HORTICULTURE EXPORTS FROM GHANA: A Strategic Study
HORTICULTURE EXPORTS FROM GHANA: A Strategic Study
AUTHORS

Part I of this report prepared by Dr. Peter Jaeger (Accord Associates) in mid-2008 following a two week research visit to Ghana.

The development of the strategy, and the foundations on which it stands, represent the findings and conclusions of a small team of specialists: Dr. Andrew Sergeant (Accord Associates), Dr. Andy Graffham and Dr. John Orchard (Natural Resources Institute), Augustine Adongo (Integrated business Consulting), Steve Homer (BIOS Partners), and Dr. Peter Jaeger (Team Leader Accord Associates) all compiled background papers for Part III and contributed to the development of the Recommended Actions for a strategy and its implementation presented here in Part II.

ACKNOWLEDGEMENTS

The initial scoping mission was supported throughout by the staff of the Export Marketing and Quality Awareness Project, namely Mawuli Agboka, Eric Quaye, Harry Blepony, and David Crentsil. All four gave up time to guide, help and share their insights into the horticultural scene. The review could not have achieved the breadth and depth without their assistance.

Many players in the Ghanaian and the European fruit and vegetable industry gave up their time willingly to interviews with us. We should like to acknowledge the warm welcome received from all. In spite of busy schedules and businesses to run, time was always available for yet another researcher. Particular thanks to Jean-Michel Voisard and his team at the Trade and Investment Program for a Competitive Export Economy (TIPCEE) for sharing their experiences, overview and data.

The project was funded by the European Union and directed by Christophe Ravry at the World Bank in collaboration with the Ministry of Food and Agriculture of the Government of Ghana.
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In 2003, the World Bank—the Agriculture and Rural Development (ARD) department of the Sustainable Development Network (SDN) of the Africa Region—commissioned a Ghana Horticultural Sector Development Study. Later that year, the Horticulture Export and Investment Initiative (HEII) was created as the result of restructuring of the agribusiness support component of the Agriculture Services Sub-sector Investment Programme (AgSSIP). HEII played an important role in reshaping the Ghana horticulture cluster through a series of crucial technical support initiatives and building of a key logistics infrastructure at the Tema seaport.

HEII also helped to raise the visibility of the horticulture cluster, which resulted in a renewed interest in the sector both from private investors and donor partners. The African Development Bank (ADB), the United States Agency for International Development (USAID), the German Technical Cooperation (GTZ), and the Millennium Challenge Corporation (MCC) among others were or are all actively involved in support to the cluster.

Five years after the original study, the horticulture cluster in Ghana had moved ahead. Developments in the institutional environment had combined with an evolution both of the businesses and of the product portfolio; international trade had expanded and an increasing population participated in export horticulture supported by infrastructural enhancements. At the same time, the external operating environment had changed: not only are markets dynamic, but there were also new influences from policy and trade agreements.

With funding from the European Commission, the World Bank and the Ministry of Food and Agriculture sought to develop a new vision for commercial horticulture in Ghana. To this end, a new strategy was needed that could engage the collaboration of the cluster participants and provide an overall direction.

A two step project was devised: the first step would be a scoping exercise to appraise the evolution of the cluster since 2003 both within Ghana and in the market as its operating environment. With an intermission for review and validation, the exercise would then move on to defining a second step that would lead to the strategy itself.

The initial scoping review was carried out in early 2008. The scoping study revealed a picture of mixed health, of some successes but not without difficulties; and it confirmed the need for a plan to take the industry forward. The process of validating the review emphasized the necessity for a wide-ranging review of many different factors in order to build a solid business case for a strategy.

The present report is the outcome of this two step process. It is laid out in three parts. Part I reports on the initial scoping study. Part II defines the vision and the strategy that was formulated in 2010. Part III is a collection of a number of background papers that were researched and written to provide a foundation for the strategy.

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MAP 1 GHANA - ADMINISTRATIVE DIVISIONS

Map scale: 1 cm = 70 km
Source: NCGIA SB UNEP-GRID Sioux Falls

Source: http://www.fao.org/giews/french/basedocs/gha/ghaadm1f.stm
MAP 2 GHANA – RELIEF AND MAJOR TOWNS AND CITIES

Source: World Bank
# ACRONYMS & ABBREVIATIONS & CONVERSIONS

## ORGANIZATIONS:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACP</td>
<td>Africa, Caribbean, and Pacific (signatory countries of the Lomé Convention)</td>
</tr>
<tr>
<td>ADB</td>
<td>Agricultural Development Bank</td>
</tr>
<tr>
<td>ADRA</td>
<td>Adventist Development &amp; Relief Agency</td>
</tr>
<tr>
<td>AfDB</td>
<td>African Development Bank</td>
</tr>
<tr>
<td>AFTAR</td>
<td>Agriculture and Rural Development Department of the Africa Region of the World Bank</td>
</tr>
<tr>
<td>AGOA</td>
<td>African Growth and Opportunity Act</td>
</tr>
<tr>
<td>AgSSIP</td>
<td>Agricultural Services Sub-Sector Investment Programme</td>
</tr>
<tr>
<td>CAADP</td>
<td>Comprehensive Africa Agriculture Development Programme</td>
</tr>
<tr>
<td>COLEACP</td>
<td>Comité pour Liaison Europe ACP</td>
</tr>
<tr>
<td>DAMFA</td>
<td>Dangme-West Mango Farmers’ Association</td>
</tr>
<tr>
<td>EBA</td>
<td>Everything But Arms</td>
</tr>
<tr>
<td>EC</td>
<td>European Commission</td>
</tr>
<tr>
<td>ECOWAS</td>
<td>Economic Community of West African States</td>
</tr>
<tr>
<td>EDIF</td>
<td>Export Development &amp; Investment Fund</td>
</tr>
<tr>
<td>EMQAP</td>
<td>Export Marketing and Quality Awareness Project</td>
</tr>
<tr>
<td>EPA</td>
<td>Economic Partnership Agreements</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EU-AAACP</td>
<td>EU All ACP Agricultural Commodities Programme</td>
</tr>
<tr>
<td>FAGE</td>
<td>Federation of Associations of Ghanaian Exporters</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
</tr>
<tr>
<td>FASDEP</td>
<td>Food and Agriculture Sector Development Policy</td>
</tr>
<tr>
<td>FBO</td>
<td>Farmer Based Organization</td>
</tr>
<tr>
<td>FOM</td>
<td>Farmer Ownership Model</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
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<tr>
<td>GAVEX</td>
<td>Ghana Association of Vegetable Exporters</td>
</tr>
<tr>
<td>GEPC</td>
<td>Ghana Export Promotion Council</td>
</tr>
<tr>
<td>GHPPP</td>
<td>Ghana Private Public Partnership Food Industry Development Programme</td>
</tr>
<tr>
<td>GIPC</td>
<td>Ghana Investment Promotion Centre</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographical Information Systems</td>
</tr>
<tr>
<td>GPHA</td>
<td>Ghana Ports &amp; Harbour authority</td>
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<tr>
<td>GSB</td>
<td>Ghana Standards Board</td>
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<tr>
<td>GSP</td>
<td>Generalized System of Preferences</td>
</tr>
<tr>
<td>GTZ</td>
<td>Gesellschaft für Technische Zusammenarbeit – German Government agency for international co-operation</td>
</tr>
<tr>
<td>GYEAA</td>
<td>Ghana Yam Exporters Association</td>
</tr>
<tr>
<td>HAG</td>
<td>Horticultural Association of Ghana</td>
</tr>
<tr>
<td>HEII</td>
<td>Horticultural Exports Industry Initiative</td>
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<tr>
<td>IFAD</td>
<td>International Fund for Agricultural Development</td>
</tr>
<tr>
<td>ITFC</td>
<td>Integrated Tamale Fruit Company</td>
</tr>
<tr>
<td>JITAP</td>
<td>Joint Integrated Technical Assistance Programme to Selected Least Developed and Other African Countries</td>
</tr>
<tr>
<td>KIA</td>
<td>Kotoka International Airport</td>
</tr>
<tr>
<td>MCA</td>
<td>Millennium Challenge Account</td>
</tr>
<tr>
<td>MCF</td>
<td>Millennium Challenge Fund</td>
</tr>
<tr>
<td>MiDA</td>
<td>Millennium Development Authority</td>
</tr>
<tr>
<td>MOAP</td>
<td>Market Oriented Agriculture Programme (of GTZ)</td>
</tr>
<tr>
<td>MoFA</td>
<td>Ministry of Food and Agriculture</td>
</tr>
<tr>
<td>MoTI</td>
<td>Ministry of Trade and Industry</td>
</tr>
<tr>
<td>NEPAD</td>
<td>New Partnership for Africa’s Development</td>
</tr>
<tr>
<td>NHTF</td>
<td>National Horticultural Task Force</td>
</tr>
<tr>
<td>NRGP</td>
<td>Northern Rural Growth Programme</td>
</tr>
<tr>
<td>PAMPEAG</td>
<td>Papa ya and Mango Producers’ and Exporters’ Association of Ghana</td>
</tr>
<tr>
<td>PIP</td>
<td>Pesticides Initiative Programme</td>
</tr>
<tr>
<td>PSOM</td>
<td>Programme for Co-operation for Emerging Markets (from the Dutch Government)</td>
</tr>
<tr>
<td>SPEG</td>
<td>Sea-Freight Pineapple Exporters of Ghana</td>
</tr>
<tr>
<td>TIPCEE</td>
<td>Trade and Investment Program for a Competitive Export Economy</td>
</tr>
</tbody>
</table>
### ACRONYMS & ABBREVIATIONS & CONVERSIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>UBA</td>
<td>Union Bananière Africain</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>VEPEAG</td>
<td>Vegetable Producers and Exporters Association of Ghana</td>
</tr>
<tr>
<td>VIAD</td>
<td>Volta Integrated Agricultural Development Co Ltd</td>
</tr>
<tr>
<td>WTO</td>
<td>World Trade Organization</td>
</tr>
<tr>
<td>YKMFA</td>
<td>Yilo-Krobo Mango Farmers’ Association</td>
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</table>

