UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

PRIVATE-SECTOR STANDARDS AND NATIONAL SCHEMES FOR GOOD AGRICULTURAL PRACTICES: IMPLICATIONS FOR EXPORTS OF FRESH FRUIT AND VEGETABLES FROM SUB-SAHARAN AFRICA

Experiences of Ghana, Kenya and Uganda

UNITED NATIONS

United Nations Conference on Trade and Development

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United Nations
New York and Geneva, 2008

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UNCTAD/DITC/TED/2007/13

UNITED NATIONS PUBLICATION

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Foreword

Export-driven growth of horticulture has been impressive in a number of countries in sub-Saharan Africa (SSA). The involvement of small-scale growers in the production of fresh fruit and vegetables (FFV) exported mainly to the European Union (EU) has contributed to poverty alleviation and rural development. However, the emergence of stringent public and private-sector standards and the growing power of large supermarkets have resulted in fundamental changes in international trade in FFV, as discussed in this monograph. Spot markets for exportable FFV are being increasingly replaced by supply chain management. Exporters need to coordinate closely with producers, traders and processors to ensure that their exported produce is properly documented and complies with the requirements of powerful retailers in international markets. This includes conformity with process-related requirements of private-sector schemes for good agricultural practices (GAPs). There is also a trend towards increased vertical integration: integrated producer-exporters source a larger share of their exports from their own production. These trends undoubtedly present a huge challenge for small-scale growers who so far have participated in value chains through contract farming.

In Ghana, FFV are a major component of non-traditional exports. Several initiatives are implemented in the country, driven by the Government, the private-sector and the donor community, to enhance the capacities of FFV producers and exporters to meet requirements of international markets, such as food safety and quality requirements, traceability and private voluntary standards such as GLOBALGAP (formerly called EurepGAP). Larger exporters have implemented quality assurance systems, mainly with a view to obtaining GLOBALGAP certification. Smaller producers and exporters, on the other hand, have been slower in implementing the recommendations of government- and donor-funded seminars and training events in day-to-day operations. Ghana needs to explore various options for the development of sustainable food safety and quality management systems that gradually also incorporate environmental protection and workers' welfare.

Traditionally, the Ghanaian fresh produce industry has dealt mainly with independent buyers and wholesalers. The pineapple sector started to engage with EurepGAP in 2001 when it encountered problems in meeting EU regulations concerning maximum residue levels (MRLs). Today, many pineapple producers have EurepGAP certification. GAP certification may help the Ghanaian FFV industry to increase export volumes and achieve the economies of scale needed for the cost-effective introduction of new varieties of pineapple and papaya and to reposition itself in the EU market by strengthening its capacity to supply supermarkets.

GAP implementation can have a number of positive impacts, such as higher yields and profitability, better quality produce, increased employment, greater occupational safety and lower environmental impacts, but it also poses considerable challenges to producers, traders and governments of SSA countries. In Ghana, the National Horticulture Task Force has been discussing options for the introduction of a national GAP scheme and its strategic aspects. It has been examining the advantages of such a scheme (such as national food safety, export promotion and general agricultural development), its costs and benefits, critical success and risk factors, the roles of key stakeholders and resource requirements. In addition, the needs of small-scale growers in implementing GAP need to be addressed.

This UNCTAD study elaborates on crucial issues in complying with private-sector standards, in particular with GLOBALGAP, as an increasingly important element of market access for FFV exported from SSA. It draws on case studies in several SSA countries, and also provides an interregional perspective based on similar analyses conducted in South and Central America and South East Asia. It raises pertinent issues and ways of conceptualizing and shaping proactive approaches to GAP schemes that meet external market access requirements while securing maximum developmental benefits. In particular, it examines how such approaches could contribute to pro-poor development strategies.

This publication is highly relevant for discussions on these issues in Ghana and many other countries in SSA that are confronted with similar challenges. It could also facilitate the exchange of national experiences among African countries. Furthermore, in concert with the two other UNCTAD studies

that synthesize the challenges and opportunities in meeting GLOBALGAP requirements in several countries in South America and South East Asia, it could make a valuable contribution to the ongoing debate on the issue of private standards and market access of developing countries.

The study will be launched at the twelfth session of the United Nations Conference on Trade and Development (UNCTAD XII), to be hosted by the Government of Ghana in Accra on 20-25 April 2008. I am sure that this analysis will enrich the in-depth policy discourse on pro-poor development strategies for agriculture in Africa, which will feature prominently on the agenda of the Conference.

Ernest A. Debrah
Minister of Food and Agriculture, Ghana

Contents

List of tables, figures and boxes

Acronyms

ACP	African, Caribbean and Pacific (group of States)
CPP	crop protection product
CTF	Consultative Task Force on Environmental Requirements and Market Access for Developing Countries (UNCTAD)
COLEACP	Europe/Africa-Caribbean-Pacific Liaison Committee (Comité de Liaison Europe-Afrique-Caraïbes-Pacifique)
COMESA	Common Market for Eastern and Southern Africa
DFID	Department for International Development (United Kingdom)
DTIS	diagnostic trade integration study (World Bank)
EBA	Everything-but-Arms (initiative of the EU)
ETI	Ethical Trading Initiative
EPA	Economic partnership agreement
EPOPA	Export Promotion of Organic Products from Africa (project)
ESA	Eastern and Southern Africa
EU	European Union
FAGE	Federation of Associations of Ghanaian Exporters
FAO	Food and Agricultural Organization of the United Nations
FPEAK	Fresh Produce Exporters Association of Kenya
FFV	fresh fruit and vegetables
FTA	free trade agreement
GAP	good agricultural practices
GEPC	Ghana Export Promotion Council
GHP	good hygienic practices
GMP	good manufacturing practices
GSB	Ghana Standards Board
GSP	Generalized System of Preferences
GTZ	German Technical Cooperation Agency (Deutsche Gesellschaft für Technische Zusammenarbeit)
HAC	Horticulturalist Association of Ghana
HACCP	hazard analysis and critical control points
HCDA	Horticultural Crops Development Authority (Kenya)
HEII	Horticulture Export Industry Initiative (Ghana)
HORTEXA	Horticultural Exporters Association (Uganda)
HPOU	Horticultural Promotion Organization of Uganda
HS	Harmonized System
ICIPE	International Centre of Insect Physiology and Ecology
IDEA	Investment in Developing Export Agriculture
IFS	international food standard
IPM	integrated pest management
LDC	least developed country
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries (Uganda)
MOAP	Market Oriented Agriculture Programme (Ghana)
MoFA	Ministry of Food and Agriculture (Ghana)
MRL	maximum residue level
NGO	non-governmental organization(s)
NHTF	National Horticulture Task Force (Ghana)
NOGAMU	National Organic Agricultural Movement of Uganda
NRI	Natural Resources Institute (University of Greenwich), United Kingdom
NTE	non-traditional export
PAMPEAG	Papaya and Mango Producers & Exporters Association of Ghana
PIP	Pesticide Initiative Programme
PMO	produce marketing organization
PVS	private voluntary standard

SIA	sustainability impact assessment
SIDA	Swedish International Development Agency
SMTQ	standards, metrology, testing, and quality assurance
SPEG	Sea Freight and Pineapple Exporters Association of Ghana
SPS	Sanitary and phytosanitary (also SPS Agreement of the WTO)
SSA	sub-Saharan Africa
TBT	technical barrier to trade
TDCA	Trade, Development and Co-operation Agreement (the EU and South Africa)
TIPCEE	Trade and Investment Programme for a Competitive Export Economy (Ghana)
UEPB	Uganda Export Promotion Board
UNBS	Uganda National Bureau of Standards
UNCTAD	United Nations Conference on Trade and Development
USAID	United States Agency for International Development
VEPEAG	Vegetable Producers and Exporters Association of Ghana
WTO	World Trade Organization
ZEGA	Zambian Export Growers Association

Acknowledgements

This monograph was edited by Ulrich Hoffmann (UNCTAD secretariat) and René Vossenaar (formerly with the UNCTAD secretariat), based on country case studies prepared by experts in Ghana, Kenya and Uganda; discussions at national and regional workshops conducted in sub-Saharan Africa and complementary research.

The editors wish to express special appreciation for the authors of the country case studies:

Ghana	Augustine Adongo, Federation of Associations of Ghanaian Exporters (FAGE)
Kenya	Ruth Nyagah, Managing Director of AfriCert Ltd.
Uganda	Moses K. Muwanga, Coordinator of the National Organic Agricultural Movement of Uganda (NOGAMU)

Special thanks also go to Praveen Bhalla for editorial assistance, and to Rafe Dent for desktop publishing the manuscript.

Comments on the draft monograph are also gratefully acknowledged. These were received from a number of experts, in particular:

Siobhan Casey	Until the end of 2007, Rural Infrastructure and Agro-industries Division, FAO
Linda Fulponi	Senior Economist, Directorate for Trade and Agriculture, OECD
Steven Jaffee	Senior Economist, World Bank
Johannes Kern	Observer for Africa in the GLOBALGAP sector committees
Stephen Mbithi	Chief Executive, Fresh Produce Exporters Association of Kenya
Dagmar Mithöfer	International Centre of Insect Physiology and Ecology (ICIPE)
Erwin Rose	UNCTAD
Jo Swinnen	Director, LICOS (Center for Transition Economics), Katholieke Universiteit Leuven, Belgium
Bill Vorley and James Macgregor	International Institute for Environment and Development, Sustainable Markets Group, United Kingdom

The authors would also like to thank the Government of the Netherlands, which has provided generous financial support to the UNCTAD Consultative Task Force (CTF) on Environmental Requirements and Market Access for Developing Countries, which facilitated the preparation of the country-case studies.

Executive Summary

Background

Export-oriented production of fresh fruit and vegetables (FFV) provides good opportunities for diversification of exports, poverty alleviation and rural development in several countries in sub-Saharan Africa (SSA). There have been a number of African success stories, such as Kenya's vegetable exports to the United Kingdom market that have led to rapid export growth and increasing participation of small-scale growers in production for exports. Over the past 10 years, FFV exports have also grown significantly in other SSA countries, such as Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Namibia, Senegal, Uganda, the United Republic of Tanzania and Zambia, although in some of these countries, such as Cameroon and Côte d'Ivoire, the participation of small-scale growers in production for exports has remained small.

FFV exports face increasingly stringent food safety and environmental requirements in international markets. This includes both mandatory food safety regulations and private voluntary standards (PVS), which set specific requirements for documented, audited and certified production methods including environmental and social conditions under which FFV are produced.

Standards can stimulate the development and expansion of exports, in particular of high-value-added, perishable agri-food products such as FFV. On the other hand, stringent standards can also pose an obstacle to trade for those that cannot comply. Even though PVS may induce some cost savings (for example of the use agro-chemicals) and higher yields, they may drive up costs of production and certification costs. These costs may be relatively high, especially for small-scale growers given their small volumes of production and low profit margins.

Compliance with standards and the wider use of good agricultural practices (GAP) can bring both commercial benefits (i.e. inducing producers to comply with standards can enhance competitiveness and give them access to higher-priced markets) and sustainable development benefits (e.g. the production of safe and healthy food, improved workers' health and safety, application of modern management methods, employment and reduced environmental impacts).

To fully harness these benefits, SSA governments, the private sector and donors need to promote proactive adjustment policies that will help developing-country producers to enhance their capacities to meet relevant standards – both public and private – in key markets. Targeted assistance should be provided to small and medium-sized producers and viable producer groups, to give them the capacity to participate in global value chains in a sustainable way. Increased employment of wage labour on agri-industrial estates may also contribute to pro-poor agricultural development. There may nevertheless be a need to explore alternative market outlets for small-scale growers that cannot be integrated into high-value supply chains.

This monograph focuses on the experiences of Ghana, Kenya and Uganda – three of the largest and most dynamic FFV producers in SSA. Although their FFV production is destined largely for the domestic market, all three countries have also witnessed strong growth of FFV exports mainly directed to markets of the European Union (EU). More than 90 per cent of the FFV exports (in value terms) of Ghana and Kenya go to EU markets.[1] The three countries have received significant donor support to facilitate adjustment to new market conditions. However, the context in which strategies on standards and national GAP programmes have been developed and implemented varies.

[1] All three counties export vegetables mainly to the United Kingdom market, especially fresh beans supplied mostly to supermarkets and Asian vegetables supplied mostly to ethnic markets.

The trade and development perspective

From a trade perspective, one concern is that increasingly stringent regulations and PVS may adversely affect SSA producers and exporters as they may face greater challenges than competitors in adjusting to new requirements (e.g. because of poorer infrastructure, weaker technical, financial and institutional capacities, as well as larger investment needs to upgrade farms). On the other hand, standards development and compliance may also help to enhance the competitiveness of the FFV sector.

The statistical analysis in Chapter II shows that EU imports of FFV from SSA as a group have continued to grow over the past 10 years, although the group's share in total EU imports from developing countries has fallen in recent years (mostly since 2003) as other developing regions have significantly increased their share. Nevertheless, EU imports of FFV from Ghana, Kenya and Uganda have been growing at a similar pace as imports of all developing countries as a group, whereas those from Ethiopia, Namibia and Senegal have grown at a much faster rate (although from a low base).

It is difficult, if not impossible, to isolate the effects of regulations and PVS from other external (e.g. tariff preferences) and domestic factors in the exporting country.[2] For example, SSA exporters are facing growing competition from other developing countries, (e.g. in South and Central America and North Africa), partly as a result of the introduction of new crop varieties and the erosion of tariff preferences. For instance, many competitors in the EU market for FFV have obtained their own preferences, often better than those of the Generalized System of Preferences (GSP) (e.g. through the GSP+ initiative). This may largely explain the recent decline in the share of SSA in total EU imports of FFV from developing countries.

In the case of large and traditional trade flows (e.g. Kenyan exports of fresh beans to the United Kingdom), producers and exporters in SSA seem to have coped well with more stringent public and private sector standards. In addition, Kenya has been relatively successful in moving into exports of processed products. However, this masks the fact that small-scale growers have been squeezed out of outgrower schemes as exporters apparently prefer to work with larger farmers, who can be more easily coordinated. Furthermore, in some countries with smaller trade flows and in smaller countries, problems in complying with PVS may result in export losses.

As the participation of small-scale growers in export production seems to be falling, some crucial questions arise from a development perspective, including whether and how small-scale growers could continue to benefit from export-oriented FFV production, and what will be the effects of changes in producer profiles and proactive adjustment policies for rural development? Trends in the characteristics of FFV trade associated with increasingly stringent regulations and PVS may cause important structural changes in FFV production and exports in many SSA countries. Exporters that target European retailers increasingly need to ensure that production practices are properly documented and comply with food safety, quality and logistical requirements, which is easier to implement by larger farmers or well-managed farmer groups. Other studies, however, point out that exporters continue to work to some extent with smallholders owing to the cost advantages they offer for labour-intensive vegetables and the desire to spread risk arising from weather extremes.

The marginalization of small producers has negative welfare effects, because they can no longer benefit from higher incomes from contract farming as well as access to inputs and credit. However, exporters may expand their on-farm production, leading to higher employment in agro-industrial estates.

Unlike in quite a number of Latin American and South East Asian developing countries, there is no, or only a very weak, link between food safety, health and environmental requirements of foreign supermarket clients and those in the domestic market. With the exception of South Africa, even large supermarkets in SSA source their FFV through traditional wholesale markets, only improving the

[2] Policy-related issues in the exporting country that can contribute to export success include a realistic exchange rate, stable economic policies, an attractive investment climate, competitive international transport connections, institutional and social links with markets in Europe, and continuous experimentation with market institutions that link farmers and exporters (Minot and Ngigi, 2004).

handling quality of produce when it falls under their control. Therefore, convergence between quality requirements in export and national markets in SSA remains a remote scenario.

EurepGAP certification

Compliance with PVS, including GAP standards for primary production, such as industry-wide standards (e.g. EurepGAP) and supermarket standards (e.g. Tesco Nature's Choice), is an increasingly important requirement for SSA producers and exporters targeting large supermarket chains. Compliance is less important for wholesalers, smaller supermarkets, street markets and ethnic/specialty outlets, although the importance of PVS is growing in those sectors too. Of the three countries focused on in this monograph, Kenya, a traditional supplier of the United Kingdom supermarket chains, is the most exposed to trends in FFV value chains. The Food and Agriculture Organization of the United Nations (FAO) estimates that 70 to 80 per cent of FFV exported from Kenya is certified under schemes such as Ethical Trade, Fair Trade, EurepGAP and Tesco Nature's Choice, or as organic products (FAO, 2006). Uganda, which largely exports to wholesale markets, probably has been the least exposed. Ghana's competitiveness has so far been based on supplying the lower end of the market, although the fresh fruit sector is seeking to supply higher value-added products. A large share of vegetables imported into the EU from Ghana and Uganda consists of Asian vegetables[3] sold in less demanding wholesale and ethnic markets that generally do not require PVS certification.

Larger exporters and well-functioning groups of small-scale growers have been able to achieve EurepGAP certification. By April 2007, Kenya had 606 certified producers (95 per cent under the group certification option) and Ghana 29 (mostly large pineapple producer/exporters that had obtained individual certification under Option 1). There were no certified FFV producers in Uganda.

Small-scale farmers in Kenya who had obtained EurepGAP certification were clearly reaping benefits such as higher yields and reduced input costs. GAP has reportedly also resulted in cost savings in Ghana (Henson and Jaffee, 2006). Such benefits are not specific to EurepGAP and may result from GAP implementation in general, even if no certification is obtained.

Nevertheless, certification remains an immense challenge for most producers in SSA. GAP implementation requires investments at both macro and farm levels. Moreover, recurrent costs (e.g. for laboratory analysis and certification) can be high compared to low profit margins of small-scale growers. The case studies point out that, although a number of EurepGAP requirements are already addressed in various existing government policies and laws, small-scale producers might find it difficult to meet some EurepGAP control point (CP) and compliance criteria (CC).

Adjustment strategies

A number of recent studies argue that compliance with stringent PVS, including EurepGAP, generally is not economically feasible for small-scale growers without substantial external support. Public and private sector support may help to establish and consolidate stable and efficient producer groups. But to enable the cost-effective and sustainable involvement of small-scale growers in export production, measures are needed to reduce compliance costs. This monograph analyses some examples of specific measures for reducing such costs.

The growing role of medium and large companies in FFV production and exports (as already observed in several SSA countries) may be the most effective avenue for facing increased competition from FFV producers in other developing countries. It would then be necessary to mitigate possible adverse effects on small-scale growers by exploring alternative markets.

Kenya's experience shows that strategic and proactive approaches play a major role in achieving compliance. It also shows that smallholder compliance with EurepGAP is feasible, but requires substantial financial support and technical assistance from the donor community or governments. This may raise some doubts as to whether Kenya's example could be replicated in other SSA countries

[3] There has also been a very significant increase in yams (not included in the definition of FFV employed in this monograph) imported from Ghana.

that are less important in European markets and therefore may not be able to attract sufficient external financial and technical support.

FFV exporters in SSA will continue to face growing competition from other developing countries as a result of the global sourcing strategy of the main supermarkets. Such a strategy may favour a limited number of strategically placed and supply-flexible developing countries, many of which may also have a more competitive logistical infrastructure. Faced with these challenges, it becomes more important than ever for SSA countries to strategically position themselves, focus on products, including niche ones in which they have a comparative advantage, and improve their physical and quality management infrastructure and institutions. A clear and realistic concept and strategy on national GAP programmes should be part and parcel of such an approach.

National GAP schemes

In SSA, national GAP initiatives have emerged largely because of their perceived potential to contribute to export development and help respond to emerging commercial and private-sector standards. Working groups and national task forces for horticulture development have given impetus to such initiatives in several SSA countries. Multi-stakeholder discussions have also identified many other social and development benefits of GAP, even in the absence of certification.

Technically, GAP is a means of incorporating integrated pest management (IPM) and integrated crop management (ICM) practices in commercial agricultural production. Among other things, GAP is essential for demonstrating commitment to maintaining consumer confidence in food quality and safety, minimizing detrimental impacts on the environment while conserving nature and wildlife, reducing the use of agrochemicals, improving the efficiency of natural resource use, and ensuring a responsible attitude towards workers' health and safety.

The development of a national GAP scheme should be based on a realistic assessment of market opportunities (global supply chains, regional and domestic markets, niche markets) and the existing and potential strength of key segments of the FFV sector. It is also necessary to clarify the concept and objectives of such a scheme as well the respective roles of the government and private-sector stakeholders in promoting GAP implementation, supporting investments in improved physical and quality assurance infrastructure at the macro and farm levels, and ensuring the provision of extension services and flanking measures such as technical cooperation, training and support for farmers in making the adjustments necessary for GAP implementation.

Kenya has successfully benchmarked two national GAP schemes to EurepGAP: the Kenya Flower Council (KFC) standard for flowers and the KenyaGAP standard for fruit and vegetables, developed by the Fresh Produce Exporters Association of Kenya (FPEAK). In Ghana, a roadmap has been proposed for the development and implementation of a GhanaGAP. The National Horticulture Task Force in Ghana is currently discussing a number of options for the development of a national GAP: (i) a GAP that is essentially an interpretation of the market-driven GAP requirements in the EU market; (ii) a comprehensive national GAP with its own national code of practice and benchmarked against EurepGAP (now GLOBALGAP); or (iii) a GAP that focuses on the national market while simultaneously offering opportunities to larger exporters to certify against standards that are recognized as equivalent to EurepGAP. In Uganda, progress has recently been made in moving towards the design and implementation of a national GAP scheme. Uganda's experiences in the flower sector and with organic agriculture can play an important role in addressing these challenges.

International discussions on private standards

Since June 2005, private voluntary standards have been discussed in the WTO Sanitary and Phytosanitary (SPS) Committee. Such standards are more stringent than official food safety regulations (e.g. requiring lower levels of pesticide residues) for imports, and more prescriptive (accepting only one way of achieving a desired food safety outcome).

While some are of the view that governments should not interfere with PVS, others argue that governments bear some responsibility in ensuring that standards set by the private sector in their

jurisdictions do not unnecessarily restrict trade. In this regard, it is argued that clarification is required on whether PVS (i) are (sufficiently) risk-based; (ii) contain requirements that are proportional (and related) to the risk; (iii) are transparently developed, set and implemented; and (iv) allow real equivalence, rather than de facto requiring "sameness" (Mbithi, 2008).

It should also be borne in mind that private standards can act as chain governance instruments that may lead to significant dependence and cost-shifting, often to the detriment of producers/exporters in developing countries. Private standards may also lead to anti-competitive practices that maintain or reinforce existing oligopolistic situations.

This monograph shows that, in practice, SSA governments, donors and other stakeholders seem to adopt a common approach to compliance with public regulations (such as SPS requirements), commercial food safety and quality standards and PVS. Usually, the same institutions, task forces and/or donor projects seem to simultaneously address various issues of standards in export markets, whether they are regulatory requirements or private standards. This is a good thing, because it will allow a coherent and holistic national adjustment approach to the entirety of SPS and sustainability requirements.

Policy implications

Developing-country governments, the private sector and donors can play an important role in strengthening capacities to meet public and private standards and achieve sustainability benefits. Governments could promote awareness of the benefits of GAPs and promote their wider use, improve the necessary infrastructure (e.g. cold storage facilities, transport), develop an enabling legal/regulatory framework to facilitate compliance with GAP control points and compliance criteria, provide and strengthen extension services and support private-sector activities (e.g. in the area of training).

When contextualizing national GAP development, it is important not to limit it to the commercial, microeconomic context of enabling producers to comply with downstream market standards. Rather, national GAPs should address both the commercial aspects and the non-commercial sustainability aspects, including benefits for workers' health, the environment, national food safety and national economic development. This is the rationale for using public (and development assistance) resources to support national GAP implementation. Trade-related capacity building programmes should pay adequate attention to the role of PVS and their interplay with government regulations as well as supporting stakeholder dialogues and market studies for the development of national (or regional) GAP schemes that respond adequately to the needs of SSA countries.

The private sector itself (supported by the Pesticide Initiative Programme (PIP) and other donor projects) has a key role to play in enhancing its capacities to comply with government regulations and private-sector standards, for example by promoting good management practices, systems and procedures to enable traceability and codes of practice.

Despite the declining number of small-scale farmers involved in contract farming, targeted efforts are needed to continue providing sustainable support to small and medium-sized farmers and viable farmer groups who have, or can develop, the capacity to participate in global value chains. Governments should seek to enhance the benefits from contract farming and minimize the risks involved, for example by establishing and enforcing legislation, supporting well-functioning groups of smallholders and self-help groups as well as using various tools to reduce EurepGAP compliance costs. As employment on estates may increase, a strategy focused on improving conditions for wage-earning employees might also be effective in reducing rural poverty (Humphrey, 2006a and 2006b).

However, even targeted support to viable producer groups engaged in contract farming and increased employment on agri-industrial estates may still be insufficient to provide benefits to rural families previously participating in global value chains. Therefore, alternative markets for small-scale farmers could be explored, such as local and regional markets, niche markets and/or less demanding export

markets (Humphrey, 2006b).[4] Some FFV varieties may fetch relatively higher prices in domestic markets. Regional markets may also provide an interesting option for certain small-scale growers, in particular where problems concerning logistics (e.g. road transport, cold chains) can be overcome. Existing subregional trade groups and economic partnership agreements could help in this regard. Organic production and fair trade may be attractive approaches for securing greater returns for smallholders and creating a more sustainable basis for their participation in high-value markets. However, such niche markets alone cannot absorb larger volumes, similar to those offered by conventional markets, for higher value products (NRI, 2007).

Yet, these strategies do not represent all-or-nothing choices for pro-poor rural development policies in the context of emerging standards. A suitable combination of strategies in needed, and this in turn requires further policy analysis.

GLOBALGAP benchmarking and standard setting

The benchmarking of GAP schemes (either national or regional) to EurepGAP follows specific phases (described in detail in UNCTAD, 2007b), but concern has been expressed that benchmarking may be too strictly implemented by EurepGAP, leaving little room for equivalence of risk outcomes, as enshrined in the SPS Agreement.

In September 2007, EurepGAP changed its name to GLOBALGAP on the basis that its proclaimed role in harmonizing GAP standards has gone beyond Europe. This development implies the need for more active participation in and contributions of developing countries to future GLOBALGAP revisions, in particular as regards work in the sectoral committees. The GLOBALGAP secretariat could facilitate this; indeed, the recent appointment of an Observer for Africa in the GLOBALGAP sectoral committees and the decision to form a smallholder task force to elaborate concrete proposals for smallholder-friendly changes in the GLOBALGAP standard (control points) as well as in the General Regulations (certification procedures) are steps in the right direction.

Further work

Further analytical and empirical work, for example on market trends and trading opportunities for SSA countries, would help define appropriate GAP strategies, taking into account global supply chains, regional and domestic markets and niche markets. There is also a need to examine options to facilitate cost-effective compliance with and certification of small-scale growers under PVS, the involvement of small-scale growers in FFV production and EurepGAP certification schemes, and conceptual issues for shaping and developing national GAP programmes, in particular based on multi-stakeholder forums and public-private partnerships.

More case studies are needed to enhance understanding of the possible implications of PVS on market access for FFV exports of SSA and small-scale grower participation in value chains. The results of such studies can provide useful inputs to ongoing discussions on PVS in UNCTAD and the WTO.

UNCTAD's Consultative Task Force on Environmental Requirements and Market Access for Developing Countries, in close cooperation with FAO and the GLOBALGAP secretariat (as appropriate), plans to continue to help clarify the concepts and objectives of national GAP approaches by facilitating national stakeholder dialogues and an exchange of experiences among developing countries (e.g. at the regional level).

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[4] According to the World Bank (2007), "In some cases, there may be larger and more profitable opportunities to serve the domestic market, a regional market, or industrial-country segments that impose less stringent standards or allow more time to implement them."

I. INTRODUCTION

Background

Horticulture has at times been referred to as an "African success story" (Minot and Ngigi, 2004). Exports of fresh fruit and vegetables (FFV), in particular, have seen high growth rates, better prices for several categories compared with Africa's traditional agricultural exports,[5] and, in some countries, considerable participation of small-scale growers in production for export. The rapid growth of Kenya's FFV exports to European markets since the 1970s, particularly vegetables shipped to the United Kingdom, has attracted considerable attention. FFV exports have also grown significantly in several other countries in sub-Saharan Africa (SSA), such as Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Namibia, Senegal, South Africa, Uganda, the United Republic of Tanzania and Zambia (in some of these countries, e.g. Cameroon and Côte d'Ivoire, export production has been driven by large producers). The share of FFV in total agricultural exports from SSA has been growing steadily, from 12.5 per cent in 1996 to 17.2 per cent in 2006 (Table 1).

The EU is the leading market for FFV from the SSA countries, absorbing approximately 70 per cent (in value terms) of their total FFV exports. In recent years, South Africa, which has the most diversified exports among the major FFV exporters in SSA, shipped around 55 per cent of its FFV exports, in value terms, to the EU. For several other FFV exporters in SSA, in particular Cameroon, Côte d'Ivoire, Ghana, Kenya, Madagascar and Senegal, the EU market represents over 90 per cent of their total FFV exports (Table 1).

The value of SSA exports of FFV more than doubled in current dollars between 1996 and 2006. High export growth allowed several SSA countries to increase their share in EU imports of FFV. In 2003, about 17 per cent of extra-EU-15 imports of FFV (in value terms) originated in SSA, compared with about 13 per cent in 1996, though there was a decline to 14.8 per cent in 2006 (Table 3). EU-15 imports of FFV have grown much faster than most other agricultural products imported from SSA. As a result, the share of FFV in EU-15 imports of agricultural products from SSA increased from 14.8 per cent in 1996 to 22.8 per cent in 2006.[6]

However, certain developments may affect the ability of SSA producers, particularly small-scale growers, to further increase – or at least maintain – their participation in FFV value chains. Firstly, SSA producers and exporters targeting the EU market face growing competition from other developing countries, particularly those in South and Central America and North Africa, due partly to the erosion of tariff preferences and the development of new crop varieties. Secondly, SSA exporters are required to conform to increasingly stringent regulations and, in many cases, private-sector standards (SSA producers may face greater challenges in meeting emerging requirements than competitors in other developing countries, e.g. on account of poorer physical and quality-management infrastructure, weaker technical and financial capacities, as well as larger investment needs to upgrade farms). Rather than relying on spot markets to obtain exportable FFV, these exporters increasingly need to develop strong and stable ties with suppliers/producers and/or increase their own production to ensure that production practices are properly documented and comply with the complex requirements of powerful retailers in international markets.

This has several implications. First, small-scale growers may be squeezed out of FFV value chains because exporters prefer to work with larger farmers who can be coordinated more easily. Dolan and Humphrey (2000) observed that, by the end of the 1990s, the demands for investment and technical capability led to the exclusion of many small exporters who were unable to meet supermarket requirements – an exclusion that was clearly evident in all the major African FFV exporting countries, particularly Kenya. Based on a survey of major vegetable exporters and some medium and small-scale export companies in Kenya, Graffham, Karehu and Macgregor (2006) found that, following the introduction in September 2003 of the standard for Fruit and Vegetables of the European Retailers

[5] According to a recent report of the Food and Agriculture Organization of the United Nations (FAO, 2004), unlike values of traditional agricultural exports, the unit values of non-traditional fruit and vegetables have held up fairly well over the past 10 years.

[6] Over the same period, the share of FFV in the EU-15's agricultural imports from SSA, excluding South Africa, increased from 9 per cent to 13.7 per cent.

Protocol for Good Agricultural Practice (EurepGAP)[7], as of mid-2006, 60 per cent of smallholders supplying these companies had been dropped by their export company or had withdrawn from compliance schemes[8] as a direct result of their inability to either obtain or retain compliance with EurepGAP.[9] Second, private-sector standards may contribute to a shift away from procurement from independent producers through contract farming towards increased agro-industrial production in estates. Whereas this may further reduce the gains that small-scale growers obtain from production for export, increased opportunities for wage employment may partially offset these losses (Maertens et al., 2007).

In addition to the changes in production and value-chain management required to supply FFV to large retailers in export markets, growers in certain developing countries may also increasingly need to respond to more stringent requirements if they supply large local supermarkets. Even though traditional markets still dominate, particularly in Africa which has a lower population density, lower incomes and a larger informal sector than Latin America and East Asia, supermarket standards and procurement policies may have greater implications for small-scale growers in some SSA countries (Vorley, Fearne and Ray, 2007).

Apart from the quality assurance and product compatibility function, private standards also act as chain-governance instruments that may lead to significant dependence and cost shifting, often to the disadvantage of producers/exporters in developing countries. Global supply chains increasingly replace spot market deals and thus are reshaping the organization of production and trade relations. Private standards may also cause anti-competitive practices that maintain or reinforce existing oligopolistic situations.

Standards, including private voluntary standards (PVS), can nevertheless play an important and positive role in the development and expansion of world trade. Compliance with standards enables the effective management of risks associated with the spread of plant and animal pests and disease, and the incidence of microbial pathogens or contaminants in food, especially in high-value-added perishable agri-food products such FFV. Standards can also provide incentives for modernizing developing-country supply chains and bring benefits to different supply chain participants, including small-scale growers. By certifying the quality of their products through standards schemes, developing countries' farmers can add value to their products, differentiate them and climb up the value chain.

Apart from easing market access, national GAP schemes and PVS can play an important catalytic developmental role. According to Henson and Jaffee (2006: 618) a major implication of adopting the standards as catalysts for development is the need to view compliance as a strategic issue, so that the opportunities and challenges are managed to competitive advantage, or at least minimum competitive disadvantage. The positive role of standards development and compliance in enhancing competitiveness of the FFV sector is stressed in Nyagah's study on Kenya (Chapter V below). Standards are also expected to play a catalytic role in Ghana's efforts to shift the focus of export competitiveness of its fresh fruit sector by targeting markets away from the low end of the European markets to supermarket chains (as described in Chapter IV below).

As highlighted in this monograph and in the World Bank's *World Development Report 2008*, greater attention to good practices in agriculture and food processing may not only improve export competitiveness, but also generate spillover benefits to domestic consumers. Yet, developing-country suppliers rarely face all-or-nothing choices when determining the changes and investments to conform to emerging standards. In some cases, there may be larger and more profitable opportunities for

[7] EurepGAP recently changed its name and logo to GLOBALGAP, arguing that its proclaimed role in promoting the harmonization of GAP schemes had moved beyond Europe. The name change was announced at the 8th EurepGAP Conference, the EurepGAP Asia Conference, held in Bangkok on 6 and 7 September 2007. Since the country case studies were completed before that date, the name EurepGAP is used throughout this monograph.

[8] It is important to also stress that this study quantified those small farmers who dropped out, but did not quantify new entrants. Thus the actual marginalization of small-scale producers from exports may have been overestimated

[9] Graffham Karehu and Macgregor (2006) warn that this figure should not be taken to mean total exclusion: "All of these growers remain in farming selling to local markets and many continue to sell to exporters selling to less stringent markets. A small number have been absorbed into groups managed by other export companies and are still trying to achieve EurepGAP compliance. A more detailed investigation of this area would be most useful."

serving the domestic market, a regional market, or developed-country segments that impose less stringent standards or allow more time to implement them (World Bank, 2007).

This monograph analyses the possible implications in SSA, in particular in Ghana, Kenya and Uganda, of recent developments that may affect FFV producers and exporters, especially to the EU. It also analyses national experiences in these three countries in exploring and implementing proactive adjustment strategies to: (i) cope with new market requirements to maintain, and, where possible, increase market shares; and (ii) help small-scale growers to participate in value chains and/or alternative markets. The analysis focuses on the possible effects of private-sector standards,[10] particularly the EurepGAP Fruit and Vegetables standard, on FFV exports, and options for the development of national schemes for good agricultural practices (GAP) in SSA.

Compliance with food safety standards and implementation of GAP schemes that reflect national development priorities and conditions can bring benefits to developing countries by enhancing production efficiency and promoting the production of safe and healthy foods, improving workers' health and safety, and reducing environmental impacts. It has also been argued that GAP programmes can assist farmers and exporters in developing countries in meeting the regulatory requirements of export markets by establishing specific criteria for compliance and by enhancing their competitiveness. Yet, for the development and implementation of a national GAP scheme it is vital to have a clear objective and strategy, taking into account the particular circumstances of and capacities available in each country (FAO and UNCTAD, 2007).

The UNCTAD secretariat has been implementing the project, *Reflecting National Circumstances and Development Priorities in National Codes on Good Agricultural Practices that can be Benchmarked to EurepGAP*, with a view to assisting developing countries in examining the challenges and opportunities arising from the EurepGAP standard and weighing the pros and cons of possible benchmarking of national GAP programmes. This project, which is being implemented under the umbrella of UNCTAD's Consultative Task Force on Environmental Requirements and Market Access for Developing Countries (CTF), focuses on the FFV sector. This sector has been selected because it offers many opportunities for economic and social development gains, while at the same time presenting enormous challenges due to increasingly stringent government regulations and PVS, which affect small-scale farmers in particular. Special attention is given to the EurepGAP standard because of the very large share of the EU market in total FFV exports of developing countries and because it offers an interesting example of the increasingly important role of private-sector standards. The project, in close cooperation with FAO, also analyses certain conceptual and strategic issues involved in the development of national GAP schemes.

Case studies were carried out in nine developing countries in three regions: sub-Saharan Africa (Ghana, Kenya and Uganda), South and Central America (Argentina, Brazil and Costa Rica), and South East Asia (Malaysia, Thailand and Viet Nam). The authors of the SSA case studies are:

Ghana	Augustine Adongo, Federation of Associations of Ghanaian Exporters (FAGE);.
Kenya	Ruth Nyagah, Managing Director of AfriCert Ltd., and
Uganda	Moses K. Muwanga, Coordinator of the National Organic Agricultural Movement of Uganda (NOGAMU).

These studies address a number of common topics from a trade and development perspective, paying special attention to the needs of small producers. The major issues include:

- The implications of PVS, such as the EurepGAP Fruit and Vegetables standard and other

[10] This monograph largely focuses on the trade and development implications of GAP standards, particularly the EurepGAP protocol. GAP standards are applied to FFV production, handling and all processes up to the point where the produce leaves the farm. Handling, packaging and distribution of FFV after the farm gate are governed by other private standards such as good manufacturing practices (GMP), hazard analysis and critical control points (HACCP) and the protocol developed by the British Retail Consortium (BRC) entitled the BRC Global Standards.

GAP programmes, for key stakeholders (producers, exporters, governments)[11];
- Options for taking national conditions and priorities into account in the development of national GAP programmes, whether or not they are benchmarked to EurepGAP;
- Pros and cons of different options for EurepGAP certification (such as direct certification of individual producers, group certification and benchmarking of national GAP schemes) and the development of national interpretation guidelines; and
- Options for the development of national GAP schemes.

The first drafts of these studies were prepared by local experts, based on information collected through interviews with officials from government agencies and actors in the value chain in each country, conducted mostly in late 2005 and early 2006. These draft studies were discussed at national and regional workshops held in 2006 and, more recently, in a regional workshop co-organized with FAO and the National Task Force on Horticulture in Kenya (Nairobi, 6-9 March 2007).[12] The information and analysis contained in the original studies has been updated in chapters IV–VI, incorporating comments from national and international experts.

The three countries examined here share a number of common aspects: all three have witnessed strong growth in FFV exports, largely from small-scale production, and have received significant donor support to facilitate adjustment to new market conditions. But there are also large differences that need to be taken into account in their implementation of proactive adjustment policies and in the development of national GAP schemes.

Ghana

Between 1997 and 2004, the volume of Ghana's exports of FFV more than doubled (Danielou and Ravry, 2005), whereas the value of EU imports of FFV from Ghana (in current dollars) increased threefold (Table 3). During this period, Ghana's FFV sector, including pineapples, targeted the low-cost segment of the European market, successfully linking small-scale production systems with this market. However, increased competition due to the introduction of new varieties (in particular the new pineapple variety MD2) in international markets forced the sector to reassess its production and marketing strategies. Large production volumes are needed for the cost-effective introduction of new crop varieties. In addition, the fresh produce industry, which has so far focused on independent buyers and wholesalers, is now trying to develop the capacity to link up with European supermarkets. Whereas shifting the basis for the overall competitiveness of the Ghanaian fruit and vegetables sector by producing for a higher-level segment of the EU market may contribute to maintaining high export growth, the challenges for small-scale growers are a matter of concern (Danielou and Ravry, 2005).

Kenya

The country has been a well-documented example of successful involvement of small-scale growers in vegetable production for export. However, changes in the characteristics of FFV trade as a result of the increasing influence of supermarkets and the introduction of private process standards such as EurepGAP risk excluding small-scale growers from value chains. Kenya has an active private sector that has responded to new market requirements, including consumer concerns, by developing its own standards. The Fresh Produce Exporters Association of Kenya (FPEAK) developed KenyaGAP for fruit, vegetables and flowers – a GAP standard that has been successfully benchmarked to EurepGAP and takes into consideration farming techniques employed by small-scale growers.

[11] GAP standards such as EurepGAP are the most important at production level. However buyers of produce from small-scale farmer will also need to meet other private standards such as those based on HACCP (e.g. BRC). To get a complete picture, it would therefore have been useful to look at the whole spectrum of private SPS standards (i.e. GAP and sanitary requirements, because many aspects of what markets require are not GAP, but covered under sanitary requirements), but this is beyond this publication.

[12] Regional Workshop on Good Agriculture Practices in East and Southern Africa: Practices and Policies, co-organized by FAO, UNCTAD and the National Task Force on Horticulture in Kenya, Nairobi, 6-9 March 2007. All documents and presentations of the meeting are accessible at: http://www.unctad.org/trade_env/meeting.asp?MeetingID=217.

