyers in South Africa.

YFL have also been assessed to meet the Tesco's Nature's Choice standard. An increasing proportion of the farm is being used for organic production (with EcoCert certification).

The YFL packhouse also packs produce from several other farms and outgrowers, including Kashime Farm (sister to York Farm and under the same management) and the NZTT. Kashime Farm is also EurepGAP and Nature's Choice certified, all of the outgrowers are EurepGAP certified.

Small-grower involvement in export horticulture

Historically (1999-2004), 447 small-scale growers around Lusaka were organised into eight primary production cooperatives to grow baby-corn, mange tout and sugar-snap peas for export via Agriflora Limited. Agriflora established a unit called Agriflora Small-Scale to provide technical, managerial and logistical support for SSG production using a procurement model modified from the systems used by Homegrown in Kenya and Hortico Agrisystems in Zimbabwe. In the 2003-2004 season, 121 farmers were active with 64 working towards EurepGAP and incomes ranged from £1,000 to £7,500 per annum with most growers achieving incomes of £2,000 to £3,000 per annum. In July 2004, Agriflora Limited went bankrupt thus depriving the SSGs of a market outlet, technical, managerial and logistical support.

The farmers formed a secondary level management cooperative known as the Lubulima Agricultural Commercial Cooperatives Union (LACCU). LACCU is farmer owned and run

and has the task of negotiating with buyers, input suppliers, financial institutions and technical service providers. In addition LACCU provides a centralised quality management unit and operates the produce handling facilities (depots) and a 10 tonne truck to collect produce from the depots in the production areas. In October 2004, LACCU negotiated a contract to supply baby corn to York Farms Limited but were unable to get a contract to supply peas as the exporter was wary of food safety risks associated with production of peas. Reduced volumes and a drought made the 2005 season difficult and only 89 farmers grew crops for export with 25 working towards EurepGAP. Between November 2005 and January 2006, increases in the value of the Zambian kwacha and the introduction of harsh taxation on agricultural inputs and produce sales reduced the number of growers to ten and these growers achieved EurepGAP certification in June 2006. The exporter was pleased with production in the 2005 season and had planned to increase the value of produce procured from SSGs from £91,000 to £170,000 but due to the economic conditions orders were reduced to £12,870. The future of SSG involvement in Zambian export horticulture remains uncertain and will be determined by macroeconomic factors rather than the ability of farmers to meet buyer requirements for food safety and good agricultural practice.

Appendix 1: Terms of reference

Smallholder production of fresh produce in Africa – mapping different value chains to the UK

There is strong evidence that *exporters are moving away from the smallest of growers*, not because of product quality or productivity, nor with a scientific basis, but because of transaction costs associated with private retailer standards, both in terms of managing their implementation and demonstrating compliance. At present, it is not clear whether production by small-scale farmers throughout Africa destined for export to retailers abroad can remain viable. The cost-price squeeze generated by downstream industry participants includes lower prices but is underscored by higher standards of production and is increasingly felt by producers. Still, these export markets remain considered lucrative and sought-after. Other procurement practices of retailers, particularly supermarket chains, contain implicit yet non-financial/ non-price standards and barriers to entry to markets. These include imposing fines if delivered short and requirements of continuity of supply— which in turn requires advanced technology—and can work against small-scale producers. The standards issue compounds other constraints facing sub-Saharan African production, such as high costs of air-freight, lowering their competitive advantage. Additionally, there is widespread perception that the cost of training, certification, internal monitoring currently has to be paid from outside. No smallholder group in Africa has achieved certification on its own, including paying for it.

There are several schools of thought about how to reverse the marginalisation of small-scale producers and SMEs.

1. Some people support: *sharing costs and risk* between retailers and small-scale producers; or at least contributing to the initial investments required *for small-scale producer compliance and certification* such as training and shared responsibility for raising standards; or translating certification into *better margins* for producers, because currently there are no premiums.
2. Another option for retailers could be the implementation of policies to *source a portion of their produce from small-scale producers*.
3. Other opinions hold that retailers will not pay more and therefore we must search for *efficiencies in implementation and certification*. This includes emphasis on *bringing down the cost of certification*, e.g. through establishing national accredited bodies.