### OTHER ABBREVIATIONS:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>C&amp;F</td>
<td>Cost &amp; Freight</td>
</tr>
<tr>
<td>CIF</td>
<td>Cost, Insurance &amp; Freight</td>
</tr>
<tr>
<td>CY</td>
<td>Container Yard</td>
</tr>
<tr>
<td>FOB</td>
<td>Free on Board</td>
</tr>
<tr>
<td>Ha</td>
<td>Hectares</td>
</tr>
<tr>
<td>Kg</td>
<td>Kilogram</td>
</tr>
<tr>
<td>Km</td>
<td>Kilometre</td>
</tr>
<tr>
<td>lb</td>
<td>Pound (unit of mass)</td>
</tr>
<tr>
<td>M</td>
<td>Meters</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>NTAE</td>
<td>Non-Traditional Agricultural Exports</td>
</tr>
<tr>
<td>SSA</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>t</td>
<td>Tonnes</td>
</tr>
</tbody>
</table>

### CONVERSIONS:
Metric units are used where possible in this report.

- 1 kg = 2.2046 lb
- 1 lb = 0.4536 Kg
- 1 ha = 2.471 Acres
- 1 acre = 0.4047 Ha
The Ghanaian cedi was redenominated in July 2007 with GH¢10,000 re-set to GH¢1. Since then, the cedi has fallen in value from 0.946/USD to 1.472/USD and from 1.297/€ to 2.146/€.

For this report, exchange rates of GH¢1.5/USD and GH¢2.1/€ are used.
PART I - SCOPING REVIEW

Prepared for
World Bank Sustainable Development Network (WB-SDN)
Africa Region, Agriculture and Rural Development (AFTAR),
The Republic of Ghana Ministry of Food and Agriculture,
and
European Union All ACP Agricultural Commodities
Programme (EU-AAACP)

Prepared by
Accord Associates LLP
(jaeger@accordassoc.biz)
2008
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In the last twenty years Ghana has developed a significant export of fresh produce to Europe. Bananas, pineapples, mangoes, and papaya lead the fruit exports while yams, chillies, and Asian vegetables head the vegetable trade. The European Union imported almost 90,000 tonnes of fresh produce from Ghana in 2007, which earned the Ghanaian horticulture cluster some €80 million CIF. These “non-traditional” exports contribute employment, fiscal revenue, and foreign exchange to the economy. As a result, policy makers and development partners have looked to support export horticulture as a diversification of the export base and an opportunity to improve rural livelihoods. The origins of this industry in Ghana lie in the Structural Adjustment Programme and liberalization strategies of the 1980s. Donors and NGOs provided support through the 1990s and the industry has been integrated into agricultural and development policy in the new millennium.

In 1998 the World Bank, in collaboration with the Ministry of Food and Agriculture (MoFA), commissioned a short study of the sector to review the opportunities, identify the constraints and suggest strategies and infrastructural improvements to take fresh produce exports forward. A similar exercise was conducted in 2003 as part of the restructuring of the World Bank-funded Agricultural Services Sub-Sector Investment Programme (AgSSIP) within the Ministry of Food and Agriculture. This second appraisal of the industry led to the development of a strong horticultural component to AgSSIP under the Horticultural Exports Industry Initiative (HEII) within MoFA.

Since 2003 the Ghanaian horticultural export sector has been subjected to a severe upheaval: European demand for the traditional West African pineapple variety evaporated and European retailers adopted stricter private standards for retailing fresh produce. HEII and other donor programs have been able to support these changes and contribute to infrastructural improvements, and the horticultural export industry now looks rather different. Tables I.1.1 and I.1.2 provide some headline numbers of progress since 2001. The data indicate the difficulties in the pineapple trade, the appearance of bananas as important exports, and the growth in mango and chilli exports.

At the same time the institutional environment has also changed: HEII, which raised the profile of the sector, has completed its implementation and evolved into a further program

### TABLE I.1: EU Imports of Selected Fruit (tonnes)

<table>
<thead>
<tr>
<th></th>
<th>TOTAL EU IMPORTS</th>
<th>EU IMPORTS FROM GHANA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BANANAS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3,801,895</td>
<td>4,682,893</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PINEAPPLES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>374,748</td>
<td>829,243</td>
</tr>
<tr>
<td><strong>PAPAYA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18,848</td>
<td>36,481</td>
</tr>
<tr>
<td><strong>Mangoes, guavas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and mangosteens</td>
<td>136,830</td>
<td>211,570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>62,569,870</td>
<td></td>
</tr>
</tbody>
</table>

Source: EUROSTAT

3. Notably, the TIPCEE program has been at the forefront of supporting change for industry participants.
4. Start date chosen for a longer time series, but a similar pattern is seen since 2003.
of support (EMQAP) funded by the African Development Bank; several donors including the World Bank have moved towards budget support strategies and, most significantly, the U.S. government’s Millennium Challenge Fund has initiated a $547 million program in Ghana with a strong agricultural, indeed horticultural, component.

What then is the current potential for the Ghanaian horticultural export industry? What is planned in policy, infrastructure, investment, and support to achieve this potential? What strategies will take the cluster forward? To answer these questions a two stage exercise has been planned. This section of the report provides an analysis of the recent evolution of Ghana’s horticultural export cluster, which entailed a comprehensive “scoping” study to take stock of the evolution of the horticultural cluster since the HEII was first conceived, both in terms of the supply side in Ghana and the demand side in Europe. Based on these observations, and the definition of the problems, issues, and constraints, a strategy was then designed in the second stage to take the cluster to the next development phase over the following five year period.

This study will not review the entire span of the Ghanaian horticultural industry. Much of the agricultural activity that could be defined as horticulture is aimed at supplying the local market with a range of fruits and vegetables. Some of these products will also find their way into a regional supply chain that takes them beyond the Ghanaian border and therefore qualify as exports. But these markets are not substantially different from the local markets: the supply chains are essentially the same; the markets do not differ significantly in their particular requirements and the decision to export or not rests with the traders and market women.

A very small portion of Ghanaian horticultural output is aimed at exploiting more distant markets. For the most part, this means Europe. There are some opportunities in the Middle East or the Maghreb but these are quite minor, and Ghana has no comparative advantages over other sources supplying the North American or Far Eastern markets. As subsidiary opportunities, the second phase can look at these markets in more detail if needed.