Uganda

The value of EU imports of FFV from Uganda increased more than fivefold (although from a very low base): from $1.5 million in 1996 to over $8 million in 2005-2006. Small-scale growers, who work as outgrowers for export companies, account for the major share of production for export. FFV exports to Europe go mainly to wholesale markets and small supermarkets, as well as to ethnic markets. Therefore, PVS such as EurepGAP have had a relatively small impact. However, with the rapid growth of Uganda's FFV exports to the EU, such standards may become increasingly important. One of the main challenges in Uganda is to organize small-scale growers and strengthen their links with specific exporters. Developing national GAP initiatives is another challenge. Nonetheless, Uganda's rather successful experience in promoting organic agriculture (largely for coffee, but also for certain tropical fruit and vegetables) shows that it is capable of meeting these challenges.

From the various case studies, it is clear that there is no "one-size-fits-all" solution for addressing the challenges of private-sector standards and developing and implementing national GAP schemes. Rather, these studies and the discussions at the regional meeting of FAO and UNCTAD in Nairobi in March 2007 suggest that SSA countries may need different adjustment approaches and GAP strategies. The exchange of national experiences may contribute some insights into the overall role of policy and identify possible impacts and trade-offs. The country case studies in this publication and other CTF activities may also provide inputs to further stakeholder dialogues aimed at analysing broad policy alternatives and possible priorities.

Organization of this study

Chapter II provides a statistical analysis of recent trends in SSA exports of FFV and the share of SSA in EU imports of FFV. Chapter III reviews studies on the implications of recent trends in public-sector regulations, and particularly private voluntary standards (PVS), for FFV exports from SSA. It focuses on the implications of the EurepGAP Fruit and Vegetables standard for SSA exports of FFV directed to the EU market and for the participation of smallholders in value chains. It also briefly analyses the potential implications of local supermarket procurement policies and quality standards for small-scale growers. More detailed analyses of the national experiences of Ghana, Kenya and Uganda in adjusting to private-sector requirements in international markets and in developing national GAP initiatives, based on country case studies prepared by national experts, are presented in Chapters IV to VI. Chapter VII provides an overview of the situations in Ethiopia and Zambia. Chapter VIII presents a synthesis of policy issues emerging from the CTF activities, in particular with regard to proactive adjustment policies and national/regional GAP initiatives, and builds on the studies reviewed in Chapter III. The annex very briefly analyses relevant developments in countries in sub-Saharan Africa other than those that are examined in this monograph. The statistical annex provides additional data of relevance to the analyses.

II. EXPORTS OF FRESH FRUIT AND VEGETABLES (FFV) FROM SUB-SAHARAN AFRICA (SSA)

This section presents some basic information on the product composition and regional direction of SSA exports of FFV. It also examines some recent trends (1996-2006) in the FFV trade of SSA countries to shed some light on the following questions:

- To what extent have SSA countries' exports of FFV grown, in particular to the EU market?
- How does the growth of FFV exports from these countries compare with that of their total agricultural exports?
- How has the share of SSA in total EU imports of FFV evolved as compared with that of other developing regions, in particular North Africa and South and Central America (SSA's major competitors in the EU market)?

For this purpose, the "FFV sector" refers to the Harmonized System (HS) Chapter 7 (vegetables) excluding manioc and other roots and tubers, and Chapter 8 (fruit and nuts) excluding nuts. These two HS chapters roughly contain the same products as the indicative product crop list annexed to the EurepGAP Fruit and Vegetables standard (which also includes certain herbs).[13] In addition, some information is presented on exports of processed fruit and vegetables (HS Chapter 20). The statistics shown are based on information contained in COMTRADE. Information presented on EU imports in volume terms has been obtained using the European Commission's online Export Helpdesk for developing countries.[14]

This chapter starts with an analysis of SSA exports of FFV based on statistics available from COMTRADE. Since SSA exports are directed primarily to the EU market, it then examines trends in EU imports from SSA in value terms (in US dollars, based on COMTRADE), and in both value (in euros) and volume terms (based on information provided by the European Commission's Export Helpdesk). The final section summarizes some key conclusions from the statistical analysis of EU imports from SSA.

Composition and direction of FFV exports from SSA

Around 2006, based on the most recent trade statistics reported by each SSA country to COMTRADE, it is estimated that total SSA exports of FFV amounted to some $2 billion (Table 1). South Africa, with FFV exports worth almost $1.2 billion, accounted for almost two thirds of the region's FFV exports in value terms. Côte d'Ivoire ($195.2 million in 2006) and Kenya ($178.2 million in 2004, estimated at $215 million for 2006 by extrapolating the 2004 figure based on growth in trading partners' imports of FFV from Kenya between 2004 and 2006) are also important exporters, followed by Cameroon, Ethiopia, Ghana, Madagascar, Namibia, Senegal, the United Republic of Tanzania, Zambia and Zimbabwe (each of which exported FFV exceeding $25 million).

Fruit exports amounted to some $1.6 billion (81 per cent of all FFV exports), with South Africa accounting for almost 70 per cent of the region's exports in value terms. The main exports include off-season fruit (e.g. grapes, citrus fruit, apples and pears), major tropical fruit (e.g. bananas, pineapples, avocados, mangoes and papayas), and "other" or "minor" fruit, such as passion fruit. Vegetable exports amounted to some $411 million, with Kenya contributing around 39.2 per cent of the region's exports (in practice, Kenya's share is well above 40 per cent because the most recent figures available for Kenya are for 2004 whereas for most other key SSA exporters figures for 2006 are used). The most important FFV exports are beans, peas, "other" vegetables (such as baby corn), mixed vegetables and onions (see Annex Table A.4 for the main FFV exported by each country).

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[13] Information on trade in nuts is shown separately because nuts are often excluded from the FFV sector and because the direction of exports tends to be significantly different from that of other products in HS chapter 8 (for example in the case of Ghana). Unless mentioned otherwise, the definition of FFV also excludes manioc and other roots and tubers (covered by HS 0714) because trade in them is very erratic and HS statistics do not distinguish between products for human consumption and those for animal feed.

[14] Unlike the HS classification, the 8-digit classification of the EU has separate items for cassava and other roots and tubers for human consumption as distinct from animal feeding. Products for animal feeding have been excluded from the statistics derived from the Export Helpdesk.

Table 1. Principal SSA exporters of FFV: value of FFV exports, share of FFV exports destined to the EU and share of FFV in total agricultural exports

	Year	FFV exports of SSA ($ million)			Share of fruit and vegetables in total agricultural exports (%)		FFV exports to EU-27 ($ million)	FFV exports to the EU-27 as a share of total FFV exports (%)
		Total	Vegetables	Fruit	FFV	FFV, nuts, yams, processed fruit and vegetables		
SSA*		2 058.5	410.9	1 647.6	11.7	16.3	1 310.1	63.7
South Africa	2006	1 174.4	44.4	1 130.0	29.3	38.8	642.1	54.7
Côte d'Ivoire	2006	195.2	0.1	195.1	6.8	10.3	184.8	94.6
Kenya	2004	178.2	161.1	17.1	13.2	21.4	164.9	92.6
Ghana	2006	137.8	3.3	134.6	9.1	10.6	132.2	95.9
Cameroon	2006	67.4	1.3	66.1	15.6	16.4	66.4	98.4
Ethiopia	2006	58.0	56.0	2.0	6.7	7.2	12.1	20.8
Namibia	2006	38.3	7.2	31.1	4.4	4.6	20.2	52.7
Zimbabwe	2005	38.2	2.8	35.3	9.5	10.2	2.5	6.6
Zambia	2006	27.6	27.6	0.0	10.7	10.8	24.1	87.2
Tanzania, United Rep. of	2006	26.9	26.2	0.7	4.4	12.8	5.1	18.8
Madagascar	2006	25.4	12.6	12.8	7.6	8.0	23.1	90.9
Niger	2005	23.7	23.6	0.1	33.5	33.9	0.0	0.0
Senegal	2006	20.9	16.0	4.9	7.0	7.4	20.1	96.4
Uganda	2006	12.8	11.5	1.3	2.3	2.4	4.1	31.6
Swaziland	2005	9.9	2.6	7.3	3.4	10.7	1.0	9.6
Malawi	2006	5.8	5.8	0.0	1.0	2.4	0.3	4.8
Mozambique	2006	4.3	2.3	2.0	1.1	12.0	0.3	5.9
Burkina Faso	2004	3.7	2.8	1.0	5.7	16.4	0.7	19.0

Source: COMTRADE

*Also includes: Benin, Botswana, Burundi, Cape Verde, Central African Republic, Eritrea, the Gambia, Gabon, Guinea, Mali, Mauritania, Mauritius, Nigeria, Rwanda, São Tome, Seychelles, Sudan and Togo.

No information was available on exports from Angola, Chad, Comoros, Congo, the Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Guinea Bissau, Lesotho, Liberia and Sierra Leone.

In several SSA countries, the FFV sector contributes significantly to total exports of agricultural products. For example, FFV exports accounted for 29.3 per cent of South Africa's agricultural exports in 2006. If processed fruit and vegetables as well as nuts were to be included, the fruit and vegetable sector's contribution to South Africa's total agricultural exports amounted to 38.8 per cent. For all SSA countries as a group, FFV represented 11.7 per cent of all agricultural exports (or 16.3 per cent if nuts, yams and processed fruit and vegetables are included).

Most SSA exports of FFV were directed to the EU: $1.3 billion or 64.3 per cent of SSA's total FFV exports. For some countries (Cameroon, Côte d'Ivoire, Ghana, Kenya, Madagascar, Senegal and Zambia) the EU market represents between 80 and 98 per cent of total FFV exports. South Africa's FFV exports are more diversified geographically than those of other SSA countries, but in 2006 that country exported 54.7 per cent of its FFV (in value terms) to the EU market. For some countries, such as Ethiopia, Niger and Swaziland, on the other hand, regional trade is more important. Niger, which exports almost exclusively to regional markets, is an extreme example. However, it should be noted that trade statistics may significantly underestimate regional trade flows.

Recent trends in FFV exports from sub-Saharan Africa

A systematic analysis of trends in SSA countries' FFV exports is not possible since only a few of them have reported export statistics to COMTRADE that cover sufficiently long periods. Therefore, this section analyses trends in FFV exports from SSA based on import statistics of trading partners. Table 2 covers imports of all countries that have reported import statistics to COMTRADE. Here too, there is a problem of missing information, but this is not expected to be a severe limitation, as time series for the EU and other major markets are complete. Tables 3 and 4 are based exclusively on EU imports (excluding intra-EU-15 imports). Additional information is provided in Annex Table A.5.

World FFV imports from SSA more than doubled in value terms between 1996 and 2006 (Table 2). The United Republic of Tanzania, Uganda, Ghana, Senegal, Kenya, Cameroon, Zambia and South Africa (in descending order) showed the highest export growth among the major FFV exporters in SSA between 1996-1998 and 2004-2006, in some cases increasing from a very low base. Exports from Namibia experienced an extraordinary rise from 2000 onwards. Among the smaller FFV exporters, Mozambique and Togo also showed rapid growth rates, but those for Madagascar, Zimbabwe and Côte d'Ivoire were below average for SSA as a group.

During the period 1996-2006, the share of SSA in world FFV imports (by value) from all developing countries remained stable, at between 9 and 10.8 per cent (Table 2). This share has been falling since 2003 for both fruit and vegetables, but to a lesser extent for South Africa.

Table 2. World imports of FFV from sub-Saharan Africa, 1996–2006

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Value of FFV imports from SSA ($ million)											
FFV	1 643.3	1 800.4	1 926.0	2 243.6	2 043.5	2 318.0	2 450.2	3 083.7	3438.5	3478.8	3581.3
Fruit	1 410.7	1 567.0	1 682.7	1 973.1	1 746.4	2 006.3	2 058.6	2 644.2	2950.7	2973.1	3019.4
Vegetables	232.6	233.4	243.3	270.5	297.0	311.7	391.6	439.5	487.8	505.8	561.9
Value of FFV imports from SSA, excluding South Africa ($ million)											
FFV	747.8	766.8	734.2	877.7	917.5	966.8	965.3	1 252.2	1384.0	1332.6	1429.6
Fruit	541.7	562.2	525.8	636.1	679.8	712.6	671.6	919.4	1010.7	922.3	957.5
Vegetables	206.2	204.6	208.5	241.6	237.7	254.2	293.7	332.8	332.9	410.3	472.0
FFV imports from SSA as a share of total FFV imports from all developing countries (%)											
FFV	9.4	9.2	9.6	10.3	9.5	10.1	10.0	10.8	10.5	9.5	9.0
Fruit	11.7	11.7	12.4	13.1	12.0	13.1	12.4	13.5	13.3	11.9	11.2
Vegetables	4.3	3.8	3.7	4.0	4.3	4.0	4.9	4.9	4.5	4.2	4.1
FFV imports from SSA, excl. South Africa, as a share total FFV imports from all developing countries (%)											
FFV	4.3	3.9	3.6	4.0	4.3	4.2	3.9	4.4	4.3	3.7	3.6
Fruit	4.5	4.2	3.9	4.2	4.7	4.7	4.1	4.7	4.6	3.7	3.6
Vegetables	3.8	3.3	3.2	3.6	3.4	3.3	3.7	3.7	3.6	3.6	3.7

Source : COMTRADE

European Union Imports

EU import data provide the most relevant and reliable information for the analysis presented here. It is the most relevant information because the EU is by far the most important market for SSA countries. The use of EU import data also has the advantage that time series are complete, without the problem of missing information. Two sets of data are used: (i) COMTRADE data on EU-15 imports of FFV in value terms (dollars), covering the period 1996–2006; and (ii) EU-27 import data in value (euros) and volume terms, covering the period 2000–2006.[15]

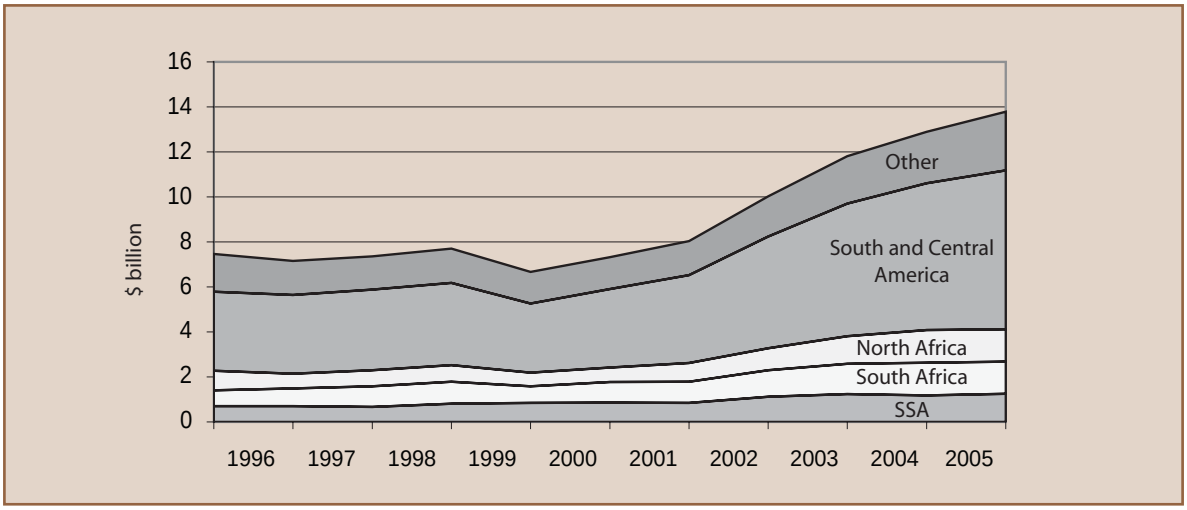
Based on COMTRADE data, it is estimated that between 1996 and 2006, EU-15 imports of FFV from SSA increased from $1.4 billion to $2.7 billion, or 90 per cent (Tables 3 and A.5). During this period, SSA increased its share in total extra-EU imports of FFV from 13.3 per cent to 14.8 per cent.

[15] EU-27 includes EU-15 plus Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia (since 2004), as well as Romania and Bulgaria (since 2007).

Imports from SSA also increased as a share of EU imports from all developing countries. However, after peaking in around 2001-2003, the region's shares started to decline.

In the most recent period, the growth of EU imports of FFV from South and Central America has been much faster than that from SSA countries other than South Africa (Table A.5 and Figure 1). Between 2003 and 2006, imports from North Africa and South and Central America grew by 47.1 and 42.2 per cent respectively, whereas imports from SSA, excluding South Africa, grew by only 11.5 per cent (in terms of dollar values).

Figure 1. EU-15: imports of FFV from SSA, South Africa, North Africa, South and Central America and other developing countries, 1996–2005 ($ billion)



Source: COMTRADE

Some factors may have contributed to this development. For example, as analysed in the next chapter, a number of countries in South and Central America have recently received special tariff preferences under the GSP+ initiative. Many South and Central American exporters may also have enjoyed some advantages over SSA competitors in complying with increasingly stringent public and private sectors standards, e.g. on account of the presence of transnational corporations (TNCs) and other large exporting companies (e.g. in Costa Rica), more developed infrastructure and services, economies of scale and pro-active policies towards standards as catalysts (e.g. in Chile and Peru). Some countries have successfully introduced new varieties (e.g. the MD2 pineapple variety allowed Costa Rica to gain market share over Côte d'Ivoire and Ghana).

Table 3. EU-15: imports of FFV from sub-Saharan Africa, 1996–2006 ($ million), and share of FFV imports from SSA in EU-15's total imports fromthe world and from developing countries

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU-15 imports of FFV from SSA ($ million)											
FFV	1406.5	1482.5	1586.9	1788.3	1583.6	1768.1	1785.7	2293.4	2574.0	2626.2	2675.1
Fruit	1207.0	1280.0	1386.2	1559.5	1362.3	1552.2	1526.4	2004.7	2241.5	2275.5	2284.4
Vegetables	199.5	202.5	200.7	228.8	221.3	215.9	259.3	288.7	332.5	350.8	390.7
Share of FFV imports from SSA in EU-15's total FFV imports from the world (%)											
FFV	13.3	14.9	15.2	16.9	17.1	17.7	16.6	17.2	16.6	15.6	14.8
Fruit	15.1	16.4	17.4	19.0	19.4	20.5	18.7	19.3	18.9	17.8	16.9
Vegetables	7.7	9.3	8.2	9.6	9.9	8.9	9.9	9.7	9.1	8.6	8.6
Share of FFV imports from SSA in EU-15's total FFV imports from developing countries (%)											
FFV	18.8	20.7	21.6	23.2	23.7	24.1	22.2	22.9	21.8	20.4	19.4
Fruit	19.8	21.5	22.9	24.4	25.0	25.7	23.4	24.0	23.0	21.6	20.5
Vegetables	14.6	17.1	15.5	17.4	18.2	16.7	17.2	17.3	16.2	14.9	14.7

Source: COMTRADE

An analysis of EU-27 imports in volume terms over the period 2000-2006 (based on Eurostat) presents a similar picture (Table 4). Over this period, the volume of FFV imports from SSA increased by only 6.8 per cent, as a result of a 5.7 per cent increase in fruit imports and a 21.4 per cent increase in vegetable imports (although from a much smaller base). Imports from Cameroon, Ethiopia, Ghana, Kenya, Namibia, Senegal and Uganda showed significant growth in volume terms. However, those from Burkina Faso, Madagascar, Swaziland and Zimbabwe declined over the same period (Table A.6).

Table 4. EU-27: volume of imports of FFV from sub-Saharan Africa, 2000–2006

	2000	2001	2002	2003	2004	2005	2006
Volume of EU-27 FFV imports from SSA (thousand tons)							
FFV	1762.5	1896.5	1944.4	1991.0	1907.8	1977.6	1881.9
Fruit	1640.3	1762.2	1783.6	1842.0	1749.5	1820.4	1733.5
Vegetables	122.2	134.3	160.8	149.0	158.3	157.2	148.4
Imports from SSA as a share of total extra-EU-27 imports (%)							
FFV	14.7	15.0	15.3	15.5	13.3	12.7	11.9
Fruit	18.6	19.0	18.9	18.9	17.0	16.5	15.2
Vegetables	3.8	4.0	4.9	4.8	3.9	3.5	3.4
Imports from SSA as a share of EU-27 imports from all developing countries (%)							
FFV	18.5	18.6	18.5	18.1	16.1	15.6	14.2
Fruit	20.5	21.0	20.9	20.8	18.7	18.0	16.5
Vegetables	8.1	7.3	8.2	6.9	6.4	6.1	5.4

Source: European Commission, Export Helpdesk

Table 4 also confirms the decline in the share of SSA in EU-27 imports of FFV in recent years. There is no strong evidence that this relative decline is related to the emergence of private-sector standards such as EurepGAP. Rather, it could be attributed to the gradual erosion of EU tariff preferences extended to these countries (see next chapter) and to other factors such as:

- A loss of market share for pineapples (in particular from Côte d'Ivoire and Ghana), resulting largely from the introduction of a new variety in Costa Rica (see Table A.10);
- A decline in unit values of fruit imported from Madagascar, in particular lychees; and
- Declining imports from Zimbabwe.

Currently, the most important comparative advantage of North African FFV producers is the geographical proximity to the European market and thus reduced transport costs. In the case of Latin American producers, one of the main factors for their rapidly growing share in export markets has been efficient large scale production, as opposed to higher reliance on small scale production in Africa.[16]

In conclusion, overall EU imports of FFV from SSA countries as a group continued to increase during the period 1996-2006, both in value and volume terms. It would be interesting to examine whether the emergence of private-sector standards may have contributed to some extent to the decline of SSA shares in EU imports in the last few years (to the extent that producers and exporters in SSA may face greater challenges in meeting such standards). However, it is difficult to isolate possible adverse effects from other factors that contributed to this decline. Case studies would be necessary to shed some light on this issue. The trade figures presented in this section also cannot show the extent to which trends in market requirements have had an impact on the industry concentration of production/exports and on smallholder participation in exports. This issue is analysed to some extent in the next chapter, based on secondary sources.

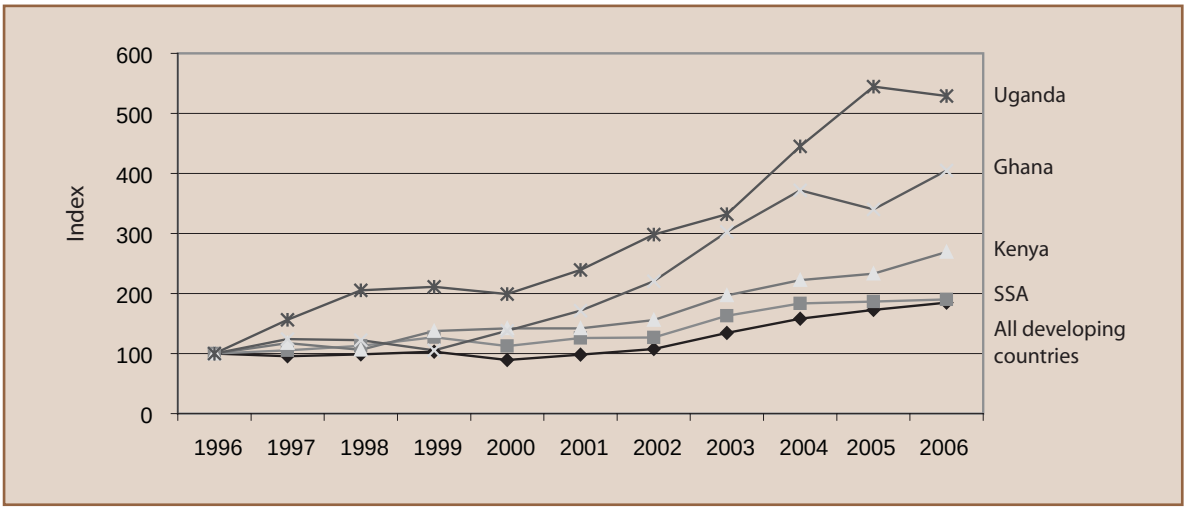
EU imports of FFV from SSA excluding South Africa: some salient conclusions

The EU is the largest market for FFV, with extra-EU imports worth around $18 billion in 2006, of which around 80 per cent was supplied by developing countries. Extra-EU imports have grown

[16] Based on personal communication with Dr. Stephen Mbithi, Chief Executive, Fresh Produce Exporters Association of Kenya

rapidly in recent years (the dollar value of extra-EU imports almost doubled between 2000 and 2006, an average annual growth rate of around 12 per cent). The EU is also one of the highest-priced markets for FFV, which absorbs some 75 per cent of all FFV exports from SSA excluding South Africa.

Figure 2. EU-15: imports of FFV, 1996-2006 (in value terms)



Source: COMTRADE

To help put the analysis presented in this monograph in perspective, this section highlights some salient characteristics of EU imports from SSA (all bullet points refer to SSA excluding South Africa).

General characteristics

- EU-15 imports of FFV from SSA were worth $1.25 billion in 2006 (Table A.5). Fruit represented 70 per cent of this. Bananas and pineapple represented 80 per cent of EU fruit imports. Fresh beans and peas represented almost 70 per cent of EU vegetable imports, with Asian vegetables representing the lion's share of remaining vegetable imports.
- Fruit was imported largely from West Africa (Cote d'Ivoire, Cameroon, Ghana and Namibia), whereas vegetables were imported largely from Eastern Africa (Kenya, Ethiopia, Zambia, Zimbabwe, the United Republic of Tanzania, and Uganda). Over 60 per cent of EU vegetables (in value terms) imported from SSA came from Kenya. Fruit imports from Kenya and vegetable imports from Senegal and Ghana were also significant.
- The largest EU importers are Belgium, France and the United Kingdom ($330-$350 million each in 2006), together representing more than 80 per cent of EU imports of FFV. The Netherlands and Germany are also large importers. These five countries account for more than 95 per cent of the value of EU imports of FFV. Belgium and France mostly import fruit from West Africa. Around 60 per cent of the the United Kingdom imports of FFV in value terms are vegetables (largely from Eastern Africa). The United Kingdom fruit imports mostly come from West Africa.
- In 2006, almost 90 per cent of the United Kingdom imports of fresh beans and more than 70 per cent of the United Kingdom imports of fresh peas originated in the Kenya. In both cases, Kenya's share in the United Kingdom imports has been increasing over time.
- A large share of EU and the United Kingdom imports of vegetables from Ghana and Uganda consist of Asian vegetables, for which PVS currently play no major role. Similarly, the EU and the United Kingdom import significant volumes of yams (not included in the definition of FFV employed in this monograph) from Ghana (largely for ethnic markets).

Medium-term trends (1996-2006)

- In this period, the value of EU-15 imports of FFV increased by 79.1 per cent, only slightly less than imports from all developing countries (84.6 per cent). (Table A.5)
- In the second half of the 1990s and early 2000s, the value of extra-EU imports of FFV

remained more or less stagnant with an average annual value of just over $10 billion in 1996-2001. However, EU imports of FFV from SSA countries grew faster than imports from other developing countries, driven by ACP tariff preferences and donor support.

- In the most recent period (starting around 2002) extra-EU imports of FFV increased rapidly to over $18 billion in 2006. In this period, FFV imports from SSA continued to grow, but at a much slower rate than FFV imports from other developing countries. As a result, the SSA share in EU imports from developing countries dropped several percentage points. This could be attributed largely to the granting of better-than-GSP tariff preferences to a number of developing countries in South and Central America and the Mediterranean region, the introduction of new varieties, and supply-capacity problems in SSA. The larger penetration of PVS in the EU market and stricter application of EurepGAP in this period could also have affected FFV producers and exporters in SSA, but more detailed analysis would be needed to assess such effects.

Recent trends (2000-2006)

In this period, imports from SSA showed:

- Very slow growth in volume terms (4.7 per cent) compared to other developing countries (39.4 per cent) and actually declined since 2003 (Table A.6).
- Slow growth in value (euros) terms (16.5 per cent, compared to 48.2 per cent for all developing countries) and stagnation at around 850 million euros per annum in the period 2003-2006 (Table A.6).
- Particularly slow growth in fruit. (2.7 per cent in volume terms and 12 per cent in value (euros) terms). Growth in vegetable imports was 17.7 per cent in volume terms and 26.8 per cent in value terms. In both cases, EU imports from all developing countries grew must faster (Table A.6).
- Unequal changes across exporting countries. Imports from Namibia, Senegal, The United Republic of Tanzania, Ghana and Ethiopia grew faster than imports from developing countries as a group. Imports from Zimbabwe, Swaziland, Cote d'Ivoire and Madagascar actually declined (Table A.6).
- A very strong decline in the share of SSA in EU imports of pineapple. The introduction of new varieties seems to have had a significant trade-creating impact generating a rapid increase of total EU imports of pineapple, notably from Costa Rica (Table A.10). Similarly, the volume of papaya imports from Brazil increased sharply between 2000 and 2004 (Table A.10)

III. CHALLENGES AND OPPORTUNITIES FOR SSA EXPORTERS OF FFV

Standards and regulations are very important external factors that pose both challenges and opportunities for the growth of the region's FFV production and exports, but they cannot be analysed in isolation from other factors. Tariff preferences in key export markets are also a major market access (i.e. external) factor. This chapter examines these issues, with a focus on those that derive from evolving regulations – particularly from the increasing stringently PVS in international markets – and strategies of governments and businesses to adjust to them.

The first section of this chapter reviews tariff preferences in the EU market for key FFV export products from SSA countries. It is followed by a short section on key regulatory requirements and the interaction between government regulations and private-sector standards. The remainder of the chapter analyses the main issues related to private GAP standards and the development of national GAP schemes in SSA.

Many other factors influencing export success also need to be taken into account. For example, freight costs (whether by sea or air) are a further major determinant of a country's export competitiveness.[17] Policy-related issues in the exporting country that can contribute to export success include a realistic exchange rate, stable economic policies, an attractive investment climate, competitive international transport connections, institutional, and social links with markets in Europe, and continual experimentation with market institutions that link farmers and exporters (Minot and Ngigi, 2004). These issues are not systematically addressed in this chapter, but some reference is made in the chapters that analyse specific country experiences (Chapters IV-VI and the Annex).

Tariff preferences

EU trade preferences have been a driving force behind the development and growth of the horticulture sector in many SSA countries (PricewaterhouseCoopers, 2006). The EC has been providing ACP countries with preferential trade concessions and financial aid through successive Lomé Conventions and their successor, the Cotonou Agreement. South Africa enjoys tariff preferences under a reciprocal free trade agreement, the Trade, Development and Co-operation Agreement (TDCA), which took effect in January 2000.[18]

ACP tariffs on FFV tend to be substantially lower than rates of duty under the GSP,[19] thus giving SSA countries a significant advantage over many other developing-country competitors. Over the years, however, many major competitors in the EU market for FFV have obtained better-than-GSP tariff preferences, especially through the GSP+ initiative (an incentive arrangement for sustainable development and good governance).[20] Tariff preferences have also been granted to some Mediterranean countries, such as Egypt and Morocco, which are major competitors of SSA countries. In addition, several leading developing-country FFV exporters, such as Chile, have concluded free trade agreements (FTAs) with the EU. Therefore, current ACP preference margins for SSA countries are much smaller than they used to be, and tariff preferences are expected to play a smaller role in promoting future FFV exports from SSA to the EU market.

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17 While distance from markets is obviously an important determinant of overall freight costs, other factors are also important, including the extent of competition in freight handling and whether a country operates an "open skies" policy. Freight costs tend to be lower among those countries that already have well developed and frequently used freight routes, whether by sea or air (FAO, 2004; Wiggins, 2005).

18 This Agreement differs from the Cotonou Agreement in that it provides, *inter alia*, for a reciprocal process of removing tariffs on bilateral trade.

19 In most cases, ACP tariffs have been zero. However, a number of FFV imported from ACP countries faced residual tariff obstacles, including preferential tariff quotas. For most countries, these were removed as of 1 January 2008.

20 Under the "GSP+" initiative, the EC grants significant incentives (duty- and quota-free access) to 15 vulnerable developing countries that have implemented sustainable development and good governance policies. The beneficiary developing countries are: the five Andean countries (Bolivia, the Bolivarian Republic of Venezuela, Colombia, Ecuador and Peru), six Central America countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama), Moldova, Georgia, Mongolia and Sri Lanka. In order to benefit from "GSP+", countries must have ratified and implemented major international conventions relating to core political, environmental and human and labour conditions, and demonstrate that their economies are "dependent and vulnerable".

The Cotonou Agreement – for which the EC received a waiver at the Doha Ministerial Conference in November 2001 – was to be replaced by economic partnership agreements (EPAs), following negotiations between the EC and various subregional groupings of ACP countries, which needed to be completed by December 2007. These EPAs embody a move away from *non-reciprocal* trade concessions in favour of *reciprocal* trade agreements with regional and subregional groupings of ACP countries.[21] The EU would also provide duty- and quota-free access to all ACP countries that sign EPAs, thereby improving market access for non-LDC ACP countries that currently face certain restrictions (e.g. through tariff quotas). The outcomes of the EPA negotiations therefore determine future tariff preferences for SSA countries other than LDCs vis-à-vis competitors (largely developing countries in Latin America and North Africa). LDCs would in any case maintain duty-free market access under the Everything-but-Arms (EBA) Initiative. South Africa is participating in EPA negotiations as part of the Southern African Development Community (SADC).[22]

By October 2007, it had become apparent that it would not be possible to conclude EPAs by the end of the year. Therefore the EC issued a communication[23] outlining a pragmatic approach to safeguard preferential market access for non-LDC ACP countries from 1 January 2008. This approach provided a possibility to conclude WTO-compatible interim agreements,[24] while extending the time to negotiate complete EPAs. A number of arrangements were concluded in late 2007 between the EU and ACP regions, subregions and individual ACP countries.

On 20 December 2007, the EU Council formally adopted a market access regulation (Council Regulation (EC) No 1528/2007) to grant ACP countries duty- and quota-free access to the EU market from 1 January 2008 (with transition periods for sugar and rice). It applies to those ACP countries that are listed in Annex I of the regulation, which have concluded negotiations on either a full EPA or an interim agreement. The annex may be amended to allow adding those countries that conclude negotiations at a later point in time. Only countries that have neither initialled an agreement nor have access to the EBA regime are expected to export to the EU under the GSP regime. As of 20 December 2007, these countries were Congo, Gabon and Nigeria, as well as certain Pacific countries. South Africa is not taking part in an interim agreement and will continue to export to the EU under its TDCA with the EU (Table A.13).

Table 5 shows current EU tariff rates (i.e. before 1 January 2008) applied to SSA countries and their main competitors for some major FFV. For example, zero rates of duty for peas and beans for ACP countries used to provide SSA suppliers with greater tariff preferences than those countries that benefited from GSP treatment. These tariff preferences have largely disappeared, as Morocco and Egypt now also receive preferential market access. In addition, GSP+ countries now also enjoy duty-free access (Guatemala is the second largest supplier of fresh peas to the EU market after Kenya)[25]. For processed beans, however, Kenya still has a larger tariff preference than its major competitor in the EU market, China, as the GSP rate of duty is 15.7 per cent. Between 2000 and 2006, Kenya's share in EU imports increased from 30.4 to 55.4 per cent, whereas China's share fell from 41.4 to 26.7 per cent (Table A.10.C). For pineapples, the ACP zero rate of duty gives an advantage over the GSP rate of duty (2.3 per cent), but the main competitor, Costa Rica, now also enjoys duty-free access to the EU market under GSP+.

The EC has been providing ACP countries with special tariff preferences for bananas. In 2001, it promised to replace the complex EU quota and licence system for banana imports with a "tariff-only" regime by January 2006, in return for being allowed to maintain its ACP trade preferences until then. The EC banana import regime that came into effect as of January 2006 provided duty-free access to

[21] Under WTO rules, ACP countries will have to offer market access, but this may be phased in over many years.

[22] Beyond the tariff agenda, SSA countries are also negotiating as part of the EPAs other aspects such as SPS measures, rules of origin, and safeguards in order to sign comprehensive EPAs by mid-2009.

[23] Commission of the European Communities, Communication from the Commission to the Council and the European Parliament. Economic Partnership Agreements. Brussels, 23 October 2007. COM (2007) 635 final.

[24] Which at least meet requirements of Article XXIV of the GATT 1994.

[25] Under the new EPA agreements, the ACP countries will have to liberalize up to 80 per cent of their market to EU goods (the reciprocity precondition of EPAs, in order to make them WTO compatible). Some liberalization takes place within the first 2-5 years, but others will phase in over 25 years.

ACP States within a quota of 775,000 tons. The most-favoured-nation (MFN) rate of duty is 176 euros per ton. Some WTO members, especially Colombia and Ecuador, have been contesting that regime. However, as of 1 January 2008 all ACP countries that have concluded final or interim EPAs enjoy duty- and quota-free access to the EU market.

For some FFV, such as passion fruit, tariff preferences are not an issue, as the rate of duty is zero on an MFN basis.

Table 5. EU tariffs applied to major FFV imported from sub-Saharan Africa and other developing countries at the end of 2007

Product	Origin	Tariff rate (%)	Main suppliers*	Other rates
Peas (HS 080710)	ACP	0	Kenya, Zimbabwe	Third-country rate: 8%
	GSP+	0	Guatemala	
	Morocco	0	Morocco	
	Egypt	0 (preferential quota)	Egypt	
	GSP	4.5		
Beans (HS 080720)	ACP	0	Kenya, Senegal	Third-country rate:10.4% minimum € 1.6/100 kg
	GSP+	0		
	Morocco	0	Morocco	
	Egypt	0 (preferential quota)	Egypt	
	GSP	6.9		
Pineapple	ACP	0	Côte d'Ivoire, Ghana	Third-country rate: 5.8%
	GSP+	0	Costa Rica	
	GSP	2.3		
Processed beans	ACP	0	Kenya, Cameroon, Madagascar	Third-country rate: 19.2%
	GSP+	0		
	GSP	15.7	China	
	Morocco	0 (tariff quota)	Morocco	
		15.3 Preferential tariff		
	Turkey	0	Turkey	

Source: EC Export Helpdesk
*See Table A.10 for import values.

An analysis of EU-27 imports shows that between 2000 and 2006, EU imports of FFV from Mediterranean countries increased by 59.7 per cent in volume terms, and by 67.1 per cent in value terms (euros). Similarly, EU imports from GSP+ countries increased by 27.5 and 43.9 per cent, in volume and value terms respectively. These increases by far exceeded the growth in EU imports from SSA countries (only around 4.7 per cent in volume terms and 16.5 per cent in value terms (euros)).

The erosion of tariff preferences and the limited supply capacity[26] may largely explain the declining share of SSA in EU imports since 2000 (Table 4).

Regulations in key export markets

Stakeholders in SSA seem to approach compliance with public regulations, such as SPS requirements and maximum residue levels (MRLs), commercial food safety and quality standards, and private voluntary standards, as a common strategy. Usually, the same institutions, task forces and/or donor projects seem to simultaneously address various issues of standards in export markets, whether they are regulatory requirements or private standards. Whereas private standards may impose more stringent requirements than government regulations in export markets, they may also assist producers in meeting regulatory requirements.[27] This section first analyses some major EU regulations, followed by a focus on private-sector standards.

A general constraint on trade in fresh produce worldwide is the lack of harmonized technical standards and treatments. Some countries apply the Codex Alimentarius standards for maximum (pesticide) residue levels (MRLs), while other countries apply their own MRLs that may be more stringent than Codex.

The main EU regulations affecting exports of FFV include Council Directive 91/414/EEC of 15 July 1991, which establishes a Community-wide harmonized framework for authorization, use and control of crop protection products (CPP). A basic principle of the Directive is the development of a positive list of active substances in CPP that are acceptable for the environment, human and animal health. These substances have been or are to be listed in an annex to the Directive. The harmonization process has two elements: (a) a review of active substances and (b) setting of harmonized EU-wide MRLs for crop/chemical combinations of substances that are listed in the annex. The Directive has resulted in lower (i.e. more stringent) MRLs and a reduction in the number of active substances that can be used in pesticides applied on crops exported to the EU.[28] Concern that this might affect exports of tropical and other fruit and vegetables from developing countries, including SSA countries has triggered a number of technical cooperation projects, in particular the EU-funded Pesticide Initiative Programme for ACP countries, implemented by the Europe/Africa-Caribbean-Pacific Liaison Committee (COLEACP).

In January 2002, the EU adopted the framework regulation EC/178/2002, which laid down the general principles and requirements of EU food law, including traceability provisions (Article 18). Although the traceability provisions are not supposed to have an extra-territorial effect outside the EU,[29] the importer is held responsible for compliance. Therefore EU food business operators usually request their suppliers in third countries to meet the traceability requirements, even beyond the "one step back, one step forward" principle.

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[26] Since the volumes and value of FFV from SSA did not decrease over the period, it is reasonably to assume that static production capacity and other supply-side constraints have led to less dynamic exports. FPEAK in Kenya, for instance, has observed that all FFV offered to the EU market were absorbed (of course conditional upon meeting SPS conditions). The issue therefore may be that the EU is well able to absorb all what SSA produces, and has filled the demand gap with spare capacity provided by Mediterranean and Latin-American countries. Personal communication with Dr. Steven Mbithi, Chief Executive of FPEAK.

[27] One key advantage of private standards in a developing country context is the fact that even under poor national food-safety regulation and enforcement regimes producers can still access the most stringent export markets through compliance with private standards. This in effect enables market access for many developing countries and is, in these cases, the only ticket to export.

[28] Jaffee (2005) argues that given the high costs of preparing dossiers and financing the review process, agrochemical companies have been inclined to only selectively defend existing active substances in accordance with commercial criteria. Therefore they will have focused their efforts on active substances that have large markets and are used for major crops.

[29] According to Mbithi, they do have an effect: exporting states are supposed to have traceability to at least one step up, one-down the chain. This is part of what EU DG SANCO inspectors look for when inspecting third country suppliers. This is a tough requirement, especially when consignments are sourced from hundreds of small scale farmers in developing countries. Countries such as Kenya have however developed simple coding techniques (mainly based on date and farmer code) that are helping surmount this traceability obstacle. Personal communication with Dr. Steven Mbithi, Chief Executive of FPEAK.