The parent project, over a three-year period, will work with food retailers, manufacturers, standard-setting bodies, traders and producers to look at all three options, towards ensuring that supply chain standards and other procurement practices do not unduly discriminate against small-scale producers in developing countries. The project focuses in particular on export horticulture in Africa, in the context of the Africa Commission report, the focus on Africa within the 2005 UK G8 Presidency, and the debate on the private sector's role in development.

As a starting point it is agreed that the project is primarily about finding ways to apply political leverage to make positive changes to existing systems that lead to more favourable conditions for access to high-value EU markets by small-scale growers (SSG) in sub-Saharan Africa.

One aspect of the initial work is an activity to map the involvement of African SSGs in supplying produce to UK markets (with emphasis on detailed characterisation of UK markets) by determining origin of produce, types of produce, volumes, values and numbers

of SSGs involved and destination markets. This work is UK-based, involving visits to UK-based supply chain participants and stakeholders to gather information on their roles and relevant views on proposed changes.

Terms of Reference for consultancy

For the activity on mapping smallholder involvement in supplying UK markets NRI & IIED wish to commission a consultant to undertake a short-term study under the project Small-Scale Producers and Standards in Agrifood Supply Chains. The objective is to answer the following research questions:

1. What is the relative importance of different fresh produce value chains from Africa to the UK, specifically the supermarket and non-supermarket chains?
2. How does the structure and regulation of each chain affect the ability of smallholders to be players in those chains? What are the trends?
3. What are the principal keys to inclusion of African producers in general and smallholders in particular in exporting to the UK via the different chains?

Specifically, this consultancy will research and prepare report(s) provisionally titled *African fresh produce and the UK consumer: supply chains and smallholders*. This will cover:

- An overview of the functioning, flows, location and dynamics of the UK fresh produce sector supply chains with focus on both the non-supermarket supply chains and supermarkets [subsequent research will be guided by the proportional location of African produce in these supply chains]
- Quantification of the “value chain”/ flows of fresh produce from Africa (with focus on Sub-Saharan Africa excluding RSA) into the UK including the quality, grade and standards defining the produce – this will include production and trade data from African countries (and any key nations – such as Djibouti, the Netherlands); import volume and value data from UK/ EU; and the dynamics/ logistics of the UK market to point of final sale.
- Develop some snapshots of broad UK sectors to illustrate their significance in the flow of African produce in the UK – including food service, processing, wholesaling, ethnic shops, convenience stores, discount supermarkets, London versus non-London, hauliers (?), street markets, etc.
- Develop some illustrative examples/ case studies of key fresh produce (fruit and vegetable) supply and value chains where smallholders have an established position in the market
- Provide both a current snapshot, identify key trends, and forecast key future trends and risks that can influence the competitive position of African smallholders. Particularly competitive incentives facing key sectors, the role of private standards and EU regulations on the supply chain, transportation and air freight issues, procurement changes, EU subsidy changes, consumption and/ or production trends, inventory management, consolidation in sectors, horizontal and vertical integration.
- Identify future necessary information or actions to fill information and data gaps.

The methodology is not pre-determined and will be discussed and decided by the consultant(s) and NRI/IIED in advance. It is anticipated that a mixture of interviews (in-person, by email correspondence and by phone) in addition to the use of industry and grey literature. To this end, travel costs will be one aspect of this project to locations in the UK. Indeed, a first task will be to define the TOR for this project.

It is envisaged that the consultant will work in close cooperation with IIED and NRI staff, as well as with partners at EurepGAP, DFID, FPC, etc.

Given the policy focus of the IIED/NRI project, this consultancy needs to conform to high levels of scrutiny by external reviewers – hence, quotes should be indicated where appropriate, literature cited and comments attributed, and consultant insights labelled as such.

Funding:

- IIED and NRI have £12,000 for this consultancy, which must cover all fees and travel and subsistence costs.
- The consultant will be based outside NRI and IIED and will be culpable for all costs and expenses incurred except when prior approval has been obtained from IIED/ NRI staff.