This report, then, is focussed on the ability of the Ghanaian horticultural produce industry to exploit the European market; and if not, then where are the constraints?

| TABLE I.1.2: EU Imports of Selected Vegetables (tonnes) |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | TOTAL EU IMPORTS | EU IMPORTS FROM GHANA |
| Capsicums (chilies) | 25,486 | 35,833 | 41% | 418 | 2,947 | 1.64% | 8.22% | 5,835,875 |
| Other Vegetables | 67,347 | 74,933 | 11% | 6,511 | 2,565 | 9.67% | 3.42% | 4,140,256 |
| Babycorn | 4,965 | 6,509 | 31% | 1 | 8 | 0.02% | 0.12% | 9,283 |
| Ravaya | 375 | 2,438 | 550% | 97 | 174 | 25.90% | 7.12% | 357,125 |
| Yams | 16,197 | 21,268 | 31% | 7,756 | 11,048 | 47.88% | 51.95% | 5,372,009 |
| Cassava | 8,525 | 23,312 | 173% | 117 | 2,076 | 1.37% | 9.90% | 1,388,888 |
| Sweet Potatoes | 16,031 | 51,619 | 222% | 51 | 26 | 0.32% | 0.05% | 26,891 |
| TOTAL | 17,130,327 | | | | | | | |

Source: EUROSTAT

5. These markets are more usually supplied from India and Pakistan or East Africa. For example, of the 70,000 tonnes of mangoes imported to the UAE in 2005, India supplied 27,700 tonnes, Pakistan 37,000 tonnes, and Kenya 2,000 tonnes. Similarly, of the 48,300 tonnes of imports of mangoes into Saudi Arabia in 2006, Yemen, Pakistan, India, and Egypt collectively supplied 92%. Ghana has few advantages in these markets.
This chapter reviews the main changes that have taken place in the cluster over the past five years. Rather than describe the background and underlying structure again, a list of reports and studies of the Ghanaian horticultural cluster is included in the bibliography in Annex VI.

2.1 KEY ASPECTS OF CHANGE 2003–2008

The range of fruit and vegetables produced in Ghana for export has not altered significantly. However, there have been some important alterations in the output of individual crops and in the cluster participants. To give an overview, the most important changes are listed below; individual topics are then discussed in more detail.

1. Golden Exotics Ltd, a subsidiary of the group Compagnie Fruitière, was incorporated in Ghana in 2003 and began production of pineapple and banana. The company now dominates the sector and is responsible for 88% of banana exports and 40% of fresh pineapple exports.

2. Other foreign investors in the sector include a juice manufacturer, Pinora, and the Swiss fruit distributor, HPW. HPW groups five exporters under a marketing umbrella and jointly accounts for another 40% of Ghanaian fresh pineapple exports. The approach by Chiquita to develop a $40 million banana investment failed through lack of interest in Ghana, and Chiquita found partners in Angola and Mozambique instead.

3. Substantial local investments include the replacement of existing pineapple planting stock, the development of mango plantings and the installation of cold stores and pack houses.

4. Banana exports have expanded from below 5,000 tonnes to around 35,000 tonnes.

5. The European demand for traditional pineapple varieties evaporated in favor of the MD2. The new variety has been multiplied and disbursed by the HEII program. The changeover seriously affected the ability of many producers to grow for export since the new variety requires a higher level of husbandry and inputs. The TIPCEE program has carried out farmer training and the technology is available although there is evidence that a proportion of growers have withdrawn from pineapples.

6. The number of pineapple exporters has dropped dramatically. In particular, Farmapine, the export operation owned by smallholders, is no longer active. On the import side, Schumacher, the German importer and distributor formerly responsible for handling the greater part of Ghanaian pineapple exports, is now a minor player.

7. Mango output is growing with the development of projects around Tamale in the north.

8. HEII completed the refurbishment of Shed 9, the fruit export shed at the port of Tema, with the installation of cooling and cold storage facilities throughout the shed. Despite completion in April 2007 negotiations over management issues delayed the operation.

9. On-farm pack houses and cooling facilities have been installed by some private players.

10. Those pineapple exporters still in business have mostly gone over to Fair Trade certification in order to maintain a presence in the European market.

11. The GlobalGAP standard has been widely adopted in the export cluster. This was imperative for continued access to European retailers.

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1. See Annex IV. GlobalGAP is a re-branding of EUREP GAP, the European retailers protocol for good agricultural practice.
12. HEII funded the upgrading of the Ghana Standards Board laboratories to a pesticide residue analysis laboratory with new equipment. The Ghana Standards Board has published norms and standards for a number of crops.

13. A number of the trade associations are in a much weaker state than previously. In the case of SPEG, this reflects the difficulties in the pineapple industry, while HAG and FAGE need a stronger definition of mission. A number of new trade associations have been created. A National Horticultural Task Force now provides a forum for private and public oversight of the industry.

14. A number of NGOs and donor programs have been aimed at the cluster since 2003, most notably TIPCEE. The HEII program was completed and evolved into EMQAP. See Annex I and the section “Donor Projects Oriented Towards Export Horticulture 2008,” later in this chapter.

15. Beginning in 2008 the Millennium Challenge Account of $547 million gets underway with its Agricultural Transformation Program. Horticulture is a significant component.

16. Processing of fruit for export has further developed with the expansion of the Blue Skies, HPW and PeelCo fresh-cut operations and the development of the Pinora juicing plant.

2.2 THE CROP PORTFOLIO 2003–2008

2.2.1 PINEAPPLES

- The last five years have been traumatic for the Ghanaian pineapple industry. The European demand for the traditional Smooth Cayenne variety disappeared in a short time and simultaneously the requirement for EUREP GAP certification became widespread.

- The consequence is a landscape depleted of active participants. Smallholder export of pineapples has closed down. There are now only eight significant exporting members of SPEG where five years ago there were over 40 active exporters.

- Among the casualties are the smallholder owners of Farmapine, established by the World Bank on the Farmer Ownership Model.

- The smallholder pineapple sector has been hit particularly hard because they were reliant on exporters supplementing their own production to make up volumes. As these players were unable to maintain a market presence in the switchover there were no buyers for the smallholder output. Further, MD2 requires substantial investment: not only are the plantlets expensive, but the cultivation requires the use of more inputs.

- It was the speed of withdrawal of demand for Smooth Cayenne that hit the Ghanaian industry hard. Earlier market surveys had indicated that in a comparison of Ghanaian and Central American (Costa Rica) products, importers were less concerned about the variety than the performance of the Ghanaian exporters and the quality on delivery. Indeed, a consumer survey for GHPPP showed no significant preference between Smooth Cayenne and MD2 in a sample, albeit small, of shoppers. But exporters suddenly found themselves without a market even as the MD2 program of multiplication was underway.

- European imports of whole pineapples from Ghana have fallen from 44,000 tonnes in 2003 to 35,000 tonnes in 2007 (Figure I.2.1). In this same period Compagnie Fruitière established Golden Exotics in Ghana and has created export production of 15,000 tonnes. In other words, the imports from the

FIGURE I.2.1: EU Imports of Pineapple from Ghana

![Graph showing EU imports of pineapple from Ghana from 2000 to 2007.](image)

Source: EUROSTAT

established Ghanaian producers fell by 55% to 20,000 tonnes.³

- Even exports by air were hit as Smooth Cayenne supplies diminished. There is no advantage to shipping MD2 by air since its value lies in the high sugar levels available well before full ripeness which allows it to be picked earlier and shipped but still be sweet to the consumer.⁴

- Set against this scene are some positive developments: the roll out of MD2 is largely done and material is widely available at a manageable cost, the production protocols are better understood, 100% of exports are GlobalGAP certified, Blue Skies are buying and cutting increasing quantities of pineapple. The Blue Skies exports of 5,000 tonnes of pineapples equate to 15,000 tonnes of whole fruit.

- The industry probably reached a nadir in 2007. From here the surviving exporters can go forward: Golden Exotics will likely expand. The other SPEG members can build on their increasing technical skills with the new variety and on their steadily improving infrastructure (supported by EMQAP and MiDA). The smallholder sector can regroup around the opportunities for the traditional varieties to supply the local market, the processors (the juice yield of Smooth Cayenne is significantly greater than MD2) and the still present demand for farm ripened air-freighted Smooth Cayenne.

### 2.2.2 BANANAS

- The banana export business is dominated by Golden Exotics. Output in 2007 was 35,000 tonnes. The currently planted area of 820 ha could be doubled.

- VREL have been growing and exporting bananas for many years in Volta Region. VREL maintain a niche in the EU organic banana market.

- The attempt by Chiquita to invest in banana production in Ghana is described below. See Section 2.3.12 below.

### 2.2.3 MANGOES

- Mangoes are finally coming forward after years of insignificant sales to Europe. Sea-shipment is growing, and more mangoes were exported by sea in 2007 than by air.

- Whole fruit exports finally reached 1,000 tonnes in 2007 up from about 80 tonnes in 2003. Blue Skies are buying mangoes for fresh cut exports. The local market is also growing.

- Production is divided into three disjunctive zones: the older plantings are in the South while new developments are taking place in Brong Ahafo and the North. The NGO, ADRA, have been active in spreading the cultivation of mangoes.

- Production in the South is expanding and there are now over 600 farms. As of April 2008 a total of 161 farms (covering 983 ha) have been certified to GlobalGAP under the Option 2 scheme. Further farms are going through the process in 2008. One farm (49 ha) is certified to Option 1.