In April 2004, the Commission of the European Communities (EC) announced the adoption by the EU Council of a series of key regulations for EU food safety policy, including a package of five hygiene regulations, which consolidates previous hygiene regulations. The most relevant regulation for this analysis is the European Parliament and Council Regulation 852/2004 relating to hygiene of foodstuffs, which entered into force on 1 January 2006. It deals with issues such as general requirements for primary production, technical requirements, HACCP for food handling and processing, registration/approval of food businesses and national guidelines for good practice. Detailed measures specified under this regulation resemble a combination of private-sector standards, such as EurepGAP and the BRC Technical Standard, but they are mandatory – not voluntary – requirements (Graffham, 2005).

With regard to exports to the United States market, private-sector standards have not had a significant impact so far. This is partly because United States imports of FFV have been restricted by phytosanitary regulations based on country of origin.[30]

Private voluntary standards

This section first analyses the emergence and implications of private voluntary standards, in particular for GAPs. It then analyses proactive adjustment policies in developing countries. Finally, it examines issues at the international level.

Changing characteristics of FFV trade with Europe[31]

Agro-food trade, including FFV trade, has been undergoing significant changes in recent years: there has been a shift in market power from manufacturing to retailing, an increasingly stringent regulatory environment, the stronger voice of consumers and civil society, and globalization of supply and distribution systems (Fulponi, 2007). These changes have significant implications for producers in developing countries, including in SSA. Producers who wish to participate in major FFV supply chains need to apply specific production methods that address environmental risk and manage quality and health issues.

The analysis in this section focuses on the supermarket segment of the United Kingdom market. For the three countries analysed in this manuscript (Ghana, Kenya and Uganda), the United Kingdom market is the largest EU market for FFV (in particular fresh vegetables). It should be noted, however, that only a portion of fresh vegetable exports from SSA to the United Kingdom (and other EU countries) enter supermarket chains. This concerns in particular fresh beans. A significant portion of vegetable exports consist of Asian vegetables destined to wholesale and ethnic markets which have very different characteristics

From the 1960s, Kenya's exports of vegetables to the United Kingdom market increased rapidly, with smaller firms supplying French beans and Asian vegetables to wholesale markets in that country during the peak season from October to April (Dolan and Humphrey, 2000). The majority of exporters purchased vegetables through spot markets. Barriers to entry for producers were low, and by the early 1980s the participation of smallholders in fresh vegetable production had increased markedly. Whereas the majority of Kenya's fresh produce exports during the mid-1970s came from 150–200 medium or large-scale farms, by the mid-1980s there were an estimated 15,000 smallholders involved in the trade, growing French beans, Asian vegetables and fruit (Jaffee, 1995). In 2005, about 11,100 smallholders produced vegetables for the export market with the main crop being French beans in nine districts in Kenya (Mithöfer, Nang'ole and Asfaw, 2008).

In the 1990s, the FFV value chain was totally transformed. This transformation stemmed from several factors:

[30] The United States applies a system of individual country listings of FFV approved for entry (US Department of Agriculture *Fresh Fruit and Vegetables Import Manual*). With the exception of a few products that may be imported from *all* countries, such as coconut, no other FFV covered by the manual can be imported unless it appears on the list for the exporting country. This listing does not cover processed (e.g. dried and frozen) products. The lists for Ghana and Kenya contain only a few items, whereas there are no approved products listed for Uganda. The Pest Risk Analysis (PRA) by USDA, followed by an approval process that usually takes years acts as a significant market access hurdle.

[31] This section draws heavily on Dolan and Humphrey, 2000.

- In the United Kingdom, multiple stores (supermarkets and major retail chains) greatly increased their share of total FFV sales.
- The supermarkets by-passed the wholesale markets and worked directly with United Kingdom importers, delegating lower profit functions, such as quality control, monitoring and distribution, to their suppliers.
- There was a marked shift away from standardized, non-packaged products to greater product variety, product innovation and increased packaging and processing.
- Traceability was established along the chain, and monitoring and audit regimes put in place.

The two main factors driving the restructuring of the FFV value chain and the increasing role of supermarkets in explicit coordination of the chain were:

- Competitive strategies of the supermarkets around product differentiation; and
- The need to control risk as a result of a more complex regulatory and consumer environment. In 1990, the Government of the United Kingdom established comprehensive standards for food hygiene and safety in the Food Safety Act. The Act required retailers to demonstrate "due diligence" in the manufacture, transportation, storage and preparation of food, and held them accountable for lapses in their suppliers' performance.

These regulations were part of a broader trend towards the increasing emergence of credence factors among consumers who were not only concerned about quality and safety, but also about the social and environmental conditions under which products were produced. Labour and environmental concerns increased in importance in the United Kingdom, not least because of media coverage of high-profile United Kingdom companies. The fresh produce industry, in particular, fell under the media spotlight. In response to consumer and NGO concerns, most leading supermarkets developed company standards that extended beyond regulatory issues (e.g. food safety) to include such aspects as working conditions (both in the fields and the packhouses), use of child labour and the environmental aspects of agricultural production. Logistic parameters were also specified. In the United Kingdom, supermarkets sought to organize the flow of products through the value chain so that they were transported efficiently from farm to supermarket shelf. These specifications extended from systems for post-harvest cooling and storage of produce on the farm, to conditions in packhouses and airport handling facilities.

By the end of the 1990s, supermarkets in the United Kingdom had restructured the FFV value chain, moving away from wholesale markets to tightly knit supply chains. During this process, exports from SSA to the EU continued to grow. Between 1989 and 1997, exports of fresh vegetables from SSA to the EU grew by 151 per cent, with Kenya remaining the dominant supplier. However, by the end of 1990s, the need for capital and technical capabilities had led to the exclusion of many small exporters who were unable to meet supermarket requirements. The exclusion was evident in all the major African FFV exporting countries, but particularly in Kenya.[32]

Restructuring of the value chain also led to two changes in production. First, production moved away from smallholders to large farms, many of which were owned by exporters. By 1998, four of the largest exporters in Kenya sourced only 18 per cent of their total produce from smallholders. This partly stemmed from the perception of supermarkets that smallholders would not be able to meet process controls such as food safety and pesticide regulations. And exporters were concerned about the costs entailed in monitoring large numbers of small farmers. Those smallholders that remained in the value chain were organized into grower schemes, with a high degree of supervision by the exporters. Second, several large Kenyan exporters began to acquire their own growing capacity, with an increasing number centralizing production on their own estates. [33]Exporters in several other SSA

[32] In Kenya, the top seven firms controlled over 75 per cent of all exports by the end of the 1990s. Those small and medium-sized firms that remained in the trade were largely dependent on arms-length marketing relationships, exporting bulk produce to wholesale markets in Europe and the United Kingdom (Dolan and Humphrey, 2000).

[33] For example, Maertens et al. (2007) report that members of ONAPES (Organisation National des Producteurs et Exportateurs de Fruits et Légumes de Sénégal), an organization founded in 1999 by the seven largest FFV exporters in Senegal to comply with traceability standards (later obtaining EurepGAP certification also became an objective), agreed that each member should aim at a market presence with a volume of at least 200 tons of FFV, and that at least 50 per cent of that volume should originate from the companies' own production.

countries also felt the need to rely more on their own production to ensure compliance with traceability requirements and obtain EurepGAP.

More recent developments include the shift to external process standards. In the FFV sector, there are two main types of external standards. The first are sectoral codes developed by industry-wide organizations and/or trade associations. The most important standard for FFV suppliers is the EurepGAP protocol. Other sectoral codes have been established through consortia of trade associations and producers in Africa, who moved early to introduce their own standards. For example, the first edition of the Code of Practice of the Fresh Produce Exporters Association of Kenya (FPEAK) was launched in 1996. The second are generic social codes developed through consortia of trade unions, NGOs, companies and enterprise associations. In contrast to sectoral codes, however, these codes provide a global social minimum standard that can be adopted across firms and countries. Examples of multi-firm social codes adopted in the horticulture sector include the social management standard, Social Accountability 8000 (SA 8000), and the Ethical Trading Initiative (ETI) Baseline code.[34] The latter has been particularly significant in the sourcing of African produce, as many of the United Kingdom's largest retailers have agreed to apply the ETI Baseline code to their suppliers.

Some supermarkets may continue to maintain company standards and their associated governance structures because branding and product differentiation are key to their competitive strategy. As increasing numbers of consumers make choices on the basis of social and environmental concerns, supermarkets recognize the benefits that codes of practice can provide in differentiating their products, and which clearly distinguish them from their competitors. For example, Tesco's Nature's Choice is an important standard for Kenya, because of its focus on the United Kingdom market.

Impacts of supply chain governance

TNCs account for two thirds of world trade, half of which is intra-firm trade; the other half is within global supply chains (outsourcing). These chains are increasingly replacing spot market deals and thus are reshaping the organization of production and trade relations.[35] In global supply chains, one or a small number of lead firms exercise control over suppliers without ownership relations (in captive value chains), using three clusters of tools: (i) standards, (ii) brand names, and (iii) patents or similar intellectual property rights aimed at achieving monopolistic market power, protecting innovation rents, and appropriating an increasing share of overall gains in value chains. These chain governance tools can be used individually or in combination, depending on the sector. For food products, for instance, mostly standards are used, while in the clothing and apparel industry, brand names, often in combination with standards, predominate, whereas in the electronics industry all three clusters of tools are being used (Humphrey, 2006b:572-592).

"Captive" supply chains are a double-edged sword for developing-country producers. On the one hand, they offer ample opportunities for process and product upgrading, better management practices, material and resource efficiency gains, higher occupational safety, lower environmental impact of production, employment generation and related social benefits, and they enable developing-country firms to export to markets that are otherwise difficult for them to penetrate. On the other hand, functional upgrading of supply capacity (i.e. moving from original equipment manufacture to own-design and own-brand manufacture) is often blocked, perpetuating the dependence on a small number of powerful customers (see also the section on smallgrowers below).

Altenburg (2006b:499) summarizes the impacts of changes in supply chain management for developing countries as follows: "The fact that trade is shifting from anonymous market-based exchange of products to more durable patterns of industrial organization, with an increasingly prominent role of lead firms, has multiple implications for developing countries: minimum requirements for participation in value chains tend to rise as lead firms demand increasing scales of production as well as compliance

[34] The ETI is an alliance of companies, NGOs and trade union organizations. It seeks to promote and improve the implementation of corporate codes of practice which cover supply chain working conditions. The ultimate goal is to ensure that the working conditions of workers producing for the United Kingdom market meet or exceed international labour standards (www.ethicaltrade.org).

[35] Large retailers now control 70–90 per cent of Europe's fresh produce imports from Africa (Humphrey and Oetero, 2000).

with more sophisticated product and process standards; the competitiveness of the respective chain may rise or decline, hence the viability of developing country firms in these chains; gains and risks will usually be renegotiated and redistributed among customers, retailers, traders, processors and suppliers, and, not least, the increasing or decreasing efficiency of value chains will affect the quality, availability and price level of goods and services."

Small-scale growers

Smallholder farmers historically have been major players in FFV exports from several countries in SSA. However some studies express concern that their participation in production for export to the European market is in decline.[36]

This has important implications for addressing rural poverty, and is of concern to both national governments and donors (see, for example, COLEACP, 2007b). Yet, it is also argued that while this may be true in the long run, there is still substantial involvement and potential for small-scale growers. Evidence from Kenya seems to suggest that there may be increasing numbers of medium-scale farms involved in export production (medium scale farms converting to export production or existing small farms renting in land). In addition, there has been inconsistent enforcement of EurepGAP since 2005 and constant activity of middlemen who procure from small-scale growers. More research is needed to produce stronger evidence on the participation of small-scale growers in EurepGAP compliance schemes (Mithöfer, personal communication)

The above has led to considerable discussion, including in the country case studies, about the comparative advantages of small-scale growers in FFV production, the challenges facing small-scale farmers in implementing GAP, the benefits and risks of outgrower schemes, whether or not (or the extent to which) the participation of small-scale growers in FFV value chains is feasible in the long run, the advantages and disadvantages of outgrower schemes versus wage employment on agri-food estates, alternative markets for small-scale growers, and, finally, how best to target assistance to the FFV sector from a poverty alleviation perspective. Some of these issues are addressed in this section.

Smallgrowers have traditionally enjoyed certain advantages in the production of fruit and vegetables vis-à-vis large producers because in the production of FFV economies of scale are not an important factor. According to Garbutt and Coetzer (2005), such production advantages include availability of ample labour, as small farmers may have a competitive advantage in labour-intensive production that does not demand economies of scale, because of their ability to call upon family labour. Other advantages are close proximity to crops, attention to detail for high value and labour-intensive crops, and crop continuity and planning. Some types of horticultural production can be successful on small plots or when grown in conjunction with other crops.

Drawing on fieldwork in Kenya, Mithöfer et al. (2007) point out that small producers tend "to operate on a lower input-output level with a turnover-cost ratio similar to that of exporter-owned farms. This simple efficiency measure shows that although smallholders produce lower yields they operate at a similar efficiency level as exporter-owned farms and more efficiently than contracted farms…. Taking different prices into account that the two farm types receive for their produce, from an exporter perspective, it is still cheaper to source from smallholders than from medium to large-scale farms despite higher transaction costs in terms of monitoring of smallholder production". Mithöfer et.al

[36] One study (NRI, 2006) estimates that the participation of small-scale growers in five SSA countries (Ghana, Kenya, Uganda, the United Republic of Tanzania and Zambia) that export FFV to the United Kingdom market declined by over 50 per cent between March 2005 and September 2006. Most of the decline is estimated to have occurred in Kenya, despite the large amount of donor support. The study argues that this decline reflects the increased costs and managerial burden associated with meeting private-sector standards and the fall in external funds to maintain smallholder participation. Another recent study (Kleih et al., 2007) indicates that the number of small-scale growers supplying the export sector in Uganda fell by 40 per cent in one year (2006), from 2,145 to 1,260. According to this study, the factors causing this fall are myriad, interlinked and difficult to discern with any precision. Exporters surveyed identified two chief culprits: rising fuel costs (leading to even higher airfreight charges), and the emergence of increasingly stringent food standards in export markets (i.e. in particular EurepGAP, though the EU General Food Law is perceived as less stringent). Other important constraints include weak infrastructure, coordination problems amongst small-scale growers, and inconsistent production owing to poor supply of inputs (e.g. seeds, chemicals, fertilizers, irrigation).

(2008) also emphasize that by procuring export produce from smallholders exporters strive to spread production risk (e.g. hailstorms) over various regions in Kenya as to ensure even supply throughout the year.

However, demands for private standards, which continue to increase in number and complexity, are having negative effects on small-scale growers. Certification to PVS is expensive and particularly difficult for small and medium-scale producers in ACP countries as they do not have the necessary capital and their countries lack infrastructure and services (COLEACP, 2007b).

Graffham, Karehu and MacGregor (2006) found that, following the introduction of the EurepGAP Fruit and Vegetables standard in September 2003, as of mid-2006, 60 per cent of Kenyan smallholders that were part of exporter-run outgrower schemes had been dropped by their export company or had withdrawn from compliance schemes as a direct result of their inability to either comply or retain compliance with EurepGAP.[37] The authors concluded that while compliance with standards such as EurepGAP was technically possible, with their current form and method of implementation it was not economically feasible for most small producers. The authors further argued that EurepGAP compliance by smallholders would only be possible with substantial external support. Most smallholders cannot afford the initial investment costs and, once certified, find it very difficult to shoulder the high recurrent costs, as there is generally no EurepGAP price premium[38] (for further detail, see section on the cost of EurepGAP compliance below).

Graffham and MacGregor (2007) note that "if small-scale growers are to continue to benefit from export horticulture to the United Kingdom markets it will be necessary to ensure a more appropriate balance between level of control and costs of compliance. Currently, most of the compliance controls – and their associated costs – are legitimate and justified in order to ensure consumer safety and product quality. Yet, there is a risk of 'gold-plating' PVS with extra requirements – and associated extra costs – that go beyond the minima required".

Outgrower schemes

Garbutt and Coetzer (2005) argue that the association with exporters of small-scale farmers as outgrowers has, in many cases, developed as a mutually beneficial relationship. The small-scale grower relies on the exporter for advice and inputs such as seeds and crop protection products, while the exporter needs to plan for consistent supplies of high-quality crops. Small-scale growers may also benefit from a "paternalistic" approach of exporters.[39] However, they also point out that one significant problem is that small-scale growers are sometimes tempted by "briefcase" exporters with low overheads who offer a higher price to bypass established links. This "poaching", as it is known, is gradually being addressed through the establishment of formal contracts between exporters and small-scale farmer groups. Dolan and Humphrey (2000) have noted that the development of closer relationships with fewer suppliers creates the problems of transactional dependency and opportunism.

Therefore, governments have an important role to play in providing a certain level of protection to outgrowers. In the Kenyan case this is through existing legal structures where farmers can apply for

[37] The study only quantified those small producers who dropped out, and did not attempt to estimate the number of new entrants. Therefore, the actual marginalization of small-scale farmers may have been overestimated.

[38] According to Nyagah and Watene (2008: 27), several farmer group marketing companies in Kenya provide some price incentive for small farmers or assistance to build handling facilities; for instance for fine beans, price premiums of some 25 per cent have been observed.

[39] Homegrown, a subsidiary export company of the Flamingo Holdings in Kenya, runs an outgrower scheme consisting of some 750 small-scale growers (0.1–0.3 ha) and 150 larger outgrowers (more than 30 ha) in nine regions of the country. Larger growers operate autonomous units with their own produce collection facilities, whereas the 750 small-scale growers are grouped within a 3.5 km distance around 60 communal collection sheds. Outgrowers produce 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, who devote about 70 per cent of their activities to issues associated with standards compliance and about 30 per cent to production-related issues (NRI, 2007:22-23).

legally recognized "self-help group" status.[40] There are several other examples of innovative contracting or outgrower schemes. For example, Minten, Randrianarison and Swinnen (2007) concluded from a case study on green beans in Madagascar that, "given the right incentives and contracting systems", where micro contracts are combined with extensive farm assistance and supervision programmes to fulfil complex supermarket requirements, small-scale farmers can participate successfully in emerging value chains. Their case study examined the effects on almost 10,000 farmers in the highlands of Madagascar who were contracted to produce vegetables for supermarkets in Europe.[41]

At the same time, as exporters attempt to secure a larger proportion of production for export from their own agri-industrial estates,[42] governments and other stakeholders should improve conditions for wage labour on large commercial farms.

Labour employment on commercial farms

Export-oriented contract farming offers an important export diversification mechanism, and is a strong income and job generator. However, Sautier et al. (2006) suggest that its contribution to poverty reduction is associated more with employment of labour on commercial farms and in processing plants rather than with promoting smallholder producers. Their estimates suggest that in Kenya only 2 per cent of smallholders produce for export (with the share linked to global supply chains being even lower). Small-scale farmers acting as outgrowers account for 25 per cent of those engaged in FFV export production, whereas farm labourers account for about 75 per cent. They therefore conclude that "contract farming is not spontaneously geared towards smallholders because of the higher transaction costs involved, but has indirect implications on poverty alleviation through farm labour and industrial employment".

The empirical reviews of Mithöfer et al. (2007) show that on large farms in Kenya employees receive significantly higher income and health care benefits. They further show that EurepGAP certification contributes to a higher level of training on small as well as on large farms and a higher prevalence and use of protective clothing during pesticide application. However, a large proportion of workers on large as well as small farms are only employed on a part-time basis, mainly during the harvesting seasons. Furthermore, usually it is only the very large farms that offer formal employment contracts.

The employment and welfare effects of contract farming versus integrated production in agro-industrial estates are discussed in Maertens et al. (2007), based on an analysis of structural changes in the export supply chain for green beans from Senegal. These changes are analysed as follows: (i) private and public food standards are increasingly important, and only larger exporters can make the necessary investment to comply with these standards and obtain certification; (ii) as a result, the export sector is becoming increasingly concentrated, as smaller producers are dropping out of certification schemes for export; (iii) to guarantee food quality and safety throughout the supply chain, exporting firms – especially larger firms – increasingly rely on tighter vertical integration with downstream buyers in the EU, as well as with upstream suppliers of primary produce; and (iv) the result is a sharp fall in the volume that is sourced from small farmers through contracts and a rise in employment in agro-industrial estates.

Maertens et al. conclude that the shift from procurement through contract farming towards vertically integrated production in agro-industrial estates has reduced the gains (from higher incomes from contract farming as well as access to inputs and credit) that local farmers receive from export

[40] However, some argue that the policy framework for these self-help groups is in cases of conflict not very supportive of commercial goals, e.g. individual farmers who did not comply with standards cannot be legally excluded from the group and thus threaten the survival of the whole group. Furthermore, a self-help group is not a "corporate body" that can "sue or be sued", and therefore an outgrower arrangement cannot be secured in this way. This is possible only if individual farmers sign legally binding agreements, or if the farmers are registered as a company limited.

[41] "These farmers benefited from a combination of effects such as improved access to inputs, credit, extension services, technology adoption and also from productivity spill over effects on other crops and enhanced income stability" (Minten, Randrianarison and Swinnen, 2007).

[42] According to information gathered by Nyagah and Watene (2008), some large Kenyan exporters seem to have recently shifted their supply base for French beans and baby corn to smallholders due to high production costs in large farms directly operated by exporters. As a result, these smallholders now account for 60–70 per cent of production volume.

production. However, wage employment also contributes to household income. Although wages may be lower than income that can be obtained from contract farming, this shift nevertheless has positive distributional consequences since poorer households – who are unable to engage in contract farming – can secure wage employment in agro-industries.

Implications of private-sector GAP standards

Since SSA countries export FFV largely to the EU market, private-sector GAP standards, such as EurepGAP and Tesco Nature's Choice, are potentially important market requirements. Such standards are particularly relevant for exporters targeting supermarket chains.

PVS[43] in general cover issues far wider than SPS measures addressed in government regulations, and may include, for example, ethical, fair trade, organic, labour, health and safety, environment and other criteria.

The EurepGAP code for production of fresh fruit and vegetables was launched in 1996 by a group of 11 British and Dutch retailers, with the objective of creating a single private-sector standard for ensuring the food safety and quality of fruit and vegetables, from seed to farm gate. From the retailers' perspective, getting suppliers to prove compliance with EurepGAP would provide all parties with a due diligence defence under EU food safety regulations (see also next section). Major growers in Europe were also interested in EurepGAP as it offered a way of reducing the number of private-sector standards in the market place, thus reducing problems with incompatibility of standards when trying to supply several retailers with the same product.

The analysis presented above indicates that the marginalization of small-scale producers from FFV value chains started well before the introduction of the EurepGAP 2.1 Standard for Fruit and Vegetables in September 2003. Nevertheless, its introduction led to more pressure on exporters in Kenya (and other exporting countries) to try to certify growers.[44]

However, not all customers in the EU market require assurance that the FFV they buy have been produced in accordance with EurepGAP or other GAP standards. Of the three countries examined in this monograph, Uganda, which largely exports to wholesale markets, probably has had the least exposure to private-sector standards whereas Kenya, a traditional supplier of United Kingdom supermarket chains, has had the most exposure. Ghana is somewhere in the middle; the country's competitiveness has so far been based on supplying the lower end of the market, but this is likely to change as the focus shifts to supplying higher value added products.

Although even retailers who are members of EurepGAP may not require EurepGAP certification, as the standard does not oblige them to source only EurepGAP-certified produce, such certification is an increasingly important factor in the marketplace. The case studies also note that GAP certification may grow in importance in wholesale[45] and ethnic markets.

An ongoing FAO study on the penetration of PVS in European markets, based on interviews with EU importers in the fresh produce sector, draws the following preliminary conclusions (Poisot, 2007):

- The percentage of PVS-certified products is very difficult to determine;
- It is also difficult to assess if demand for certification depends on origin;
- The demand for PVS is directly proportional to market concentration;

[43] The term PVS is being used, because it is the overriding term in the literature. From a legal point of view, all standards are perceived to be voluntary. However, in practice there is no voluntary standard, at least from an exporters' and importers' point of view. Since most trade is done at private level by the private sector, private sector standards are as important as regulatory measures. From a WTO point, however, they are 'non actionable' since they are not recognized as regulatory measures.

[44] Individual supermarkets may impose their own deadlines for EurepGAP compliance. This is an individual decision between business partners. Some retailers, such as Albert Heijn in the Netherlands, have made their deadlines known publicly (Garbutt and Coetzer, 2005).

[45] The large German low-price supermarket chain Aldi, for instance, has been under growing pressure from NGOs to improve the food safety of fresh produce sold in its outlets. Aldi therefore increasingly required EurepGAP certification from its suppliers, even before it became a EurepGAP member a few months ago.

- EurepGAP is invariably presented as the most important private standard for GAP, and the Global Food Standard of the British Retail Consortium (BRC) for packing/handling;
- There is unanimity that private standards will become increasingly essential;
- Most importers also buy non-certified products, and so do supermarkets (including EurepGAP members), depending on product availability and price;
- Many importers do not believe that private standards are a sufficient guarantee for improvements, and prefer to depend on reliable suppliers. However, they need to provide certification if and when the retailers require it;
- For most importers, key criteria for supplier selection are: (i) quality (including packaging), (ii) availability and continuity of supply, (iii) trust/relationship, and (iv) certification (although certification is usually not a major criterion, especially for products in the lower price ranges);
- Conformity with private-sector standards depends on markets: it is essential for large supermarkets and less so for wholesalers, smaller supermarkets, street markets and ethnic/specialty outlets, although its importance is growing in those sectors too;
- Retailers and importers in northern Europe (e.g. Germany, the Netherlands, the United Kingdom) more often require EurepGAP certification than retailers and importers in southern European countries. This is because market concentration in retail is far higher in the former; and
- From the above, it follows that EurepGAP certification will become increasingly important and practically a *de facto* market requirement for sale to European retailers. However, there are opportunities for non-certified products as well, which makes it important to implement GAP even in the absence of commercial certification.

In 2006, EU-15 imports of FFV from Sub-Saharan Africa excluding South Africa were worth $1.2 billion. The five largest markets, Belgium, the United Kingdom, France, the Netherlands and Germany together represented over 95 per cent of these imports. Belgium and France largely imported fresh fruit (principally bananas and pineapple) from West Africa (Côte d'Ivoire, Cameroon and Ghana), whereas the United Kingdom largely imported fresh vegetables, in particular beans and peas from Kenya and Zambia. As PVS play an important role in these sectors, one could conclude that for at least around 50 per cent of EU-15 FFV imports from SSA excluding South Africa, certification to PVS such as EurepGAP may already be an important requirement.

Since SSA countries produce FFV for different segments of external and domestic markets, it is important to examine trends in GAP requirements in different markets. These trends should be adequately taken into account in policies aimed at assisting producers in complying with the requirements of different markets to enable them to take advantage of emerging opportunities.[46]

The Kenyan experience seems to indicate that in times of short supply standards are less important than at other times. The perception that GAP is being implemented seems to be a crucial factor. Such a perception (trust in the Kenyan produce) is probably based on the long relationship with the European retailers and the long history of analysis of Kenyan produce. A key challenge to keep smallholders committed to complying with GAP in the long run will probably be to communicate such complexities and explain the somewhat inconsistent behaviour of market partners (so far, standard adoption seems risky with no guarantee of an incremental benefit especially in times of short supply to the market). At the same time, providing the right incentives to adopt GAP is of crucial importance (Mithöfer, personal communication).

Local supermarkets

In addition to changes in production and value chain management required to supply FFV to large retailers in export markets, growers in certain SSA countries, in particular South Africa, may also face

[46] The non-retail sector for FFV, encompassing traditional wholesale markets, catering and food service sectors, may provide a significant opportunity for small-scale growers, given the lower barriers for entry in relation to private-sector standards and quality requirements. However, traceability requirements and gradually more stringent standards are emerging in this sector as well (NRI, 2006).

more stringent requirements from local supermarkets. This may have implications for small-scale growers, even though traditional markets still play a dominant role (Vorley, Fearne and Ray, 2007).

In *Kenya,* 93-95 per cent of FFV are still marketed through traditional channels rather than though supermarkets chains (Nyoro, Ariga and Ngugi, 2007 and Mithöfer et al 2008). However, FFV are among the fastest expanding market segments for supermarkets like Uchumi in Kenya (Nderu, 2007).[47] Within the next few years, retail shares of supermarkets are expected to increase to 10-20 per cent and concerns over food safety issues of vegetables produced for the local markets are growing (Mithöfer et al, 2008). Uchumi has 30 stores in Kenya and sources FFV mostly from about 200 smallholders. The procurement market is dominated by brokers: Uchumi uses brokers for procuring around 70 per cent of its produce, while most of the remainder is procured directly from farmers (and a small proportion from importers).[48] The market is based mainly on price, not quality. Quality, with appearance and physical condition being the most important selection criteria, is negotiated with suppliers. Supermarkets do not invest much in quality control. Uchumi does not conduct MRL testing, because of lack of testing facilities, and little is done to enforce GAP, as this does not give local supermarkets a competitive edge in the market (Nderu, 2007).

In *Uganda,* some FFV are sold by supermarkets such as Uchumi, Metro and Shoprite (Aliguma and Nyoro, 2007). Uchumi procures around 51 per cent of its vegetables and around 53 per cent of its fruit from small producers and brokers (Aliguna and Nyoro, 2007). A modern food system is still emerging in Uganda, and that gives the government time to help small-scale producers to link up with supermarket chains.

Supermarkets may also import FFV. Uganda's imports of FFV consist largely of peas and beans ($17 million in 2005), mostly imported from Italy and the United States. In addition, small quantities of apples are imported, largely from South Africa (whether or not related to supermarket demand).

Costs of EurepGAP compliance

GAP implementation requires investments both at the macro level and the farm level (Santacoloma, 2007). Investments at the macro level may be required, for example for the installation or maintenance of local accreditation or certification systems, lab analysis and lab accreditation, documentation and record keeping systems, business development services, input supply services/input regulations, training and technical assistance.

Initial investments required at the farm level include, for example, installing basic pesticide/fertilizer storage facilities, and toilet and hand washing facilities. Depending on the facilities existing before GAP implementation, some of these investments (e.g. in storage facilities for fertilizers and crop protection products) may be significant. OECD country studies found that up-front costs to upgrade a farm to be able to meet GAP requirements may often be the major cost element (OECD, 2006). Recurrent costs, such as first-time costs of training, certification and laboratory analysis, can also be significant.

The following infrastructure is needed for responsible small-scale production: safe storage for small quantities of crop protection products, a waste chemicals disposal pit, hand washing facilities during harvest, personal protective equipment and knapsack sprayer (Garbutt and Coetzer, 2005).

Henson and Jaffee (2006) have provided some estimates for the FFV sector in Ghana. Estimates of non-recurring costs range from $450 to $510 for outgrowers (with 15 to 20 acres) who supply exporters, and from $75,000 to $100,000 for integrated producer-exporters with 1,000–1,800 acres (for more detail see OECD, 2007). However, since the latter benefit from significant economies of scale, their non-recurring costs tend to be consistently less than 4 per cent of sales, compared to 6–11 per cent for smaller producer-exporters. It is argued that economies of scale for producer-exporters, combined with non-recurring costs of compliance, have had a significant impact on the structure

[47] Uchumi and Nakumatt have an approximately 70 per cent share in total supermarket sales in Kenya (Weatherspoon and Reardon, 2003).

[48] According to Nyoro, Ariga and Ngugi (2007), Nakumatt procures 60 per cent of its produce from farmers, 32 per cent from brokers and 8 per cent from importers.

of the pineapple sector, resulting, in particular, in the consolidation of the sector and the growing dominance of a few large-scale producer-exporters, many of which also source from outgrowers.

Recurring costs appear to be relatively small, generally representing less than 1 per cent of the value of annual sales. Even so, these costs may compromise the competitiveness of Ghanaian FFV exporters who target lower price markets with very low profit margins. EurepGAP, or perhaps more generally, better practices, have also resulted in cost savings, for example as a result of lower use of pesticides and other chemical inputs, better monitoring of crops, record keeping and ongoing assessment of performance. Henson and Jaffee (2006) also found that reduced production costs have generally been accompanied by improvements in product quality, which in some cases has been rewarded with higher market prices.

Data gathered by Graffham, Karehu and MacGregor (2006) for Kenya paint a bleaker picture. Their survey, based on 11 out of 18 of the major exporters that control about 80 per cent of FFV exports, found that the maintenance costs for adherence to EurepGAP that are borne by smallgrowers were very high relative to the average returns: 21 per cent on average. Recurrent costs were higher than profit margins, which makes continued investments in EurepGAP compliance unviable without external (financial) support by exporters, donors or the government. Combining recurrent and initial investment costs, the financial conundrum in Kenya, according to these authors, is "how to finance 433 United Kingdom pounds initial costs in year zero while covering recurrent costs of 104 pounds with a production margin of 182 pounds" without external financial support.

Proactive responses

National GAP initiatives

In SSA, interest in developing national GAP initiatives has emerged largely because of their perceived potential to contribute to export development and to provide an appropriate response to emerging commercial and private-sector standards.[49]

This monograph analyses the experiences of Kenya and of emerging initiatives in Ghana and Uganda. Codes of practice being developed in some other SSA countries are at various stages of implementation. For example, the private sectors in Ethiopia, Rwanda, Zambia and Zimbabwe have developed codes of practice that are export-market orientated. In the United Republic of Tanzania, the public sector is developing a code of practice for agriculture with both a domestic and export market focus (FAO and UNCTAD, 2007).

The creation of working groups and national task forces for horticulture has given an impetus to initiatives aimed at establishing national GAP schemes in several SSA countries, for example by promoting dialogue between the public sector, private operators and other stakeholders in the FFV sector.[50] The case studies synthesized in Chapters IV to VI offer examples of some of these initiatives.

According to FAO (Poisot, 2007), a national GAP programme should take into account the following key factors:

- Clarity in market demand and support (i.e. target markets and key actors);
- Established stakeholder coordination mechanisms (e.g. a steering committee and/or task force);
- A concerted and clear strategy (e.g. interfacing different objectives and capacities of actors);
- Appropriate standards and documentation (adapted to national circumstances and legal requirements);

[49] Contrary to countries in South East Asia where GAP initiatives emerged as part of a strategy initially aimed at promoting national food safety along the food chain (UNCTAD, 2007d).

50 The EU-supported Pesticide Initiative Programme (PIP) of the Europe/Africa-Caribbean-Pacific Liaison Committee (COLEACP) supports the creation of ACP task forces. These are permanent working groups whose members represent the actors directly concerned with the issue of compliance of fruit and vegetable exports with private-sector requirements or national schemes, namely public services (ministries of agriculture, inspection bodies) and producers. In SSA, task forces have been set up in Burkina Faso, Cameroon, Ghana, Guinea, Kenya, Mali, Senegal and Uganda.

- Reliable inspection, certification and laboratory services (to be established or strengthened); and
- Supportive infrastructure and capacity-building (e.g. farm infrastructure, training, service providers).

The three country case studies highlight several factors for consideration in the development of national GAP schemes, in particular:

- The need to include a broad range of stakeholders in the development of a GAP scheme to ensure that these stakeholders feel a sense of ownership of and commitment to the scheme;
- The need to build a convergence of views on the concepts and objectives of the scheme, and to clearly define the roles of the government, the private sector and other stakeholders;
- The need for an enabling policy framework, enforcement, incentive and sanction mechanisms;
- The need for flanking measures to address constraints on GAP implementation, including industry-related challenges (entrepreneurship), supportive quality assurance and physical infrastructure, the creation or strengthening of producer groups and private-sector associations, and the appropriateness of extension services; and
- The need for realistic objectives that take into account market requirements, national capacities and objectives for sustainable agriculture. This may necessitate the adoption of modular approaches.[51]

National GAP schemes and related extension services should take into account the conditions and needs of small producers, in particular, in meeting GAP requirements. For example, a major obstacle to GAP implementation is the low level of awareness and education of smallholders, as mentioned earlier. These constraints need to be addressed through training and a range of other measures.

According to Garbutt and Coetzer (2005), the main problems with GAP implementation by small-scale farmers are: little base knowledge of GAPs; lack of financial independence; subsistence living; poor rural infrastructures; variable access to irrigation; poor record-keeping skills; difficulty of access to unadulterated inputs (e.g. seeds). Further factors are quality of irrigation water and advice on appropriate use and application of pest control strategies especially agrochemicals.

Supply chain management innovations initially focused on increasing efficiency and reducing costs, in order to bring economic benefits to supply chain participants. The focus on food safety and, in particular, social and environmental responsibility is more recent. The latter, however, may result in cost increases. The question arises as to who will pay. Or could the chain combine the two: could cost savings from increased efficiency be reinvested in social and environmental improvements? (Nyagah, 2006).

Options for achieving EurepGAP certification

By April 2007, 2,254 producers in SSA had obtained EurepGAP certification, of which 1,538 were in South Africa (Table 6). This country also had the highest number of producers that had achieved certification individually and directly to the EurepGAP standard (1,442) among all developing countries (followed by Chile, with 956 producers certified under Option 1). After South Africa and Chile, the largest numbers of certified producers were in Kenya (606), Côte d'Ivoire (39) and Ghana (29).

Group certification may be an option for small-scale producers. The group must implement a quality management system with an internal control mechanism. Third-party inspection of the group is then limited only to the square root of the total number of members (e.g. 5 for 25 members, 10 for 100 members). Implementing a quality management system for the group, however, is not an easy task

[51] The Diagnostic Trade Integration Study on Uganda suggests that "The medium-term strategy should be to define and achieve implementation of a UgandaGap, a more modest and less stringent version of EurepGAP. Industry, government, academe, NGOs and others could participate in developing and applying such a UgandaGap. In the future, should the external buyers of Uganda's fresh produce require compliance with more stringent technical standards or management systems, then the movement toward UgandaGap compliance will serve as an effective stepping stone plus elements in that protocol can themselves be refined to maintain its relevance to the evolving marketplace" (World Bank, 2006).

(Graffham and MacGregor, 2006). An FAO report (2006) observes that the dropout rate from Option 2 certification, which has to be renewed every year, is relatively high. For example, several groups that had obtained certification in Kenya were no longer operating after some time.

Table 6. Number of EurepGAP-certified producers (Options 1 and 2), April 2007

	Number of certified producers			PMOs*	Percentage of certified producers by certification option (%)		
	Total	Option 1	Option 2		Total	Option 1	Option 2
World	68 006	21 766	46240	948	100	32.0	68.0
Developing countries	12 799	4 954	7 845	216	100	38.7	61.3
Africa	2 871	1 873	998	60	100	65.2	34.8
Sub-Saharan Africa	2 254	1 527	727	33	100	67.7	32.3
South Africa	1 538	1 442	96	2	100	93.8	6.2
Kenya	606	31	575	27	100	5.1	94.9
Côte d'Ivoire	39	0	39	1	100	0.0	100.0
Ghana	29	21	8	1	100	72.4	27.6
Zambia	13	4	9	2	100	30.8	69.2
Ethiopia	8	8	0	0	100	100.0	0.0
Zimbabwe	7	7	0	0	100	100.0	0.0
Senegal	6	6	0	0	100	100.0	0.0
Namibia	4	4	0	0	100	100.0	0.0
Cameroon	2	2	0	0	100	100.0	0.0
Madagascar	1	1	0	0	100	100.0	0.0
The United Republic of Tanzania	1	1	0	0	100	100.0	0.0
North Africa	617	346	271	27	100	56.1	43.9
Morocco	353	210	143	13	100	59.5	40.5
Egypt	248	120	128	14	100	48.4	51.6
Tunisia	16	16	0	0	100	100.0	0.0
Developing Asia	5381	660	4 721	82	100	12.3	87.7
Turkey	3295	103	3 192	39	100	3.1	96.9
Other developing Asia	2086	557	1 529	43	100	26.7	73.3
Latin America, Caribbean	4547	2 421	2 126	74	100	53.2	46.8
South/Central America	4300	2 267	2 033	71	100	52.7	47.3
Mexico, Caribbean	247	154	93	3	100	62.3	37.7
All other countries	55 207	16 812	38 395	732	100	30.5	69.5
European Union	51 682	16 029	35 653	688	100	31.0	69.0
Australia, New Zealand	2 010	334	1 676	12	100	16.6	83.4

Source: FoodPlus, personal communication
* Produce marketing organization

A recent regional workshop on GAP co-organized by FAO, UNCTAD and the National Task Force on Horticulture in Kenya found that group certification may facilitate certification of smallholders, provided that:

- Strong group cohesion and efficient management structures are in place to enhance transparency and effective functioning of the group;
- Good contractual arrangements are maintained with buyers (exporters);
- Access to financial and credit facilities is assured;
- Access to markets is assured; and
- Farm management and agri-business skills are developed (FAO and UNCTAD, 2007).

Implementation of a national GAP scheme that can be benchmarked to EurepGAP makes it possible to take into account local circumstances. The Fresh Produce Exporters Association of Kenya (FPEAK) started to develop its own GAP standard in 2004, and decided to seek benchmarking to EurepGAP, the principal GAP standard for the customers of Kenyan exporters (Garbutt and Coetzer, 2005). A EurepGAP National Technical Working Group was subsequently established. Efforts were initiated to develop a national GAP standard that could be benchmarked to EurepGAP and to develop modalities to interpret EurepGAP requirements in the context of small-scale farmer production in Kenya (KenyaGAP was benchmarked to EurepGAP in August 2007, see below).

The creation of national interpretation guidelines may also be useful to help make EurepGAP certification more cost-effective and accessible to fruit and vegetable growers in SSA countries. National interpretation guidelines add another (third) column to the EurepGAP standard that spells out the national interpretation of compliance criteria for the EurepGAP control points/compliance criteria (CP/CC).