The following is an outline of a possible approach for the work but flexibility for developing the actual work programme remains with the consultant.

Initial development work collecting and collating data & contacting potential sources.

Supply chain discovery Direct import organisations (Minor, Weir & Willis, Mack)
Multiples etc
Processors
London markets
Provincial markets

System interviews EUREP GAP Organisation
Asda/Wal-Mart
Tesco – Nature’s Choice
M & S Field-to-Fork
DEFRA – HMIs, EU/UK laws
One of: Sainsbury/Waitrose/Somerfield (EUREP GAP users)
Discounters: One of: Aldi, Netto etc
Regional Greengrocer chain e.g. Stokes (West Country)
Small scale ‘ethnic produce retailers (a) London (b) Regional
Others, to be discussed: Spar, Cost Cutter, Londis etc.
Processors – to be identified and contacted

Data discovery AWB (Customs & Excise)
DEFRA records

Report writing

In order to facilitate access by the consultant to the various players with the UK market chains, IIED & NRI will seek the support of FPC and BRC respectively with the request that these organisations become partners in the study and contribute towards the study by writing to their members to request full and open support for the study as its outcomes will be beneficial for the UK fresh produce industry, retail and wholesale sectors.

The introductory letters will focus on the benefits of participation, and different letters will be

provided for each area. Letters to supermarkets will stress that the study will reveal the 'inclusivity' of their approach, and that they are getting the maximum 'development premium' for their work. It should also be stressed that all participants will receive a copy of the study report and the content of the report will be structured to ensure that commercially sensitive information is not released to a wider audience.

In view of the amount of work required for this study, staff at IIED and NRI will make additional inputs in support of the consultant especially in terms of background data and developing contacts for the field work interviews.

Outcomes expected

1. A full exposition of the current situation.
2. A demonstration that there exists 'ecological' room for produce from sub-Saharan Africa in the EU market.
3. A clear demonstration of a system/structure that would allow wholesalers and distributors of fresh produce to develop and expand their trade with sub-Saharan farmers/exporters in a safe and sustainable fashion.
4. A series of policy pointers for DfID

Appendix 2: Literature consulted

Anonymous. (2005a). *Understanding foodservice opportunities for farmers and small food producers*. Guide produced by IGD. pp 39.

Anonymous (2005b). *The environmental impacts of trade liberalisation and potential flanking measures*. Institute for European Environmental Policy and GHK consulting. Report to DEFRA. pp 169.

Anonymous (2006). 'Foodservice'. *Fresh Produce Journal Supplement*. July 2006. pp 70.

Blanchard S., Gray S., (2005) Compass Group Presentation to IGD Suppliers Conference Seville 7 April 2005

CBI (2005) *EU Market Survey: Fresh Fruit and Vegetables*, compiled for CBI by ProFound. Netherlands

Cioffi, A. and C. dell'Aquila. (2004). 'The effects of trade policies for fresh fruit and vegetables of the European Union', *Food Policy*, 29(2): 169-85.

Coote, C., Greenhalgh, P. and Orchard, J. (2003) *High value horticulture and organic export markets for sub-Saharan Africa*, NRI

Dearden, P., Greenhalgh, P. and E. Havis. (2002). *Horticulture Exports from Ethiopia and EU Supermarket Sourcing*, London: DFID.

DEFRA (2005) *UK Purchases and Expenditure on Food and Drink and Derived Energy and Nutrient Intakes in 2004-05*, London

DEFRA (2006) *Family Food in 2004-2005 National Statistics*, London TSO

Dolan, C., Humphrey, J. and Harris-Pascal, C (2000) *Horticulture commodity chains: the impact of the UK market on the African fresh vegetable industry*, IDS Working Paper 96. Institute for Development Studies.

Dolan, C., and Sorby, K. (2003). *Gender and Employment in High-Value Agriculture Industries*. International Bank for Reconstruction and Development. Agriculture and Rural Development Department. Agriculture and Rural Development. Working Paper 7. Washington, D.C.: World Bank. pp 77.

Esmee Fairbairn Foundation (2005) *Sustainable Food Procurement for Foodservice Companies: A User's Guide to Non-Financial Reporting*. Oxford Brookes University

EurepGAP (2003). *Protocol for Fresh Fruit and Vegetables*. Cologne: European Retailer Produce Working Group.