- Control measures against anthracnose and also stone weevil are succeeding. Fruit fly remains a problem.

- Southern production is heavily biased towards the Keitt variety (estimated at 87%) with the consequence that the harvest and export season is short.

- The nucleus farm development of ITFC near Tamale, with 1,300 smallholders, is beginning to yield. All organic. This should extend the supply season of “Ghanaian” mango.

- Production in Brong Ahafo is supported by the MOAP programme.

### 2.2.4 PAPAYA

- Papaya exports to Europe declined from 1,650 tonnes in 2003 to 1,050 tonnes in 2007. Sea shipments were tried but have fallen away again to insignificant levels.

- Golden Exotics took over Paradise Farms and switched entirely to pineapple production: there were already difficulties with the Compagnie Fruitière papaya production in Côte d’Ivoire and the Paradise Farm location was felt to be less than ideal. Jei River is no longer producing papaya.

- Tropigha, marketing through Schumacher, and Dansak, remain the major suppliers.

- Papaya production in Ghana requires irrigation and the crop is not easily adopted by smallholders.

- Any strategy for further expansion of papaya in Ghana must review the balance between the high-class offering of the air-freighted types currently grown, and the lower cost alternative of the “Golden” variety which is amenable to sea-freighting and now leads Brazilian output.

³ An additional 2,500 to 3,800 tonnes arrives each year by “unknown mode.” These are not shown in Figure I.2.1 and this accounts for the small discrepancy between the data in Figure I.2.1 and the import data used elsewhere in this report.

⁴ The Smooth Cayenne on the other hand benefits from being allowed to attain full ripeness before harvesting and is then better shipped by air.
2.2.5 MISCELLANEOUS FRUITS
- A number of other tropical fruit crops, such as passion fruit, avocados or lychees, are produced in minor quantities for export or experimentally.

2.2.6 CHILLIES
- European imports of Ghanaian chillies have risen from 500 tonnes in 2003 to 3,000 tonnes in 2007.
- New varieties have been introduced.
- The produce is not reaching the higher priced supermarket sector and the increase in sales may reflect the move of the Kenya exporters into the premium end of the market, but it seems also that the demand for air-freighted loose chillies has increased suddenly (figure I.2.2).

FIGURE I.2.2: EU Imports of Capsicums by Air

![EU Imports of Capsicums by Air](chart.png)

Source: EUROSTAT

2.2.7 ASIAN VEGETABLES
- Imports to Europe of Asian vegetables from Ghana have fallen for the last two years. The cause is not clear, but there has been little growth in the trade of these products.
- Mostly, the Asian vegetables are for the UK market, and no significant growth is expected here. The trade tends to be low value and aimed at the communities of immigrant population who may now be in the second or third generation with a diminishing interest in ethnic cuisine.
- There has been no significant cross-over of these vegetables into mainstream shopping or the catering trade.
- One of the few products that are now in the supermarkets is okra and volumes here may grow. A variety with promising virus tolerance levels has been distributed to farmers and is being monitored.

2.2.8 ROOTS AND TUBERS
- Yams, cassava, and sweet potatoes are included here. Although all three are lower value root crops, there are important differences in the European markets: sweet potatoes are now incorporated into the mainstream supermarket offering, at least in northern Europe while cassava and yams remain in the less regulated, less selective ethnic markets.
- Exports of sweet potato are quite minor, rising in 2005 to some 600 tonnes but falling away again the following year to 300 tonnes of which only 120 tonnes were imported to Europe. The variety, Beauregard, which has pest resistant qualities and is popular in Europe, has been introduced, but any progress in the European market will depend on competing directly with suppliers from the U.S. and Israel, who share the EU market quite evenly.
- Ghanaian yams are successful. The unit value is low, and so the product tends to be overlooked in commentary on the Ghanaian horticultural scene, but imports to the EU from Ghana have grown significantly, from 8,000 tonnes in 2003 to 11,500 tonnes in 2006, with an increase in market share from 46% to 52%. With further exports to the U.S. the total exports exceed 16,000 tonnes. Imports to the EU from Ghana are valued at some €8 million.
- Cassava exports from Ghana have grown quite strongly. The EU imported 2,800 tonnes in 2006, up from 800 tonnes in 2003.

2.2.9 MISCELLANEOUS VEGETABLES
- Of the other minor vegetable exports, ravaya (baby aubergines) may offer some opportunity. Ghanaian exports to Europe have increased gradually from 113 tonnes in 2003 to 175 tonnes in 2007. Over the same period, imports to Europe have risen from 530 tonnes to around 2,400 tonnes, with Kenya leading the suppliers.
- Baby corn and herbs may offer some potential and some trials are underway.

2.2.10 PLANTS, FLOWERS AND FOLIAGE
- Ghana Fresh Produce Ltd, the only exporter of flowers in 2003, appears to have ceased trading.
- A Dutch investment, by Gold Coast Foliage Ltd, of 0.6 million in foliage production in Central Region began exports in 2007.
- The tissue culture laboratories at Sogakope, formerly with Tongu Fruits, are now producing plantlets of various tropical plant species for export to Holland.

5. Including cocoyams, though these volumes are small.
2.3 COMPANIES AND INVESTMENTS IN 2008

Three companies now dominate the pineapple export trade: Compagnie Fruitière of France is the largest producer with its investment in Golden Exotics; HPW of Switzerland acts as a marketing umbrella for five Ghanaian producer/exporters; and Blue Skies of the United Kingdom processes some 15,000 tonnes of pineapples at Nsawam for export as fresh cut product. In 2007, over 80% of pineapples destined for export, either whole or processed, were handled by these three companies.

There has been a major decline in other players in the market. There remain a handful of SPEG members, such as Koranco and Chartered Impex, still operating independently in the fresh pineapple export trade. The switch in demand to MD2 and the imposition of GlobalGAP as a requirement dealt a further blow to companies already struggling to compete against the Central and South American suppliers. Their demise highlights the difficulty of outgrower-based exporters competing in the fresh produce market: not only are the efficiencies of the grower exporters hard to match but the performance and agility standards are challenging when coordinating different suppliers.

Citrus processing has seen investment in Pinora. Existing processors such as Coastal Groves and Athena Foods continue to operate in the sector. Athena Foods has become a supplier of pineapple concentrate to Coca Cola Nigeria.

In the vegetable and tuber export trade, the business is carried out by a number of players with little change from the situation five years ago.

The major changes, positive and negative, among the players over the past five years are discussed below. This does not include all those farms that have invested in new planting material or upgraded facilities for GlobalGAP certification.

2.3.1 COMPAGNIE FRUITIÈRE

Established in 1939, Compagnie Fruitière\(^6\) is one of the major fresh fruit distributors in Europe. From the early 1970s the company has invested in plantations in West Africa, and it is now the leading fruit producer in the ACP region with 350,000 tonnes of bananas, 80,000 tonnes of pineapples and 10,000 tonnes of papaya and other minor products. In 1992 Dole took a 40% share in the capital of the company. Compagnie Fruitière has a UK based distribution operation as well as an integrated logistic operation in Africa Express Line,\(^7\) which manages the shipping of 900,000 pallets per year.

The deteriorating political situation in Côte d’Ivoire provoked Compagnie Fruitière to invest in Ghana in 2003. The company purchased the holding of Paradise Farms near Nsawam, which had been focussed on papaya production, and began operations as Golden Exotics Ltd. The farm is now planted with 350 ha of MD2 pineapples and produced 15,000 tonnes of pineapples in 2007. Another 850 ha are available for development.

In 2005 Compagnie Fruitière developed the Kasunya Farm to the north east of Accra with 820 ha of banana. Production in 2007 reached 35,000 tonnes. A further 1,200 ha is available for development. As of 2007 Golden Exotics Ltd was responsible for 88% of Ghanaian banana exports to Europe and 40% of Ghanaian fresh pineapple exports. Clearly, the development at Shed 9 in Tema would be most useful for the company.

Compagnie Fruitière had invested €25 million by the end of 2006 in developing their Ghanaian operations. The production is fully compliant with GlobalGAP standards and indeed is unusual in being a Gold accredited supplier to Tesco’s Nature’s Choice standard. The Ghanaian operation is small compared to the Compagnie Fruitière plantations in either Cameroon or Côte d’Ivoire, but with political uncertainty in both countries the Ghanaian investment is an important insurance.