Role of governments and other stakeholders in GAP development and implementation

When contextualizing national GAP development, it is important not to limit it to the commercial, micro-economic context of enabling producers to comply with downstream market standards. Rather, national GAPs should address both the commercial context and non-commercial sustainability aspects, including benefits for workers' health, the environment and national economic development. According to FAO, national GAP systems concern "practices that need to be followed to ensure environmental, economic and social sustainability for on-farm production and post-production processes and result in safe and quality food and non-food agricultural products" (Poisot, 2007). This provides the rationale for using public (and development assistance) resources to support national GAP implementation.

The authors of all three studies summarized in this report share the view that governments can facilitate the development and implementation of national GAP schemes by providing technical and financial support, improving the necessary infrastructure, providing training and other extension services and establishing/enforcing relevant regulations. In this context, governments can play a key role in ensuring the involvement of all relevant stakeholders – especially smallholders – in the process, and in helping to clarify the concept and objectives of national GAP schemes. Governments can also promote awareness of the benefits of GAP and encourage its wider use.

Some of the technical and financial constraints that small-scale growers face in implementing GAP may be mitigated, or even overcome, by effective and concerted supportive measures by SSA governments and related donor support. In this regard, more targeted support to address the following specific compliance issues would be worthwhile (for more information, see UNCTAD, 2007c):

- More public and private-sector support needs to be provided to establish and consolidate stable and efficient producer groups, including at the village level. Effective leadership and management are important for well-functioning producer groups;[52]
- Helping to build national capacities – particularly in the private sector – in inspection, auditing and certification by facilitating training and regulating the provision of services. This may involve privatization of certain commercial services currently performed by the government. The government should seek to play a supportive role in GAP implementation by smallgrowers;
- It would be useful to develop "indicator" tests to show whether the MRL for pesticides are "below", "borderline" or "above" the specified amounts. Borderline tests could then be repeated with a full analytical protocol. This approach would be less expensive and quicker for quality control purposes, and thus more easily affordable by small farmers;
- Launching initiatives or creating institutions that promote farmer-retailer linkages and improve distribution channels. This may also include measures that address the temporary financial gaps of small farmers in new supply chains. An interesting example is the Federal

[52] The term "well-functioning" includes that these groups are producing a sufficient volume in an economically viable way and have easy access to transport and water.

Agricultural Marketing Authority of Malaysia (FAMA);[53] and

- Small-scale farmers need assistance in the development and use of specific, pre-formatted checklists to manage GAP-related record-keeping on the farm. A further step would be to customize available GAP software for maintenance of records. The traceability software of the Pesticides Initiative Programme under COLEACP, for instance, has been introduced in more than 40 beneficiary firms in nine countries of East and West Africa, resulting in the switching from manual recording (paper traceability) to a computerized traceability system (PIP, 2007).

Alternative markets

Stringent regulations and private-sector standards pose considerable challenges to many small-scale FFV producers and exporters in SSA. Apart from providing them with technical and financial assistance to enhance their capacities to meet the requirements of these standards, certain strategies may be explored to reduce their exposure to adverse impacts of such standards. Such strategies complement, rather than substitute, strategies aimed at assisting small-scale growers to participate in global value chains.

A recent study on Uganda (Kleih, et al., 2007) found that although exporters may prefer the overseas market due to its higher profit margins, those surveyed suggested that there are also opportunities in cross-border trade, the domestic market and small-scale processing. Indeed, securing these markets in the short-term might prove more lucrative and sustainable than a riskier focus on overseas markets.

Processing of FFV, for example, may be an option for certain producers/exporters to cope with stringent food safety requirements, as standards for processed fruit and vegetables may be less difficult to comply with (provided producers can meet HACCP and good manufacturing practice requirements).[54] Processing could therefore be a way out where volumes justify commodity trade (economies of scale), and where there is no tariff escalation as a result of processing. For example, Kenya and Madagascar substantially increased their share in EU imports of processed beans during the period 2003-2006 (Table A.10), and Ghana is seeking to increase its exports of sliced pineapple and pineapple juice. To compete in the EU market, SSA countries could also opt for a strategy of quality upgrading. For example, Senegal upgraded the quality of its exported green beans (Maertens et al, 2007), and their average unit value imported into the EU increased from 1,752 euros/ton in 2000 to 2,104 euros/ton in 2006. By comparison, over the same period the average unit value of beans imported into the EU from Morocco fell from 1,388 euros/ton to 1,094 euros/ton.[55]

Some have argued that where costs of coordinating small-scale growers of FFV to ensure that they comply with stringent private-sector requirements in export markets may make them uncompetitive, development strategies could focus on alternative markets, such as local and regional markets, niche markets and/or less demanding export markets[56] (Humphrey, 2006b).

The domestic market may provide profitable options for smallholders in some countries, where some FFV varieties may fetch relatively high prices. For example, prices for exotic mangoes on domestic

[53] In addition to providing bridging funding, governments and donors may also provide guarantees to motivate banks to give loans to small farmers for their fixed capital investment in GAP compliance.

[54] According to a recent FAO report, where exports of non traditional products are made in fresh form (fruit, vegetables and cut flowers) a potentially more significant constraint to exporters is the sanitary and phytosanitary (SPS) controls that are imposed by destination buyers (FAO, 2004). However, the same report notes that the processed products category appears to have fared less well over the period, with unit values generally experiencing a downward trend. This could be because unlike the fresh produce sector, there has been comparatively little innovation in the presentation and packaging of processed products.

[55] The unit values quoted here update those mentioned in Maertens et al. (2007), based on Eurostat using the EC Export Helpdesk.

[56] A recent study by NRI (2007: 6, 16) pointed out that there is a growing ethnic community within the wholesale markets in the United Kingdom that may continue to offer opportunities for developing-country producers. This retail segment has recorded an upturn in business in recent years by supplying small and medium-sized catering companies and restaurants. The five million "ethnic" people living in the United Kingdom have significantly higher per capita FFV consumption than the rest of the population.

markets in Ghana are reportedly high. However, prices may decline when markets develop (SLE, 2006).[57]

Niche markets may also offer an interesting option.[58] The organic sector in countries such as Kenya and Uganda is comparatively small, but is growing rapidly; and it is of interest to smallholder farmers (farming 1-3 ha) because of its labour-intensive and local-knowledge-intensive nature (UNCTAD and UNEP, 2006).[59] Although a large proportion of organic agriculture in Uganda focuses on coffee and other traditional crops, the country now also exports organic chillies, fresh fruit, dried fruit and vanilla. Ghana is embarking on exports of organic mangoes and bananas.[60] In Kenya, organic products have been exported for some time, including vegetables (beans, peas, chillies, sweet corn, as well as salad and baby vegetables), fruit (pineapples, avocados, passion fruit, papayas, mangoes and guavas), nuts (macadamia nuts and cashew nuts) and vanilla. The recently adopted East African Organic Products Standard[61] will not only facilitate regional trade in organic produce, but is also likely to ease access to the European market in the medium term, once it is recognized as technically equivalent by the EC.

With regard to trade among SSA countries, regional markets may provide a viable option for some of their small-scale growers, particularly where problems concerning logistics (e.g. road transport, cold chain) can be overcome. The South African market, for example, may provide a market outlet for certain FFV categories exported by Eastern and Southern African countries. Existing subregional trade groups and EPAs currently being negotiated between the EC and subregional groups of African countries could play a role. Appropriate GAP schemes could facilitate all these options, even without certification.

The Least Developed Country perspective

As many as 34 out of 48 countries in SSA countries are categorized as least developed countries (LDCs). It is therefore important to analyse the implications of recent trends in FFV trade – as discussed in this monograph – for LDCs as well as possible proactive adjustment policies that may be particularly relevant for LDCs seeking to include FFV in strategies aimed at promoting non-traditional exports by taking advantage of their favourable climate and – in many cases – labour costs.

The recent experience of LDCs has been mixed. Some such as Ethiopia, Senegal, the United Republic of Tanzania and Uganda have significantly increased their exports of FFV over the last 10 years. The value of EU-15 imports from all LDCs in sub-Saharan Africa taken together was $ 156.1 million, a 25 per cent increase over the average annual value in 1996-1998.Yet, as a group, LDCs in SSA have seen their already very small share in FFV trade shrink, despite full quota- and duty-free access for all FFV as part of the EBA initiative. For example, their share in extra-EU imports of FFV was only 0.9 per cent in 2005-2006, down from 1.2 per cent in 1996-1998. Over the same period, the share of LDCs in SSA in total EU imports of FFV from SSA fell from 8.4 to 5.9 per cent.[62]

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57 The dilemma for producers in national urban markets is however how to push huge volumes of produce as single batch to scattered buyers (at small volumes), which increases the cost of distribution (selling) to uneconomical levels. In business, the ability to use one ton of mangoes in one transaction but at a smaller margin far outweighs hawking mango-by-mango at a much higher price. The net reality is that the farmer is paid much less for domestic market than for export, because of relative efforts required to sell.

58 Global organic markets have increased in value by 12–15 per cent annually in the past 10 to 15 years, whereas conventional food markets have expanded by only 2–4 per cent.

59 However, whereas organic production and Fair Trade may be an attractive approach to secure greater returns for smallholders and create a more sustainable basis for their participation in high value markets, niche markets alone cannot absorb the larger volumes associated with conventional markets (NRI, 2007).

60 Volta River Estates Ltd in Ghana and AgroFair Europe BV (an importer in the Netherlands) have established an organic and fair trade banana farm in Ghana. Agro Eco (an international company, based in the Netherlands, advising in the field of organic agriculture and related areas, such as fair trade) was in charge of project management and technical assistance for a two-year period, and production started in 2003.

61 The standard was developed under the UNCTAD-UNEP Capacity-building Task Force on Trade, Environment and Development, in collaboration with the Swedish EPOPA project (for more information, see: www.unep-unctad.org/cbtf/events/dsalaam2.asp).

62 The share of FFV in total EU imports of agricultural products from LDCs in SSA has been only around 5-6 per cent in value terms over the last 10 years, whereas for non-LDCs it increased from 18.1 per cent in 1996 to 27.8 per cent in 2006. This indicates that LDCs in SSA focus heavily on traditional agricultural exports.

The limited export potential of LDCs is a major constraint. Several LDCs in SSA are net importers of FFV to cover domestic needs; indeed, as a group, they are net importers of FFV. Even where opportunities for export production exist, they face special obstacles in exporting FFV, for example their lack of the necessary infrastructure and logistics. Producers and exporters of non-traditional FFV must innovate continuously in order to retain their market share and maintain unit values.

Recent trends in FFV trade analysed in this monograph may exacerbate existing problems and pose particularly tough challenges to LDCs. Their weak administrative, technical and financial capacities as well as their small size make it very difficult for them to comply with new or more complex requirements, including traceability requirements and PVS. Some EU regulations may entail higher costs for small and non-traditional exporters than for traditional exporters. For example, risk-assessment-based inspection arrangements of non-conformity with marketing standards applicable to FFV (EC Reg.no1148/2001) may have some unintended impacts on LDCs and other small FFV exporters. Whereas only a small proportion of the consignments of traditional exporters with an established track record (such as Kenya) are inspected, new, non-traditional exporters could face inspections of entire consignments until they have built up a track record and a proper risk assessment can be made. This can create a situation where a non-traditional LDC exporter of FFV faces inspection charges many times higher than those levied on established exporters (Agritrade, 2007).

Several LDCs have nevertheless been able to export FFV to the EU market. In 2006, the EU-15 imported FFV (excluding nuts) worth at least $1 million from 13 LDCs in SSA: Senegal, Madagascar, Ethiopia, Zambia, the United Republic of Tanzania, Burkina Faso, Uganda, Mali, Togo, the Gambia, Benin, Guinea and Mozambique (in descending order of import values). This illustrates that some LDCs have the potential to derive development benefits from FFV exports in certain sectors.

The main export product for LDCs in SSA is beans. At present, as a group, these countries (in particular Burkina Faso, the Gambia, Ethiopia, Madagascar, Senegal and the United Republic of Tanzania) account for a share of around 8 per cent in extra-EU imports (compared to about 10 per cent in the second half of the 1990s). Other products include lychees (Madagascar), tomatoes (Senegal), mangoes (Burkina Faso, the Gambia, Mali and Senegal), "other" vegetables (Togo, Uganda and Zambia), peas (Zambia), chillies (Uganda and Zambia), pineapples (Benin and Togo) and bananas (Uganda). EU imports of processed fruit and vegetables are very small: they include preparations from beans (Madagascar) and mixtures of fruit (Togo).

Several diagnostic trade integration studies (DTIS), carried out by the World Bank, have identified key FFV products that offer prospects for diversification of exports into higher value products, provided that important constraints can be overcome (World Bank, 2003a, 2003b, 2004a, 2004b, 2005a, 2005b, 2005c, 2006).

Discussions at the international level

World Trade Organization (WTO)

Since June 2005, private standards have been discussed in the SPS Committee of WTO. They were also discussed at a Joint UNCTAD-WTO Information Session in June 2007, where the case study on Uganda was presented among others.[63] Developing country governments have argued that private-sector standards lack transparency, as there are no notification procedures similar to those for government regulations. They have also pointed out that such standards tend to be *de facto* mandatory on account of their commercial importance, and that they restrict trade as they are more stringent than government regulations and may also include a bundle of environmental protection, occupational health and safety and social criteria. In addition, several developing country governments have expressed concern that standards set by private-sector entities do not meet WTO requirements such as transparency, scientific justification for food safety measures, and requirements on harmonization and equivalence, and that they are more trade restrictive than necessary for health protection. For instance, it has been argued that private-sector standards such as EurepGAP, are more prescriptive (accepting only one way of achieving a desired food safety outcome).

[63] For more detail, see: www.unctad.org/trade_env/ meeting.asp?MeetingID=229.

Furthermore, many developing-country WTO members have pointed out that the proponents of private standards often emphasize that compliance with these standards would automatically assure compliance with mandatory requirements in export markets. As a result, they have suggested that governments should take responsibility for WTO compatibility of voluntary standards set by companies within their borders, and that the SPS Committee could support the process. Accordingly, they have requested that the Committee continue to discuss this issue.

Several developed countries, on the other hand, have argued that the SPS Committee does not have the mandate to deal with standards set by entities other than governments, and that many of the standards discussed do not cover food safety alone, but rather a mix of safety, environmental and other issues that might be raised in other WTO bodies, such as the Committee on Technical Barriers to Trade (TBT).

The European Commission has suggested that work should focus on case studies and concrete experiences of countries in coping with private standards as well as related capacity-building.

While highlighting the importance of standards, including PVS, in facilitating international trade, Mbithi (2007) suggests that PVS may be an effective and quick means of responding to changing consumer needs and easier to adapt to private-sector realities if they involve extensive private-sector consultations and periodic reviews. They may also be a practical way of allowing a private-sector player to meet mandatory requirements in export markets, particularly those related to safe agrochemical use. On the other hand, where government regulations apply, PVS may involve a certain level of duplication. Moreover, private standards often imply costly certification requirements and their proliferation across markets may also imply the need for multiple audits. PVS also raise questions of accountability. For example, who is responsible for ensuring that the thresholds set are adequate for addressing risks? Where can an exporting private sector seek justice/compensation if it loses access to the market of another country as a result of private-sector standards? With regard to accountability, PVS also raise a number of WTO-related questions. For example, are the measures proposed proportional (and related) to the risk? Is the application of SPS measures transparent? Does harmonization and equivalence of PVS require "sameness" rather than "'equivalence"?

The process of private-sector standard setting

To make PVS more relevant and easier for smallholders in developing countries to comply with, standard setting bodies should ensure that: (a) requirements are (scientifically) justified and necessary; (b) requirements are proportional to the related risk; (c) there is transparent application of the standard; (d) that (real) equivalence can be achieved among PVS, and does not boil down to sameness; and (e) there is proper interpretation of control points and compliance criteria (e.g. in laboratory samples and analysis) (Santacoloma, 2007). With regard to the latter point, the development of national interpretation guidelines may be useful.

The benchmarking of GAP schemes (either national or regional) to EurepGAP follows specific phases (described in detail in UNCTAD, 2007b), but concern has been expressed that benchmarking may be implemented too strictly, leaving little room for equivalence of risk outcomes, as enshrined in the WTO SPS Agreement (Article 4.1).[64] For a standard to be successfully benchmarked against EurepGAP, it has to be considered equivalent to every aspect of EurepGAP: its general regulations, and control points and compliance criteria, in addition to internal management of the standard. This is a strict interpretation of equivalence, which FoodPlus (the EurepGAP secretariat) considers necessary if buyers are to have confidence in the comparability of different standards. The benchmarked standard could also cover additional criteria that might go beyond the scope of EurepGAP. These additional criteria might be market- or customer-specific, or relate to local preferences.

Developing countries may find it difficult to participate effectively in the development of private-sector standards, partly because of the costs of membership and participation in meetings in different

[64] For more detail, in particular reviewing the experience of Kenya with the recent successfully completed benchmarking process of KenyaGAP to EurepGAP, see FAO and UNCTAD, 2007.

parts of the world. Frequent revisions of standards, such as the EurepGAP standards, may present a further difficulty for their participation. To address these concerns, EurepGAP national technical working groups (NTWGs) for fruit and vegetables could channel inputs from national experts to EurepGAP technical standards committees and draw attention to problems resulting from short cycles of revisions to EurepGAP protocols. In addition, donors could consider supporting participation of developing-country representatives in annual EurepGAP meetings and in the work of its technical committees.

There is also need for more dialogue between representatives of private-sector standard-setting organizations and governments and producers/exporters in developing countries, and for the exchange of successful national experiences, particularly among developing countries. Such dialogues could focus on: (a) conceptual issues and appropriate approaches to the development of national GAPs; and (b) clarification of the roles of governments and other stakeholders. Donors could play an important role in facilitating these meetings. UNCTAD's CTF has been supporting national and subregional stakeholder dialogues, and it plans to intensify these activities in the future, in close cooperation with the FAO and FoodPlus, as appropriate.

Recently, EurepGAP changed its name to GLOBALGAP based on the belief that its proclaimed role in harmonizing GAP standards now extends beyond Europe. This implies the need for more active participation in and contributions of developing countries to future GLOBALGAP revisions, particularly to the work in the sectoral committees. The GLOBALGAP secretariat could facilitate this; indeed, the recent appointment of an Observer for Africa in the GLOBALGAP sectoral committees and the decision to form a smallholder task force to develop concrete proposals for small-farmer-friendly changes in the GLOBALGAP control points and certificate procedures are steps in the right direction.

IV. GHANA

Based on a case study by Augustine Adongo
Federation of Associations of Ghanaian Exporters (FAGE)

Introduction

Agriculture provides direct employment to over 60 per cent of the Ghanaian labour force (Table A.1) and accounted for over 55 per cent of merchandise exports (in value terms) in 2005. Smallholders dominate agricultural production: they constitute probably more than 98 per cent of all farmers in the country (SLE, 2006). The agricultural sector contributed to about 25 per cent of gross domestic product (GDP). However, between 2002 and 2005 the average annual growth rate of agricultural production was 3.5 per cent, short of the Government's target of 5–6 per cent.

Ghana's principal exports are gold, cocoa, timber, tuna, bauxite, aluminium, manganese ore and diamonds. In 2006, the three leading traditional export commodities – gold, cocoa and timber – accounted for around 70 per cent of the value of total merchandise exports (COMTRADE). Horticulture (FFV, nuts, yams and flowers) and processed fruit and vegetables together contributed $156.3 million to Ghana's agricultural non-traditional exports (NTEs), followed by fish and crustaceans ($51.9 million).[65] The Government has set a target to increase the share of horticulture in total NTEs to more than 50 per cent by 2010.

This chapter analyses the trends related to Ghanaian exports of FFV and the country's experiences with proactive strategies to adjust to increasingly stringent food safety and environmental requirements in external markets. The principal fruit exported by Ghana are pineapples, papayas, bananas and mangoes. Vegetable exports include Asian vegetables (e.g. tinda, okra and chillies) and yams. Over 90 per cent of Ghanaian FFV exports (in value terms) went to the EU in 2006.

Production and exports of FFV have the potential to increase the country's foreign exchange earnings, rural employment, income and growth, thereby contributing to poverty reduction. In general, however, exports of FFV face stringent food safety and quality requirements. Participation in global supply chains now requires large investment in infrastructure and logistics, new production practices, handling processes, and support services, such as certification, record keeping and food safety monitoring. A combination of public and private actions and investments is needed to improve food safety and quality, particularly in export-oriented production.

A large number of initiatives are being implemented in Ghana, which aim at enhancing the capacity of producers of agricultural NTEs, including FFV, to meet the requirements of international markets, focusing on issues such as food safety, quality, grades and pesticide management. These initiatives focus on facilitating exports to the EU market. The strategic importance of the EU market has increased further, as the size of that market could absorb the volume needed for the effective introduction of new crop varieties (pineapple, papaya) in order to compete with other developing countries supplying that market. In addition, the fresh produce industry, which has so far focused on supplying independent buyers and wholesalers, is trying to develop the capacity to link with European supermarkets.

The creation of a National Horticultural Task Force (NHTF), a broad-based private- sector-led group with representatives from produce and marketing organizations, public sector institutions and the donor community, has been instrumental in initiating discussions on a national quality assurance scheme for horticultural products. This includes the possible development of a GhanaGAP programme, which would ensure quality, safety and traceability. The process will in part be determined by the ongoing consolidation of a large number of existing initiatives on food safety and quality standards.

This chapter discusses a number of issues that are relevant for the design and implementation of national GAP initiatives in Ghana. In particular it highlights the need to assist smallgrowers in implementing GAP, as they produce 40 per cent of the country's fresh produce for export.

[65] In Ghana, NTEs comprise all merchandise exports except cocoa beans, logs and lumber and mining products. NTEs are grouped into: (i) agricultural products (horticultural products, fish and seafood and other products); (ii) processed and semi-processed goods; and (iii) handicrafts.

Production and export of FFV

According to FAO estimates, Ghana's production of fruit and vegetables almost tripled between 1979-1981 and 2004, reaching 3.5 million tons (Table A.2). According to statistics reported to COMTRADE, the average annual value of Ghanaian FFV exports was $64 million during the period 2003-2006, of which fruit accounted for $59.2 million and vegetables for $4.8 million (Table 7). Around 90 per cent of FFV exports in value terms were directed to the EU. These figures do not include exports of nuts and roots, which have seen wide fluctuations.

Table 7. Ghana: exports of FFV, nuts and roots, 2003–2006 ($ million)

	2003	2004	2005	2006	Annual average
FFV	45.9	38.7	33.7	137.8	64.0
Fruit	39.3	34.5	28.6	134.6	59.2
Vegetables	6.7	4.2	5.1	3.3	4.8
Nuts	4.8	8.9	323.6	9.2	86.6
Roots	4.5	5.4	181.0	8.8	49.9

Source: COMTRADE (export data reported by Ghana)

Using data on world imports of FFV from Ghana as a proxy for Ghanaian exports it is estimated that the dollar value of the latter almost tripled between 1996 and 2006. World imports increased from around $38 million per annum in the second half of the 1990s to over $100 million per annum during the period 2004-2006 (COMTRADE). Growth was particularly strong during the period 2000-2004 (Table 8).

Table 8. Ghana: exports of FFV, 1996–2006 ($ million)*

	1996–1999	2000	2001	2002	2003	2004	2005	2006
FFV	38.1	44.8	52.7	66.5	88.8	106.7	98.6	115.2
Fruit	33.1	34.9	42.6	56.5	76.4	92.9	83.4	100.3
Pineapples	36.4	29.8	36.6	49.6	69.8	82.3	71.2	61.0
Bananas	2.9	2.3	2.8	3.1	1.3	2.6	4.6	28.4
Vegetables	5.7	9.9	10.1	10.0	12.4	13.8	15.2	14.9

Source: COMTRADE

* Based on reporting of importing countries that provided data to COMTRADE.

EU statistics (Table A.6) show a rapid rise in the volume of FFV imports from Ghana by the EU: 69.1 per cent during the period 2000–2006. EU imports of Ghanaian pineapples increased rapidly until 2004, but declined in value and volume terms between 2004 and 2006; papaya imports also fell during this period (Table A.7). Conversely, those of bananas have risen rapidly in recent years. With regard to vegetables, the volume of EU imports from Ghana increased by only 4.3 per cent from 2000 to 2006, despite the strong growth of imports of chillies, while those of yams (which are not included in the above-mentioned figures on trade in vegetables) increased steadily over the whole period. A more in-depth analysis of Ghanaian exports of key FFV is presented in the next section.

Product and producer profiles

This section analyses recent trends in production and exports as well as producer profiles (Table 9) in key FFV.

Pineapples

Pineapple represents about 70 per cent of Ghana's total FFV exports. Large and medium-sized producers account for around 60 per cent of exportable pineapple production, while the remainder is supplied by small-scale growers (Table 9). However, many exporters, including those that are engaged in production, source from small-scale producers under contract farming (Voisard and Jaeger, 2003 and OECD, 2006).

Commercial cultivation for export is relatively recent (early 1980s).[66] Exports of pineapples have grown rapidly since the late 1990s, the main destination being the EU (especially Belgium, France and the United Kingdom). This increase was made possible mainly by the introduction of sea freighting which overcame the problem of limited air cargo capacity (also freeing up air cargo for higher value products).

Table 9 Ghana: producer profiles for major export fruit and vegetable exports

Product	Producer profile
Pineapple	Large and medium growers (60 per cent); small-scale growers (40 per cent)
Papaya	Large and medium growers (70 per cent); small-scale growers (30 per cent)
Mango	Large growers (40 per cent), medium (30 per cent); small-scale growers (30 per cent)
Banana	Large and medium growers
Vegetables	Small-scale growers

In recent years, however, Ghanaian pineapple (mostly smooth cayenne) exports have been affected by the introduction of the MD2 variety, developed in Hawaii and produced on a large scale by Del Monte in Costa Rica. EU imports of Ghanaian pineapples fell from 51,700 tons in 2004 to 40,200 tons in 2006, while Ghana's share in EU imports fell from 10.5 per cent in 2003 to 5.2 per cent in 2006 (Table A.10). Over the same period, Costa Rica's share in extra-EU pineapple imports increased from 43.1 per cent to 65 per cent in volume terms, overtaking Côte d'Ivoire as the principal supplier. Conversion from the smooth cayenne to the MD2 variety has been necessary in Ghana to regain competitiveness in international markets. According to Danielou and Ravry (2005), it is expected that Ghana's exports of pineapple will recover and exceed 2004 levels, mainly due to the expansion by Golden Exotics (a locally-registered firm of Compagnie Fruitière, a subsidiary of Dole) of acreage devoted to growing the MD2 variety.

Bananas

Most of Ghana's banana plantations were destroyed by a storm in 2002. Production resumed subsequently, including organic production, resulting in a strong recovery of exports in 2006 (Table 8). EU statistics also indicate a sharp rise in imports from Ghana in 2006, amounting to 13.2 million euros, up from an annual average of around 2.5 million euros per year during the period 2000–2005. This strong increase is likely to have been the result of operations initiated in Ghana in 2005 by Dole, through its subsidiary Compagnie Fruitière. Banana is now Ghana's second most important fruit export, after pineapple.

Papayas

Brazil is by far the largest supplier of papayas to the EU market, with a share of over 70 per cent in extra-EU imports (Table A.10). Ghana was the second largest supplier until 2003, but its share was only around 11 per cent in volume terms in 2000, and declined steadily thereafter. EU imports from Ghana seemed to have reached a plateau at around 1,800-1,900 tons, but fell from 1,860 tons in 2004 to only 1,231 tons in 2006. This has been attributed to the increasing popularity of the golden variety developed in Brazil, which is more resilient to post-harvest handling and can tolerate seafreighting. Ecuador, which hardly exported any papayas to the EU until 2004, has overtaken Ghana to become the second largest supplier.

Certain varieties have been cultivated for a long time in Ghana, in particular the Hawaiian solo type introduced in the early 1990s. However, it requires air transport, whereas the South American varieties can be seafreighted at a much lower cost. This is prompting Ghanaian producers to gradually switch to the golden variety that can be seafreighted. This, however, will require careful handling of the fruit, with an uninterrupted cold chain from the packhouse onwards. This infrastructure is now being developed in Ghana with the support of the World Bank and the Millennium Challenge Account of the United States.

[66] The pineapple sector originally benefited from an airfreight cost advantage based on three factors: availability of northbound freight capacity, a variety of destinations and efficient ground handling services (Danielou and Ravry, 2005).

Mangoes

Ghana's mango exports have lagged behind the opportunities provided by the rapid increase in EU demand for this fruit. Total EU imports of mangoes increased from 40,000 tons in 2000 to over 84,000 tons in 2006. Mango production in Ghana is still at an infant industry stage (SLE, 2006): productivity is low and exports were less than 300 tons in 2006, 293 tons of which were reportedly imported into the EU (Table A.7). Nevertheless, the country has some advantages over other mango exporting countries, including two harvests per year in the southern belt. Also, it has a geographical advantage: distance to Europe is shorter than for its Latin American competitors, while some other SSA exporters in Western Africa (e.g. Burkina Faso and Mali) are landlocked countries. Besides, Ghana can draw on the infrastructure already existing for pineapple exports. A joint Ghanaian-Dutch company, Integrated Tamale Fruit Company, in Tamale has developed an extensive acreage of irrigated organic mango cultivation partly based on outgrower production.

Vegetables

Ghana's vegetable exports are dominated by a large number of Asian vegetables, in particular chillies and yams. Whereas EU imports of "other vegetables", which includes many Asian varieties, have been declining continuously over the period 2000–2006, those of chillies have shown an overall increasing trend. Most vegetable exports go to the United Kingdom, mainly to the wholesale and ethnic markets.

Yams

Ghana produces high quality yams.[67] However, production is irregular and trade is mostly occasional, which often results in large volumes overloading the market. Many yam traders are involved in general import and export activities rather than specializing in yam exports. Although yam exports are highly erratic in terms of volume and markets of destination, EU statistics show a continuous growth of imports from Ghana of cassava, sweet potatoes, arrowroot and other roots and tubers of the kind used for human consumption. These reached almost 10 million euros in 2006, up from 5.6 million euros in 2000.

Implications of EurepGAP

A number of developments in the production and marketing of FFV have tended to increase the importance of the EU as Ghana's key export market. These include the shift to new varieties, in particular of the MD2 variety of pineapple and the golden variety of papaya, in order to compete with South and Central American exporters. For most producers, particularly medium-sized ones, economies of scale and other benefits of large-scale production are necessary for the effective introduction of the new varieties, and this requires an increase in farm size. Larger volumes of export production in turn require large export markets, such as the EU where EurepGAP is an important requirement.

In addition to introducing new crop varieties, the Ghanaian industry is also repositioning itself in response to other changes in the global horticulture market, largely as a result of the introduction of stringent public and private food safety and quality standards. These standards are profoundly affecting the coordination of global supply chains, levels of investment required to participate in these supply chains, public-private partnerships and participation of small-scale growers. The response of the Ghanaian fresh produce industry to these changes has been to strengthen capacity to supply supermarkets that have become the key players in the market. This represents a fundamental shift in positioning of the Ghanaian fresh produce industry, which hitherto dealt mainly with independent buyers and wholesalers. At the same time, the repositioning has reinforced the importance of EurepGAP compliance.

In Ghana, problems in meeting MRL requirements of the EU in 2001 prompted the pineapple sector's

[67] Ghana is regarded as a high quality supplier among the immigrant communities to which it targets supplies. Most yams are destined for wholesale markets and, ultimately, for smaller local grocery stores in urban centres (OECD, 2007).

engagement with EurepGAP and later capacity-building activities by the EU-funded Pesticide Initiative Programme.

National GAP initiative

In Ghana, as in many other developing countries, there is need for a national GAP as part of a management strategy for the agricultural production system.

Technically, GAP offers a means of introducing integrated pest management (IPM) and integrated crop management (ICM) practices in commercial agricultural production. Among other things, GAP is essential in demonstrating commitment to:

- Maintaining consumer confidence in food quality and safety;
- Minimizing the detrimental impact on the environment, while conserving nature and wildlife;
- Reducing the use of agrochemicals;
- Improving the efficiency of natural resource use; and
- Ensuring a responsible attitude towards worker health and safety.

The National Horticulture Task Force has recently been discussing a number of options for approaches to developing and introducing a national GAP in Ghana. Each option includes consideration of the strategic direction of GAP (e.g. national food safety, export promotion strategy, or general agricultural development strategy), and analyses of benefits/costs and advantages/disadvantages, critical success factors, major risk factors, roles of key players and resource requirements, among others.

The task force has identified three options of interest so far, based on general international acceptance and experiences:

- A GAP that is essentially an interpretation of the market-driven GAPs in the destination countries of Ghana's horticulture exports (e.g. EurepGAP national interpretation);
- A wholesale comprehensive national GAP with its own national codes of practice (COP) and benchmarked against international GAPs (e.g. the EurepGAP); and
- A multi-tier or modular GAP with the national market as the focus, simultaneously offering market-driven GAP (e.g. EurepGAP) certification for larger and able participants engaged in export activities.

The task force is also exploring the inclusiveness of the GAP and the necessary policy and regulatory environment, support systems and incentives required to facilitate implementation. As Ghana diversifies its horticultural export base (e.g. to include bananas, melon, French beans, tomatoes, asparagus, fresh peppers, and aubergines) pro-active approaches to GAP become a necessity.

Challenges to be addressed to make GAP implementation successful

A number of industry-related challenges need to be addressed in order to facilitate the implementation of a national GAP scheme in Ghana, including the following:

- *Middle management:* There is a critical need in Ghana's fresh produce industry, and agribusiness in general, for operational managers with strong hands-on experience, since this forms the basis of an industry's capacity to grow and thrive as a business. National capacity should be built not only through training, but also, mostly, through hands-on experience acquired by working with seasoned, professional managers. It is therefore important to foster partnering with entities that are able and willing to transfer such know-how as part of a strategy to build a strong competitive position;
- *Quality management:* Quality management in the horticultural industry has evolved into a distinct set of skills that determine the capacity of an industry to link up with the dominant distribution channels. The larger export companies, involved mainly in fresh pineapple exports (whole or sliced) and bananas, have developed their own programmes for the implementation of quality assurance systems, mainly aiming for EurepGAP certification. These initiatives are driven by the will to develop strong market linkages with the major European distribution

networks, and are benefiting from donor-funded programmes of technical assistance and support to cover certification costs. The smaller scale exporters have been informed of quality assurance and food safety requirements through various donor-funded seminars and training events, as well as through some of their clients. However, they have generally been slow to implement recommendations in day-to-day operations: they target wholesale and ethnic markets which are not as demanding as the mainstream supermarket channels. Overall, Ghana still trails countries such as Costa Rica and Kenya in the implementation of EurepGAP and other quality systems such as ISO 9000, 14000 and 22000, and BRC and HACCP. Even though a number of individual firms have obtained EurepGAP certification (Table 6), industry-wide efforts have tended to focus on pesticide issue and have yet to develop a traceability system that permits field-to-fork product tracing;

- *Research and development (R&D) and technological transfer:* Ghana lacks a strong knowledge base underpinned by R&D. A small number of private companies have gained from research and technology transfer, but an efficient funding system, integration of public and private research, and the capacity for managing innovation need to be developed. There is also a strong need for developing expertise in areas such as soil analysis, tissue culture, residue testing and quality control. Such services are becoming increasingly important for the development of GAP and for meeting market requirements;
- *Infrastructure:* Since horticultural crops are highly perishable, cold chains are necessary to help maintain quality and extend the shelf life of fresh produce. The cold chain implies the continuous control of temperature. This requires investments in post-harvest infrastructure starting with temperature-controlled vehicles to carry the produce from the fields to temperature-controlled facilities for cleaning, grading and packaging (commonly referred to as packhouses), and from the packhouses to temperature-controlled storage facilities at the ports of exit and on ships. With the exception of two or three exporting companies, the entire export horticulture business in Ghana is being performed without the use of controlled temperature devices during packing, transport and prior to shipping, which limits the shelf life of the products. This is partly because of the cost involved and the lack of credit for investing in cold chain facilities;
- *Cluster development*: Ghana has a diversified group of export associations. These associations need to be further strengthened in order to ensure that the development and implementation of a national GAP has the necessary stakeholder involvement and ownership; and
- *Institutional capacity:* In addition to the industry-related challenges, weak institutional capacity in both the public and private sectors may constitute an impediment to the development and implementation of a national GAP.

Specific concerns and requirements of smallholders

Smallholder participation in the development and implementation of GAP can be facilitated by:

- Adequate smallholder representation on the National Horticulture Task Force;
- The development of a special smallholder outreach programme;
- Improvements in local systems for the registration of new pesticides to encourage smallholder growers to use newer, safer pesticides (including the development of systems that are appropriate for smallholders);
- Special incentive schemes for smallholders to help lower and/or partly cover the costs incurred in complying with GAP requirements;
- Financial intermediation to facilitate access to credit;
- Encouragement and support for the creation and/or strengthening of producer groups; and
- An enabling policy framework, e.g. legislation and enforcement mechanisms on groups, contracts.

Extension services

Several industry-led activities aimed at improving the industry's quality assurance framework have

been supported by development initiatives and today represent an important source of knowledge for the industry.

Skills development has been undertaken through training (e.g. in cold chain and logistics, food safety, standards and regulations and EurepGAP), attendance at trade shows and study tours. This has been provided by international and national experts, the national extension service for industry members, programmes such as the Pesticide Initiative Programme (PIP-COLEACP, supported by the EU), and several initiatives funded by bilateral assistance programmes, including the Market Oriented Agriculture Programme of the German development agency, GTZ, and the Trade and Investment Reform Program of the United States Agency for International Development (USAID). The end result has been strong industry awareness of GAP issues and achievement of EurepGAP certification by several pineapple exporters as well certain vegetable exporters.

Other initiatives include:

- The development by Ghana's Plant Protection and Regulatory Services with GTZ support through a series of integrated crop management guidebooks aimed at introducing IPM practices, and the dissemination of information on safe pesticide use throughout the industry;
- The development of a horticulture industry code of practice by the Ghana Working Committee on Ethical Trade with support from the Natural Resources Institute (NRI) of the United Kingdom. The code aims to ensure that export-oriented horticultural production in Ghana meets the social and environmental requirements of consumers in major markets;
- The development of grades and standards for eight horticultural products. This activity was carried out through a public-private partnership led by the Ghana Standards Board and funded through the Ghana Private-Public Partnership Food Industry Development Program with financial support from USAID; and
- Several activities under the USAID-Trade and Investment Programme for Competitive Export Economy (TIPCEE). The goal of this 5-year programme, which began in 2005, is to increase the competitiveness of Ghana's private sector in world markets through an improved enabling environment and by strengthening the capacity of the private sector to respond to market demands. In the TIPCEE programme, quality management is a cross-cutting issue: it covers aspects linked to the physical and commercial characteristics of the products, as well as the implementation of management systems and production practices which aim to guarantee food safety and ensure consistency and reliability of supply. TIPCEE is currently addressing quality management concerns, and will ultimately tackle EurepGAP certification issues, through several programme activities. While EurepGAP compliance is not the immediate concern of several of these activities, it is a long-term objective of most of them. Thus, each activity addresses key skills and processes which will contribute to industry compliance with EurepGAP and HACCP-related standards such as ISO 22000. Some of the activities covered by TIPCEE include: product norms and standards, smallholder geographical positioning systems (GPS), traceability, bar code pallet tracking and tracing, and support for the development of GhanaGAP.

Support services for GAP implementation

The Government of Ghana understands the importance of the horticulture sector to its economic growth and has set a target to increase export earnings from horticultural exports to more than 50 per cent of its non-traditional export earnings by 2010. With this objective in mind, the Government has been proactively seeking funding and technical assistance from international agencies to contribute to the development and export competitiveness of the sector.

On the regulatory side, however, the Government has not been as proactive. Ghanaian laws and regulations related to food safety are still weak and have not built credibility in European markets. One deficiency of the regulatory framework is the lack of reference to the Codex Alimentarius Commission in developing standards. This oversight gives no assurance that Ghanaian law provides an equivalence of risk outcome under the WTO SPS Agreement.

Table 10. Suppliers of support services for GAP implementation and other activities in Ghana

Name of organization	Support service provided	Type of institution	Target beneficiaries
Plant Protection and Regulatory Services Directorate (PPRSD)	Training in IPM, pesticide use	Government	All growers
Horticultural Association of Ghana (HAG)	Providing a platform	Private sector association	Members
Sea Freight Pineapple Exporters Association of Ghana (SPEG)	Providing market intelligence and promoting export standards among members	Private-sector association (growers and exporters)	Members only (22)
Pesticide Initiative Program (PIP)	Focusing on raising awareness about EU legal and commercial food safety requirements, training staff of private companies in the various aspects of food safety and traceability, implementation of food safety and traceability systems, and building the capacity of support services to the horticultural export sector	EU funded	Growers involved in the horticulture production/ export value chain
German Technical Co-operation Agency (GTZ)	GAP	Public donor and technical assistance agency	Target growers
Société Générale de Surveillance (SGS)	Certification (audits)	Private	All
Trade and Investment Program for a Competitive Export Economy (TIPCEE)	Laboratory analysis, certification	NGOs and USAID	Pilot project participants
West African Fair Fruit (WAFF)	Training in organic and fair-trade, certifications with targeted producers	EU, NGOs	All
Federation of Associations of Ghanaian Exporters (FAGE)	Providing a platform and assistance in establishing linkages	Private associations	All
Soil research	Laboratory analysis	Government	All
Technoserve	Strategic management and marketing services (market research, market linkages, business plan development, financial and commercial linkages, supply-chain management and operational consulting)	US-based, non-profit organization	Individual entrepreneurs and groups of farmers, for example in the pineapple sector
AgroEco	Organic and fair trade consultants	Private	All participants in the organic chain: farmers, processors and traders
Horticulture Export Industry Initiative (HEII), crop services	Training (Group)	Government/World Bank	Targeted groups

The Ghana Standards Board (GSB) has begun to offer a crop protection residue service but the service is limited and the laboratory is not yet accredited to ISO 17025. The Plant Protection Resources Services Directorate of the Ministry of Food and Agriculture carries out phytosanitary checks on produce for export and also monitors crop protection products to ensure that only authorized compounds of good quality are available in Ghana. The Soil Research Institute and the Water Research Institute of the Council for Scientific and Industrial Research provide soil and water testing services for the horticulture export industry that have proved invaluable for getting EurepGAP certification, although neither institution has internationally accredited laboratories. A number of organizations supply services that may facilitate GAP implementation and certification (Table 10).