Eurofruit Magazine – various issues.

FAO (2001a). *New and Emerging Issues Affecting Commodity Markets*, 63rd Session of the Committee on Commodity Problems: Food and Agriculture Organisation, Rome.

FAO (2001b). *World Markets for Organic Fruit and Vegetables; Opportunities for Developing Countries in the Production and Export of Organic Horticultural Products*: Food and Agriculture Organisation, Rome.

FAO (2003). *Working Papers prepared for the Inter-Governmental Group on Bananas and Tropical Fruits. Third Session*: Food and Agriculture Organisation, Rome.

Finlayson, I. (2004). *A review of the Foodservice supply chain for the Pesticides Residue Committee*. A report by Practical Solutions International Ltd. pp 11.

Fresh Produce Consortium (2006). *Re:Fresh Directory*.

Fresh Produce Desk Book (2004). Published by *Fresh Produce Journal*.
Fresh Produce Journal (various issues).

Garcia. M., Poole M. and Skinner C. (2002) *Development of private food safety and quality standards and impact on exports from Mediterranean countries*, Department of Agricultural Sciences, Agricultural Economics and Business Management Research Section, Imperial College, London.

Garcia. M et al (2003) *Benchmarking Safety and Quality Management Practices in the Mediterranean Fresh Produce Export Sector*, Department of Agricultural Sciences, Agricultural Economics and Business Management Research Section, Imperial College, London.

Gogoe, S. (2004) *Helping smallholders to supply European markets*. PAN-UK. pp 4.

Graffham A., MacGregor J. (2006) *Impact of EurepGAP on small-scale growers of fruits and vegetables in Zambia* (draft).

Graffham A., Karehu E., and MacGregor J. (2006) *Impact of EurepGAP on access to EU retails markets by small-scale growers of fruits and vegetables in Kenya and Zambia* (draft.).

Grant Thornton (2006) *Fresh Thinking: insights into the present and future state of the UK Fresh Produce industry*.

Hallam D., Liu P., Lavers G., Pilkauskas P., Rapsomanikis G., Claro J. (2004) *The market for non-traditional agricultural exports* FAO Commodities and Trade Technical Paper No. 3

Hubbard, M., Herbert, A. and Roumain de la Touche. (2000). *Country Report on Assistance to Cameroon*. EU-EVA Association. pp 111

IGD (2005) Understanding food service opportunities for farmers and small food producers, Watford UK.

ITC (weekly publication). *Market News Service (MNS): Fresh Tropical and Off-Season Fruit & Vegetables*: International Trade Centre, Geneva

Jabarin, A., Al-Bakri, B, Arabiat, M and Darwish, S (2002) Marketing Windows of Selected Fresh Fruit and Vegetables in European and Gulf Countries Markets, Ministry of Agriculture of Jordan, Capacity Building on Agricultural Policy and Project Planning (TCP/JOR/0066).

Jaffee, S.(2003). *From Challenge to Opportunity: The Transformation of the Fresh Vegetable Trade in the Context of Emerging Food Safety and Other Standards*, World Bank PREM Trade Unit (draft): World Bank, Washington D.C.

Jaffee, S. and P. Gordon (1993). *Exporting High-Value Food Commodities: Success Stories from Developing Countries*, World Bank Discussion Paper #198: World Bank, Washington D.C.

Jenney, N. (2006). Foodservice. *Fresh Produce Journal Supplement*. July 2006. pp 70.
McCulloch, N. and Ota, M. (2002). Export horticulture and poverty in Kenya. IDS Working Paper 174. pp 40.

Mintel (2003) Fresh Fruit and Vegetables, Market Intelligence, May 2003. Mintel.

Muendo K.M. and Tschirley D.(2004). 'Improving Kenya's domestic horticultural production and marketing system: current competitiveness, forces of change, and challenges for the future'. Volume iii: Horticultural research and input sector regulation in Kenya and Tanzania. Tegemeo Institute of Agricultural Policy and Development, Egerton University. Working Paper No. 08C/2004. pp 33.