At present, the AEL shipping line no longer runs to northern Europe from West Africa, but discharges in Port Vendres in Southern France. As a result, the Compagnie Fruitière production is rarely sold in the UK since trucking from southern France is too expensive. The pineapples and bananas from Ghana are sold across southern Europe through the multiples under the Compagnie Fruitière brand rather than as Ghanaian produce. Sales in the UK are mostly of the Fair Trade certified product sourced from HPW.

The Golden Exotics operation is estimated to provide some 11,000 jobs in Ghana with about 2,200 employed directly in production. The production is likely to expand. The arrival and establishment of Compagnie Fruitière in Ghana has been a key development in the horticultural cluster. The scale of the crisis in the pineapple trade is quite clear when the Golden Exotics figures are removed from the data, and the presence

\(^6\) http://www.fruitiere.fr/

\(^7\) http://www.africaexpressline.com/
and expansion of the Ghanaian fruit in the European, albeit southern, retailers is a boost for marketing Ghana produce.

2.3.2 HPW AND BOMARTS

HPW AG is a Swiss based company specializing in the marketing of Fair Trade and organic tropical produce. The company is owned by its founder Hans Peter Werder, who began marketing Ghanaian product in 2000 through a partnership with the Ghanaian exporter Bomarts.

Bomarts is a Ghanaian company that has been producing pineapples since the mid 1980s and started exports not long after. The company is a member of SPEG and among the first to introduce MD2 pineapples into Ghana. Bomarts became the main supplier to the government of MD2 plantlets from its tissue culture laboratories.

Bomarts achieved Fair Trade certification at a time when demand, notably in Switzerland, was growing rapidly. Since Bomarts was unable to supply sufficient volume from Ghana, a second Ghanaian exporter, Milani, was taken on to supplement supplies. As HPW expanded into supplying the UK as well, other Ghanaian exporters were brought in under the HPW umbrella.

In 2006 HPW formed HPW Fair Trade Ghana Ltd and employs 14 agronomists and export specialists. The staff provide technical support to farms, a central quality management service, centralized procurement of inputs from fertilizer to cartons, financial support and a small experimental farm to trial other tropical fruit production.

HPW now encompasses five Ghanaian operations: Bomarts Farms Ltd, Milani Ltd, Jei River Ltd, Georgefield Ltd, and Tacks Farm Ltd. All are Fair Trade and GlobalGAP certified; Tacks Farm is also an organic producer. Total output of the group was over 15,000 tonnes of pineapples in 2007 of which 12,000 tonnes were sent by sea and 3,500 tonnes by air. The latter were Smooth Cayenne for the demand still present in Europe. A pack house and blast-chiller have been installed on some 4,000–5,000 tonnes capacity. VREL is also working on developing a capability with organic MD2 pineapple production using some 30 ha under the independent management of some of its staff.

HPW has also moved into fresh-cut fruit and now has cutting and packing operations in Ghana, Egypt, and South Africa, which is incidentally a similar arrangement to the Blue Skies distribution of processing facilities.

Fair Trade fruits are principally retailed in Switzerland, the UK, and Belgium. The pineapples are sold through the major multiples such as Coop in Switzerland, Tesco, Asda, Morrison, and Marks and Spencer in the UK, and Delhaize in Belgium. There is little current expansion in Fair Trade in these markets, but Germany has good potential and the Fair Trade label has significant further opportunity. That said, Costa Rica also produces Fair Trade product and could swamp the market at any time and so HPW is looking to expand into programmed retail sales as the technical capability of its operation in Ghana develop. The individual members have the freedom to sell independently, should HPW be unable to handle the total output.

2.3.3 WIENCO

Wienco is a Ghanaian–Dutch joint venture established in 1979 to carry out business in the agricultural sector. The core business of the group is the import and distribution of fertilizers but the company is also involved in cocoa, cotton and warehousing.

From 1988 the Wienco subsidiary, Volta River Estates Ltd (VREL) was the major banana producer and exporter from Ghana, making use of the Ghanaian quota to supply bananas to the EU as Fair Trade certified, until production was almost wiped out by storms in 2002. The plantation was subsequently relaunched as organic. While Ghanaian banana exports are now led by Golden Exotics, VREL remains a niche player with some 4,000–5,000 tonnes capacity. VREL is also working on developing a capability with organic MD2 pineapple production using some 30 ha under the independent management of some of its staff.

Wienco has spent eight years developing organic mango output in the Northern Region under the subsidiary Integrated Tamale Fruit Company (ITFC). Currently, ITFC has a nucleus farm of some 160 ha based on Zill, Amelie, Kent, and Keitt varieties of mango, and about 1,400 outgrowers. About 25% of the area is drip-irrigated and there are plans for full coverage. Early problems with the stone weevil appear to have been solved and exports are gradually increasing, reaching 300 tonnes in 2007 mostly to the mid East (Lebanon and Egypt). A target of 10,000–15,000 tonnes by 2015 is planned.

2.3.4 SCHUMACHER

Schumacher is a tropical fruit distributor based in southern Germany. Previously a force in marketing Ghanaian


pineapples, Schumacher is now barely involved. A change of management in 2006 at Jei River Ltd, once the major exporter of pineapples, broke Schumacher’s principal link with the industry. Schumacher continues to market fruit from Ghana, mostly papaya, through a connection with Tropigha, and passion fruit; but the switch to MD2 and the alliance of a number of players with HPW has reduced the pineapple trade. Schumacher also maintains three farms in Ghana and has invested in Peelco Ltd\(^\text{12}\) to produce fresh-cut fruits.

### 2.3.5 BLUE SKIES

Blue Skies\(^\text{13}\) was founded in 1998 with a factory just outside Nsawam in the pineapple zone. The company was established to prepare, pack, and export pineapples for the UK market. While Ghana remains the flagship project, Blue Skies has developed other facilities in Egypt, South Africa, and Brazil in order to provide a portfolio of product throughout the year. The company has grown to handle some 25% of Ghanaian pineapple exports, cutting some 15,000 tonnes per year and sending 5,000 tonnes of prepared product to Europe. The Ghanaian operation also supplies mango, papaya and coconut.

Most of the product is sold through UK retailers and Blue Skies is certified to meet both the general GlobalGAP standards as well as the individual labels of the different retailers, such as Waitrose or Leaf. Fair Trade is not an important segment of the fresh-cut market but Blue Skies is a certified producer as well as producing organic product. The company has recently started to offer a Waitrose Caretrace\(^\text{14}\) labelling service whereby the consumer can trace the individual purchase back to the farmer.

All fresh-cut products must be air-freighted. In the absence of appropriate cold store facilities at the airport, Kotoka, the company uses two refrigerated shipping containers on the apron. The produce is moved from the farm in refrigerated trucks to the airport and once cleared for export is held in the containers, airside of the cargo terminal, until the plane is ready for loading.

### 2.3.6 PINORA

Pinora\(^\text{15}\) is a German-Ghanaian venture processing pineapples and oranges into frozen juice concentrates for export. The company is based in Asamankase, to the west of Nsawam, in a newly built installation. The company was established by the German juice processor, blender and dealer, TWG Tradework GmbH\(^\text{16}\) in 2005 in order to secure a supply of pineapple juice.

The investment to date is estimated at some €10 million and the company now buys from about 25,000 farmers. South African management operates the plant with technical assistance from Brazilian technicians. In the course of setting up, the company realized the potential of the extensive orange groves in the Central and Western Regions to provide feedstock for the factory and have expanded into orange juice. The company buys from a large area from Takoradi and beyond in the West to beyond Kumasi and into Brong Ahafo in the North West. Oranges may be collected or delivered direct but securing transport remains a major bottleneck.

Prices are set weekly or monthly, and the General Manager, Kay Jacobs, reports that their prices are now becoming a reference among orange traders. Pinora processed some 30,000 tonnes of oranges in 2007. It has the capacity to process almost 30,000 tonnes of pineapples but supply has become a problem: the company cannot secure sufficient Smooth Cayenne pineapples and only managed some 5,000 tonnes last year.

### 2.3.7 GOLD COAST FRUITS

Gold Coast Fruits\(^\text{17}\) is a Ghanaian–German joint investment in a 600 ha pineapple farm in the Nsawam area. The company also uses outgrowers to supply mango and papaya. The company supplies fresh fruit as well as fresh-cut products. Gold Coast Fruits is registered as a Free Zone.\(^\text{18}\)

### 2.3.8 BIO EXOTICA

Bio Exotica\(^\text{19}\) is a $2 million Ghanaian-Dutch investment that has established a farm for producing organic pineapple on the shores of Lake Volta. The project is in part funded by the Dutch Programme for Co-operation with Emerging Markets (PSOM). The aim is an output of some 1,800 tonnes per year.