The Government gave practical demonstration to its commitment to the industry to cope with PVS by implementing the Horticulture Export Industry Initiative (HEII) from 2004 to 2007. This project, which was implemented by the Ministry of Food and Agriculture, provided focused and targeted support to the industry with the aim of creating a stronger platform to attract further investment into the sector to improve its competitiveness. Specifically, improvement in post-harvest infrastructure was given a boost. The Government, with financial support from the World Bank, refurbished the transit warehouse Shed 9, at the port of Tema to make it a modern, temperature-controlled fruit terminal at a cost of $5 million. At full capacity, the facility could store 2,000 tons of produce with an annual throughput of up to 300,000 tons. In addition, the Government has secured funding from the African Development Bank and the Millennium Challenge Account to fund a number of on-farm packhouses.

In order to strengthen the capacity of the industry to comply with international standards, the HEII provided resources for the establishment of a pesticide-residue-testing laboratory by the Ghana Standards Board (GSB). The principle challenge now left is to get the facility accredited to ISO 17025. Furthermore, the pesticide regulatory framework was enhanced through the provision of resources to the Environmental Protection Agency of Ghana to develop and publish a harmonized pesticide list for FFV in line with international regulations.

The Government provided $4 million worth of assistance to the pineapple industry for conversion to MD2 varieties from smooth cayenne varieties. Of this total, $2 million was provided to medium- to large-scale farmers to acquire MD2 planting materials and agrochemicals. This scheme was administered through the Ghana Export Promotion Council. The other $2 million was targeted at smallholders. A total of about 5 million tissue culture plantlets were procured to establish over 100 group nurseries to generate planting materials (suckers) using the rapid multiplication technique. These nurseries will generate over 30 million suckers for distribution among over 1,000 beneficiary farmers.

The Ghana Export Promotion Council (GEPC) is the national export trade support institution that facilitates the development and promotion of Ghana's non-traditional exports. Its core activities and programmes are:

- Organization of contract production/supply schemes, establishment of export production village schemes, and technical advisory services to facilitate product and market development and supply chain management;
- Dissemination of selective trade information through the maintenance of a trade information and documentation centre, a resource centre, a dedicated website and regular printed publications; and
- An export school that organizes product, marketing and specialized trade development courses for export companies, trade facilitating agencies and businesses.

Government's role in national GAP development and implementation

The Ghanaian Government and its development partners can play an important role in facilitating GAP implementation by providing effective support to the various supply chain participants, including small-scale farmers and export companies, in integrating GAP in their day-to-day practices. More specifically, a key role for the Government may be to:

- Facilitate conceptual clarity concerning the role and shape of a national GAP;

- Clarify and support the role of smallholders in participating in the development of a national GAP code;
- Seek to optimize the benefits and reduce the costs of development of the code; and
- Provide GAP implementation support in terms of hard infrastructure (transport, warehouses, cooling chain, testing labs) and soft infrastructure (extension services, quality management system, i.e. standards, metrology, testing, and quality assurance (SMTQ)), as well as a financing policy (e.g. credit and financial incentives).

To be effective, government support should:

- Capitalize on the knowledge and experience acquired from completed and ongoing initiatives that are relevant in the area of GAP at various stages of the supply chain;
- Coordinate with existing initiatives so as to avoid overlap and confusion;
- Be carried out through industry-led bodies such as the National Horticulture Task Force, while improving the visibility and outreach of such organizations;
- Encourage the building of a diversified base of services providers, including private-sector professionals, personnel of crop extension services and internal field personnel of exporting firms;
- Ensure that the certification process associated with the various quality assurance schemes guarantees high professional standards acceptable to the end markets; and
- Ensure that the solutions provided are practical, tested and of a complexity level compatible with the end-user's capacity.

The private sector

Ghana's horticulture industry is private-sector driven. More than 80 per cent of the sector's entrepreneurs own small- to medium-sized businesses. Leading exporters include Jei River Farms, Farmapine, Milani Ltd., Prudent Exports and Georgefields. Tongu Farms and Bomart are also making substantial investments and are expected to increase their production. These companies have been established either by local entrepreneurs or through joint ventures with British, Lebanese and Dutch partners (Danielou and Ravry, 2005). They use different organizational models: Jei River Farms, for example, relies entirely on its own production to ensure total quality control, while Prudent Farms relies entirely on smallholders for the supply of fruit. In between these two, there are varying degrees of reliance on smallholders for supply of produce. Farmapine is a prototype farmer-owned organization.

Larger exporters, engaged primarily in pineapple and banana exports, depend on their own programmes for implementing quality assurance systems, with a particular emphasis on attaining EurepGAP certification. The smaller-scale exporters have been informed of quality assurance and food safety requirements through various donor-funded seminars and training events and through their clients, but they have been slow to implement recommendations in day-to-day operations. They operate in a less structured fashion and perceive implementation of strict documentation requirements as a burden for their operations. These perceptions are compounded by the practical difficulties of controlling actual field practices and record keeping needed for traceability.

Until recently, transnational corporations did not participate in Ghana's horticulture sector. However, in 2003, Dole-owned Compagnie Fruitière, locally registered as Golden Exotics, began operations in Ghana. Its participation in Ghana's horticulture industry should be beneficial as it brings with it needed resources and expertise, particularly for compliance with stringent standards in international markets. Also recently, Coca Cola Nigeria contracted with a Ghanaian exporter to provide concentrated pineapple juice for use in its fruit drinks. The contract calls for the exporter to supply 500 tons of juice, representing the equivalent of 6,000 tons of pineapples supplied by smallholders.

The Federation of Associations of Ghanaian Exporters (FAGE) is the coordinating body for the industry, with responsibility for providing market information and linkages to training services. FAGE hosts the National Horticultural Task Force in which all trade associations are represented. However, FAGE is highly dependent on donor funding, with members' levies and fees covering only 10 per cent of its costs. The task force is similarly dependent on donor funding and meets irregularly.

The lack of a single body to represent the horticulture industry has led to a duplication of efforts and dilution of resources.

Other major private-sector producers/exporters associations include:

- The Sea-Freight Pineapple Exporters Association of Ghana (SPEG), which is the largest exporter association. Its main role is that of a freight consolidator, but it also collects and disseminates market information and actively links members to providers of training services, particularly regarding EurepGAP certification. SPEG encourages members to obtain EurepGAP certification;
- The Horticulturalist Association of Ghana (HAG), whose primary role is to represent pineapple exporters shipping by airfreight. It serves on the National Horticultural Advisory Board and therefore has a link to the Government. It also attempts to provide members with reliable information on requirements in international markets and GAP, and to link members to providers of training services, particularly for EurepGAP certification;
- The Vegetable Producers Exporters Association of Ghana (VEPEAG), which represents the interests of about 320 exporters of vegetables (particularly Asian vegetables). The association depends heavily on the financial support of CARE International and USAID; and
- The Papaya and Mango Producers and Exporters Association of Ghana (PAMPEAG) and the Ghana Association of Vegetable Exporters (GAVEX) are new producers' associations.

Donor activities

The major donors supporting projects in the horticulture sector in Ghana include:

- The World Bank, through its Horticulture Export Industry Initiative (HEII) under the Agricultural Sector Support Investment Project (AgSSIP);
- USAID, through the Trade and Investment Reform Program and the Trade and Investment Programme for Competitive Export Economy (TIPCEE);
- The EU, through its Pesticide Initiative Programme (PIP);
- The German bilateral aid agency, GTZ, which is working on developing an integrated crop protection system and pilot projects to facilitate EurepGAP Option 2 certification (see below);
- The Department for International Development of the United Kingdom (DFID), which supports food safety training and accreditation systems;
- The African Development Bank (ADB), which is funding the Export Marketing and Quality Awareness Project; and
- The Africa Sustainable Assistance Project, sponsored by the AHOLD supermarket.

Ouedraogo, Sutherland and Antoine (2007) recommend that Ghana should coordinate and leverage the considerable donor assistance to:

- Facilitate greater public-private partnership (to include international public and private partners, such the EU, donors, NGOs, and EurepGAP and BRC) to find responses to the country's compliance with international food safety and quality standards;
- Support a strong private sector coordinating body to lead the public-private partnership in order to ensure full buy-in of the private sector to measures to be enacted;
- Develop a national food safety and quality standard to accelerate the country's alignment with international food safety standards and provide the basis for group certification for smallholders;
- Assess the advantages and disadvantages of developing country-GAP and public certifying bodies to ensure adequate support from the public and private sectors; and
- Specifically, ensure that producers are fully informed of the costs and (possibly lagged) benefits of complying with international food quality standards to prevent disaffection and abandonment of the food quality management schemes.

Options for EurepGAP certification

By August 2007, 29 producers had obtained EurepGAP certification, of which 21 individually through Option 1 (Table 6). The overwhelming majority of EurepGAP-certified producers are from the pineapple sector. About a third of producers/exporters that regularly export pineapples had obtained such certification. Other EurepGAP-certified producers are involved in the production and export of bananas, papayas and vegetables.

According to FoodPlus, only one produce marketing organization (PMO) involved in pineapple production had achieved group certification ("Option 2") for eight producers (Table 6). This form of certification is nevertheless an attractive and less expensive option for achieving certification; small-scale growers may derive several benefits from it, including assured large markets with Blue Skies (a fresh cut fruit processing company in Ghana), training in the use of agrochemicals – which is expected to result in improved health and safety for workers – lower environmental impact and reduced input costs.

Several institutions, such as GTZ, HEII and TIPCEE, are active in furthering the EurepGAP Option 2 certification smallholder framework in Ghana's horticultural export sector:

- GTZ has funded, in collaboration with the EurepGAP secretariat, Foodplus, the production of a smallholder manual for building an internal control system for group certification to EurepGAP Option 2. A draft version of the guide has been completed, and is to serve as the basis for a series of pilot projects which will be conducted worldwide with the objective of testing the application of its content in the field. Ghana has been identified as a pilot country;
- HEII is currently managing a programme destined to provide small pineapple farmers with planting material of the MD2 cultivar. Farmer groups are being identified and tissue culture plantlets provided to them, and a collective nursery will in time provide field suckers to members. Participating individual farms and group nurseries are being geo-referenced using geographical positioning systems (GPS) and geographic information systems (GIS) technology, thus setting the basis for an industry traceability system. HEII also has resources to provide training to these farmer groups in IPM and GAP, which will be oriented towards EurepGAP compliance. In total, it is expected that 120 groups (approximately 1,200 farms) will receive training throughout the southern part of the country; and
- TIPCEE is collaborating directly with the HEII-MD2 programme by providing technical and logistical support to staff of the Ministry of Food and Agriculture who are in charge of the farm mapping and group formation process. Ongoing support to the farmer groups will be provided through field training and the monitoring of field activities. TIPCEE activities will intensify as the groups develop marketable MD2 production, and will focus on ensuring a tie-in with downstream nucleus farmers[68] and export companies, possibly entailing Option 2-type certification. TIPCEE is concurrently working with individual exporters and their immediate outgrowers, providing technical assistance for the implementation of the internal control system required by EurepGAP Option 2 and fair-trade certification. Ten pilot groups have been selected for EurepGAP certification, out of more than 100 smallholders, for MD2 pineapple export.

The objective of the joint pilot project is to build up and transfer to selected farmer groups currently involved in the HEII-MD2 pineapple programme the skills and capacities necessary for the effective implementation of internal control systems that would comply with EurepGAP Option 2 requirements. The basic framework for implementation will be the smallholder manual developed by GTZ and Foodplus. The pilot project will focus on translating the requirements into recommended practices, adapted to the context of the Ghanaian pineapple farmer groups. These recommended practices

[68] Nucleus farmers are farmers who have good value adding/agro-processing capacity and linkage to a market. Nucleus farmers can play a core role in multiplying the impacts of extension services as well as the establishment and operation of outgrower schemes. For example, Government agencies can use nucleus farmers to demonstrate technology and provide training to neighbouring farmers and create linkages to markets.

will be consolidated into practical implementation tools and trainers' guides which will serve as the basis for further dissemination by the Ministry of Food and Agriculture's extension agents, business development service providers and private exporters' field teams.

The pilot programme aims to develop an implementation framework that would be fully acceptable to EurepGAP. Ongoing technical monitoring by Foodplus would ensure the coherence of the ensuing application package with the EurepGAP standard. This would give a head start to Ghana's horticulture sector if it envisages engaging subsequently in a formal benchmarking process. However, it is understood that the pilot programme cannot be deemed a substitute for the EurepGAP benchmarking process. The project is centering on selected farmer groups currently participating in the HEII-MD2 pilot programme. Successful implementation approaches, once validated by Foodplus, could subsequently be mainstreamed to other participating farmer groups.

The pilot project will not limit itself to MD2 production; it will also include the group's current smooth cayenne production. This will enable the pilot project to test the full array of controls earlier than would have been feasible if the pilot programme were to await production of MD2, which is expected to occur in the course of 2008.

Conclusions and recommendations

Awareness of GAP is relatively high in the export sector, with the main focus being on EurepGAP certification (both Options 1 and 2), and is driven by export market requirements. At the domestic level, awareness of GAP and food quality and safety is low; the main focus of national policy and farmers is on food security (self-sufficiency). Large companies have responded by seeking individual EurepGAP certification. Small-scale growers have responded more slowly, but a few who supply large export companies have obtained Option 2 certification. There are a large number of food safety and quality initiatives supported by donors and the Government.

The Ghanaian FFV (in particular fresh fruit) sector is seeking to shift the basis for its competitiveness from supplying the low-cost segment of the European market to targeting higher-level segments of that market, including supermarkets. This may assist in achieving continued fast export growth, but may have implications for the participation of small-scale growers in production for export. The proposed development of GhanaGAP to address issues such as quality, food safety and traceability could play an important role in supporting continued export growth while also paying attention to the needs of small-scale growers.

The following roadmap could facilitate the development and implementation of a national GAP, involving broad stakeholder participation:

- Stocktaking and consolidation of a large number of ongoing initiatives on food safety, quality, traceability and other issues relevant to GAP implementation;
- Promoting coordination of all relevant initiatives;
- Developing conceptual clarity of the objectives of GAP;
- Defining sector-wide and crop-specific strategies, based on an assessment of market developments and national capacities;
- Deciding the appropriate approach to be followed, including possible multi-tier or modular approaches to GAP;
- Cultivating a wider constituency for GAP, including in relation to the domestic market, and mainstreaming smallholder concerns; and
- Enhancing the multi-stakeholder dialogue on GAP, in particular through the National Horticultural Task Force.

V. KENYA

Based on a case study by Ruth Nyagah, Managing Director of AfriCert Ltd..

Introduction

The Kenyan agricultural sector contributed 17.3 per cent to GDP in 2005 and 83.2 per cent to the country's total labour force (Table A.1). Kenya's horticultural exports (largely flowers and vegetables) accounted for 21.4 per cent of the total value of all agricultural exports in 2004.

The country has been very successful in expanding its exports of horticultural products. However, the proliferation and increasing stringency of product and process standards pose challenges for producers who need to meet the regulatory requirements of export markets as well as supply chain requirements. The experience of Kenya shows that these challenges can be managed through appropriate adjustment strategies and targeted assistance for small-scale producers. Incurring adjustment costs to enable compliance with standards can be a worthwhile investment, considering the importance of FFV exports and the company and economy-level benefits associated with compliance.

It should be noted, however, that Kenya's experience is rather unique. By the time the EurepGAP standard was gaining momentum in 2002, Kenya had already a large horticulture sector producing for international, local and regional markets as well as a relatively long history of private-sector involvement and organisation. Furthermore, Kenya was already benefiting from donor projects in a number of areas of importance to the horticulture sector's supply chain. There are several reasons for this. First, Kenya is an important supplier of a variety of FFV to the United Kingdom and other EU markets throughout the year. Several donors and NGOs have been assisting Kenyan farmers to implement practices for sustainable agricultural production. Second, horticulture has a key role to play in poverty alleviation, employment creation and the generation of foreign exchange. It has allowed many farmers to earn higher incomes than they would have obtained from traditional crops. Donors have supported farmers in complying with the standards prevailing in international markets and enabling them to compete with suppliers from other countries as part of poverty alleviation strategies based on expanding horticultural production for export and the participation of small-scale growers.

Kenya has also been relatively successful in moving into exports of processed products, where commercial opportunities can at times be better. For example, Kenya is exporting a larger share of its production of beans in processed form. By exporting fewer boxes of raw beans, but rather prepared, ready-to-cook packets of bean products, bar-coded for direct sale by the supermarkets, the unit price obtained in export markets is higher and the relative costs of assuring food safety are lower. Also, the market for processed products is less volatile than the fresh market. However, in other SSA countries where the export industry is much younger and has attracted less foreign direct investment than in Kenya, the capacity for change may be more limited, and targeted support will be needed if these countries are to replicate Kenya's example (Agritrade, 2006).[69]

Kenya has an active private sector engaged in horticulture. In a way, low Government involvement has been a "blessing in disguise". It has made room for development partners to link up with the private sector to support the development of horticulture. Nonetheless, the Government has an important role to play in facilitating compliance and GAP implementation and in providing an appropriate regulatory framework. It should be noted, however, that the Kenyan approach is based on large donor support.[70] Sustainability of certain initiatives may be questionable, as various projects are unlikely to

[69] Yet even for Kenya, this shift to exports of processed products may not be easy. For example, Kenya's share in exports of canned pineapples has fallen in recent years.

[70] To a larger extend, the ability of small-scale growers compliance in Kenya is enabled through business-to–business linkages with large scale exporters who contract them out to produce, or act as guaranteed markets. They provide certified seed, fertilizers (of course at their cost), and extension services to ensure that small-scale produce can be bulked with their own-farm produce at minimal risk during testing at the port of entry. What has been donor supported is "certification for compliance" more than "compliance" itself. Indeed, a fundamental problem of private standards is that it costs more to "prove" compliance (certification), than to "practice" compliance, as the Kenyan small-scale experience shows. Personal communication with Dr. Steven Mbithi, Chief Executive of FPEAK.

continue without donor support. In this context, an FAO mission report notes that "the general feeling, shared by the very donors who supported the process, seems to be that smallholder compliance to EurepGAP is feasible, but only with large financial support and technical assistance from the donor community, which other countries of less importance to European markets may not be in a position to attract" (FAO, 2006).

This chapter explores how a favourable policy environment, clearly defined roles of the public and private sectors and a combination of cross-cutting, industry-specific interventions can play a key role in developing a national GAP scheme. It also discusses the extent to which Kenya's experience can be replicated by other countries in Sub-Saharan Africa.

Compliance and competitiveness

Compliance with high standards can result in new forms of competitive advantage and contribute to more sustainable and profitable trade over the long term (Diop and Jaffee, 2005; Caswell, 2003). The following are some of the major advantages of compliance:

- Stimulating new investment;
- Modernization of export supply and regulatory systems;
- Enhancing the sustainability of production systems;
- Improving worker and consumer welfare;
- Fostering public-private collaboration;
- Adoption of safer production and processing systems;
- Improving domestic food safety and agricultural productivity;

Box 1. Potential benefits of GAP programmes

Benefits for growers:

- Better and more stable access to markets;
- Clear agreements with retailers;
- More opportunities for fair competition;
- Possible increase in quality and quantity;
- Possible reduction of production costs in the long term; and
- Access to inputs of higher quality (seed).

Benefits for agriculture:

- Prevention and risk reduction related to consumer health, safety and the environment;
- Reduction of health risks for agricultural workers;
- Restoring the professional image of agriculture and gaining trust;
- Compliance with the most up-to-date EU legislation; and
- Possible harmonization of existing protocols.

Benefits for the environment:

- Awareness that in everyday practices, respect for wildlife and conservation is an important factor for more sustainable agriculture;
- Reduced negative impact on the environment; and
- Implementation of a conservation management plan.

Benefits for consumers:

- Reduced risks to health and safety;
- Better and clear information about food origin: traceability;
- Greater trust in food production; and
- Satisfaction of food demand in terms of quality, variety and safety.

Benefits for retailers:

- Reliable expectations of food safety and quality;
- Clear agreements with growers;
- Lower risks to consumer health and safety;
- Increased confidence of consumers in food produce (positive purchasing attitude); and
- Compliance with EU legislation.

- Creating the basis for an overall competitive strategy to position industries for long-term competitiveness; and
- Maintaining and improving market access, and promoting demand for Kenyan produce.

Graffham, Karehu and MacGregor (2006) have argued that by expanding the potential markets for Kenyan produce, private-sector and national standards for FFV have increased the demand for horticultural exports and injected cash into rural areas. Productivity (yield per hectare) has increased, and input costs have been reduced through a more prudent application of pesticides and fertilizers. Ties with horticultural exports have increased the quality of seeds. Conversely, non-compliance may result in a decline in exports, income and employment (Diop and Jaffee, 2005; Caswell, 2003).

GAP implementation has many potential benefits, as listed in Box 1.

GAP implementation, and KenyaGAP in particular, will not only assist Kenya in maintaining its export markets, it will also contribute to more efficient and effective agricultural production and play an important role in Kenya's agricultural development. In the Government's Strategy for Revitalization of Agriculture 2004-2014, due recognition is given to promoting the clustering of smallholder producers to ensure their survival in competitive markets, as well as to the creation of an enabling environment for compliance with standards (Government of Kenya, 2004). The revamping of extension services provided by the Government will facilitate this.

A study on the implications of EurepGAP for small-scale farmers in Kenya found that farmers who had obtained EurepGAP certification were clearly reaping benefits from the adoption of GAP, and related record keeping and improved hygiene. Yields were generally higher and input costs lower as the growing process was better managed. Many farmers were using EurepGAP records to gauge their financial viability and run their farms on a more commercial footing. Proper handling of pesticides and improved food safety and hygiene had health benefits on the farm as well as positive effects on family health (Graffham, Karehu and MacGregor, 2006). Such benefits are not specific to EurepGAP, and may result from GAP implementation in general, even if no certification is obtained.

According to a survey on the impact of EurepGAP compliance on Kenyan smallholders, conducted on behalf of the Kenya Horticultural Development Programme, 75 per cent of farmers reported they would continue implementing EurepGAP because they had achieved increased production and improved quality, which had led to better returns for those who had managed to secure firm price contracts with large exporters. Growers also reported volume increases of up to 95 per cent per unit area, access to better seeds and easier market access (Nyagah and Watene, forthcoming).

Through the implementation of GAP standards, environmental and social criteria are also being incorporated into responsible supply chain management. This calls for building partnerships between the various actors along the chain: clear communication and building trust between supply chain actors play a crucial role.

The fruit and vegetable sector

According to the FAO, Kenya produced 3.8 million tons of fruit and vegetables in 2004 (Table A.2). In 2003, 94 per cent of production was consumed locally. According to COMTRADE, the volume of FFV exports increased from 50,800 tons in 1997 to 84,400 tons in 2004, whereas its value increased from $58.3 million to $178.2 million over the same period (estimated at $215 million for 2006).

The leading Kenyan vegetable exports are French beans, mixed vegetables, runner beans, okra, snow peas and "Asian vegetables" (Table 11). Leading fresh fruit exports are avocados, mangoes, passion fruit and pineapples. Kenya also exports cashew and macadamia nuts.

Table 11. Kenya: value and product composition of FFV exports to the world and to the EU-27, 2004

HS Code		Volume of exports to the world (tons)	Value ($ thousand)		Exports to the EU-27 as a share of total exports (%)	Share of major FFV categories in total FFV exports (in value terms)	
			Exports to the world	Exports to the EU-27		Exports to the world (%)	Exports to the EU-27 (%)
07,0803-0814	FFV	84 434	178 207	164 937	92.6	100	100
07	Vegetables	62 307	161 090	154 999	96.2	90.4	94.0
070810	Peas, fresh	1 639	6 084	5 689	93.5	3.4	3.4
071021,071310	Peas, other	122	121	8	6.6	0.1	0.0
070820	Beans, fresh	34 534	88 970	86 335	97.0	49.9	52.3
071022, 071331-39, 50	Beans, other	840	2 680	2 385	89.0	1.5	1.4
070990	"Other vegetables"	14 412	58 945	57 031	96.8	33.1	34.6
070960	Chillies	361	966	868	89.8	0.5	0.5
	Other vegetables	10 399	3 324	2683	80.7	1.9	1.6
0803-0814	Fruit	22 127	17 117	9 938	58.1	9.6	6.0
080440	Avocados	17 163	9 718	7 311	75.2	5.5	4.4
080450	Mangoes, guavas	3 299	3 951	135	3.4	2.2	0.1
081090	Passion fruit, "other" fruit, fresh	741	2 131	1 971	92.5	1.2	1.2
	Other fruit	924	1 317	521	39.6	0.7	0.3
0801-0802	Nuts	15 666	26 242	1 651	6.3	-	-
080290	of which: "Other nuts" (including macadamia nuts)	7 592	21 249	1 424	6.7	-	-

Source: COMTRADE

In 2004, 92.6 per cent of Kenya's FFV exports in value terms were directed to the EU-27 (96.2 per cent of vegetables and 97 per cent of fresh beans). Exports of FFV to the United Kingdom alone were worth $107.2 million, which represented 65 per cent of total FFV exports to the EU-27. Of these, vegetables accounted for $106.1 million (68.4 per cent of total vegetable exports to the EU-27). Exports of fresh beans exported to the United Kingdom were worth $62.9 million (72.8 per cent of total fresh bean exports to the EU). However, only 10.9 per cent of Kenya's fruit exports went to the United Kingdom market.

Kenya supplies a relatively large share of EU imports of a number of vegetables and fruits (in volume terms): in 2006, its share was 44.8 per cent of all extra-EU-27 imports of peas and 19.1 per cent of beans (Table A.10); its shares in EU imports of avocados and passion fruit were 8.1 and 9.7 per cent respectively.

Table 12. EU-15: imports of FFV from Kenya, 1996–2006 ($ million)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
FFV	97.6	114.5	103.6	134.4	138.8	138.8	151.9	192.4	216.8	227.5	262.0
Fruit	16.0	28.9	14.9	19.3	16.7	23.3	17.4	36.1	31.6	28.5	31.3
Vegetables	81.6	85.6	88.7	115.1	122.1	115.5	134.5	156.2	185.3	199.0	230.7
- Fresh beans	49.2	48.4	45.6	59.8	64.9	55.6	58.3	75.7	100.7	109.5	135.6

Source: COMTRADE

EU import statistics indicate that there was a strong increase in the value of EU-15 imports of FFV originating in Kenya between 1996 and 2006 (Table 12). They grew faster than that of all countries

in SSA as a group and also faster than imports from all developing countries, but not as fast as EU imports from Ghana and Uganda (Table A.5 and Chapter II, Figure 2).

The United Kingdom accounted for 56.7 per cent of total EU-15 imports of FFV from Kenya. For fresh beans, this percentage was even higher (64.8 per cent).

Product and producer profiles

Kenya's horticulture sector has grown tremendously in recent years, supporting approximately 200,000 smallholders and 50,000 medium to large-scale growers. Smallholders are defined here as growers whose land parcel ranges from 1 acre to 1 hectare. Medium to large commercial farms are defined as farms that range from 1 hectare to more than 50 hectares. Smallholders play a key role in production of most FFV (Table 13).

Table 13. Kenya: Producer profiles for major fruit and vegetable exports

Product	Producer profile
Avocados	Smallholders
Passion fruit	Smallholders, mixed large and smallholders
Fine beans	Smallholders
Runner beans	Large producers
Asian vegetables	Smallholders
Shelled peas	Smallholders, medium and large producers
Snow peas	Smallholders and large producers
Sugar snap peas	Smallholders and large producers
Chillies	Smallholders
Mixed vegetables	Smallholders
Green beans	Medium producers
Baby carrots	Smallholders
Baby corn	Smallholders and large producers
Courgettes	Smallholders, medium and large producers

Source: Horticultural Crops Development Authority

Small-scale growers

Small-scale growers may have certain advantages over large-scale producers. Such advantages are related to the production techniques used in cultivating crops. Since many techniques cannot be mechanized, smallholders incur lower management costs and less capitalization, resulting in lower costs of production. The geographically dispersed base of small producers can be an effective risk-spreading strategy for supermarket suppliers, and can afford flexibility in the procurement of relatively small quantities of products that meet specific standards (Jaffee, 2005).

On the other hand, small and medium-sized farmers are constrained by insufficient capital to meet consistency (volume and year-round supply) needs of large exporters and supermarkets. To fulfil the production and transaction conditions of retailers and processors, farmers require technology, financial capital, human resources and appropriate organization. The capacity of smallholders to implement the required adjustments to comply with specific standards is constrained by their limited assets (natural, physical, financial and human capital). Due to these changes, farmers are facing declining returns and increasing challenges to agricultural production in general (Jaffee, 2005).

Small-scale producers (by definition) have small amounts of land. They also have limited or no access to credit and to market information. They may be geographically scattered, resulting in high transport costs to centralized collection facilities. Additionally, the coordination cost of supply chains that involve numerous small producers can be prohibitive, particularly where monitoring and traceability requirements are imposed.

Owing to the many constraints facing small-scale growers in meeting increasingly stringent market requirements, donors, the Government, the private sector and public-private initiatives are seeking to

provide assistance aimed at ensuring that these smallholders are able to continue participating in the horticultural production chain.

The Pesticides Initiative Programme (PIP), for example, has supported several leading Kenyan companies in expanding their smallholder outgrower arrangements, providing increased coordination of outgrowers to ensure that process and traceability requirements can be met. Also, certain firms have developed their own codes of practice relating to their relationships with smallholders, with detailed provisions for farmer conduct. The firms also provide supervision of land management, agronomic practices, pesticide use and disposal, hygiene and safety, as well as labour and environmental standards. Currently being explored is the "fostering" model, where smaller exporters and other players in the value chain are affiliated to a larger exporter. However, there are some risks involved when small producers become overly dependent on powerful buyers for access to export markets. This may happen, for example, where certification costs are borne by the exporters, or where outgrowers have no possibilities to market their produce themselves. A possible solution is for small-scale producers to join a PMO.

Trade implications of EurepGAP

EurepGAP compliance is becoming increasingly important for producers and exporters to the EU market, in particular those that target large supermarket chains. It is difficult to determine what share of Kenyan FFV exports already needs to be EurepGAP-compliant, but it is likely to be important and growing. Some observers believe that about 70 to 80 per cent of FFV exported from Kenya is certified under schemes such as Ethical Trade, Fair Trade, EurepGAP and Tesco Nature's Choice, or as organic products (FAO, 2006).

Compliance with quality and safety standards requires investment in training and facilities at the farm level, investment in infrastructure at the macro level (for example in laboratories and distribution centres), effective delivery of adequate extension services that assist farmers in upgrading production and post-harvest practices, and availability of affordable testing and certification services.

The large sum of capital required for entering buyer-driven chains means that smallholders no longer have a comparative advantage in growing FFV. Large farms tend to be at an advantage because they can realize economies of scale.

It is difficult to assess the full implications of increasingly stringent private voluntary standards, such as EurepGAP. Trade statistics seem to indicate that, by-and-large, EurepGAP implementation has not adversely affected the value and volume of total FFV exports and Kenya's shares in EU imports of FFV in general (Table 12 above and in Annex Tables A.5, A.8 and A.10; see also Chapter II above and New, 2007). It can also be illustrated using detailed statistics for the specific case of United Kingdom imports of beans and peas from Kenya (Table 14).

Table 14. United Kingdom imports of beans and peas from Kenya, 2000–2006

		2000	2001	2002	2003	2004	2005	2006
Beans	Value (€ million)	47.0	39.4	37.7	39.5	53.0	57.1	69.9
	Share in imports* (%)	76.5	68.4	75.1	76.6	76.0	69.9	76.2
	Volume (tons)	15 092	14 423	13 641	15 376	19 188	20 030	23 632
	Share in imports* (%)	63.8	55.5	59.2	61.0	63.8	62.4	68.5
Peas	Value (€ millions)	19.2	7.0	6.1	5.3	14.7	21.0	22.4
	Share in imports* (%)	60.9	37.7	36.4	28.7	45.8	50.3	50.9
	Volume (tons)	5 214	1 953	1 464	1 419	3 942	5 110	5 602
	Share in imports* (%)	54.2	30.6	26.4	22.2	35.3	44.6	44.1

Source: European Commission, Export Helpdesk

* Share of United Kingdom imports from Kenya in total United Kingdom imports from outside the EU-27

Yet the experience of producers may vary. For example, avocado producers in Kenya may find it more difficult to achieve EurepGAP certification. Producer groups supported by the USAID-funded

programme, the Kenya Business Development Service, have reportedly received an ultimatum from their commercial partners in Europe to obtain EurepGAP certification if they do not want to lose their markets in the near future. Strategies are being put in place with the help of donors to try to address this immediate threat (Knopp, 2007).

Yet, as analysed in Chapter III, the introduction of the EurepGAP Fruit and Vegetables standard has adversely affected the participation of smallholders in FFV supply chains (Graffham, Karehu and MacGregor, 2006), although the overall effect on employment may have been mitigated. An FAO report notes that "pressure on the exporters to be compliant while maintaining cost-effectiveness has taken its toll on the smallholders in the sector. There is a strong indication that this could lead (or has led) exporters to substitute some of their smallholder suppliers with medium scale and commercial producers, for which exporters' investment and technical assistance to support compliance are likely to be lower" (FAO, 2006).

Graffham, Karehu and MacGregor (2006) found that farmers were almost universally positive about the benefits of EurepGAP compliance (see also earlier sections of this chapter). They also noted that the large number of successful certifications demonstrates that small-scale growers have the technical ability to meet the requirements of the standard. However, costs of compliance are perceived to be very high and compliant produce generally does not fetch a price premium (although EurepGAP compliance may be a de facto condition in higher-priced market segments).

National GAP initiatives

Kenya has successfully benchmarked national GAP schemes for horticultural products to EurepGAP (see Box 2). First, in June 2005 the EurepGAP Technical and Standard Setting Committee (TSC) approved equivalent status for the seventh edition of the Kenya Flower Council (KFC) standard (silver code). This completed the process of benchmarking against the EurepGAP Cut Flowers and Ornamentals standard. Second, in August 2007, the EurepGAP TSC approved equivalent status for the KenyaGAP standard, developed by the Fresh Produce Exporters Association of Kenya (FPEAK) for fruit, vegetables and flowers (KenyaGAP Version 1.0 2005, Rev Aug06), successfully completing a benchmarking process initiated in 2005.

The Kenya Bureau of Standards (KEBS) first developed the KS 1758 National Horticultural Code of Practice through its multi-stakeholder National Food Safety Committee. The purpose was to develop a national baseline that would provide guidance to all producers on basic GAP principles, workers' health and safety and environmental conservation. In 1997, FPEAK established its own Code of Practice for FFV, which was revised in 1999, and again in 2003 to develop it into KenyaGAP. At the time of the visit of Nigel Garbutt, Chairman of EurepGAP, to Kenya in 2005, the main clauses of a KenyaGAP were already well developed. The visit provided an opportunity for clarification and deeper understanding of EurepGAP benchmarking procedures, with a focus on how smallholders could be accommodated into a national scheme benchmarked to EurepGAP (Garbutt and Coetzer, 2005).

As a result, the National EurepGAP Technical Committee was commissioned to establish interpretation guidelines for the EurepGAP Fruit and Vegetables standard for Kenyan smallholders with a view to facilitating cost-effective and sustainable certification of small-scale growers. The terms of reference of the Committee included establishing an auditable checklist for technical interpretation, developing a generic risk assessment template for use by smallholder farmers, and providing an interface between the interpretation guidelines and KenyaGAP. The Committee provided a forum for communication with various stakeholders and the EurepGAP secretariat on issues concerning the EurepGAP Fruit and Vegetables standard. Its remit also included facilitating the further development of KenyaGAP with a view to achieving EurepGAP benchmarking. KenyaGAP thus evolved from the second edition of the FPEAK Code of Practice.

Several institutions participated in the Technical Committee, including the Kenyan Plant Health and Inspection Service (KEPHIS), and the parastatal Horticultural Crops Development Authority. Development partners such as DFID and USAID have continued to facilitate these meetings by arranging suitable facilities and securing the input of technical specialists. NGOs, in particular Africa

Box 2. Milestones in Kenya's GAP development and compliance

1996		Launch of the first edition of the FPEAK Code of Practice.
1997		Launch of the second edition of the FPEAK Code of Practice.
2002		Revision of the KS 1758 National Horticultural Code of Practice.
2005	January	Launch of AfriCert, the first local certification body in East and Central Africa accredited to the ISO 65.
		First EurepGAP certification achieved by donor-supported smallholders.
	February	Visit by Nigel Garbutt, EurepGAP chairman. Key outcomes: • Establishment of a EurepGAP working group responsible for developing Kenyan smallholder compliance guidelines, with its interim secretariat housed at FPEAK. • FPEAK receives go-ahead to initiate a process aimed at benchmarking.
	March	Commissioning of the Kenya National EurepGAP Technical Committee.
	June	The EurepGAP Technical and Standard Setting Committee (TSC) approved Equivalent Status of the seventh edition of the Kenya Flower Council standard (silver code). This successfully completed the process of benchmarking against the EurepGAP Cut flowers and Ornamentals standard.
		The Kenya National EurepGAP Technical Committee developed draft interpretation guidelines for smallholder compliance with EurepGAP.
	July	The Committee (through FPEAK coordination) developed a QMS template for use by members. The QMS contains samples of documents and records required by a grower to comply with KenyaGAP, in anticipation of the national code being benchmarked to EurepGAP.
	September	The GRASP (Good Risk-based Agricultural Social Practices) Project launched pilot (field) tests of the GRASP control points and compliance criteria in conjunction with AfriCert and AfricaNow. It was followed by the first GRASP multi-sector stakeholders' workshop, to obtain Kenya's contribution to improvement of the EurepGAP standard's chapter on Workers' Health, Safety and Welfare, as an input to the 2007 revision process.
	October	Commencement of a pilot project to test the EurepGAP Smallholder Manual (a EurepGAP document), jointly through a partnership between the MOA, DFID, GTZ Kenya and GTZ, through the BSMDP, GTZ- Private Sector Development in Agriculture (GTZ-PSDA) and the Agricultural Trade Project respectively.
2006	January	The Silver KFC Code of Practice was awarded Provisional Sector Scheme Recognition by TESCO.
	August	Provisional confirmation of KenyaGAP benchmarking to EurepGAP, implying completion of the KenyaGAP benchmarking process. All benchmarking documents had undergone the assessment process and were recognized as EurepGAP equivalent. The corresponding benchmarking agreement was signed. The only missing link was the formal accreditation of the responsible certification bodies (CBs).
2007	August	KenyaGap was launched as a EurepGAP-benchmarked standard.

Now and Traidcraft, also participated in discussions on the impact of GAP standards on small-scale farmers.

Factors to be reflected in a national programme on good agricultural practices

At least two sets of issues need to be considered in the development of a national GAP scheme: (i) general issues of standards development, and (ii) the need to pay adequate attention to the constraints facing smallholders in implementing GAP.

With regard to general issues of standards development, in order to ensure consensus and ownership, multiple stakeholders must be involved in the process. As mentioned above, in Kenya, associations

such as FPEAK, the Horticultural Crops Development Authority (HCDA), KEBS, KEPHIS, the Department of Public Health, the National Environmental Management Authority (NEMA), the Ministry of Agriculture, as well as officers responsible for the implementation of donor-funded projects such as the DFID-supported Business Services Market Development Project (BSMDP) and the Kenya Horticultural Development Programme (KHDP), participated in the development of KenyaGAP.

The following advantages can accrue from involving a wide range of stakeholders:

- Enhanced credibility and compatibility with existing regulations, which helps prevent potential conflicts of interest and overlaps;
- Greater likelihood that the needs and priorities of growers, workers and exporters will be met, which will improve the practicality and impact of the code;
- A wider skills base from different areas of specialization and operation; and
- Broad awareness and support for the code, as stakeholders become its "ambassadors".

With regard to smallholders and outgrowers, there is a need to ensure their adequate representation in the development and implementation of the national GAP standard so that it can better reflect their needs and concerns. In addition, flanking measures are needed to facilitate smallholder compliance with the standard. Specific concerns and/or requirements to be addressed include:

- Training and specific advice on IPM geared to particular crops and locations;
- Incentives: whereas growers need to make investments and incur costs to meet the requirements, they receive no guarantee that their produce will fetch a price premium (compared to lower performers);
- Pesticides registration: local systems for registering new pesticides can be slow and this may prevent growers from using newer, safer pesticides;
- Working conditions of non-permanent/casual workers;
- Development of record keeping systems appropriate for smallholders;
- Access to capital for required investments (e.g. for improvements in infrastructure);
- Use of fertilizers;
- Group organization; and
- Enabling policy framework, legislation, enforcement, incentive and sanction mechanisms.

Cooperative arrangements forged among small-scale producers may allow them to benefit from a national GAP. These arrangements should aim at enabling small-scale farmers to integrate into the marketing channel in a competitive manner while ensuring continuous compliance with GAP requirements. This could be achieved through:

- Formalization of their consolidated operations into producer groups through contracts and through "fostering" by a large exporter. This will make certification more affordable for them.
- Establishing systems such as effective PMOs with written contracts so as to make sure that orders are not cancelled.

Options for EurepGAP certification

With the successful EurepGAP benchmarking of KenyaGAP, Kenyan producers will now have all four options to achieve EurepGAP or equivalent certification: individual certification against EurepGAP (Option 1), group certification against EurepGAP (Option 2), individual certification against KenyaGAP (Option 3) and group certification against KenyaGAP (Option 4).