NRI (2003) Agricultural Product Grades and Standards, Working Paper for World Bank, NRI Report 2763, October 2003, Natural Resources Institute, Chatham.

NRI (2003). *Small Producers in Export Horticulture: A Guide to Good Practice*. Natural Resources Institute, Chatham.

Rees, D., Bancroft R.D.,(2003) *Development of integrated protocols to safeguard the quality of fresh yams*. Final Technical Report NRI, Natural Resources Institute, Chatham.

Saphire, N. (2002). *Review of London Wholesale Markets*. Sponsored by DEFRA and the Corporation of London.

Stichele M.V., van der Wal, S. and Oldenziel J. (December 2005), *Who reaps the fruit? Critical Issues in the Fresh Fruit and Vegetable Chain* SOMO – Centre for Research on Multilateral Organisations, Amsterdam.

Takane, T. (2004). Smallholders and non-traditional exports under Economic liberalization: the case of pineapples in Ghana. *African Study Monographs*, 25(1): 29-43.

Thoen, R., Jaffee, S. and C. Dolan, (forthcoming) 'Equatorial Rose: The Kenyan-European Cut Flower Supply Chain', in R. Kopiki (ed.), *Supply Chain Development in Emerging Markets: Case Studies of Supportive Public Policy*, Boston: MIT Press.

Tsutomu Takane (2004) *Smallholders and non-traditional exports under economic liberalization: the case of pineapples in Ghana*. *African Study Monographs*, 25(1): 29-43.

UNCTAD/SGS Societe Generale de Surveillance S.A. (1998). *International Market Access Information: Horticulture Sector*, New York and Geneva.

Vinning, G. and T. Moody. (1997). *A Market Compendium of Tropical Fruit*, Report prepared for the Rural Industries Research and Development Corporation, Canberra

Yeboah, G. (2005). Project Summary and Research Findings. Final report for USAID Competitive Grants Programme.

Appendix 3: Trade data

Table 4.1: Volume of exports of vegetables and number of dependents from selected sub Saharan African countries to UK in 2005

	Tonnes	No. dependents	Av/tonne
Ghana	15058	39886	2.648825
Kenya	32963	172359	5.228854
Tanzania	1236	34470	27.88803
Uganda	2908	26096	8.973796
Zambia	3448	5720	1.658904
Country Average			9.279681

	Tonnes
Burkina Faso	1
Congo (Republic)	7
Ivory Coast	80
Cameroon	151
Eritrea	1
Gabon	1
Gambia	314
Guinea	8
Comoros	3
Zimbabwe	3331
Madagascar	425
Mauritania	6
Mauritius	46
Malawi	424
Mozambique	10
Namibia	21
Nigeria	720
Sierra Leone	21
Senegal	1,436
Swaziland	3
Togo	88
Total	7,097
Total Dependents	65858

Table 4.1: Volume of exports of fruits and number of dependents from selected sub Saharan African countries to UK in 2005

	Tonnes	No. Dependents	Av./tonne
Ghana	10307	17537	1.70
Cameroon ¹⁵	152,757	240,000	1.57
Country Average			1.64

	Tonnes	Dependents
Burkina Faso	135	221
Botswana	16	26
Ivory Coast	33,582	54950
Cameroon ¹	152,757	240000
Ethiopia	278	455
Gabon	1	2
Gambia	657	1075
Guinea	1	2
Kenya	955	12626
Madagascar	72	118
Mauritania	26	43
Mauritius	11	18
Malawi	16	26
Mozambique	1	2
Namibia	800	1309
Nigeria	511	9
Rwanda	1	2
Sierra Leone	1	2
Senegal	1025	1677
Sao Tome-Princ.	1	2
Swaziland	3831	6269
Togo	7	11
Tanzania	60	98
Uganda	173	283
Zambia	25	41
Zimbabwe	4304	7043
Total	198119	326307

¹⁵ Hubbard, M., Herbert, A. and Roumain de la Touche. (2000). Country Report on Assistance to Cameroon. EU-EVA Association. pp 111

Uk Imports from Egypt, Morroco and Thailand