### 2.3.9 GOLD COAST FOLIAGE LTD

Gold Coast Foliage Ltd has established a €600,000 project at Ekumfi Suprodo, near Mankessim in the Central Region.

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17. http://goldcoastfruits.com/
18. Free Zone companies are companies that operate in Ghana but are outside Ghana’s custom territory. Free Zone enclaves can be located anywhere in Ghana on approval of Ghana Free Zones Board.
The project, which started production two years ago with a work force of 126, aims to grow green foliage for export for the production of bouquets. The project is based on 102 ha of land of which 10 ha has so far been developed.

### 2.3.10 TONGU FRUITS, VIAD AND SBW

An operation based in Volta Region, Tongu Fruits was an important component of the fresh produce landscape in 2003. Previously the company was preparing fresh-cut fruits for exports. That activity is believed to have ceased but the company is still involved in pineapple and mango production under its new owner Volta Integrated Agriculture Development Co Ltd (VIAD). The company also operated a tissue culture facility and was one of the suppliers of plantlets of MD2. The tissue culture facility is now believed to be owned by SBW International of Holland. The laboratory has the capacity to produce approximately 12 million tissue culture plants per year; large scale production activities are carried out for lily, Zantedeschia, Gerbera, Anthurium and bromeliads for export to Holland.

### 2.3.11 FARMAPINE

Nine years after its foundation, the World Bank sponsored pineapple producer and exporter, Farmapine, collapsed. The pack house closed in 2006 and the newspapers reported the demise of the company in August 2007 after some negotiations regarding the debt. In 2003 Farmapine was the second largest (after Jei River) exporter of pineapples. The company, based on the Farmer Ownership Model (FOM), appears to have struggled under management issues for some time, not only running a top heavy administration that ate into the farmer’s revenue, but also suffering from farmer members side selling to other exporters. The loss of the market in Europe, as customers demanded MD2 in preference to the Smooth Cayenne that the 300 or so member farmers produced, was evidently the final blow.

Pinora attempted to mitigate the effects on the local population by offering to buy pineapples from the members but were unable to do so either from lack of agreement or because farmers had abandoned pineapples.

Given the World Bank backing for FOMs, and the lessons that might be learned of the difficulties of management in this model, a more thorough history should be researched and written.

### 2.3.12 CHIQUITA

Although Chiquita has not invested in Ghana, its interest in and efforts to do so are instructive. Chiquita,\(^{21}\) with annual revenues of $4 billion, is one of the top three corporate players in the world banana trade. They are the most important supplier to Europe and second most important in the U.S. Chiquita has extensive plantations in Central America.

Chiquita declared an interest in developing some 8,000 ha of banana production in Africa in order to mitigate the risks of producing in only one geographical region. Chiquita has a small plantation in Côte d’Ivoire, but the country is not currently attractive for expansion. Chiquita came to Ghana to investigate the possibility of developing production through an alliance with local entrepreneurs. The company reports that they were most impressed by the encouragement provided by the government, which evidently welcomed the prospect of such an investment. It also reported a very favorable opinion of the infrastructure, with good roads in the Volta Region and an “excellent” cold store at the port.

Chiquita staff made a number of visits to the country, not only to assess the agro-ecologic factors, but also to seek out partners. The Chiquita model provides potential partners with plans, technical support, logistics, and a 10 to 15-year marketing agreement. The partner should be able to use this to secure financing for the development of the project.

Chiquita was unable to find any potential partners in Ghana interested in developing this opportunity.

Chiquita subsequently found partners and financing in Angola and Mozambique, neither of which have the sea-freight advantages offered by Ghana.

The scale of this failure should be appreciated. A 2,000 ha development would provide 2,000 direct jobs and 10,000 indirect jobs throughout the supply chain. The foreign exchange earnings would be of the order of $29 million with an annual impact on GNP in excess of $100 million (assuming a five-fold GNP multiplier). The impact on services in terms of trucking, port services, and sea-freight would be very substantial.

Chiquita is still looking for plantation opportunities in Africa and could yet return to Ghana if a suitable partner were to come forward.

\(^{20}\) http://www.stbw.nl/

\(^{21}\) http://www.chiquita.com/
2.4 INFRASTRUCTURE EVOLUTION

2.4.1 POWER
The distribution network is clearly improving but on-farm power supplies are still reported to be difficult and expensive.

2.4.2 IRRIGATION
There have been no large scale developments of irrigation since 2003. Several private initiatives however have been completed and Golden Exotics and ITFC have both installed extensive irrigation. The MiDA plans some wells and boreholes.

2.4.3 PACK HOUSES AND COOLING FACILITIES
There are now a number of pack houses and cold stores around the southern producing belt. To date, these are all, with the exception of Shed 9, private facilities built by a number of companies such as Bomarts, VREL, Milani and Golden Exotics. These will be supplemented shortly by EMQAP, EDIF and MiDA all of whom are planning public facilities. With the demise of some operations there are also facilities not in use: examples include the cold stores of John Lawrence Farms as well as the Equatorial and Farmapine packing facilities.

2.4.4 ROADS
The poor state of the roads continues to add to the costs of export, not only in direct vehicle costs but also in time and damage to the produce. The road system is a particular concern for investors relying on outgrowers, such as Pinora who buy throughout Central Region and into the neighbouring regions. They report the need for head loading to position product where their trucks can collect. EMQAP and MiDA have infrastructural components aimed at upgrading roadways.

2.4.5 SEAPORT
The major change at the port, and an important achievement of HEII, is the refurbishment of the fruit export shed at Tema, Shed 9. Cold storage for up to 1360 pallets has been installed. The major works were completed in May/June 2007 but the facility has yet to be used. As of April 2008 there were still some minor works in progress (construction of access steps and a toilet block) but the facility was ready to use, and, indeed, had been for nine months.

Since the mid-1990s, when sea-freighting of pineapples from Ghana began, Shed 9 at Tema port has been used as the export shed for offloading, palletizing, controlling and holding of pineapples. The World Bank report of 2003 wrote “…Shed 9 is a closed warehouse of approximately 4,400 m², destined to handle export goods, of which SPEG is currently leasing half of the floor space (2,200 m²) from GPHA. The shed was initially designed for non-perishable items and is not adequately ventilated. This results in a differential of +5 deg C with the outside temperature. This has an adverse effect on fruit stored in the shed prior to the ship’s arrival. ....”

The refurbishment of Shed 9 became a key component of HEII. Plans incorporated improved ventilation throughout with a cooling facility at one end in addition to reefer container handling, stuffing and plugging capability. As the concurrent program of developing MD2 production moved on, it became apparent that there would be a much bigger need for cold storage at the port, particularly with the development of incoming investors such as Compagnie Frutièrè and their banana production. The HEII plans were amended to convert the whole of the space at Shed 9 into cold storage (in eight units of about 500m² each), and the budget was expanded by cancelling some other projects within HEII. Among those infrastructural components sacrificed were the planned alterations for Kotoka International Airport (air-freight of pineapples was likely to decline) and the up-country post harvest centres.

Shed 9 is now a world class fruit export terminal. It remains shut, however, while the management and financing of this facility is debated by the stakeholders. The situation appears to be that:

1. GPHA is undergoing privatization. The container terminal has been taken over by a consortium of A P Moeller and the Bollore group (as Meridien Port Services) with GPHA maintaining a minority interest. Similarly, nine private operators are now licensed to provide stevedoring and shore-handling services. In the process of privatization, particularly the container terminal, a number of sheds and warehouses are no longer available. GPHA is looking to the management of Shed 9 to pay a “fair” rent for the land and structure which it has given up in allowing the refurbishment. We do not know the scale of the rent anticipated, but Shed 11 is let to the Cocoa Board for $102,000 per year.

22. Voisard and Jaeger.
2. MoFA paid for the refurbishment with funds from the AgSSIP loan. The final cost was $5.81 million (€3.68 million). Issues regarding payment for the use of the facility will be the subject of a concession agreement.

3. SPEG has always charged handling fees to its members which were part of the service of chartering freight space and handling the port operations. They wish this to continue and insist on being a part of the management. SPEG has a high overhead, with 10 staff including five still based at Tema, and will continue to look for royalty payments.

4. Golden Exotics, as part of Compagnie Fruitière and with logistic experience in Cameroon and Côte d’Ivoire, has offered to manage Shed 9 at cost on a number of conditions:
   - There is sufficient throughput;
   - Costs include maintenance;
   - The stevedoring and shore-handling functions are handled by them to keep costs low;
   - They operate the facility with their own staff; and
   - Vessels loading from Shed 9 have priority to dock at berth 9 immediately outside the shed.