By April 2007 (i.e. before the benchmarking of KenyaGAP was completed), 606 producers had already obtained EurepGAP certification, of which 575 through Option 2 (Table 6). Option 2, is therefore generally considered to be a more viable option. There are examples of successful group certification (Garbutt and Coetzer, 2005), but as mentioned in Chapter III above, this option is not an easy process. An FAO mission report (FAO, 2006) noted the relatively high dropout rate in Kenya from certification under Option 2, which has to be renewed every year. Lack of entrepreneurial skills is a big challenge. Coupled with problems related to group ownership, management, cohesion and

sustainability, this may partly explain why some groups of Kenyan small-scale growers that have been trained and certified are no longer involved in exports. Since KenyaGAP has now obtained EurepGAP equivalence status, it is expected that Option 4 may facilitate certification of small-scale growers.

In Kenya, the development of national interpretation guidelines may also have played an important role in facilitating EurepGAP certification as well as the successful benchmarking of KenyaGAP. Certification bodies need to understand the contextual environment of every country. This helps the auditors appreciate how compliance with control points can be achieved in the local context.

Kenyan smallholders have experienced difficulties in meeting EurepGAP requirements in the following areas: IPM, group formation, management and dispute resolution. Additional areas include: workers' welfare, documentation and quality management systems (QMS) in farmers' groups. These difficulties may be resolved through an enabling policy framework and the provision of adequate and focused training.

Certification issues

A particularly interesting development in Kenya is the establishment of AfriCert, a Nairobi-based certification body that has been accredited to ISO Guide 65 for the EurepGAP Fruit and Vegetables standard. The two most important benefits of a local certification body are: (i) the potential for lower certification costs, and (ii) the availability of local inspectors and/or auditors. It brings down the certification cost to farmers, because they do not have to pay high accommodation and travel fees for auditors or inspectors (e.g. from South Africa or Europe). Local inspectors may also have a better understanding of the different ways in which control points are implemented (Garbutt and Coetzer, 2005).

According to the EurepGAP website, there are two other duly accredited certification bodies with branches in Kenya: Bureau Veritas Kenya Limited, also working as BVQI (Bureau Veritas Quality International) Kenya, and SGS (Société Générale de Surveillance). Certification fees vary considerably from one certification body to the other.

Donor activities

Kenya's horticulture sector has benefited from substantial donor support in building capacities to meet European food safety and traceability requirements and implement GAP. One major project is the EC-funded Pesticide Initiative Programme (PIP–COLEACP), which aims to provide support at every stage of the production chain, bringing enterprises up to date with European legislative developments and helping them deal with practical matters, such as adaptation of their methods and securing the human and financial means necessary to implement them. PIP has also been supporting the functioning of the National Task Force on Horticulture as well as the development of KenyaGAP, which has now been benchmarked to EurepGAP (Brattinga, 2007).

DFID has supported the Business Services Market Development Project (BSMDP) to help smallholders meet private standards, in collaboration with the Danish aid agency, DANIDA and the German GTZ. This project also helped establishing AfriCert. The Government of the Netherlands has been supporting the project, EurepGAP for Smallholders in Kenya and Senegal, which successfully developed a window for certification of groups of farmers under option 1 of EurepGAP. The GTZ-DFID pilot project, Group Certification EurepGAP Kenya, has supported groups of small-scale vegetable producers to become certified under EurepGAP Option 2.

The objective of GTZ's project on Promotion of Private Sector Development in Agriculture is to assist small and medium-sized enterprises in selected agricultural value-added chains to make better use of market opportunities. Recent activities in Kenya include: support for AfriCert in obtaining accreditation as a certification body for organic agriculture in accordance with the EC Regulation, assistance in drafting a manual and procedures for an internal quality control system, and field testing of social criteria for the EurepGAP standards under the pilot project of the Good Risk-based Agricultural Social Practices Project (GRASP) (FAO, 2006).

USAID, through the Horticulture Development Center (HDC), and later the Kenya Horticultural Development Programme (KHDP), has been providing assistance to the fresh and processed food sector in Kenya in areas such as marketing, post-harvest handling, processing and agronomic support for smallholders and allied agribusinesses. The programme encompasses three main strategic areas: EurepGAP/SPS,. new product development and domestic market intervention, and cross-cutting activities such as marketing services, policy interventions, environmental management and promotion of gender equality.

In the past three years HCDA, the Japan International Cooperation Agency (JICA) and MOA have been involved in sensitization and training of field extension staff from the MOA and HCDA on EU regulations and EurepGAP requirements. The training and workshops covered the quality management system, ISO 9000, the environmental management system, ISO 14000, and social accountability, SA 8000.

Conclusions

Kenya has developed a very competitive horticulture industry, with impressive export growth over the past 15–20 years. Apart from cut flowers, the most successful horticultural exports are vegetables exported to the EU, especially the United Kingdom. However, international trade in FFV has changed dramatically in recent years, especially supply chain management, which has largely replaced traditional spot markets. Government regulations in export markets (e.g. on pesticide residues), traceability requirements and private-sector standards have become more complex and stringent. Although the major Kenyan FFV exports do not seem to have been adversely affected, there is a risk that quite a number of small-scale growers may become increasingly marginalized from FFV production for export to key European markets.

The development of KenyaGAP, which has now been successfully benchmarked to EurepGAP, the knowledge and experience acquired in facilitating internal control systems and group certification, and continued donor support for the horticulture sector, among others, seem to have helped reduce the negative impacts on smallholders. Kenya's experience shows that strategic and proactive approaches can help achieve compliance with market requirements and private-sector standards. Producers, exporters and other stakeholders need to keep abreast of changing technical and commercial requirements in their target market(s), while anticipating future changes and continuously improving their capacities. Donor assistance can play a key role, as can coordination between the various public and private-sector players.

The Kenyan experience shows that a favourable policy environment, clearly-defined roles of the public and private sectors and a combination of crosscutting industry-specific interventions that are suitable for the Kenyan setting have played a key role in enhancing capacities to comply with regulations and supply chain requirements as well as in developing a national GAP scheme. The Kenyan Government has played a decisive facilitating role, including institutional innovation, extension services, the establishment of standards, fostering an enabling regulatory environment, helping to build national capacities, in particular of the private sector standards in inspection and certification, facilitating linkages between farmers and exporters or other buyers by helping to organize farmer groups and establishing ground-rules for farmer-buyer contracts. The Kenyan government has allowed and in some cases promoted the development of a wide range of private institutions such as FPEAK and local producer associations.

These experiences can be replicated in other countries in other SSA countries. However the experience of Kenya also shows that smallholder compliance with EurepGAP is feasible, but requires significant financial support and technical assistance from the donor community, which other countries of less importance to European markets may not be in a position to attract.

VI. UGANDA

Based on a case study by Moses K. Muwanga,
coordinator of the National Organic Agricultural Movement of Uganda (NOGAMU).

Introduction

Uganda is a largely agricultural country, with over 85 per cent of its population living in rural areas and over 85 per cent of the total labour force engaged in agriculture (Table A.1). This sector contributes about 33 per cent to GDP. Its tropical climate and good conditions permit the production of a variety of horticultural products all year round. Horticultural production (flowers, fruit and vegetables) has intensified since the mid-1980s, with farmers targeting both the local and export markets. Exports of flowers (HS chapter 6) reached $32.1 million in 2006, up from $9.9 million in 2000 (COMTRADE). The value of FFV exports has also grown significantly, but at a less spectacular and more irregular pace. The average annual value was $11.1 million in 2004-2006, compared with $5.6 million in 2000-2001. The principal vegetable exports are beans, green chillies (cayenne), hot peppers (scotch bonnet), and "other vegetables" (including okra). The main fruit exports are bananas, passion fruit and pineapples.

Whereas most of these FFV are exported primarily to the EU market, exports of dried beans (Uganda's single largest FFV export item) are destined almost entirely to neighbouring countries, in particular Burundi, the Democratic Republic of the Congo, Kenya and Rwanda. Consequently, the overall share of Uganda's FFV exports going to the EU is small compared to that of other SSA countries. Nevertheless, EU import statistics show that the value of EU imports of FFV from Uganda increased more than fivefold, from $1.5 million in 1996 to over $8 million in 2005-2006.

Meeting public and private-sector standards in the European market for FFV is therefore becoming increasingly important for exporters in Uganda. Indeed, exporters are becoming more aware of traceability and other requirements, for example of the EU General Food Law (EC178/2002). Government institutions and donors, for example through the PIP, are providing technical assistance and training to exporters and outgrowers on issues such as safe pesticide use, IPM, food safety and hygiene. Such initiatives are also in line with the Government's Policy for the Modernization of Agriculture (PMA), which aims to transform agricultural production from subsistence farming to production for the local and export markets. This requires enhancing the capacities of producers to respond to market requirements.

Currently, FFV exports to Europe mainly go to wholesale markets in the United Kingdom (such as New Spitalfields and Western International) and to small supermarkets in the Netherlands. There have been few attempts to supply major supermarkets because the level of infrastructural development for quality and hygiene in Uganda has been too low to allow exporters to meet stringent supermarket requirements. Therefore, the impacts of PVS, such as EurepGAP have so far been relatively small. However, with the rapid growth of Uganda's FFV exports to the EU, PVS are likely to become increasingly important (as is already the case with flower exports to EU markets, in particular the Netherlands).[71]

At the time of writing, there were no EurepGAP-certified FFV producers in Uganda.[72] However, the Government and exporters have started to assess the implications of the EurepGAP standard. In June 2003, the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) commissioned a national task force on EurepGAP, which involves a variety of stakeholders from both the private and public sectors. Their involvement has been facilitated by the creation of the Horticultural Promotion Organization of Uganda (HPOU), which brings together different associations and stakeholders under one umbrella association.

[71] Research by NRI (2006) indicates that less than 10 per cent of Uganda's horticulture exports to the United Kingdom are sold in supermarkets; most exports are sold in wholesale markets and through the food service sector. This indicates a high potential for upgrading the Ugandan horticulture export sector to products, qualities and/or quantities required to enter the growing supermarket supply chains.

[72] Although two export companies had acquired EurepGAP certification (Option 1) during 2004, there was weak commitment from both the exporters and growers to make the system work. Significantly, these two companies failed to renew their EurepGAP certificates (Kleih et al., 2007).

Consideration is also being given to the possible development of a national GAP scheme to respond to evolving market requirements while taking into account national capacities and development needs. In this context, a number of factors need to be considered, including the following:

- Agricultural production in Uganda is dominated by smallholder farmers: in the horticulture sector, over 95 per cent of farmers are smallholders (0.25-1 ha);
- FFV exports from Uganda are sourced from smallholders who work as outgrowers for export companies. Only three companies have their own FFV production (averaging about 25 ha), but these companies still depend on outgrowers for 40–60 per cent of their exports;
- The majority of these farmers are in rural areas where basic infrastructure (such as roads and post-harvest handling facilities) is lacking or in a bad state;
- The majority of smallholders are not organized around specific companies or supply chains; instead, they are scattered around different areas and grow a number of different crops for subsistence and for sale;
- Prevailing levels of education of the majority of smallholder farmers are very low;
- Small and medium-sized farmers mainly use family and casual labour, and only in very few cases do they use permanent workers; and
- Use of agrochemicals is very low (1–2 kg/ha), probably among the lowest in Africa (Musiime, Keizire and Muwanga, 2006).

One of the main challenges in promoting GAP implementation and in the possible development of a national GAP scheme is to organize small-scale growers into commercially oriented groups/cooperatives with a clear focus on specific export crops and on working with exporters. Other challenges are to: clarify the concept and objectives of a national GAP scheme and the respective roles of the Government and private-sector stakeholders in promoting GAP implementation; support investments in infrastructure development at the macro and farm levels; and ensure the provision of extension services and flanking measures such as technical cooperation, training and support to farmers in making the adjustments necessary for GAP implementation. Important lessons can be learnt from Uganda's experiences in the flower sector and with organic agriculture in addressing these challenges.

Considerable progress has been made in moving towards the design and implementation of a national GAP scheme, including through a two-day national consultation workshop on GAP (organized jointly by the Ministry of Agriculture, Animal Industry and Fisheries, the Horticultural Promotion Organization of Uganda, and FAO) and a related high-level policy meeting in January 2007 (FAO, 2007).

Production and exports of FFV

Production

According to FAO data, with a production of 11.1 million tons in 2004, Uganda is the second largest producer of fruit and vegetables in SSA, after Nigeria (Annex Table A.2). Production in 2004 was 69 per cent higher than in 1979-1981, a similar growth to that of SSA as a group (72 per cent).

Most of the FFV production for export is managed by smallholders located throughout the country, but mainly in the central region.[73] With the exception of three companies that have their own production, 40 per cent of which is exported, other companies rely on smallholder farmers for their exports. Few smallholders producing FFV are organized into groups. They tend to be scattered in many parts of the country, selling their produce individually and directly to exporters. There are only a few well-organized outgrower schemes where exporters organize smallholder farmers with whom they may enter into contractual arrangements. One of the most successful arrangements for outgrower production is in the Mubuku irrigation project (Kasese, western Uganda), where thousands of small farmers are organized to produce vegetables for export all year round. These farmers have been involved in commercial agriculture for some 30 years and their success is mainly due to the

[73] With regard to flowers, all farms are located close to the airport and around the shores of Lake Victoria, with access to abundant supplies of water.

availability of irrigation water throughout the year. Other successful arrangements have been made by companies with organic certification that mobilize small farmers, train them and arrange for their certification.

Exports

According to export data reported to COMTRADE, the average annual value of Uganda's FFV exports was around $11 million during the period 2004–2006 (Table 5). Beans and peas, exported mostly to neighbouring countries, accounted for 64 per cent of FFV exports in value terms. Excluding these two products, around 55 per cent of exports in value terms went to EU markets.

Table 15. Uganda: exports of FFV, 2004–2006

	Values ($thousand)				Exports to the EU-27	
	2004	2005	2006	Average 2004-2006	Average annual exports 2004–2006 ($ thousand)	Share of EU-27 in Uganda's total FFV exports to the world (%)
FFV	11 733	8 885	12 810	11 143	3 067	27.5
Vegetables	10 157	6 921	11477	9518	2 055	21.6
Beans	4 582	5 462	7 804	5949	25	0.4
Mixtures of vegetables	1 315	642	3 035	1664	1 596	95.9
Peas	3 238	6	298	1181	1	0.1
"Other" vegetables	397	468	209	358	350	97.9
Other	625	343	131	366	82	22.5
Fruit	1576	1 965	1 333	1625	1 012	62.3
Bananas	850	806	127	594	345	58.0
"Other fruit"	348	405	609	454	370	81.6
Pineapples	119	171	69	120	35	29.2
Other	259	583	528	457	261	57.2

Source: COMTRADE (export data reported by Uganda)

Import data for the EU show strong growth in FFV imports from Uganda between 1996 and 2006, with a particularly strong growth of fruit imports (Tables 16). EU imports of vegetables from Uganda fell significantly in 2006, but according to COMTRADE were still slightly higher than the value (in dollars) of 2003 imports. Yet, EUROSTAT data show a more significant decline in volume terms (Table A.9).

Table 16. EU-15: imports of FFV from Uganda, 1996–2006 ($ thousand)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
FFV	1 528	2 387	3 136	3 228	3 042	3 657	4 557	5 075	6 798	8 320	8 083
Fruit	117	355	237	232	211	522	386	572	993	1 539	3 398
Vegetables	1 411	2 032	2 899	2 997	2 831	3 135	4 171	4 504	5 804	6 780	4 685

Source: COMTRADE

The leading FFV imported into the EU from Uganda are "other vegetables" (largely "Asian" vegetables), hot peppers/chillies and bananas (Table A.9).

Implications of EurepGAP

Food safety and quality issues in Uganda have become more pronounced since the coming into force of the EU General Food Law (EC 178/2002). Considerable efforts have gone into sensitizing export companies about the increasingly stringent food safety requirements in the EU markets. Companies that rely entirely on small outgrowers for their produce have been trying to establish systems that will ensure food safety. Most fruit and vegetable export companies have received support from the PIP in the form of training of their staff and outgrowers on the safe use of pesticides, IPM, food safety and hygiene. Companies have also been assisted in establishing traceability systems to enable tracking and tracing of their exports. The Government, under its Strategic Intervention for Export, established a fund to facilitate training of stakeholders in food safety and quality issues. In addition, the MAAIF has identified and organized export villages to receive training in GAP, using private-sector service providers.

The effects of PVS so far may have been relatively small. To date, only flower companies have obtained certification from private-sector schemes, such as the MPS standard (for more details on this standard, see Table 18 in Chapter VII), which is important, particularly for exports to the Netherlands. At the time of drafting, there were no EurepGAP-certified FFV producers in Uganda. One large farm growing both FFV and flowers had been certified to the EurepGAP standard for flowers, which greatly boosted its FFV production. Many exporters were interested in EurepGAP, and two farms were moving towards certification of their outgrower schemes.

However, it is expected that private-sector standards, such as EurepGAP, will have increasingly important implications for Uganda's FFV exports, especially since production is almost entirely carried out by smallholders who, in most cases, have no appropriate infrastructure on their farms and little access to extension services. Even if there may have been little or no pressure from wholesale markets on Ugandan exporters to comply with EurepGAP so far, indications are that in the near future it could be more difficult for exporters without EurepGAP certification to survive even in the wholesale market as competition and the need to demonstrate due diligence intensifies among wholesalers.

While developed-country markets (including wholesale markets) are moving fast to implement EurepGAP requirements, in Uganda improvements in farm-level infrastructure and in the provision of services (training and extension) to smallholders are not progressing at the same pace. Therefore many smallholders may be left out unless interventions are made to help them meet market requirements and implement GAP. The commissioning of the EurepGAP Task Force by the MAAIF was a response to the increasingly stringent regulations and private-sector requirements, in particular in the EU markets. These include traceability requirements imposed on EU producers and importers (and transmitted through the supply chain) and EurepGAP certification.

A variety of stakeholders from both the public and private sectors are involved in the work of the task force on EurepGAP and in other discussions, such as the possible creation of a national GAP scheme. These include government agencies such as the Uganda National Bureau of Standards (UNBS), Uganda Export Promotions Board (UEPB), Ministry of Tourism, Trade and Industry (MTTI), MAAIF, Kawanda Agricultural Research Institute (KARI), exporters and farmers associations such as HORTEXA, FAUEX, NOGAMU, AMA, UNAFFE, as well as individual exporters.

There had been some concern, especially among farmers and exporters, over the perceived lack of sensitization and consultations with stakeholders in setting up the task force on EurepGAP. Many stakeholders felt that MAAIF had assumed too many roles and responsibilities and that the process was too top-down, rather than facilitating the activities of the task force and bringing together the relevant stakeholders to define the objectives of the task force and explore different options for achieving EurepGAP certification. This undermined the confidence of the stakeholders and reduced their active participation. The MAAIF, however, supported an initiative to bring together different associations and stakeholders under one umbrella association, which resulted in the formation of the Horticultural Promotion Organization of Uganda (HPOU). The National Task Force on EurepGAP now offers a more balanced forum composed of representatives from both the private and public sectors. However, in order to further increase its relevance and acceptability, it needs to be made more

independent: instead of reporting solely to MAAIF, it should report to all stakeholders. There is also a need to clarify its terms of reference and make its objectives more focused.[74]

Quality systems for horticultural production

The Uganda National Bureau of Standards (UNBS) manages the national quality assurance system. It is responsible for monitoring the quality of products delivered to the Ugandan market, as well as issuing licences for use of the Uganda Standards Certification Mark. The mark indicates that the processor/manufacturer is capable of consistently manufacturing a safe and quality product in accordance with either Ugandan or internationally accepted standards. To date most UNBS activities have been mainly in manufacturing and processed products and not in fresh agricultural/horticultural products. The UNBS is a member of the National Task Force on EurepGAP and has been identifying key areas that may need its expertise to enable conformity to EurepGAP requirements.

The horticulture sector, with financial and technical support from the USAID-funded project, Investment in Developing Export Agriculture (IDEA), which was completed in 2004, had developed a National Code of Practice (in 2000) for implementation in both the flower and fresh produce industries. The process was driven and embraced mainly by exporters, particularly of flowers, with little involvement of smallholder producers.

A major challenge, identified during the EurepGAP task force initiative, was the need to clearly establish the respective roles of the public and private sector institutions and to promote appropriate coordination. This is evidenced by the process of development of the new draft law on food safety and hygiene (covering production, post-harvest handling and processing). This law was first drafted by MAAIF, but was later taken over by the Ministry of Health on the grounds that food safety has more to do with people falling sick than with agricultural production, per se. It is a clear example of the need to coordinate actions among the various public and private agencies, and work together towards achieving common objectives.

The private sector has been very slow in moving towards a national quality assurance system for horticultural produce, mainly because of lack of unity among the horticultural exporters and the lack of clear, collaborative channels with the public sector.

As regards infrastructural support for a national quality assurance system, at present there is only one private-run laboratory (Chemiphar) that is internationally accredited. The Government's UNBS has only a microbiology laboratory that is internationally accredited.

There is limited capacity for carrying out GAP certification and inspection services. The only internationally accredited certification bodies (CBs) operating in the country are working mainly in the field of organic certification (i.e. IMO from Switzerland, CERES, ECOCERT and the Soil Association). Some of these CBs are also accredited EurepGAP certifiers (e.g. IMO and CERES), and virtually all are foreign-based. The only local CB is UgoCert, established by organic stakeholders with coordination by the National Organic Agricultural Movement of Uganda (NOGAMU). It is supported by the Export Promotion of Organic Products from Africa (EPOPA) programme, with funding by the Swedish International Development Agency (SIDA). UGOCERT is now starting to build capacity for meeting requirements of other food quality systems such as EurepGAP as well as schemes such as Utz Kapeh and Fairtrade, and is also working towards ISO 65 accreditation. In addition, UGOCERT offers international organic certification services through partnerships with other international certification bodies (mainly IMO and CERES), and is collaborating with AfriCert in Kenya, especially in sharing information with a view to strengthening capacities for organic and EurepGAP certification. Besides offering more affordable inspection services, UGOCERT is also seen by stakeholders as a bridge between working towards meeting requirements of international standards and interpreting them taking into account the local context. It is thus considered as providing a means of building local capacity. Kenya has had EurepGAP internal auditors trained with support from the PIP programme but no local certification body has been accredited so far.

[74] FAO-MAAIF-HPOU National Working Meeting on Good Agricultural Practices, held in Kampala 23 –25 January 2007, see: www.fao.org/prods/GAP/activities/africa_en.htm.

Options for EurepGAP certification

Although, at the time of writing, Uganda had not yet acquired any direct experience with certification to the EurepGAP Fruit and Vegetables standard, it is believed that the standard's group certification (Option 2) may be a viable option, as many smallholders are working as outgrowers for an export company.

Similar arrangements for certification in organic production have already been successful since 1994. Today, over 50,000 smallholder farmers engaged in organic production are already certified through a group certification option in accordance with internationally accepted organic standards. They participate in about 22 outgrower schemes with the biggest comprising over 12,000 smallholder farmers. Group certification has also been the main channel through which smallholder organic farmers have been able to access export markets and comply with strict requirements in these markets. Indeed, currently the only two companies that are pursuing EurepGAP certification in Uganda are organic-certified companies working with outgrower smallholder farmers. They are finding it easier to comply with Option 2 requirements because they already have a similar internal quality management system in place.

Similar schemes and arrangements could be emulated and scaled up to help other smallholders comply with GAP requirements. This will require investment in consolidation of group efforts at the outgrower level, and the provision of training and basic infrastructure in line with GAP requirements.

There are no specific EurepGAP requirements that seem to be inappropriate in the context of Uganda. Many of its requirements are already covered in various existing government policies and laws. However, there has been a general lack of implementation and enforcement of these policies and legislation as well as insufficient coordination.

There are nevertheless certain EurepGAP requirements that may be difficult for Uganda's smallholders to meet. For example:

- *Water analysis*: In villages where most growers use communal sources, much of the production in rural areas is rain-fed, and groundwater is used only in very few instances where particular products may require pre-washing at the farm before transporting to the packhouse. EurepGAP requires that the source of water used for final product washing is potable or declared suitable by competent authorities and also recommends that water analysis be carried out by a suitable laboratory. It might be sufficient to take samples form different wells/natural springs in the area two or three times a year and share the results of the analysis;
- *Varieties and rootstocks*: Most smallholders use seeds generated from their own farms through selection, which may not easily be recorded. To resolve this, one farmer could be selected who would be responsible for identifying healthy plants from which to pick the fruits for new seeds;
- *Record keeping*: Since most farmers are illiterate, requiring them to keep records of information to be used for auditing is a problem. It would therefore be advisable for them to use a depot system where all records could be kept and accessed, with individual files maintained for each farmer in the group. A centralized information management system could be part of the internal control system of the group; and
- *Workers' health, safety and welfare*: It is difficult to define who is a worker in the smallholder context. Most smallholders use family labour to work on their farms. The development of interpretation guidelines could help, from the smallholder perspective, in defining who is a worker and what interpretation should be given to the compliance criteria in this area.

In Uganda there is still no clear understanding of the pros and cons of different options for achieving EurepGAP certification. Even so, the MAAIF is undertaking training to organize groups of farmers to comply with EurepGAP requirements.

Developing a national GAP scheme

It may be desirable to explore possibilities for the establishment of a national GAP scheme to improve

the practices and output of smallholders, enhance acceptance of Uganda's FFV in international markets and improve the image of the country's quality assurance.

Institutional issues, roles of the government and other stakeholders

The Government's role in developing and implementing a national GAP scheme should be to facilitate the process and mobilize all key players in the sector to participate actively in the development and implementation of the scheme. This could take the form of providing financial support as well as putting in place a regulatory framework. The Government could also promote and support GAP through such activities as radio programmes, resource mobilization and national monitoring of progress.

Unlike in Kenya, in Uganda there are no strong private associations of horticulture producers and exporters. Instead, there have been a number of small associations, sometimes with conflicting interests. This has been a major weakness of the sector and may help to explain the lack of collective responses to quality and safety issues.

A few private associations exist that can play an important role in the development of a national GAP scheme. For example, the Uganda National Farmers Federation acts as the lead organization for farmers' associations in the country. In the area of horticulture, exporters' associations have created the Horticulture Promotion Organization of Uganda (HPOU) as their lead association. The HPOU has seven pillars, all of which are relevant for the promotion of GAP in FFV production: market promotion, control and regulation, training, standards and certification, research and development, lobbying and advocacy, and private-public partnerships.

Retailers and input suppliers also play a role. For example, local supermarkets in Uganda are becoming interested in knowing how the FFV they procure are produced. Associations of input suppliers to the agricultural sector have a partnership with Makerere University to train handlers before renewing their licences.

Involving smallholders

Since over 98 per cent of the exportable FFV in Uganda is produced by smallholders, their involvement in the possible development process of a national GAP scheme is crucial for improving the overall quality and volume of the produce. Yet there are many problems with engaging smallgrowers in GAP implementation. For example, they often lack a strong commitment to meeting the quality requirements of exporters. In addition, their low level of organization makes the proper flow of information and analysis difficult, particularly as their production is small and scattered around different parts of the country. A major challenge in involving smallholders in the development of a national GAP is therefore to have them organized into commercially oriented groups/cooperatives. Another problem is that most private-sector promotional activities focus on a particular product, whereas most smallholders grow a variety of crops as a means of reducing risks and ensuring their survival. Consequently, evaluating their compliance with GAP requirements, auditing and follow-up activities become complicated.

Sensitizing and training are also essential. In 2005, MAAIF, together with the private sector (involving particular exporters), organized targeted training on EurepGAP to sensitize farmers' groups that are either already involved in outgrower schemes for horticultural export or have the potential to participate in such schemes. This resulted in the creation of what has now been termed "export villages" in different parts of the country. The MAAIF initiative targeted exports. It is still debatable as to whether government initiatives should focus primarily on exports (since export companies are willing to make investments in infrastructure and systems to take advantage of export markets) or also on local market development. The Government needs to establish priorities in allocating resources to national GAP schemes which should also pay appropriate attention to the local market.

Whereas outgrower schemes may bring several benefits to small-scale producers, there is also a risk that they may become overly dependent on powerful buyers to access markets. For example:

- Exporters tend to limit the choice of smallholders in selecting which products to grow. This may reduce diversification and increase the risk of income losses if prices of some products decline;

- There is a risk of exporters "owning" the growers in a particular area or group, especially where the farmers are not well organized or do not have a strong leadership that can bargain with the exporter. This reduces the scope for these growers to explore more attractive market opportunities for improving their income levels; and
- The large buyers have already established market channels, and have the necessary infrastructure and logistics to meet market requirements and penetrate lucrative export markets. Smallholders, however, are often left with no option but to rely on the large buyers in order to secure their presence in the market.

It is therefore important to address specific needs of smallholders to help them comply with market requirements, for example by:

- Developing channels through which growers can be provided with useful and up-to-date information to help them make informed decisions;
- Creating or improving the infrastructure necessary to enable smallholders to be competitive in the market. Field-handling facilities (e.g. packhouses) and small irrigation and transport systems should be gradually improved; and
- Putting in place management systems to groups of smallholders to improve planning, organization, coordination and control of their activities, and run their business without having to depend on exporters. The key to achieving this is the establishment of internal quality management or control systems, and ensuring that groups of smallholders produce uniform products in accordance with market requirements.

The key to integrating the smallholders into marketing channels and making them more competitive is to have them organized into commercially oriented groups with clear leadership and management structures. Once a group is organized it can make the necessary arrangements to effectively implement GAP taking into account the requirements of the specific export company or companies it supplies or seeks to supply. An internal control system can be developed within the group with procedures, internal rules and record keeping to ensure that the identified GAP activities are being implemented. Once the internal control system is established, the group can decide to establish "teams" that are responsible for implementing particular activities (e.g. spraying or record keeping) on behalf of the rest of the members of the group. The group can also jointly decide how to approach the purchase of inputs, training, quality control and marketing of their produce. Examples of such arrangements may include:

- Creating outgrower schemes where the buyer specifies the production conditions under which a product should be grown and then the group undertakes to ensure that these conditions are met, based on an internal control system;
- Creating a system that smallholder groups can operate to ensure that inputs (notably crop protection products) supplied to its members meet GAP standards. The group would accept only products that are properly registered, and would ensure that such inputs are applied in accordance with GAP requirements and internal procedures. Approved suppliers could also train the smallholder group's "spray team" in the proper application and use of these inputs;
- Providing opportunities to members of smallholder groups to participate in capacity-building programmes for receiving training in the identification of pests and the proper and safe use of pesticides. This system would have to maintain a proper record of all activities, which would also be useful for traceability purposes; and
- Organizing cooperative training initiatives where farmers would benefit from access to updated information regarding GAP.

Currently, smallholders are represented at industry meetings at the national level through their membership in national associations such as the Horticulture Promotion Organization of Uganda (HPOU) and the Uganda National Farmers Federation (UNFFE). Farmers in all districts countrywide that are members of these associations would therefore be able to contribute to the development of a national GAP.

A national consultation on the development and implementation of a GAP programme in Uganda (UgaGAP) was held in January 2007, organized jointly by MAAIF, HPOU and FAO, followed by

a high-level policy meeting. The conclusions and recommendations of the workshop included the following:

- The national GAP programme should be owned by both the private and public sector. The private sector should take the lead in its development, with the cooperation of the public sector;
- The national GAP group should be developed gradually, starting at a small and manageable level (with an initial focus on specific FFV);
- Since GAP is mainly a farm-level activity, small farmers should be involved in the process of development and implementation from the start;
- Public-private partnerships are important, especially for the mobilization of resources which are required for investment in key areas, especially infrastructure development;
- A national GAP programme may have both export and domestic market objectives. It would be important to review general policy areas which could support the development of GAP and its integration into the national export strategy; and
- FAO and other development partners/donors should continue to assist the private sector in GAP development and initial roll-out to the beneficiaries and users.

Extension services

To be able to implement either EurepGAP or a possible future national GAP scheme, smallholders require appropriate technical and organizational support in a number of areas. These include agronomy (seed and site selection, fertility management, pest and disease prevention and control, soil management, harvesting and post-harvest handling), as well as food safety, hygiene and product quality.

The delivery of extension services needs to be well coordinated and targeted to specific groups of outgrowers. The fact that smallholders are not well organized in groups or cooperatives of producers, and are not clearly linked to specific export companies may be one of the biggest obstacles to the efficient delivery of extension services. It is not unusual to find many producers growing over 10 different crops and selling them through different market channels, with each producer acting independently of the other.

Currently the Ministry of Agriculture and agencies like the National Agricultural Advisory Services (NAADS) and the National Agricultural Research Organization (NARO) provide extension services. Their delivery of such services to farmers was privatized when NAADS was turned into a separate agency. Organized farmers can demand advisory services in specific areas, which are then supplied by private service providers and paid for by the Government through NAADS. Other support services are provided mainly by individual export companies that offer them to their outgrowers, and by NGOs operating in particular areas and working with particular communities.

The current support services are making optimum use of national expertise. Most are however implemented in a reactive manner, for example in response to a given need, such as a pest attack or low fertility, and not in a consistent and coordinated way, and they do not address all GAP-related issues. Besides, both the Government and the private sector lack sufficient capacity in some key areas of GAP, such as IPM and integrated water management, to be able to respond to the needs of all smallholders, especially those in remote areas.[75] Export companies have experience of market requirements and often tend to focus only on meeting those requirements. In order to deliver more effective extension services to the farmers, government and private-sector initiatives need to be better coordinated with the aim of building a national GAP that takes care of both national circumstances as well as export market requirements.

[75] In August 2004, the MAAIF prepared a draft manual with standard operating procedures for horticultural commodity inspection and quality assurance. The manual includes checklists and forms to be used by the Ministry to inspect horticultural products for both local and export markets. The manual broadly covers most areas of GAP, but does not consititute a sufficient basis for the development of a national GAP scheme. Moreover, the inspection procedures were developed in the absence of standards (a national code) that would guide producers and exporters in implementing GAP.

Regional cooperation

The following are some of the major subregional initiatives for cooperation in implementing GAP, standards for organic agriculture and related areas:

- An initiative for East and Central African countries, supported by COLEACP and by the USAID-funded IDEA Project, aimed at harmonizing national codes of practice, which contributed to the development of the present Uganda national horticultural code of practice;
- There has been discussion on a possible initiative that could result in the creation of "AfricaGAP" as a mechanism to exchange information and develop a common approach towards national GAP schemes among East African countries;
- The three East African countries (Kenya, the United Republic of Tanzania and Uganda) have taken the initiative to exchange information on and discuss approaches towards SPS issues in the region; and
- The same three countries, later joined by Burundi and Rwanda, launched the East African Organic Products Standard (EAOS) and the associated East African Organic Mark at a conference in Dar es Salaam, the United Republic of Tanzania in May 2007. This standard is only the second regional organic standard in the world after the EU's, and the first ever to have been developed through cooperation between organic movements and national standards bodies. It is expected to boost organic trade and the development of a regional market, raise awareness about organic agriculture among farmers and consumers, create a unified negotiating position that should help East African organic farmers gain access to export markets and influence international organic standard-setting processes. UNCTAD, UNEP, the International Federation of Organic Agriculture Movements (IFOAM) and many East African organizations worked together to develop the EAOS and its associated mark (for more information see: www.unep-unctad.org/cbtf/events/dsalaam2.asp).

Conclusions and recommendations

The horticulture sector in Uganda employs millions of smallholder farmers whose livelihoods depend on the cultivation and marketing of their produce. With increasingly complex and stringent food safety and quality requirements in Uganda's export markets, in particular the EU, the development of a national GAP system is desirable. However, the development of an effective and practical GAP system that could also be benchmarked to EurepGAP needs to involve all relevant stakeholders from the public and private sectors in the entire process. It also needs support in building the necessary basic infrastructure at both macro and farm levels. A national multi-stakeholder committee could be established to coordinate activities related to the development of a national GAP.

Whereas developing a national GAP standard is quite a challenge, a number of factors may help to sensitize smallholders and gain their support for it. First, there should be greater awareness-raising and dissemination of information, which could be greatly facilitated given the improved telecommunication system that also reaches out to farmers living in villages. Also, there are many NGOs working with communities at the grassroots level that can play an important role in awareness-raising and complementary capacity-building efforts to assist smallholders in improving production processes so that they will be able to meet the criteria set in a national GAP. Second, the majority of smallholders in Uganda apply traditional practices that use very limited agrochemicals (less than 5 per cent of those used in the whole of East Africa), often referred to as "organic by default". This may make it easier for smallholders to apply production technologies in accordance with the requirements of a national GAP. Third, many lessons can be learned from the successful promotion of organic agriculture among smallholders.

With the horticulture sector becoming better organized as a result of the creation of the HPOU and the subsequent bringing together of all associations under one umbrella, the formation of a national task force on horticulture, composed of representatives of the private-sector in HPOU and the government sector is now more acceptable to all the stakeholders.

The development of a national GAP scheme (within the context of general public and private SPS requirements) needs to be supported in the following ways:

- Building technical capacity in the public and private sectors on issues related to GAP, in particular:
  - Conducting risk assessments along the supply chain, especially at the growers' level;
  - Contingency planning in GAP management and implementation, taking into account commercial and regulatory trends in key international markets; and
  - Setting up appropriate information channels that will keep all stakeholders in the supply chain actively involved in the implementation and management of a national GAP.
- Improving the existing physical infrastructure at the macro and, in particular, the farmers'/ exporters' levels, and enhancing the quality of produce handling to minimize food safety risks; and
- Strengthening groups of small-scale producers, in particular groups of outgrowers, that focus on specific crops and work with export companies.

To help ensure success and acceptability, this needs to be a bottom-up process and should build on effective stakeholder participation. This requires appropriate institutional arrangements which could bring together all stakeholders in the private and public sectors. Responsibilities should be clearly assigned in terms of who is in charge of developing a national GAP, of promoting the scheme among the local stakeholders, and of developing and coordinating training and extension services related to GAP to growers and exporters.

Existing laws that regulate the production of horticultural commodities for export should support endeavours to put in place quality assurance systems and the national GAP. However, these laws would need to be implemented in a more coordinated manner, and those that are too old to be relevant to a national GAP development process could be revised.

UNCTAD, FAO and other organizations could facilitate stakeholder consultations as well as exchanges of experiences among developing countries to help clarify the concept and objectives of national GAP strategies that are realistically based on local needs and capacities and respond to evolving international market requirements. The recommendations of the FAO-funded national stakeholder consultation, organized by HPOU and MAAIF in January 2007, should be followed up and should involve all stakeholders.

VII. HORTICULTURE IN EASTERN AND SOUTHERN AFRICA (ESA): ZAMBIA AND ETHIOPIA[76]

Introduction

This chapter is based on one of six sector studies prepared for the European Commission under its Sustainability Impact Assessment (SIA) Programme during Phase Three of the SIA of the economic partnership agreements (EPAs) under discussion between the EU and the ACP group of countries till the end of 2007. The SIA was undertaken by a consortium established by PricewaterhouseCoopers.[77] The sector study summarized in this chapter is entitled *Horticulture in Eastern and Southern Africa (ESA)*. The horticulture sector was defined for the purposes of that study to include green beans, green peas and floriculture (roses).

The horticulture sector is vital for encouraging trade and attracting investment in several countries in Eastern and Southern Africa (ESA), and is an important contributor to economic performance and employment. Although Kenya is the leading exporter to the EU from the region, Ethiopia and Zambia also export significant quantities of vegetables and flowers to that market (as do Uganda and Zimbabwe). Because of the large number of people employed in the sector, it has significant impacts on social well-being, while environmental impacts are related to the use of water and agricultural inputs in particular. The horticulture sector has relied heavily on market access preferences under the Lomé conventions and their successor, the Cotonou Agreement; other rules such as SPS measures also influence trade.

The sector study, conducted during 2006, illustrates the risks and opportunities associated with an EPA. It employed two case studies: one considered potential impacts on a developing country (Kenya), while the other looked at potential impacts on two LDCs – Zambia and Ethiopia. It is the latter two that are the focus of this chapter. Zambia, which is landlocked, has a relatively strong horticulture sector, while in Ethiopia the sector is rapidly emerging, fuelled by large amounts of foreign direct investment (FDI). For both countries, trade with the EU in horticultural products, as in other products, is vitally important.[78]

The analysis of potential impacts of an EPA considered the impact of retaining the existing preferential access to the EU combined with duty-free access to ESA for inputs used in horticulture production, and agreement on SPS, TBT, trade facilitation, FDI and horticulture-related services. In general, the results of the sector study indicated that for both Ethiopia and Zambia the existing trading regime, which includes duty-free market access to the EU, has had positive trade, economic and social impacts, and that environmental impacts have been mixed, depending on the strategies of producers. Moreover, an EPA would liberalize markets in the ESA region, and its broader coverage – extending to investment, services and development cooperation, and an emphasis on regional integration – could provide additional benefits to horticultural development and overseas market access for countries such as Ethiopia and Zambia.

Overview of the horticulture sector

Horticulture production has existed in the ESA region since the 1970s and 1980s. In Zambia, it developed in the 1980s, launched by commercial farms that needed foreign currency to import equipment for their main activities (cattle rearing and cereal production). During the 1990s it grew rapidly with support from the European Investment Bank and the Export Development Project, which provided long-term credit to some investors (allowing them to enter production and import necessary inputs), enabled the installation of cold storage facilities at the airport, and contributed to subsidized airfreight. Around 200 ha are devoted to cultivating flowers, 95 per cent of which are roses that are exported almost exclusively to the EU. Vegetable production for export is more diversified (green beans, baby corn, carrots) and 90 per cent is exported to the United Kingdom. Twelve Zambian export companies buy vegetables produced on 5,000 ha of irrigated land.

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[76] This chapter was written by Sarah Richardson (Maeander Ltd), Jochen Krimphoff (PricewaterhouseCoopers) and Benoit Faucheux (GRET).