A Joint Venture between SPEG and Compagnie Fruitière (actually between SPEG Fruit Terminal Operations LTD and Transit Fruits) was established 12 months ago (MOU April 07) to develop the management of Shed 9 but has so far made no progress. The management situation remains unresolved for any of the above parties.

As of April 2008 the intention is to engage consultants to advise on the long-term management of the Shed. This would be the second consultancy on this topic. In the meantime, the industry is worse off than before. The Shed cannot be used at all as it is entirely taken up with cold stores.

Exporters have been offered the use of Shed 10 but this is evidently even less well ventilated than the original Shed 9 and temperatures are too high.

Consequently, exporters are either delivering directly to the quayside when a vessel is loading, or, with their own blast chillers, are stuffing containers on the farm. Those with Free Zone status (e.g. Bomarts or Milani) can of course complete customs formalities at the farm and do not need to hold product at the port.

Shed 9 must be brought into use as soon as possible. It is also imperative that per pallet charges are minimized. The current high handling charges, with Tema costs, at $15.5/pallet, are substantially higher than Abidjan ($12) or Douala ($8), and must be addressed.

2.4.6 ACCRA AIRPORT

No significant changes to the handling of fresh produce have taken place at the airport. Product is still repacked and palletized on the tarmac of the cargo car park. There is a small shelter at one end but this is of limited use.

Limited cold storage is sometimes available but cannot be relied on so product is generally delivered in a relatively short window before loading can take place. Any mishaps or traffic on the roads could therefore result in missing the flight.

The MiDA program has a component for upgrading facilities at the airport, but it is not certain that this will go ahead.

It would be interesting to assess the scale of losses at the airport: on some occasions consignments must be written off when heavy rain interrupts repacking or palletizing, but more frequently there is simply deterioration in quality that impacts on the reputation and the return to the exporter.

2.5 PRIVATE SECTOR COLLABORATIVE ORGANIZATIONS

The landscape of trade and industry associations has changed since 2003 with the appearance of new groups and the decline in health of others. Overall, there needs to be rationalization: the capability and potential of the clusters would be greatly enhanced by broadening the scope and tackling problems that are common to all those interested in horticultural exports. It is clearly inefficient to maintain separate secretariats and their overheads.

2.5.1 UMBRELLA GROUPS

The National Horticultural Task Force (NHTF) was established in 2003 as a broad-based private sector led group representing produce and marketing organizations, public sector institutions and the donor community. The NHTF maintains a website (www.ghanafreshproduce.org) to share information on business opportunities, regulations, markets, and technology. The NHTF has been instrumental in promoting the
National Quality Assurance Scheme leading to the definition of the GhanaGAP standard.\textsuperscript{23}

The Federation of Associations of Ghanaian Exporters (FAGE)\textsuperscript{24} acts as an umbrella group for the various trade associations and continues as the private sector institution for export development. To some extent, the NHTF seems to have taken over the role of FAGE in the horticultural sector.

Membership of the Horticulturalists’ Association of Ghana (HAG) is declining and the association now counts about 35 members. The role of HAG is even less clear now than five years ago, although the stated aim is to promote Ghana on the horticultural map of the world. The association seems to be repositioning itself to organize group export.

### 2.5.2 PINEAPPLE ASSOCIATION

The Seafreight Pineapple Exporters of Ghana (SPEG) is now in poor shape. In 2004 there were some 40 companies actively exporting pineapples, and membership dues and per pallet charges for sea-freight gave the organization healthy revenue. By 2008 there were no more than 12 active exporters; the General Manager reported that of 26 members only a third had paid their dues from the start of the year. Reserves, which had been building until 2006, are now used up and the overhead of offices and 10 employees is burdensome.

SPEG assisted in the switch over to MD2 pineapples with a $2 million loan from the Government of Ghana. SPEG members travelled to Costa Rica to research the MD2 variety and its production, and brought back plantlets for growing and multiplication. Using the tissue culture laboratories of Bomarts Farms, Tongu Fruits, and the research station at Binari, the plantlets became widely available at a subsidized price. The loan has yet to be repaid, with an average of $30,000 per member owed.

SPEG insists that they should participate in the management of the refurbished Shed 9 at Tema. To this end a Memorandum of Understanding was signed in 2007 with Golden Exotics to develop the management of the facility. SPEG has made no progress since in resolving the issues that prevent the opening of the Shed (see the Seaport section 2.4.5), and indeed it is not obvious that efforts have been made in this direction. This raises the question of whether the general membership is interested in the refurbished facility.

The future role of SPEG is unclear. GTZ, through the MOAP program, is assisting in redefining a strategy for the organization. The changes in SPEG must mirror the radical changes that have taken place in the Ghanaian pineapple industry.

### 2.5.3 VEGETABLE ASSOCIATIONS

The vegetable cluster has now split into two organizations: VEPEAG, the Vegetable Producers and Exporters Association of Ghana formed in 1997, and GAVEX, the Ghana Association of Vegetable Exporters formed in 2006. GAVEX mostly represents the larger exporters, who had become disillusioned with the performance and control of VEPEAG, while VEPEAG is more production oriented.

VEPEAG claims some 500 members but is now trying to restrict membership to those who are active in the industry. The association has formed a marketing company and now exports as a single group. It is operating less as a trade association and more as a cooperative. EDIF is supporting with a pack house in Central Region, which is under construction, as well as power tillers and irrigation equipment, while EMQAP is providing refrigerated trucks.

GAVEX seeks to assist its 22 members to operate as individual export companies. The association looks for support for its members in obtaining GlobalGAP certification and meeting other standards.

The vegetable growers and exporters were reluctant to co-operate five years ago, and they continue to operate independently now. Both organizations report that the profile of the vegetable cluster was raised by HEII, but that little progress was made. It is, perhaps, typical of the industry that VEPEAG reports that trials of the newly-introduced variety of sweet potato, Beauregard, were so successful on the local market that no product was available for export, but one grower reported burying the crop as unmarketable.

### 2.5.4 MANGO AND PAPAYA ASSOCIATIONS

Mango producers have created three organizations since 2003. Two are regional farmer’s associations—Yilo-Krobo Mango Farmers’ Association (YKMFA) and Dangme-West Mango Farmers’ Association (DAMFA)—and one is national—Papaya and Mango Producers’ and Exporters Association of Ghana (PAMPEAG).

The growers’ associations have worked closely with the TIPCEE program, achieving EUREP GAP for all members,

\textsuperscript{23} See Annex IV.
\textsuperscript{24} http://www.ghana-exporter.org/
establishing good traceability through GIS mapping, and
tackling the stone weevil problem.

PAMPEAG, formed in 2003, has taken an alternative route
and has focussed on achieving quality standards. EUREP
GAP is seen as a secondary goal. The association functions
with no external support apart from trade fair attendance.
Members are exporting and in 2007 some 300 tonnes were
sent to the Lebanon and Egypt.

2.6 DONOR PROJECTS ORIENTED TOWARDS
EXPORT HORTICULTURE 2008

Since 2003 there have been various initiatives aimed at
the export horticulture sector. Table I.2.1 lists the most
significant ones and a description of each is provided in
Annex I. There are a number of other horticultural oriented
programs not included here, for example, the new Northern
Rural Growth Programme, funded by IFAD, AfDB, and the
Government of Ghana, which although market oriented
and adopting a value chain approach, is not specifically
concerned with developing exports of high value products.
Note also that a number of donors now provide MoFA with
budgetary support, though none is directed specifically at
horticulture.

The export horticulture sector has benefited from substantial
support over the last five years. The support is about to ex-
pand as the huge MiDA program gets underway. The scale
of the MiDA program raises the question of whether other
programs, either as continuations or new directions, will be
attracted to the horticulture sector. This is unfortunate since
the MiDA agriculture project is not well linked either to MoFA
or to the larger horticultural producers and exporters, but has
a strong orientation towards small farmer organizations, ca-
pabilities and credit.

There should therefore be concern over the phasing out of
projects such as TIPCEE and MOAP where a substantial and
valuable knowledge base has been acquired.