[77] All documents related to the SIA, including the sector studies, are available at: http://www.sia-acp.org.

[78] The EU accounted for 20.8 per cent of Ethiopia's FFV exports, in value terms, in 2006 (Table 1). Nevertheless, regional markets are also important: its principal SSA markets in 2006 were Sudan, Djibouti and South Africa.

Since 2001, profits generated by Zambia's exports have declined as a result of lower prices for products and higher costs associated with inputs and airfreight. In 2003, the Export Board of Zambia estimated total exports at $1.1 billion, with horticulture making up close to 3 per cent of the total. More recently, however, Zambian horticulture has been adversely affected by the high rate of exchange of the national currency – the Zambian *kwasha*. It has led to a fall in exports and production, and companies have stopped "outgrowing" production to smaller farmers. As a result, in 2006, when the case study was prepared, the number of smallholders producing for export had declined considerably.[79]

The horticulture sector is a significant employer in Zambia, providing jobs (including for temporary, seasonal and casual workers) for around 10,000 people: some 7,500 produce vegetables and 2,500 produce flowers (Njobvu 2004). Interviews with Zambian farmers indicated that labour costs are around $1.50 per day. In 2003, airfreight costs to Europe stood at $1.6 per kg (Jaffee, 2003). All inputs and equipment used in horticulture production for export can be imported free of duty and value added tax (VAT).

The Zambian Export Growers Association (ZEGA) was established in 1984. It includes 32 exporters and manages logistical aspects such as cold storage, administrative documents and negotiating airfreight rates. The ZEGA has a code of practice and EurepGAP certification is well-developed. In April 2007, 13 producers had EurepGAP certification, of which 4 through Option 1 and 9 through Option 2 (Table 6). Zambia has also adopted several policies for reducing environmental impacts of horticulture production. Such impacts are regulated by the Environment Protection and Pollution Control Act (adopted in 1990 and amended in 1999), which covers air pollution, water pollution, pesticide use and ozone depleting substances.

Ethiopia began exporting fruit and vegetable in the 1970s and cut flowers in the 1980s. Production and export of both grew rapidly during the 1990s. By 2006, there were close to 100 ha of greenhouses, which, according to the Ethiopian Horticultural Produce Exporters Association (EHPEA), recorded very high growth. The contribution of flower exports to the country's total export earnings grew from 0.15 per cent ($660,000) in 2000 to 1.59 per cent ($12.6 million) in 2005 (Mureithi, 2005).

In 2007, 51 companies (growers and exporters of flowers and vegetables) were members of the EHPEA. These companies export mainly to the EU, but are also interested in pursuing opportunities presented by the Dubai Flower Centre, which opened in July 2006. Ethiopia exports almost 100 tons of horticultural products a day to Europe, and it has the infrastructure to double this amount. It has the cheapest production costs in the region: the cost of labour is $0.8 per day. Moreover, its climate is favourable to horticulture production and clean water is abundant (physical infrastructure and skilled labour, however, remain a key problem). Given its relative proximity to the EU, airfreight costs from Ethiopia to the EU range from between $1.15 and $1.25 per kg. Ethiopian Airlines (a Government company) offers flights to Paris, London, Brussels and Dubai.

Ethiopia offers investors the most generous incentive packages of all the countries in the region, which makes it an attractive location for investment. Land is considered the property of the State, and a company can easily obtain access to land to develop export production (at a price of about $200 per ha). The Ethiopian Development Bank lends export projects 70 per cent of the capital at a rate of 6.5 per cent, without restrictions on nationality. Furthermore the Ethiopian Government, as in Zambia, provides a five-year tax holiday and exemption from VAT and duties on imported inputs. The Dutch Government has offered its citizens sizeable development grants to shift their production to Ethiopia.

Despite these benefits, Ethiopian horticulture faces substantial difficulties: the political situation has been unstable in recent years, transportation is difficult, the road infrastructure outside Addis Ababa is poor, cargo freight capacity is insufficient at peak periods, shipments can be delayed by export-related administrative and clearance procedures, and cold storage facilities at the airport are insufficient if flights are cancelled. Moreover, there are only a few flights to the EU each week and European buyers prefer to receive fresh flowers on a daily basis. The quality of Ethiopian flowers is

[79] In March 2006 the Government allowed VAT exemption for exports to compensate for the unfavourable exchange rate of the Zambian currency.

relatively unrecognized in foreign markets. Ethiopian growers lack information on client needs, and are restricted to producing older and less productive plant varieties because breeders fear patent and royalty infringement. Additional challenges include the lack of skilled workers and managers (such as agronomists), and the slow adoption of technologies to promote sustainability, such as IPM or even basic composting. So far, there is no national training programme for farm workers. Finally, although the "outgrowing" business is beginning to develop, credit for horticulture production is hard to secure for smallholders.

Ethiopia has adopted several policy approaches for reducing environmental impacts from horticultural production, including environmental legislation in 1997 with a specific focus on water management, water and air pollution, control of hazardous materials and atmospheric pollution. Because the sector is relatively new, labels are not well developed. However, some growers are in the process of obtaining certification by Milieu Programma Sierteelt (MPS) (a Dutch floriculture standard created in 1993 to reduce the environmental impact of floriculture)[80] for roses, and three vegetable growers are certified by EurepGAP. A Fair Flowers Fair Plants label[81] was launched in Ethiopia in 2006.

Trade flows

All ACP countries have enjoyed preferential access to the EU market under the Cotonou Agreement, and the EPAs were expected to secure this preferential access for horticulture products from the ESA region, for both LDCs and non-LDCs.[82] In addition to these tariff preferences, ESA countries have several advantages vis-à-vis their competitors in the EU, including cost savings on energy (due to climatic conditions) and labour. The recent rise in oil price makes energy use an important variable in determining competitiveness, as greenhouses in Africa do not need to be heated during the winter. Labour in the ESA countries costs between US$0.8 and US$1.6 per day, while it is tens of euros in the EU. ESA countries maintain this advantage even though production in the EU is more mechanized and less labour- intensive. Typically in the EU, four to five people are employed per hectare, compared with 20 to 25 people per hectare in Africa.

Over the past two decades, horticulture exports to the EU have become a major source of revenue for the ESA region, and such exports are growing rapidly. Horticulture products are exported mainly to the EU. Exports of fresh vegetables and cut flowers account for almost 40 per cent of Zambia's total agricultural exports (Table A.5). In Ethiopia, the sector is younger, but is growing rapidly. The main horticulture exports are green beans, peas and roses. Since they are fresh produce they need to be exported by air and require efficient cold chains from the farm to the consumer.

The rapid rise in levels of trade with the EU is the direct result of duty-free market access under the Lomé conventions and subsequently the Cotonou Agreement. Such market access has been the most important driver of development of this sector. However, SPS measures also have a significant impact, given the exacting regulations of the EU markets. The production of high quality products requires a high level of investment often in the form of FDI. Growth in the sector also depends on the affordability and quality of different services (often imported) including airfreight, credit, and legal and marketing consultancy services.

Vegetables

In the EU, fruit and vegetables account for up to 15 per cent of food expenses. Vegetable consumption per person has increased in value but not in volume. Typically, products are more processed and easier

[80] MPS-GAP sets requirements for producers to be able to supply European supermarkets (for more information, see Table 18 below).

[81] An initiative to stimulate the production and sales of flowers and plants cultivated in a sustainable manner. http://www.fairflowersfairplants.com/home-en.aspx.

[82] As of 1 January 2008, the East African Community (EAC) members (Burundi, Kenya, Rwanda, the United Republic of Tanzania and Uganda) decided to form a separate EPA region and signed an interim agreement on 27 November 2007. The remaining ESA countries had opted for a framework agreement with a common text, but with separate market access schedules. An ESA-EC interim agreement was signed by Comoros, Madagascar, Mauritius, the Seychelles and Zimbabwe. Zambia signed the agreement but had not submitted a market access schedule; hence from 1 January 2008 it will continue to export to the EU under the Everything-but-Arms (EBA) initiative. Malawi is also expected to sign the interim agreement (see also Table A.13).

to use (frozen products, ready-to-cook or ready-to-eat) than in the past, and the share of imported vegetables as a proportion of EU consumption is growing.

Between 1990 and 2000 the EU's annual imports (in volume) of green beans and green peas from third countries increased by 8.6 per cent and 11.1 per cent respectively. Since 1988, the ESA's market share of EU imports of peas has increased, but for green beans it has declined. Nevertheless, in volume terms, the ESA's exports of peas and beans are growing, as EU imports from all regions are increasing. Both Ethiopia and Zambia export green beans to the EU, although the export of beans is relatively new for Zambia. Zambia also exports a significant (and growing) quantity of peas to that market.

The horticulture sector in the ESA region imports most of its inputs and equipment from the EU, Israel, and Asia. Raw materials and semi-manufactured goods are also imported from some African countries (notably Egypt and South Africa). Major inputs include fertilizers, pesticides, fungicides, herbicides, nematicides, plant growth regulators, rodenticides, greenhouses, shade netting, reinforced polyvinyl chloride (PVC), high density polyethylene (HDPE) sheeting and irrigation equipment. Since Ethiopia and Zambia exempt horticultural companies from duty and VAT on imports of inputs and equipment these importers benefit from a high degree of certainty with respect to pricing, as well as being spared the administrative burden of having to apply for refunding of these costs.

FDI is important in the horticulture sector, as the industry requires high levels of investment. For example, a Zambian vegetable farm of 8 ha has a fixed capital requirement of €20,000 and a Kenyan farm of 8 ha of greenhouses requires €3 million. Adapting a farm to EU regulations and private sector requirements can cost between €50,000 and €500,000 (Jaffee, 2003). Even small-scale farmers seeking to export need investment for irrigation. In Zambia, smallholders have access to programmes to finance investment, but are not using them because of the decline in exports. Since regional resources are limited, countries in the region such as Ethiopia will continue to require FDI for their horticultural development in the short and medium term. In Ethiopia and Zambia there are no restrictions on FDI in the horticulture industry, and the process for obtaining an export licence is the same for both national and foreign-owned companies. And since trade facilitation is particularly important for trade in horticulture, given the highly perishable nature of both cut flowers and fresh vegetables, the Government of Ethiopia has reduced administrative hurdles to facilitate exports.

Transportation, particularly airfreight, is a major cost for exporters of vegetables and cut flowers. The largest growers have their own cargo capacity while the smaller producers use the services of shipping agents to transport their produce. Access to affordable credit is a constraint in some countries. Further liberalization in services in Zambia could theoretically bring about increased competition in the financial services sector thereby improving access to affordable credit by national companies. It could also improve the competitiveness of national investors. Many large companies in Zambia have highlighted the fact that European companies have access to cheaper credit and can invest more easily. In Ethiopia, low-interest loans provided by the Ethiopian Development Bank permit national investors to set up companies and there is no need for improved access to credit, particularly for large producers. Ethiopian companies can borrow money at 6.5 per cent while Zambian companies typically can borrow at rates of 12 to 15 per cent on national financial markets.

Standards

EU directives employ SPS measures to ensure a high level of protection for health and environment in Europe. The principal SPS measures for flowers cover plant protection products, documentation requirements and inspections. For green beans and green peas the measures include traceability. Among the countries in the ESA region, Ethiopia and Zambia have experienced relatively greater difficulties with compliance. In 2004, this led to the inspection of 25 per cent of roses from Ethiopia and 10 per cent of roses from Zambia (compared to 5 per cent for both Kenya and Uganda) (Table 17). The key problem was the presence of pests and diseases on roses, not pesticide residues. With inspection costs estimated at 25 per cent of the production costs, producers consider the inspection process to be very expensive. It also causes uncertainty in the supply chain, potentially delaying the movement across borders of highly perishable products. The lack of accredited inspection agencies in the ESA region adds to this burden.

Table 17. Plant health checks for roses in 2004

Country	Percentage of roses to be checked
Ethiopia	25
Kenya	5
Uganda	5
Zambia	10
Zimbabwe	5

Source: European Commission Regulation EC 1756/2004.

A further complication for exporters of horticulture products is obtaining certification under the many private schemes for standards and labels that exist both in the ESA region and in the EU (Table 18). In some cases, these private codes of conduct and labels, required by many buyers, are more stringent than those of public regulations, and further increase the costs of compliance.

Table 18. Examples of some private labels and codes applied by EU importers

Label name	Characteristics	Geographic scope
Implemented in importing countries		
International Code of Conduct for Cut Flowers (ICC)	Environmental/social code for trading organizations For flowers	International
Milieu Programma Sierteelt (MPS)	Environmental/social (optional, benchmarked with the ICC) Different levels for certificates (MPS-A (environmental); MPS-Quality; MPS-GAP (benchmarked to EurepGAP) and MPS Socially Qualified (good working conditions)) MPS Florimark Production (for growers) MPS Florimark Trade (for traders) Ethical Trading Initiative, ISO 9001 Launched by Dutch Auctions For flowers and vegetables	International
EurepGAP	Food safety/environmental/worker health and safety Implemented by supermarkets Fruit and vegetables, flowers	International
Fair Flowers Fair Plants (FFP)	Environmental/social Based on ICC, MPS and Fair Label Programme (FLP). Label for consumers This label is not yet implemented for flowers	International
Flower Label Program	Environment/Social Created by German wholesalers, NGOs and trade-unions Flowers	Germany
Milieukeer	Environmental For flowers	Netherlands
Ethical Trading Initiative Base Code	Social Based on ILO conventions For vegetables for supermarkets	United Kingdom
Max Havelaar (a Fair Trade initiative) the Dutch member of FLO International	Environmental/social Based on ILO conventions and ICC. A fair trade premium of 8 per cent of the export price is managed by workers and the company to finance social and health activities. No minimum price. For flowers, fruit	Switzerland, Netherlands, France

Despite the burden associated with compliance, certification under one or more of the national and international codes of practice is a necessary step to allow ESA producers access to the most lucrative markets. For example, EurepGAP certification is a prerequisite for selling to large European

supermarket chains that offer stability in terms of both price and volume.[83] Supermarkets are a critical distribution point for vegetables from the ESA region. In the United Kingdom, for example, they control 80 per cent of the distribution of green beans and green peas. In both the United Kingdom and the Netherlands, quality is the most important criterion in grocery store selection and the use of private labels is increasingly important when selling directly to supermarket chains.[84]

At the national level, Zambia has a code of practice based on international standards and benchmarked against EurepGAP. The Zambian Export Growers Association (ZEGA) applies the ZEGA Code of Practice, which covers both environmental and social standards to the production of vegetables and flowers. This avoids additional audits, although exporters are often also required to seek additional certifications, such as the Flower Label Program or Max Havelaar, to access lucrative niche markets. Along with meeting the requirements specified in each of these, there are additional administrative and financial burdens associated with separate verification processes where there is no mutual recognition of labels.

Graffham and MacGregor (2006) concluded that the Zambian experience shows that compliance with the requirements of the EurepGAP Protocol for Fresh Fruit and Vegetables, Option 2 (i.e. group certification) is technically feasible for small-scale growers, with the possible exception of some elements of the quality management system (QMS). However, compliance costs are very high given the low volumes of production (Table 19). Overall, for EurepGAP to be viable for small-scale growers in Zambia they would need to be organized into much larger groups of certified growers with a considerably higher and more stable income. Ideally, a strong partnership with an exporter would be helpful, where the exporter would play a major role in cost-sharing and management of the scheme.

Table 19. Average cost of EurepGAP compliance as a percentage of the annual profit margin for small-scale growers in Zambia

Land area (hectares)	Support from a donor-subsidized produce marketing organization (PMO)		No support from PMO	
	Capital costs	Recurrent costs	Capital costs	Recurrent costs
2–6	2–5	0.4–1	8–23	3–5
1–1.8	5 – 8	1–2	26– 41	9–14
0.3–0.8	12– 33	3–8	58–160	19–53

Source: Graffham and Vorley, 2005 (cited in Chia-Hui Lee, 2006)

Potential impacts of an Economic Partnership Agreement (EPA): Zambia and Ethiopia

The main trade measure that could promote the horticulture sector is duty-free market access to the EU, which is likely to be reinforced under an EPA. Additional trade measures that can promote the horticulture sector of LDCs include: liberalization of EU imports, which could lower production costs; services liberalization, which could lower production costs and improve services; an SPS protocol, that could lower production costs by reducing costs of compliance; and regional integration, that could create new market opportunities and strengthen cooperation at the regional level. There is also a need for promoting certification under GLOBALGAP and similar private-sector standards.
The SIA case study suggests that an EPA could lead to modest increases in Zambian horticulture production. It would also reduce the price of inputs of traded capital goods.[85] However, development may be hampered by the strength of its domestic currency, which in 2005 was estimated to be overvalued

[83] Without direct access to supermarkets, producers sell to wholesalers at discounted prices. The country of origin is required to be displayed on vegetables sold in the EU, which makes it important for countries to maintain a good reputation with EU consumers.

[84] In 2001, private labels such as EurepGAP (indicating high quality products) represented 43 per cent of retail grocery sales in United Kingdom, 27 per cent in Belgium, 23 per cent in Germany, 20 per cent in France, 19 per cent in the Netherlands, 16 per cent in Spain, and 11 per cent in Italy.

[85] In Zambia, imports of capital goods led to a distortion of an estimated 15 per cent in the price of those goods. There would be zero distortion in case of full trade liberalization, but the impact on costs would be in the order of 2 per cent.

by around 100 per cent, presenting a serious challenge for producers seeking to export.[86] Whether further trade liberalization will lead to a realignment of the currency is not clear because currency misalignment is compatible with formally floating, but "managed" exchange-rate regimes. However, if a substantial realignment were to occur, this major obstacle to competitiveness would be eliminated.

A second challenge for Zambian producers is related to the high costs of airfreight to the EU. This is partly due to the relatively small scale of horticultural production. The cost of renting space on aircraft could be reduced significantly as volumes increase. Therefore, the growth of Zambian exports could result in cost savings. The case study suggests, however, that at present the challenges to Zambian competitiveness mean that it is likely to profit only modestly from increasing production at the expense of other countries in the region.

Nevertheless, even modest increases in export levels offer the prospect of job creation. For vegetables, increasing production should have a positive impact on the number of smallholders in the sector. In the flower sector, the number of employed workers is expected to remain relatively constant. Zambian producers have an advantage over other producers in the region as a result of their relatively low labour costs. Although the minimum wage is roughly the same in Zambia as it is in Kenya, for example ($55 per month), the share of wages in total costs is about 24 per cent in Kenya, but only about 8 per cent in Zambia. Further growth of the sector is required in order to bring additional smallholders into production. From an environmental perspective, the development of production in Zambia would lead to a commensurate increase in the use of agrochemicals, water and energy, and land-use changes (new plantations), which could lead to environmental damage, water and air pollution. Some impacts, including environmental and human health impacts from increasing pesticide use, could be mitigated if all producers of vegetables and flowers were to adopt the ZEGA Code of Practice. However, at present, codes of practice are unevenly applied by firms. Their more comprehensive implementation is needed to help reduce negative environmental and health-related impacts (Njobvu 2004).

The analysis in the SIA case study indicates that Ethiopia is likely to remain one of the most competitive countries in the region. It suggests that its production is expected to increase under an EPA at a faster pace than that of Zambia. Several issues contribute to the competitiveness of Ethiopia's production. Natural resources (land and water) are readily available and, despite challenges associated with frequency, airfreight costs are cheaper to the EU than for countries such as Zambia. Because horticulture is a relatively young industry, there are also fewer diseases and insects in greenhouses producing roses. Furthermore Ethiopia has adequate infrastructure, although the road network in rural areas needs to be improved. New storage infrastructure has been built that is currently only being used at half its capacity and the country's currency is stable. As in Zambia, an EPA would reduce the price of inputs of traded capital goods, which come mainly from the EU.

According to the case study, development of horticulture in Ethiopia is expected to remain robust, with increasing employment and the further entry of smallholders into the sector. The development of related local services would continue to stimulate both rural and urban development. However, increases in production are likely to be characterized by low value added and low levels of technical automation and transformation.[87] There is an opportunity in Ethiopia to compete in the production of higher value goods. Given its favourable climate, it is in a position to specialize in producing large-headed roses, which can fetch a price premium compared to the small-headed ones.[88]

[86] The strength of the kwacha is largely the result of the current high price of copper – Zambia's leading export commodity – and of positive aid and investment flows. It results in the Zambian economy experiencing a "Dutch disease" situation, which is known to hurt traditional and non-traditional export sectors as long as they are not experiencing a price boom themselves.

[87] This production is likely to remain with countries like Kenya, with a longer history of production and a well-developed sector.

[88] Rose head size and stem length is a factor of altitude and variety. There are places in Kenya, Ethiopia, Uganda and Tanzania of comparable heights (about 2,000 meters above sea level) that all have the potential to produce large heads. Heads from Eldoret in Kenya and Ethiopian highlands are indistinguishable.

Wages in horticulture production are comparable to other sectors, varying between $0.8 and $1 per day for unskilled workers and from $1.2 to $1.6 per day for semi-skilled workers.[89] The Ethiopian Horticultural Produce Exporters Association has indicated that there are no regulations on casual work in Ethiopia, such as exist in the codes of practice that are implemented in Zambia, and which limit the number of casual workers in the sector and contribute to higher wages.

In the medium term, for Ethiopian horticulture to continue to grow and compete with established regional producers in accessing the EU market, Ethiopian growers will need to adopt codes of conduct and develop labelling practices. Any moves toward developing such codes of practice could have positive impacts on wages and working conditions, as well as on environmental performance. Technical assistance from the EU would facilitate this and help to achieve gains for sustainable development.

Regional integration

Regional integration could also create new opportunities for exporters and strengthen cooperation among stakeholders in horticulture at the regional level. Although there is no regional market for flowers, there is a small but growing regional market for vegetables (e.g. beans) that could be exported from Zambia to other countries. Other vegetables that are more commonly consumed in the region would also benefit from existing Zambian skills and infrastructure. Regional cooperation could be enhanced to the extent that Kenya, the sectoral leader in the region, remains competitive. This includes advancing regional cooperation on the implementation of codes of conduct. Exporters in countries with relatively young export industries could benefit from the experience of existing regional leaders through the transfer of experience, skills and best practices.

Attention to codes of conduct could help improve performance. Experience has shown that private codes are an effective way to promote socially and environmentally responsible production and management practices. They are thus a good management tool and can help producers gain an advantage over competitors by positioning themselves as being “environmentally and socially friendly”. The implementation of such codes by new entrants, such as Ethiopia, should be a priority for producers’ and exporters’ associations.

However, although private standards are implemented widely in vegetable and flower production, there are too many codes and labels, and they are not all well known to consumers. This means that producers must pay for different audits, but do not necessarily obtain a better price if the product is not differentiated at the consumer level. Moreover, the relatively slow development of Max Havelaar products in the EU shows that there are still few consumers willing to pay a price premium for more sustainable products, although consumers in countries such as Germany, the Netherlands and the United Kingdom are at the forefront. The development cooperation mandate of EPAs could help to harmonize and coordinate these codes at the regional level. Furthermore a communications campaign in the EU could be implemented to continue to familiarize consumers with labels related to the principles of sustainable trade.

Improved access and closer cooperation between the EU and the ESA region on related services could also help exporters and growers reduce their production costs and increase their margins, especially with respect to auditing and certification. An SPS protocol to be included in the EPA could also help reduce compliance costs. If, for example, certification by the Kenyan Plant Health and Inspection Service (KEPHIS) were to be recognized for flower inspection as it has been for vegetables, inspection costs would be reduced for Zambian flowers transiting through Kenya. Furthermore, training could be funded along with the development of such a protocol, which would enhance SPS implementation by producers in both Ethiopia and Zambia. Strengthening SPS bodies in the ESA countries and developing accreditation approval operations to check conformity to the marketing standards of the EU should therefore be a priority. Such activities should be accompanied by a capacity-building programme, including the provision of training for enforcement officers, horticultural companies and

[89] Data provided by the EU delegation in Ethiopia indicated that an average small-scale farm provides an income to the whole family of about €450 per annum, while a salaried job in the flower industry provides €240–€300 per annum, and several members of the family may be salaried. Due to demographic pressure, farm areas are too small to provide jobs to all members of a family, thus a salaried job would be welcome and would not compete with farm work.

smallholders. Partnership programmes with European organizations could be an effective means for achieving such advances.

Conclusions

The prospect of further liberalization, including through EPAs, is likely to continue to attract new investment, increase levels of production and contribute to the development of physical infrastructure. Overall, the impacts on the economies of Ethiopia and Zambia are expected to be positive. The analysis in the case study shows that exports from Ethiopia and Zambia should continue to grow. This development could be further aided by efforts to liberalize services related to horticulture production and export (particularly with respect to financial services, and infrastructure such as transportation), along with cooperation in areas such as trade facilitation, certification and accreditation. Regional cooperation and cooperation with the EU could contribute to development of the sector.

Further liberalization of imports could make the inputs associated with the horticulture sector more easily available and at a lower cost, thereby promoting modernization, development and, through technology, enhanced environmental performance. This development should also contribute to continued economic growth.

However, rates of development will be contingent upon the continued competitiveness of both Zambia and Ethiopia. From a competitiveness perspective, in both countries there would be pressure to keep labour costs low. However, the case study shows that increased production is likely to create new employment and bring in new smallholders to the sector, and the codes of conduct are likely to become more widely implemented. Moreover, given that jobs in this sector are often better paid than average jobs in the general economy, to the extent that employment is created it could create relatively better jobs than in other economic sectors.

From an environmental perspective, the case study indicates that increased production will put additional stresses on the environment, but that this could be mitigated through the development of standards and a comprehensive implementation of codes of practice. Greater regional cooperation (particularly with regional leaders such as Kenya) and sharing best practices and technologies, along with improved access to technologies from the EU, could also help to reduce these impacts.

VIII. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Ghana, Kenya and Uganda, as well as Ethiopia, Zambia and several other countries in sub-Saharan Africa have successfully increased FFV production and exports, in most cases with significant involvement of small-scale growers. Although opportunities for further FFV export growth exist, conditions to continue or replicate success stories have become more difficult. In fact, in the last few years many SSA countries (other than South Africa) have already been facing the double challenge of eroding tariff preferences and tighter public and private-sector standards, including for their FFV exports. Duty-free and quota-free access granted as of 1 January 2008 to ACP countries that have signed interim EPA agreements with the European Commission may improve market access for non-LDC ACP countries.[90] Far-reaching changes in the characteristics of FFV trade in recent years, as analysed in this monograph, risk adversely affecting the participation of smallgrowers in the global supply chain. This requires careful analysis of policy options for further poverty alleviation in rural sectors.

The EU is by far the most important market for SSA exporters of FFV. In the future, tariff preferences may not contribute to the same extent as in the past to the growth of FFV exports from this region, as some major competitors for many fruit and vegetable items are now receiving tariff preferences that go beyond the conventional Generalized System of Preferences (GSP). These preferences are similar to those currently provided to ACP countries under schemes such as GSP+, EU agreements with the Mediterranean countries (particularly Egypt and Morocco),[91] EU association agreements (e.g. with Turkey) or free trade agreements (e.g. with Chile).[92] This monograph shows that in recent years EU imports of FFV from countries such as Egypt, Morocco and Peru (in fresh vegetables) and Colombia, Costa Rica, Ecuador and Peru (in fresh fruit) grew much faster than imports from SSA countries that receive ACP tariff preferences. Thus, SSA countries (other than South Africa) have not been able to maintain their share in EU imports of FFV from developing countries.

Despite the erosion of tariff preferences and increasingly stringent regulations and private-sector standards, such as EurepGAP, EU imports of FFV from SSA continued to grow during the period 1996–2006, even though their share in total extra-EU FFV imports fell over the past 3–4 years. However, this cannot necessarily (or primarily) be attributed to the emergence of private-sector standards such as EurepGAP.

Where exports have fallen, the main reasons may be macroeconomic (e.g. unrealistic exchange rates), technological (e.g. development of new varieties), related to demand and supply (e.g. falling unit values of lychees exported by Madagascar) or largely political (e.g. Zimbabwe). Large and traditional exporters of FFV and other horticulture products seem to cope with adapting to tighter public and private-sector standards (e.g. Kenyan exporters of beans to the United Kingdom), but for smaller or emerging exporters, such standards may present more of a problem and could affect exports. As the example of Kenya demonstrates, smallholder compliance with EurepGAP is feasible but requires substantial financial support and technical assistance from the donor community, which other countries in SSA of less importance to European markets may find difficult to attract.[93] Furthermore, quite a number of outgrower schemes involving smallholders may not be able to operate competitively once donor support is discontinued. However, the trade statistics presented here are unable to throw light on any possible changes in the distribution of the benefits of trade and the participation of smallgrowers in each country.

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[90] The Cotonou Agreement still retained a number of restrictions such as tariff quotas on a range of products, including bananas, other fruit and vegetables. The EPA signed by the Southern African Development Community (SADC), for example, will lead to instant and significant improvements in access by its members to the EU markets for grapes, oranges and a range of other fruit and vegetables.

[91] Special tariff preferences granted to Mediterranean countries are also extended to Algeria, Egypt, Israel, Jordan, Lebanon, the Syrian Arab Republic, Tunisia and the Palestine territories.

[92] Without EPAs, returning to GSP rates of duty would have left non-LDC exporters in SSA in a less favourable position than those of Central American, Andean and Mediterranean countries.

[93] Key GAP principles enshrined in EurepGAP are being practiced by many small-scale growers without certification. The most problematic cost items for certification, however, are the testing and monitoring costs as well as certification charges.

When contextualizing national GAP programmes, it is important to realize that they need to be part of a development framework that emphasizes both the commercial context (i.e. compliance with downstream market standards) and the non-commercial sustainability aspects, such as social, environmental and economic benefits of GAP implementation. Developing-country governments, the private sector and donors can play an important role in strengthening capacities to meet private-sector standards, thus resulting in sustainable benefits. Governments could promote awareness of the benefits of GAP and encourage its wider use, improve the necessary infrastructure (e.g. cold storage facilities, transport), develop a legal/regulatory framework to facilitate compliance with GAP control points and compliance criteria, provide and strengthen extension services, and support private-sector activities (e.g. training). Governments, the private sector and donors could help smallholders expand and upgrade their range of assets and practices to meet the new requirements of coordinated supply chains and supermarkets (World Bank, 2007). The options listed in the World Bank's *World Development Report 2008* include investments in public goods to increase farmers' productivity and connectivity to markets, policy changes to facilitate trade and market development, and public-private partnership efforts to promote collective action and build the technical capacity of farmers to meet the new standards. Strengthening national and certification infrastructure and subregional cooperation on issues related to standards, accreditation and testing (as is being pursued in East Africa) may also facilitate compliance with GAP standards, particularly in smaller economies.

Some of the technical and financial constraints that small-scale growers face in implementing GAP may be mitigated or even overcome by effective and concerted supportive measures by governments in SSA and through related donor support (e.g. by creating and consolidating stable and efficient producer groups). The private sector (supported by PIP and other donor projects) also has a key role to play in enhancing its capacities to comply with standards and regulations, for example by promoting good management practices, systems and procedures to enable traceability, and by developing or implementing codes of practice.

Small-scale farmers in SSA need substantial support if they are to achieve GAP certification and the resulting benefits. Group certification may be a viable option for those small-scale producers who are either part of legally established, well-managed and stable producer groups or suppliers of large exporters who support them in implementing their own internal control mechanisms. Ghana and Kenya already have some successful experiences with group certification, and have benefited from projects (e.g. by GTZ) to implement internal quality management. Whereas Uganda has no experience with EurepGAP certification, it has had some success with group certification to standards for organic agriculture.

Unlike quite a number of Latin American and South East Asian developing countries, in SSA countries there is no or only a very weak link between food safety, health and environmental requirements of foreign supermarket clients and those in the domestic market. With the exception of South Africa, even large supermarkets in SSA source their FFV through traditional wholesale markets, only improving handling quality of produce when it comes under their control. Therefore, convergence between quality requirements in export and national markets in SSA remains a remote scenario.

The rapid expansion of retailers in international markets has created a bias among national governments, large producers/exporters and the international donor community that considers good agricultural practices which focus only or predominantly on export production as the prime development aim of modern agriculture in developing countries. This runs the risk of diverting scarce resources away from the development and upgrading of conventional wholesale and wet markets, which continue to be the market outlets for the majority of small-scale growers and serve the majority of consumers in most SSA developing countries.

Recommendations

Horticulture, including FFV production and exports, continues to provide opportunities for many social and development gains in SSA. However, conditions to continue the "African success story" have become more difficult, particularly for small-scale growers engaged in production for export to developed-country markets. Private-sector standards have exacerbated the exclusion of these growers from global FFV, although such standards are not solely responsible for their decline. Enhancing the

capacities of small-scale producers and exporters to meet market requirements and participate in global value chains requires the support of governments, the private sector and the donor community, based on a realistic assessment of comparative advantages and market trends. In doing so, the impacts of private-sector standards and the potential benefits of good agricultural practices should be adequately assessed.

The EU market may provide continued potential for export growth of the FFV sector in SSA. The recent decline in SSA shares in EU imports of FFV since 2003 may be too short a period to indicate a clear reversal of trends. Governments, the private sector and the donor community should carefully monitor developments in this trade with the EU. This is because unless overall growth of the EU market for FFV is very strong, SSA exports could grow only if market shares can be maintained or increased.

While it may be inadvisable for SSA exporters to try to diversify beyond the EU market, there is a need to minimize the undesirable effects of recent trends, such as increasingly stringent regulations and private-sector requirements on small-scale growers. Efforts to enhance capacities of producers, exporters, governments and other stakeholders to comply with regulations and voluntary private-sector standards in export markets should continue. Awareness, recognition and application of good agricultural practices can play a major role in this regard. Faced with the challenges analysed in this monograph, it becomes more important than ever for SSA countries to strategically position themselves, focus on products – including niche ones – in which they have a comparative advantage, and improve physical and quality-management infrastructure and institutions. A clear and realistic concept and strategy on national GAP programmes should be part and parcel of such an approach.

Given the formidable challenges facing small producers related to adjustment costs to new private food standards, it is worth considering various options to improve support for smallholder integration into global supply chains and/or production for local, regional or less demanding export markets:

- Targeted efforts are needed to continue supporting farmers and viable farmer groups who have, or can develop, the capacity to participate in global value chains in a sustainable way. Various tools described in this manuscript should be used to reduce EurepGAP compliance costs of small and medium-sized producers and efforts to promote cost-effective and sustainable group certification should continue. With regard to contract farming, even though the overall number of small-scale farmers involved in contract farming for exporters may fall, governments, NGOs and donors should seek to enhance the benefits from contract farming and minimize the risks involved (e.g. overdependence of small-scale growers on large exporters). This could be done by establishing and enforcing legislation and supporting well-functioning groups of smallholders and self-help groups.
- As employment of wage labour on estates may increase, efforts should be made to improve the conditions of workers. Some have argued that if the overall policy goal of agricultural development policy is poverty reduction, then a strategy of allowing small farms to decline and focus instead on improving conditions for waged employees might be equally effective (Humphrey, 2006a and 2006b).[94]
- Identify alternative markets that can provide benefits to smallholders and improve the capacity of smallholders to supply safe and healthy food to those markets, including through the promotion of GAP in accordance with evolving needs and capacities.

The development of national GAP schemes should be based on a realistic assessment of market opportunities (global supply chains, regional and domestic markets, niche markets) and the existing and potential strengths of key segments of the FFV sector.

Aid-for-trade programmes aimed at strengthening capacities of SSA countries to meet standards and regulations in international markets should pay more attention to the role of private-sector standards and their interplay with government regulations. They should also support stakeholder dialogues and market studies for the development of national (or regional) GAP schemes that respond adequately to the needs of SSA countries.

[94] On this issue, see also Maertens et al., 2007 and World Bank, 2007.

Case studies are needed to enhance understanding of the possible implications of PVS on (i) market access for FFV exports of SSA and (ii) small-scale growers. The results of such studies can provide useful inputs to ongoing discussions on PVS in UNCTAD and the WTO.

UNCTAD's Consultative Task Force on Environmental Requirements and Market Access for Developing Countries, in close cooperation with FAO and the GLOBALGAP secretariat could play a useful role in helping to clarify the concept and objectives of national GAP approaches by facilitating national stakeholder dialogues and the exchange of experiences among developing countries (e.g. at the regional level).[95]

Finally, the particular characteristics of national GAP schemes and market realities may also require flexibility in the benchmarking process and from the EurepGAP secretariat. EurepGAP has been successful in working towards benchmarking of single-tier and private-sector standards. However, it needs to be more consistent with regard to the overall context of GAP objectives in developing countries and allow a possible modular approach to GAP standards. There is also a need to carefully analyse the implications of future revisions of GLOBALGAP standards for national GAP standards. EurepGAP has changed its name to GLOBALGAP arguing that its proclaimed role in harmonizing GAP standards has gone beyond Europe. This calls for an intensification of developing-country inputs to the EurepGAP revisions, which could be facilitated by the GLOBALGAP secretariat. Indeed, the recent appointment of an Observer for Africa in the GLOBALGAP sectoral committees and the decision to form a smallholder task force are steps in the right direction.

[95] See, for instance, the debate and recommended follow-up activities of the joint FAO-UNCTAD Workshop on Good Agriculture Practices in Eastern and Southern Africa: Practices and Policies, held in Nairobi on 6-9 March 2007, accessible at: www.unctad.org/trade_env/meeting.asp?MeetingID=217.

ANNEX: SOME DEVELOPMENTS IN FFV EXPORTS FROM OTHER SELECTED SSA COUNTRIES

This annex very briefly analyses relevant developments in countries in sub-Saharan Africa other than those that are examined in this monograph. It draws from existing studies, including the World Bank diagnostic trade integration studies (DTIS)[96] on LDCs. The analysis does not pretend to be exhaustive, but rather to add some complementary information to that presented in this monograph.

Burundi[97]

Burundi seems largely to have stopped exporting FFVs to Europe. The country has climatic and geographical advantages in the production of high quality fruit and vegetables (World Bank, 2003a). The production of FFV (as well as cut flowers and ornamental plants) started in the 1980s and reached over 1,000 tons in 1993, largely sold in Europe. Among the main reasons for the decline in exports were the interruption of direct air traffic between Bujumbura and European markets, lack of refrigeration facilities at Bujumbura airport, the high cost of commercial credit, and the lack of quality control, trade information and support services to exporters. However, Burundi's FFV sector has the potential to become a dynamic non-traditional export sector. Technical assistance will be required to identify solutions to the problems mentioned, and to help resume regular exports to Europe, particularly of FFV that are out of season in Europe.

Cameroon

Cameroon's FFV exports consist mainly of bananas shipped to the EU. This country along with Côte d'Ivoire, is the largest SSA supplier of bananas to the EU market. These low-cost producers have been able to compete with "dollar bananas" from countries in South and Central America, but compliance with private-sector GAP standards has been an increasingly important market requirement. Cameroon has used funds provided by the Special Framework of Assistance (SFA) of the EC for traditional ACP suppliers of bananas to establish a commercial strategy aimed at obtaining EurepGAP certification.[98]

Côte d'Ivoire

Côte d'Ivoire is the second largest FFV exporter among SSA countries, after South Africa. Most FFV for export are produced on large industrial estates (Minot and Ngigi, 2004). However, growth of this sector has been uneven, with exports declining in recent years. In part this can be explained by the rise of new pineapple varieties exported by Costa Rica. The Ivorian share in EU pineapple imports (in volume terms) fell from 49.5 per cent in 2000 to only 12.4 per cent in 2006 (Table A.10).

Madagascar

Madagascar's FFV exports have also fluctuated, declining somewhat (in volume terms) between 2000 and 2006. The decline in value terms was more pronounced as a result of falling unit values for lychees.

Part of the decline in the volume of EU imports of FFV from Madagascar has been compensated for by an increase in processed vegetables. Madagascar was the fourth largest supplier of processed beans to the EU-27 in 2006, with a market share (in volume terms) of 5.1 per cent, up from 2.9 per cent in 2000 (Table A.10). The export of high quality vegetables, in particular processed French beans, to Europe has been cited as an example of the successful participation of small-scale farmers in emerging value chains (Minten, Randrianarison and Swinnen, 2007). (See also Chapter III).

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96 A DTIS evaluates internal and external constraints on a country's integration into the world economy, and recommends areas where technical assistance and policy actions could help the country overcome these barriers. The DTIS includes an action matrix that facilitates discussions with the government, donors and the private sector after the diagnostic study is completed.

97 This section is based on World Bank, 2003a.

98 The SFA was established by Council Regulation (EC) No. 856/1999. Jamaica and Belize also devoted SFA funds to developing a strategy aimed at obtaining EurepGAP certification.

Malawi[99]

FFV exports from Malawi (largely beans and peas) reached $5.8 million in 2006 (Table 1). This does not include dried paprika (HS 090420), which is used both as a spice and a colorant. Exports of paprika were worth $3.3 million in 2006. The DTIS under the Integrated Framework for Malawi (World Bank, 2004) noted that the country had emerged as a player in the expanding world market for paprika. This signifies considerable growth potential, especially for its dried form, much of which is exported primarily to Spain. The number of smallholder growers of paprika has increased significantly. While Malawi is considered the lowest cost producer in the region, major challenges remain, including low productivity compared with that of smallholders in Zambia, for instance, and the relatively low quality of Malawi paprika. This infant industry could be greatly assisted by expanding the advisory services available, organizing farmers into groups, undertaking applied research to better understand the constraints on local farmers as well as the opportunities available to them, and building capacity in quality management.

Mali[100]

Mali's FFV exports reached $1.4 million in 2004 (COMTRADE). The principal product is mango, exported to the EU, Côte d'Ivôire and Senegal. According to the DTIS for this country, there is considerable potential for expanding FFV exports, although the scope is limited mainly due to variable quality, poor post-harvest handling and high costs of transportation. The country exports only around 1,000 tons of mangoes a year. Mali's production of tomatoes varies, though it has successfully exported fresh tomatoes to West Africa and the EU.

Improvements in harvest and post-harvest selection, handling, storage and preservation, as well as refrigerated transport, could greatly enhance the possibilities for increasing FFV exports.

Mozambique

FFV exports from Mozambique were worth $4.3 million in 2006, and consisted largely of beans, peas and bananas (COMTRADE). Approximately half of these exports (in value terms) were shipped to South Africa (largely bananas).[101] Mozambique could develop a major FFV export industry in the Beira Corridor. It has been estimated that annual export revenue from horticultural crops in Manica Province (which lies on the Beira-Harare axis) alone could reach $36.2 million in 10 years. This province has recently seen an influx of FDI in horticultural crops as a result of instability in Zimbabwe. Experienced Zimbabwean and South African exporters have started shipping flowers and vegetables (such as baby corn and bell papers) through Harare to the EU (World Bank, 2004).

The Standards and Trade Development Facility (STDF)[102] has been funding a project entitled *Strategy to increase capacity to comply with SPS and retailers' agri-food protocols to facilitate exports* (STDF 66), which was requested by the Ministry of Industry and Commerce (MIC) and by Frutisul, the Southern Mozambique Fruit Growers Association. Through this project, in order to facilitate compliance with the complex requirements of European legislation, large buyers have developed their own protocols that they now impose on their suppliers. The project is designed to improve compliance with the private EurepGAP standard and with organic standards, and involves NGOs and fruit companies in pilot projects. The project activities have included building local certification capability and training inspectors and auditors.

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99 This section is based on World Bank, (2005c).

100 This section is based on World, (2004a).

101 South Africans are reportedly interested in high productivity banana plantations in Mozambique's south-central provinces, highlighting Mozambique's potential as a supplier of high quality fruit to South Africa (World Bank, 2004b).

102 The STDF is a global programme in capacity building and technical co-operation established by the FAO, the World Organization for Animal Health (OIE), the World Bank, the World Health Organization (WHO) and the WTO. http://www.standardsfacility.org/.

Namibia

Namibia has experienced spectacular growth in its FFV export earnings, from around $5 million in 2000 to over $38 million in 2006 (Table 1). Grapes are the principal export item, amounting to $29.5 million in 2006, of which $19.1 million worth went to the EU. In 2006, around 24,000 tons of table grapes were exported globally. However, under the Lomé Convention, only 800 tons of grapes could enter EU countries duty free; for the remainder, an import tariff (derived from am entry prices) was charged. Therefore, Namibia had less favourable tariff treatment than Chile and South Africa for more than 90 per cent of its fresh grape exports to the EU. Nevertheless, earnings from grape exports to the EU have made a positive contribution to the economic and social development of the country (Meyn, 2007).[103] Since 1 January 2008, grapes enter the EU duty free under the interim EPA.

Rwanda[104]

Rwanda has not yet developed a strategy for the development of the horticulture sector, even though the DTIS has identified this as one of the sectors for diversification of exports into higher value-added products (World Bank, 2005a). The country's competitive edge within this sector results from a combination of favourable climatic conditions, location and labour costs. There are significant prospects for increasing exports in a number of fruit, such as passion fruit, dessert bananas, avocados and pineapples, where global market trends are positive, if yields and quality could be improved. However, severe production, logistical and marketing constraints need to be overcome, in particular: lack of technical know-how, poor quality, high transport costs,[105] weak marketing channels, lack of basic infrastructure and lack of access to finance and credit. A major obstacle to the development of the sector is the small scale of operations of most farmers, which constrains the dissemination and adoption of appropriate cultivation techniques, and quality awareness and control. The average size of agricultural farms was 0.76 ha in 2002. Given that most farmers practice multicropping, the area of farmland allocated to horticulture cultivation is perhaps less than 1 per cent. This further increases the challenge of disseminating information and techniques and introducing effective marketing channels.

The DTIS calls for the development of a supply chain standards strategy or a national standards action plan that should prioritize among the many different sanitary and phytosanitary (SPS) functions, and focus on one or several higher risk/higher gain export-oriented subsectors (such as FFV). A standards system in Rwanda should be based on awareness, recognition and application of basic good practices for hygiene and safety. Rwanda should not pursue the objective of creating a national accreditation body; rather, it should seek to enter into a regional partnership.

Finally, the DTIS makes the following recommendations: (i) upgrade cold storage facilities along the production chain; (ii) continue the analysis of the sector to guide its future development, especially feasibility and market studies of individual horticultural products; and (iii) build capacity and train technicians and growers.

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[103] Since the establishment of the grape industry in the early 1990s, it has become an important element in Namibia's strategy to diversify crop production. More importantly, it has attracted many migrant workers from the north, and has become the only income source for people in the poverty-stricken Karas region. The successful exploitation of a niche market – the supply of high quality grapes during the European winter season – provides income for around 16,000 people (Meyn, 2007).

[104] This section is based on World Bank, (2005a).

[105] As Rwanda is a landlocked country, air transport is the only practical means of shipping perishable products, including FFV, to export markets such as the EU. However, airfreight costs are high compared to those paid by Rwanda's competitors.

Senegal

Senegal's exports of FFV have grown rapidly since 2000.[106] This may have been driven partly by a series of catalytic interventions under the World Bank's Agricultural Export Promotion Project (AEPP) and renewed interest by several international companies in investing in various stages of the Senegalese supply chain (World Bank, 2003). The value of EU-15 imports of FFV from Senegal increased more than 150 percent between 2000 and 2006: from $15.9 million to $41.0 million.

Vegetables such as cherry tomatoes, beans and "Asian" vegetables represent over 80 per cent of total FFV exports in value terms (Table 1). For both cherry tomatoes and mangoes, Senegal is able to supply the European market at a time when other competitors have little or no supply. Senegal has significant advantages over some of its competitors with regard to sea transport time and costs, yet the absence of effective shipping services and the lack of supporting local port facilities and other infrastructure have prevented the realization of these gains until recently. Senegal's FFV exports have grown rapidly in recent years, with seafreighted produce accounting for virtually all of this growth. The export basket of fresh produce is expected to become more diversified especially with the rapid growth in demand for cherry tomatoes and mangoes, the development of pre-packing of green beans, further growth of melon exports, and the emergence of other products, including papayas and asparagus (World Bank, 2003b).

The DTIS recommends to put in place systems for total quality management which will embrace the application of GAP, the development of sound record-keeping systems (to facilitate traceability), the implementation of Hazard Analysis Critical Control Point (HACCP) principles throughout the supply chain, strict adherence to pesticide-related regulations, and dedicated quality control arrangements for different products (World Bank, 2003). A system for certifying adherence to quality, food safety, pesticide residue, and other requirements will need to be developed. This could be delegated to a third-party certifying agency, perhaps even one which operates at the West Africa regional level (World Bank, 2003b).

The SénéGAP standard is being developed and will take into account the requirements of the major international standards, and especially EurepGAP through the benchmarking system (for more information, see Diao and Diouf, 2007).

One of the recommendations of the DTIS is to facilitate the expansion of domestic production and distribution of onions and potatoes as import substitutes, and they also have medium-term potential for export to the regional market.

Maertens et al. (2007), who have analysed the implications of structural changes in the export supply chain for green beans from Senegal, have observed that as a result of more stringent public and private food standards the sector has become increasingly concentrated, with fewer small-scale growers involved in production for export markets. Whereas the volume of FFV sourced from small-scale farmers through contract farming has fallen, resulting in households' loss of income, this loss is partially offset by income from increased employment in agri-industrial farms (see also chapter III).

According to Ouedraogo, Sutherland and Antoine (2007), Senegal (and also Ghana) face two strategic choices in their attempts to enhance their countries' overall competitiveness and smallholders' participation in the global horticultural supply chain. One relates to the choice of EurepGAP certification options, the other to public certification agencies.

[106] In the 1980s, Senegalese FFV exports – dominated by green beans – averaged about 2,500 tons. However, the country failed to take advantage of the burgeoning demand for off-season vegetables and tropical fruits in Europe during this period. There was a modest expansion in FFV exports following the devaluation of the CFA franc in 1994, yet the industry remained structurally weak, with a narrow product focus and lack of an effective cold chain (World Bank, 2003b).

The United Republic of Tanzania

FFV exports from the United Republic of Tanzania amounted to $26.9 million in 2006. They consist largely of vegetables, in particular beans and peas, exported mainly to India, Kenya, Pakistan and the United Arab Emirates (COMTRADE). It is likely that trade with Kenya is significantly underreported. According to the World Bank's DTIS (2005b), much of the United Republic of Tanzania's exports of fresh vegetables (and flowers) are closely linked with Kenya, either as spin-offs or an extension of Kenyan export operations, or involving the Kenyan domestic market.[107]

EU-15 imports of vegetables from the United Republic of Tanzania (largely fresh beans, snow peas and baby vegetables) have grown rapidly since 2000 (when they amounted to $2.2 million) to reach $10.8 million in 2006 (table A.6).[108] According to the DTIS, only a small number of horticulture grower and exporter entities are engaged in exporting to the EU, with only two major exporters of fresh vegetables.[109] These two exporters combined use 29 outgrowers. Neither exporter would appear to have experienced any significant technical challenges to comply with official or private standards and to ensure the traceability of fresh produce back to its source. But this picture could change if these firms sought to expand by utilizing smallholder outgrowers. The exporters provide intensive support and oversight, covering agronomy, worker/staff training and paperwork. According to the DTIS, many of these outgrowers have or are preparing for EurepGAP certification.[110]

Other areas of considerable concern to horticultural exporters are the relatively slow and costly system for the registration of agrochemicals and the shortage of skilled and experienced Tanzanian middle managers in the country.

[107] In volume terms, by far the largest exports to Kenya consist of oranges onions, and tomatoes.

[108] A major problem for the country's horticultural exports to Europe is the lack of frequent, dedicated airfreight services out of Kilimanjaro. Less than half of all horticultural exports are flown directly out of Kilimanjaro airport, while the remaining are trucked to Nairobi for export to Europe, which is both costly and entails increased risks of spoilage (World Bank, 2003).

[109] Both exporters have had their packhouses certified for the British Retail Consortium (BRC) Technical Standard, and both have benefited from assistance from the Pesticides Initiative Program (PIP).

[110] Generally, such farms have needed to improve their workers' facilities (such as toilets, water sources and changing rooms). Investment costs for improving such facilities of $2,000–$4,000 have been typical on these farms, while EurepGAP certification costs $2,000–$3,000.

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STATISTICAL ANNEX

Table A.1. Sub-Saharan Africa, Ghana, Kenya and Uganda: selected development indicators

	Gross Domestic Product (2005)			Population (2006) (thousands)	Labour force (2004)		
	Total ($ million)	GDP per capita ($)	Agriculture as a share of GDP (%)		Total (thousands)	Agriculture (thousands)	Agriculture as a share of total (%)
SSA	626 401	815	19.7	787 880	302 146	192 908	63.8
SSA*	387 576	538	28.8	739 597	282 387	191 338	67.8
Ghana	10 393	461	24.9	23 008	9 556	6 021	63.0
Kenya	19 184	539	17.3	36 553	15 115	12 570	83.2
Uganda	9 115	315	33.4	29 899	11 483	9 953	86.7

Source: UNCTAD, Handbook of Statistics, 2006–2007.
* Excl. South Africa

Table A.2. Sub-Saharan Africa: production of fruit and vegetables and their shares in world production, 1979/81–2004

	1979-1981	1989-1991	1999-2001	2003	2004
	Production (thousand tons)				
Nigeria	8 287	11 416	16 817	17 412	17 397
Uganda	6 589	8 805	10 571	10 829	11 124
South Africa	4 662	5 801	7 141	7 897	7 769
Kenya	1 614	2 137	3 848	3 827	3 789
Cameroon	2 088	2 399	3 259	3 530	3 671
Ghana	1 271	1 562	3 113	3 424	3 476
Sudan	1 543	1 939	2 951	3 028	3 028
Congo, Dem. Rep. of	3 094	3 833	2 867	2 962	2 893
Rwanda	2 331	3 152	2 594	2 751	2 813
Tanzania, the United Rep. of	2 227	2 505	2 482	2 522	2 528
Côte d'Ivoire	1 866	2 062	2 611	2 547	2 516
Other SSA countries	8 442	10 732	13 563	14 583	14 716
Total SSA	44 015	56 344	71 817	75 312	75 720
World	629 744	812 733	1 207 588	1 345 056	1 383 649
	Share in world production (%)				
Ghana	0.20	0.19	0.26	0.25	0.25
Kenya	0.26	0.26	0.32	0.28	0.27
Uganda	1.05	1.08	0.88	0.81	0.80
SSA	6.99	6.93	5.94	5.60	5.47
World	100	100	100	100	100

Source: FAO Statistical Yearbook

Table A.3. Sub-Saharan Africa: exports of horticultural products and of fresh and processed fruit and vegetables as a share of total agricultural and total merchandise exports (in descending order of the value of FFV exports)

Exporter	Year	Value of exports ($ millions)						FFV, nuts, roots, processed fruit and vegetables	
		FFV	Nuts	Roots	Processed fruit and vegetables	Flowers	Horticulture (fresh and processed fruit and vegetables, flowers)	As a share of agricultural exports (%)	As a share of total merchandise exports (%)
SSA		2 058.5	305.2	10.3	462.6	483.0	3 319.6	16.3	2.4
South Africa	2006	1 174.4	42.8	0.3	334.9	53.8	1606.2	38.8	2.9
Cote d'Ivoire	2006	195.2	97.8	0.3	2.3	3.5	299.1	10.3	3.6
Kenya	2004	178.2	26.2	0.0	85.2	273.3	563.0	21.4	14.2
Ghana	2006	137.8	9.2	8.8	5.1	0.1	161.0	10.6	4.5
Cameroon	2006	67.4	0.2	0.1	3.3	1.2	72.2	16.4	2.0
Ethiopia	2006	58.0	0.0	0.4	4.2	36.9	99.5	11.5	9.7
Namibia	2006	38.3	0.0	0.0	1.1	0.1	39.5	4.5	1.2
Zimbabwe	2005	38.2	0.5	0.0	2.2	35.0	75.9	10.2	2.9
Zambia	2006	27.6	0.0	0.0	0.2	32.2	60.0	10.8	0.7
Tanzania, the United Rep. of	2006	26.9	51.1	0.0	0.1	10.7	88.8	12.8	4.6
Madagascar	2006	25.4	1.0	0.0	0.3	0.1	26.8	8.0	2.9
Niger	2005	23.7	0.0	0.0	0.3	0.0	24.1	33.9	6.9
Senegal	2006	20.9	1.0	0.0	0.1	0.1	22.1	7.4	3.2
Uganda	2006	12.8	0.0	0.0	0.6	32.3	45.7	2.4	1.4
Swaziland	2005	9.9	0.1	0.0	20.7	0.0	30.8	10.7	2.1
Malawi	2006	5.8	7.4	0.0	0.1	0.1	13.3	2.4	2.0
Mozambique	2006	4.3	40.5	0.0	0.1	0.0	45.0	12.0	1.9
Burkina Faso	2004	3.7	6.3	0.4	0.2	0.3	11.0	16.4	2.7
SSA (excl. South Africa		884.1	262.4	10.0	127.7	429.2	1,713.4	12.2	2.0

Source: COMTRADE

Table A.4. Principal fresh and processed fruit and vegetable exports of sub-Saharan Africa in descending order of export values, as indicated in table 1

Exporter	Fruit	Vegetables	Nuts, yams	Processed fruit and vegetables
South Africa	Citrus fruit (oranges, grapefruit, lemons, mandarins), grapes (fresh, dried), apples, pears, avocados, mangoes, plums, peaches, apricots, pineapples, "other" fruit	Onions and shallots, carrots, potatoes, "other vegetables", mushrooms, carrots	"Other nuts"	Prepared fruit (peaches, apricots, pears, pineapple, citrus), fruit juices (grapefruit, apple, grape, mixtures, "other" single fruit), "other vegetables"
Côte d'Ivoire	Bananas, pineapples, mangoes	-	Cashew nuts, coconuts, "other nuts"	Pineapple juice; "other" single fruit juice
Kenya	Avocados, mangoes, "other" fruit (in particular passion fruit)	Beans, peas, "other vegetables"	"Other nuts" (including macadamia nuts); cashew nuts	Canned pineapples, beans, pineapple juice
Ghana	Pineapples, "other" fruit (passion fruit), papayas, bananas	"Other vegetables", beans	Cashew nuts, coconuts Yams	Pineapple juice, prepared tomatoes, "other fruit" preparations
Cameroon	Bananas	-	-	Beans
Ethiopia	-	Beans, potatoes	-	-
Namibia	Fresh grapes	Onions and shallots	-	Mixtures of fruit juices, "other" single fruit juice
Zimbabwe	Oranges	"Other" vegetables	"Other nuts"	Beans
Zambia	-	Mixtures of vegetables, "other" vegetables	-	-
Tanzania, United Rep. of	-	Peas, "other" vegetables, beans, cabbages	Cashew nuts	-
Madagascar	"Other" fruit (lychee),	Beans, peas	Cashew nuts	Beans
Niger		Onions and shallots, beans		
Senegal	Mangoes	Tomatoes, beans, "other" vegetables	Cashew nuts	-
Uganda	Bananas	Beans	-	Mixtures of fruit juices
Swaziland	Citrus fruit (grapefruit, oranges)			Preparations of pineapple, citrus
Malawi		Peas, beans	"Other nuts"	
Mozambique	Bananas	Beans	Cashew nuts, almonds	
Burkina Faso	Mangoes	Other vegetables, mixtures of vegetables;	Almonds, ,cashew, nuts	-

Source: Editors' elaboration, based on COMTRADE, EC Export Helpdesk

Table A.5. EU-15 imports of FFV from SSA countries and from other developing regions, in value terms ($millions), 1996-2006

	$millions											Percentage change (%)		
	1996	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2006/ 1996**	**2003/ 1996**	**2006/ 2003**
SSA countries	EU-15 imports of FFV from mayor SSA exporters of FFV (in descending order of 2006 imports)													
South Africa	708.0	775.5	924.4	979.5	737.8	907.4	944.8	1171.6	1337.8	1441.9	1424.3	101.2	65.5	21.6
Côte d'Ivoire	250.4	272.6	237.5	298.7	287.9	315.1	300.8	390.7	423.0	336.5	352.6	40.8	56.0	-9.8
Cameroon	156.9	119.3	116.3	175.8	195.8	198.2	154.4	247.3	241.2	283.4	286.9	82.9	57.6	16.0
Kenya	97.6	114.5	103.6	134.4	138.8	138.8	151.9	192.4	217.1	227.4	262.7	169.2	97.1	36.5
Ghana	26.2	32.5	32.0	27.5	36.1	44.8	57.7	79.2	97.2	89.0	105.9	304.2	202.3	33.7
Senegal	13.6	13.4	11.7	15.1	15.9	15.5	18.8	20.5	27.6	35.5	41.0	201.5	50.7	100.0
Namibia	-	-	-	-	4.0	7.1	13.0	14.6	15.2	34.5	38.8			165.8
Madagascar	52.3	41.2	54.7	47.6	58.4	26.5	36.4	46.7	84.4	37.0	28.2	-46.1	-10.7	-39.6
Zimbabwe	35.1	45.2	46.4	54.3	47.5	50.9	39.2	49.1	36.0	41.5	24.6	-29.9	39.9	-49.9
Ethiopia	14.5	13.1	9.0	12.0	10.3	9.7	12.8	11.1	14.3	19.3	22.4	54.5	-23.4	101.8
Zambia	6.1	9.2	9.1	9.4	8.6	11.7	13.7	15.4	17.1	15.3	19.1	213.1	152.5	24.0
Swaziland	-	-	-	-	13.6	15.5	11.1	17.0	16.5	14.0	15.6			-8.2
Tanzania, United Rep. of	6.7	5.6	5.3	4.8	2.2	4.3	6.7	7.9	13.3	12.5	10.8	61.2	17.9	36.7
Burkina Faso	6.0	8.4	6.1	5.6	4.9	4.1	3.9	6.3	5.8	6.4	8.8	46.7	5.0	39.7
Uganda	1.5	2.4	3.1	3.2	3.0	3.7	4.6	5.1	6.8	8.3	8.1	440.0	240.0	58.8
Developing regions	EU-15 imports of FFV from mayor developing regions, in value terms ($millions), 1996-2006													
SSA	1,406.5	1,482.5	1,586.9	1,788.3	1,583.6	1,768.1	1,785.7	2,293.4	2,578.8	2,626.1	2,675.1	90.2	63.1	16.6
- SSA excl South Africa	698.5	707.0	662.6	808.8	845.8	860.7	840.8	1,121.8	1,239.8	1,184.2	1,250.8	79.1	60.6	11.5
-- ACP countries in SSA	568.0	586.0	538.8	693.2	725.3	774.1	731.4	992.9	1,051.9	1,030.8	1,091.0	92.1	74.8	9.9
-- LDCs in SSA	130.5	121.0	123.7	115.6	120.5	86.6	109.4	128.9	188.0	153.4	159.8	22.4	-1.2	23.9
North Africa	863.3	662.5	709.4	734.2	602.5	648.4	833.0	985.4	1,235.4	1,462.2	1,449.7	67.9	14.2	47.1
South/Central America	3,521.6	3,501.7	3,582.0	3,652.1	3,072.3	3,491.3	3,910.2	4,961.0	5,886.2	6,522.7	7,055.2	100.3	40.9	42.2
Other developing countries	1,678.8	1,505.0	1,475.9	1,522.9	1,411.0	1,417.0	1,511.5	1,789.4	2,107.2	2,287.2	2,610.7	55.5	6.6	45.9
All developing countries	7,470.2	7,151.7	7,354.2	7,697.6	6,669.4	7,324.8	8,040.3	10,029.3	11,807.7	12,898.2	13,790.7	84.6	34.3	37.5

Source: COMTRADE

Table A.6. EU-27 imports of FFV from main SSA exporters, by volume, 2000–2006

SSA country		Volume (thousand tons)							Percentage change 2006/2000 (%)	
	Category*	2000	2001	2002	2003	2004	2005	2006	Vol.	Val. (€)
Sub-Saharan Africa (SSA)	FFV	1 762.5	1 896.5	1 944.4	1 991.0	1 907.8	1 977.6	1 881.9	6.8	24.5
	F	1 640.3	1 762.2	1 783.6	1 842.0	1 749.5	1 820.4	1 733.5	5.7	23.8
	V	122.2	134.3	160.8	149.0	158.3	157.2	148.4	21.4	28.1
South Africa	FFV	905.2	978.4	1 023.0	1 042.1	992.8	1 103.1	984.4	8.8	32.5
	F	896.1	962.6	998.2	1 015.2	969.2	1 091.7	969.2	8.2	32.2
	V	9.1	15.8	24.8	26.9	23.5	11.4	15.2	67.7	54.5
SSA excl South Africa	FFV	857.4	918.1	921.4	948.9	915.0	874.5	897.4	4.7	16.5
	F	744.2	799.5	785.4	826.8	780.3	728.7	764.3	2.7	12.0
	V	113.1	118.5	135.9	122.0	134.8	145.8	133.2	17.7	26.8
Côte d'Ivoire	FFV	381.6	416.5	397.6	360.4	362.7	296.6	334.4	-12.4	-4.8
	F	380.9	416.0	396.8	359.4	361.6	295.5	333.4	-12.5	-4.8
Cameroon	FFV	216.5	229.1	243.8	304.4	266.6	259.4	263.8	21.9	35.6
	F	215.1	227.9	238.8	301.8	265.4	257.5	261.4	21.5	35.2
Ghana	FFV	42.5	46.8	48.9	55.7	63.5	59.1	71.9	69.1	82.3
	F	35.9	39.4	41.9	47.7	56.4	51.6	65.0	81.1	108.1
	V	6.6	7.4	7.0	7.9	7.1	7.5	6.9	4.3	9.9
	Yams**	7.5	7.9	8.2	9.2	11.0	12.3	14.4	91.1	105.1
Kenya	FFV	58.5	61.9	59.8	70.1	68.3	71.9	70.8	20.9	35.3
	F	12.3	16.6	12.8	21.2	17.7	20.2	14.8	20.7	22.6
	V	46.2	45.2	47.0	49.0	50.6	51.7	56.0	21.0	36.9
Madagascar	FFV	27.7	25.4	26.1	24.4	27.9	29.1	26.0	-6.2	-52.8
	F	18.9	16.7	18.3	17.6	20.8	21.2	18.3	-2.9	-57.0
	V	8.8	8.6	7.8	6.9	7.1	7.9	7.7	-13.4	2.4
Ethiopia	FFV	15.0	17.6	26.4	13.9	28.0	36.4	22.8	51.5	64.3
	V	15.0	17.5	26.4	13.9	28.0	36.2	22.7	51.3	63.8
Senegal	FFV	9.6	9.9	10.8	10.9	13.6	16.9	22.4	132.1	89.2
	F	1.4	1.2	1.8	2.3	3.4	3.9	8.3	484.8	262.2
	V	8.2	8.7	8.9	8.6	10.2	13.0	14.1	71.2	64.6
Swaziland	FFV	30.6	26.1	25.6	25.9	20.4	18.6	21.6	-29.3	-17.9
	F	30.3	25.9	25.4	25.6	20.1	18.5	21.5	-29.0	-11.1
Zimbabwe	FFV	44.7	54.9	48.0	46.8	26.9	41.8	19.7	-56.1	-57.0
	F	36.9	47.4	39.4	38.7	19.9	37.2	15.6	-57.8	-51.8
	V	7.8	7.5	8.7	8.1	7.0	4.6	4.1	-47.6	-61.6
Namibia	FFV	2.7	2.5	5.9	7.8	6.6	12.9	14.6	438.4	533.6
	F	2.0	2.0	5.0	6.4	6.1	12.6	13.5	589.0	599.7
Tanzania, the United Republic of	FFV	2.9	4.3	6.9	5.5	7.4	5.5	5.8	104.7	239.1
	V	2.8	4.3	6.9	5.5	7.4	5.5	5.8	104.5	235.7
Uganda	FFV	2.5	2.6	3.1	3.5	3.8	6.5	3.5	42.3	93.6
	F	0.2	0.3	0.2	0.3	0.4	0.7	1.5	875.6	840.7
	V	2.3	2.3	2.9	3.2	3.4	5.7	2.0	-13.0	22.6
All developing countries	FFV	9 510.6	10 214.2	10 495.6	10 995.3	11 830.2	12 681.2	13 259.3	39.4	48.2
	F	7 997.6	8 373.6	8 526.0	8 845.7	9 364.2	10 121.4	10 521.4	31.6	45.0
	V	1 513.0	1 840.5	1 969.6	2 149.6	2 466.0	2 559.7	2 737.8	81.0	60.4

Source: EC Export Helpdesk

* F= Fresh fruit; V=Fresh vegetables

** Not included in the definition of FFV

Table A.7. EU27 imports of FFV from Ghana, by value and volume, 2000–2006

	Value (thousand euros)							Volume (tons)						
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
FFV	39 414	48 407	58 683	68 092	73 678	64 894	71 865	42 485	46 797	48 944	55 677	63 498	59 122	71 863
Fruit	29 081	37 430	48 557	57 623	63 099	53 293	60 509	35 871	39 370	41 925	47 735	56 411	51 642	64 963
Pineapples	23 623	30 652	42 321	52 603	56 222	45 627	41 024	29 684	33 209	36 467	44 108	51 726	45 066	40 230
Bananas	2 466	3 135	2 823	1 094	1 991	3 026	13 204	3 881	3 656	3 536	1 238	2 003	4 331	22 597
Papayas	2 219	2 273	1 837	2 191	2 745	2 020	2 295	1 859	1 937	1 414	1 649	1 860	1 334	1 231
Mangoes	178	107	92	195	281	476	1 366	122	62	64	83	179	268	293
Peel of fruit	330	418	286	623	686	545	371	248	321	211	414	361	298	200
Passion fruit	187	814	1 146	895	790	58	138	31	172	205	202	177	31	27
Other fruit	78	30	53	21	384	1 541	2 111	46	13	28	42	105	315	386
Vegetables	10 333	10 976	10 126	10 469	10 579	11 601	11 356	6 614	7 427	7 019	7 943	7 087	7 480	6 900
Chillies	1 219	734	1 150	741	1 501	2 008	3 806	684	419	650	521	842	1 026	1 984
"Other" vegetables (HS 070990)	8 411	9 748	8 589	9 335	8 598	9 058	6 979	5 520	6 513	5 950	6 983	5 818	6 012	4 613
Other vegetables	703	494	387	394	480	535	571	411	495	419	439	428	443	303
Roots	5 624	5 701	5 830	5 822	7 939	8 226	9 799	13 461	8 268	8 839	11 706	12 126	13 049	14 940
Nuts	85	57	35	180	29	192	339	180	85	66	55	50	127	215
FFV, roots and nuts	45 123	54 165	64 548	74 094	81 646	73 312	82 003	56 126	55 150	57 849	67 438	75 675	72 297	87 018

Source: EC Export Helpdesk

Table A.8. EU27 imports of FFV from Kenya, by value and volume, 2000–2006

	Value (thousand euros)							Volume (tons)						
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
FFV	145 344	149 176	154 540	164 551	165 711	170 835	196 653	58 524	61 863	59 769	70 141	68 268	71 942	70 777
Vegetables	129 289	12 5325	139 154	134 848	143 646	152 211	176 967	46 253	45 221	46 969	48 960	50 564	51 749	55 968
Peas	2 5191	13 782	15 255	16 368	28 450	37 702	42 069	7 007	3 927	4 201	4 678	7 986	10 528	11 188
Beans, fresh	68 747	60 155	59 766	64 966	77 770	83 775	103 834	23 516	21 804	21 661	24 817	29 453	30 442	34 653
Beans, frozen	878	1 269	1 491	1 541	2 072	2 187	2 080	468	714	837	886	1 075	1 101	1 085
Chillies	2 631	1 895	1 202	808	573	1 262	2 096	1 005	691	456	335	196	474	581
"Other" vegetables	30 232	45 468	57 127	48 856	2 7839	18 716	17 549	13 485	16 789	17 655	16 953	9 804	6 328	5 255
Other	1 610	2 755	4 313	2 309	6 942	8 569	9 338	773	1 297	2 159	1 291	2 050	2 875	3 205
Fruit	16 055	23 851	15 385	29 703	22064	18 624	19 687	12 272	16 642	12 800	21 182	17 704	20 194	14 810
Avocados	13 811	21 309	12 458	25 318	17 474	15 890	16 102	11 452	15 813	11 876	19 749	16 246	15 469	13 656
Passion fruit	1 965	2 186	2 621	3 905	3 991	2 416	2 827	670	684	791	1 178	1 142	4 603	851
Other	279	356	306	480	599	318	758	150	146	133	254	316	122	303
Nuts	179	709	239	634	825	1888	2913	59	115	43	102	132	265	435
Coconuts, cashew	86		3		336	623	1120	44		12		67	115	217
Other nuts (e.g. macadamia)	94	709	236	634	489	1266	1793	15	115	31	102	65	150	218
FFV and nuts	145 523	149 885	154 779	165 185	166 535	172 723	199 566	58 584	6 1979	59 812	70 243	68 399	72 207	71 213

Source: EC Export Helpdesk

Table A.9. EU27 imports of FFV from Uganda, by value and volume, 2000–2006

	Value (thousand euros)							Volume (tons)						
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
FFV	3 173	3 985	4 736	4 431	5356	6 467	6 289	2 444	2 566	3 120	3 471	3 821	6469	3 562
Vegetables	2 957	3 427	4 321	3 925	4 583	5 280	3 649	2 335	2302	2895	3 205	3 408	5750	2 051
Chillies	487	616	823	648	944	1 114	1 592	234	321	460	394	589	2 853	824
"Other" vegetables	2 192	2 684	3 443	3 228	3 554	4 086	2 004	1 914	1902	2409	2 785	2 761	2 848	1 200
Other	278	127	55	49	85	80	53	187	79	26	26	58	49	27
Fruit	216	558	415	506	773	1 187	2 640	108	264	224	265	412	719	1511
Bananas	119	278	241	231	356	622	1 832	55	122	132	133	202	442	1 128
Pineapples	84	224	136	158	317	475	511	49	105	60	83	167	242	262
Passion fruit	13	15	15	41	56	55	139	4	4	5	13	19	20	44
Other	1	41	23	76	44	35	159	0	33	27	36	24	15	77
Nuts	65	0	0	0	1	11	1	47	0	0	0	1	18	1

Source: EC Export Helpdesk

Table A.10. Extra-EU27 imports of selected fresh and processed fruit and vegetables and shares of main suppliers (by volume), 2000–2006

A. Fresh vegetables

Peas

Imports from	Value in 2006		Volume (thousand tons)							Share in total extra-EU imports (%)						
	€ m	$ m*	2000	2001	2002	2003	2004	2005	2006	2000	2001	2002	2003	2004	2005	2006
Total	79.4	99.3	16.0	12.7	12.2	14.3	20.9	22.8	24.9	100	100	100	100	100	100	100
Kenya	42.0	52.5	7.0	3.9	4.2	4.7	8.0	10.5	11.2	43.7	31.0	34.3	32.8	38.1	46.1	44.8
Guatemala	13.6	17.0	3.1	3.6	2.7	3.4	3.7	4.2	4.3	19.3	28.7	22.3	24.0	17.7	18.3	17.2
Zimbabwe	5.1	6.4	2.2	1.9	2.3	2.5	2.8	1.7	2.5	13.7	14.6	19.2	17.9	13.5	7.6	10.0
Morocco	2.8	3.5	1.3	1.2	0.7	0.9	1.6	1.6	2.5	8.3	9.3	5.4	6.4	7.5	7.1	9.9
Egypt	4.7	5.9	0.6	0.6	0.9	1.0	1.1	1.4	1.6	3.5	4.6	7.2	7.0	5.4	6.1	6.4

Beans

Imports from	Value in 2006		Volume (thousand tons)							Share in total extra-EU imports (%)						
	€ m	$ m	2000	2001	2002	2003	2004	2005	2006	2000	2001	2002	2003	2004	2005	2006
Total	295.3	369.1	86.3	98.2	106.0	124.9	160.5	166.7	181.3	100	100	100	100	100	100	100
Morocco	111.6	139.5	23.6	35.6	45.3	61.7	84.8	90.4	102.0	27.3	36.2	42.8	49.4	52.8	54.2	56.3
Kenya	103.8	129.8	23.5	21.8	21.7	24.8	29.5	30.4	34.6	27.2	22.2	20.4	19.9	18.4	18.3	19.1
Egypt	37.6	47.0	17.8	20.3	22.3	22.3	28.3	26.8	26.4	20.7	20.6	21.1	17.9	17.7	16.1	14.6
Senegal	14.7	18.4	5.9	5.9	5.7	4.8	5.6	6.9	7.0	6.8	6.0	5.4	3.8	3.5	4.1	3.9

Source: EC Export Helpdesk

* converted at the exchange rate: 1 Euro is $1.25

B. Fresh fruit

Pineapples

	Value in 2006		Volume (thousand tons)							Share in total extra-EU imports (%)						
	€ m	$ m	2000	2001	2002	2003	2004	2005	2006	2000	2001	2002	2003	2004	2005	2006
Total	524.7	655.9	324.8	374.7	378.0	418.4	526.2	610.6	766.8	100	100	100	100	100	100	100
Costa Rica	330.5	413.1	114.4	136.8	140.9	180.3	252.2	363.5	498.2	35.2	36.5	37.3	43.1	47.9	59.5	65.0
Côte d'Ivoire	57.6	72.0	160.9	178.1	165.3	140.4	137.5	99.9	95.0	49.5	47.5	43.7	33.5	26.1	16.4	12.4
Ghana	41.0	51.3	29.7	33.2	36.5	44.1	51.7	45.1	40.2	9.1	8.9	9.6	10.5	9.8	7.4	5.2

Papayas

	Value in 2006		Volume (tons)							Share in total extra-EU imports (%)						
	€ m	$ m	2000	2001	2002	2003	2004	2005	2006	2000	2001	2002	2003	2004	2005	2006
Total	50.7	63.4	16803	18848	26724	38878	41940	41856	37848	100	100	100	100	100	100	100
Brazil	36.2	45.3	13506	15304	20332	29090	29345	31855	26870	80.4	81.2	76.1	74.8	70.0	76.1	71.0
Ecuador	2.6	3.3	88	25	14	1267	4367	3387	4078	0.5	0.1	0.1	3.3	10.4	8.1	10.8
Côte d'Ivoire	2.9	3.6	317	236	340	232	1164	1398	1857	1.9	1.3	1.3	0.6	2.8	3.3	4.9
Ghana	2.3	2.9	1859	1937	1414	1649	1860	1334	1231	11.1	10.3	5.3	4.2	4.4	3.2	3.3

Bananas

	Value in 2006		Volume (thousand tons)							Share in total extra-EU imports (%)						
	€ m	$ m	2000	2001	2002	2003	2004	2005	2006	2000	2001	2002	2003	2004	2005	2006
Total	2571.0	3213.8	3997.8	3879.5	3947.9	3868.4	4067.3	3982.9	4463.5	100	100	100	100	100	100	100
Ecuador	655.0	818.8	1097.1	1116.3	1183.6	1040.2	1149.5	1273.4	1235.8	27.4	27.9	29.6	26.0	28.8	31.9	30.9
Colombia	595.1	743.9	753.5	751.6	784.4	779.1	783.5	899.5	977.3	18.8	18.8	19.6	19.5	19.6	22.5	24.4
Costa Rica	464.4	580.5	718.4	689.7	749.8	789.7	860.1	638.0	840.0	18.0	17.3	18.8	19.8	21.5	16.0	21.0
Panama	185.1	231.4	435.8	418.3	396.3	353.7	370.5	281.7	313.9	10.9	10.5	9.9	8.8	9.3	7.0	7.9
Cameroon	149.6	187.0	212.0	225.4	236.5	298.2	261.2	252.9	259.4	5.3	5.6	5.9	7.5	6.5	6.3	6.5
Côte d'Ivoire	110.2	137.8	208.3	226.6	216.7	210.9	210.8	183.9	227.8	5.2	5.7	5.4	5.3	5.3	4.6	5.7

Source: EC Export Helpdesk

C. Processed fruit and vegetables

Processed beans (HS 200559)

	Value in 2006		Volume (tons)							Share in total extra-EU imports (%)						
	€ m	$ m	2000	2001	2002	2003	2004	2005	2006	2000	2001	2002	2003	2004	2005	2006
Total	48.6	60.8	32 095	35 350	37 015	35 682	39 267	38 119	42 302	100	100	100	100	100	100	100
Kenya	27.9	34.9	9 753	10 949	11 183	10 547	16 841	21 248	23 447	30.4	31	30.2	29.6	42.9	55.7	55.4
China	9.3	11.6	13 281	14 234	17 421	15 222	13 337	9 480	11 287	41.4	40.3	47.1	42.7	34	24.9	26.7
Cameroon	3.4	4.3	2 183	4 039	2 161	2 522	2 565	3 200	2 205	6.8	11.4	5.8	7.1	6.5	8.4	5.2
Madagascar	5.1	6.4	923	550	1 044	1 097	1 115	1 548	2 141	2.9	1.6	2.8	3.1	2.8	4.1	5.1
Morocco	0.9	1.1	848	1 297	1259	1 574	1 034	545	910	2.6	3.7	3.4	4.4	2.6	1.4	2.2
Turkey	0.7	0.9	312	304	359	312	437	646	637	1	0.9	1	0.9	1.1	1.7	1.5
Zimbabwe	0.2	0.3	2 536	2 126	1 918	2 182	2 028	59	381	7.9	6	5.2	6.1	5.2	0.2	0.9

Canned pineapple (HS 200820)

	Value in 2006		Volume (tons)							Share in total extra-EU imports (%)						
	€ m	$ m	2000	2001	2002	2003	2004	2005	2006	2000	2001	2002	2003	2004	2005	2006
Total	239.6	299.5	377.2	359.1	359.0	366.1	399.6	400.3	411.3	100	100	100	100	100	100	100
Thailand	120.1	150.1	204.2	181.8	159.7	183.1	198.7	171.7	220.2	54.1	50.6	44.5	50.0	49.7	42.9	53.5
Indonesia	46.7	58.4	56.8	58.7	71.3	64.7	75.3	100.9	89.4	15.0	16.3	19.9	17.7	18.8	25.2	21.7
Kenya	38.6	48.3	51.0	55.2	60.1	51.2	47.5	54.9	50.1	13.5	15.4	16.8	14.0	11.9	13.7	12.2
Philippines	17.7	299.5	37.1	32.2	29.4	26.6	33.6	36.3	27.5	9.8	9.0	8.2	7.3	8.4	9.1	6.7

Source: EC Export Helpdesk

Table A.11. European Union: market access outlook for countries in sub-Saharan Africa as of 1 January 2008*

EPA Subregion	EPA	EBA	GSP
Central Africa	Cameroon	Central African Republic, Chad, Dem. Rep. of the Congo, Equatorial Guinea and São Tomé and Principe	Congo and Gabon
Eastern/Southern Africa	East African Community (EAC): Burundi, Kenya, Rwanda, United Republic of Tanzania, and Uganda ESA: Comoros, Madagascar, Mauritius, Seychelles and Zimbabwe	Djibouti, Eritrea, Ethiopia, Malawi, Somalia, Sudan and Zambia	
West Africa	Côte d'Ivoire, Ghana	Benin, Burkina Faso, Cape Verde, the Gambia, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Senegal, Sierra Leone and Togo	Nigeria
SADC	Botswana, Lesotho Mozambique, Namibia and Swaziland	Angola	

Source: http://trade.ec.europa.eu/doclib/docs/2007/december/tradoc_137335.pdf

* Excludes South Africa, which continues to benefit from the Trade Development and Co-operation Agreement with the EU.