There have been good examples of linkage (HEII with TIPCEE
and MOAP, for example) in donor support to the sector, but
it is not clear that there is learning from evaluation of earlier
projects. This is a pity. We need to know what works and
what does not; but there is emphasis on targets rather than
outcomes.

| TABLE I.2.1: Projects with an Export Horticulture Orientation Since 2003 |
|---|---|---|---|
| PROJECT | DONOR | OBJECTIVE | TIME | AMOUNT (IN US $ MILLIONS) |
| HEII | World Bank | • Conserve the existing market share of the horticultural export industry
• Consolidate the competitiveness
• Impel diversification and innovation | 2004–2007 | $9.85 |
| EMOP | AfDB | • Increase the incomes of horticultural crop farmers and exporters and of
• cassava producers | 2007–2011 | $28.6 |
| GHPPP | USAID | • To link Ghanaians with global distributors by assisting producers in meeting
• the safety, quality, environmental and labor standards demanded by consum-
• ers in these markets | 2002–2005 | |
| TIPCEE | USAID | • To achieve exponential growth in sales of agricultural exports over the 5-year
• life of the project by increasing the competitiveness of Ghana’s private sector
• in international and regional markets | 2004–2009 | $30 |
| MOAP | German Government | • Improve upon the competitiveness of agricultural producers, processors and
• traders on regional, national and international markets | 2004–2011 | $22.6 |
| MiDA | MCA | • Increase production and productivity of high value cash and food crops in 3
• selected zones of Ghana
• Enhance the competitiveness of high value cash and food crops in local and
• international markets. | 2007–2013 | $547 |

Source: Authors’ research
2.7 THE FOOD AND AGRICULTURE SECTOR DEVELOPMENT POLICY (FASDEP II)

The first Food and Agriculture Sector Development Strategy (FASDEP) was prepared in 2002 as a framework for the agriculture sector. A revised policy, FASDEP II, was prepared in August 2007 and emphasizes the commodity value chain approach and greater engagement with the private sector. The policy is complemented by a strategic framework, which, in April 2008, was almost complete.

FASDEP II is consistent with the national development objectives specified in the Growth and Poverty Reduction Strategy II, and has been prepared through an extensive consultation process that incorporates a review of the outcome of FASDEP I. The plan notes that the horticulture sector has become the country’s focus for agricultural export diversification, and that the recent shocks to the pineapple industry exposed the country’s lack of agility. The need for market intelligence, innovation and skills are highlighted and efforts to innovate and reinforce the linkages between agribusiness and smallholders are considered key.

FASDEP I is criticized for failing to recognize the diversity of agriculture producers and their differing needs. FASDEP II will address this so that risk-prone, largely subsistence farmers will be targeted with interventions to reduce their vulnerability and help them improve their productivity. While, at the other end of the scale, the commercial sector can be assisted, for example, through linkage with smallholders.

Policy 4.9 Increased Competitiveness and Enhanced Integration into Domestic and International Markets deals most directly with the need to translate Ghana’s comparative advantages in international markets into competitive advantages. The policy will tackle the following issues in the development of agricultural exports:

- Majority of agricultural operators do not have the skills and knowledge in the requirements of external markets, contributing to high rate of rejection of exports;
- Inadequate access to market information and lack of capacity to access market intelligence;
- Limited capacity of exporters to meet export volumes;
- Inadequate and poor management of logistics in commodity marketing;
- Weak legal environment does not encourage contract relationships in production and marketing

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25. It is also consistent with the Comprehensive African Agriculture Development Programme (CAADP) of NEPAD.
3.1 PINEAPPLES

Traditionally, the bulk of Ghana’s exports of horticultural produce to Europe has been based on pineapples. Exports started with air-freighted pineapples in the late-1980s and early-1990s and Ghana became the dominant player in this niche market. By 1993, it was estimated that the market for air-freighted pineapples was about 15,000 tonnes of which Ghana supplied about 9,000. Then Sea-Freight Pineapple Exporters of Ghana (SPEG) was established and Ghana’s fresh pineapple exports to the EU increased to a peak of 52,000 tonnes in 2005 – but it has since fallen back to 35,000 tonnes in 2007 (figure I.3.1).

In the mid to late 1990s, Ghana was clearly the third place supplier of pineapples to the EU. The main supplier was Côte d’Ivoire, followed by Costa Rica and then Ghana. At the time

**FIGURE I.3.1: EU Imports of Pineapples from Different Sources, 2001-2007**

![Graph showing EU imports of pineapples from different sources, 2001-2007](image)

Source: Accord Associates LLP based on Eurostat data

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1. At that time, the total size of the EU pineapple market was about 300,000t.

2. For example in 1997, Côte d’Ivoire exported 154,000t to the EU, Costa Rica, 83,000t and Ghana 24,000t. The next biggest supplier was Honduras at 10,000t followed by the Cameroons at 4,000t.
Costa Rica was recognized as a supplier of low quality, cheap "green" pineapples. However, with the advent of the "super-sweet" varieties and aggressive marketing, Costa Rica now dominates a much larger market. In 2007, the total EU market was 830,000 tonnes; which was more than double the size of the market in 2002! Between 2002 and 2007, Costa Rica’s exports increased more than fourfold and their market share has nearly doubled from 37% to 69% in six years (table I.3.1).

The main loser in the Costa Rican expansion was Côte d’Ivoire, whose market share declined from 48% to 7%. Ghana also experienced a sharp decline in market share, while Brazil, Panama, Ecuador, and Honduras all increased their exports and market share. These recent changes in the market supply dynamics have resulted in Ghana now being reduced to the fifth largest supplier to Europe and, if current trends continue, it will soon be overtaken by Brazil.

The data clearly shows the very disappointing performance of Ghanaian pineapples in the European market. However, the one piece of positive data is that the unit value of the fruit is the highest of all its major competitors (table I.3.2). This is probably the reason why the decline in exports since 2005 has not been greater. However, the fair trade market is small (see box I.3.1) and Ghana is, at best, a second supplier to this higher value market behind Costa Rica. Therefore, if Ghana wants to become a major player in the EU pineapple market again, it will have to make more in-roads into the undifferentiated retail market and supply the multiple supermarkets with consistent quality product, i.e., it will have to compete on price, quality, and service.

The EU market perception of Ghanaian pineapples is that fruit quality is reasonable when air-freighted but very inconsistent when sea-freighted. Up to the mid 1990s, the EU market preference was for the golden smooth cayenne but this changed rapidly and the super-sweet varieties totally dominate the demand. The production of super-sweet varieties started in Costa Rica and was then introduced into other Central and South American countries. They were not introduced into Ghana until perhaps 2002, but it now dominates production for Europe.

### TABLE I.3.1: The Share of the EU Market for Pineapples from Different Sources, 2001–2007

<table>
<thead>
<tr>
<th>EU 27 IMPORTS</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.2%</td>
<td>1.9%</td>
<td>2.1%</td>
<td>2.1%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>36.5%</td>
<td>37.3%</td>
<td>43.0%</td>
<td>47.9%</td>
<td>59.5%</td>
<td>64.8%</td>
<td>68.8%</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>47.5%</td>
<td>43.7%</td>
<td>33.6%</td>
<td>26.1%</td>
<td>16.4%</td>
<td>12.3%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Ecuador</td>
<td>1.0%</td>
<td>2.1%</td>
<td>4.7%</td>
<td>5.2%</td>
<td>5.3%</td>
<td>4.8%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Ghana</td>
<td>8.9%</td>
<td>9.5%</td>
<td>10.5%</td>
<td>9.8%</td>
<td>7.4%</td>
<td>5.2%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Honduras</td>
<td>2.5%</td>
<td>3.6%</td>
<td>3.2%</td>
<td>3.4%</td>
<td>4.1%</td>
<td>3.4%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Panama</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.9%</td>
<td>1.8%</td>
<td>2.0%</td>
<td>4.1%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Others</td>
<td>3.6%</td>
<td>3.6%</td>
<td>3.9%</td>
<td>3.7%</td>
<td>3.2%</td>
<td>3.3%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Source: Accord Associates LLP based on Eurostat data

### TABLE I.3.2: Average C&F Value of Pineapples Imported into the EU (€/t), 2007

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>VALUE (€/t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>684</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>676</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>672</td>
</tr>
<tr>
<td>Ecuador</td>
<td>640</td>
</tr>
<tr>
<td>Ghana</td>
<td>1,059</td>
</tr>
<tr>
<td>Honduras</td>
<td>736</td>
</tr>
<tr>
<td>Panama</td>
<td>686</td>
</tr>
<tr>
<td>Others</td>
<td>1,102</td>
</tr>
<tr>
<td>EU27</td>
<td>705</td>
</tr>
</tbody>
</table>

Source: – Accord Associates LLP based on Eurostat data
When Ghana started sea-freighting pineapples, it was still growing the smooth cayenne variety. The in-field techniques and post-harvest care management were not good enough to produce fruit that could be transported by sea without suffering from internal blackening and other fruit quality problems. Even though the fruit appeared to be good when packed, when it arrived in Europe, it was very variable. Interviews with importers who have recently purchased Ghanaian fruit would suggest that this problem has not yet been overcome.

Ghana has made good in-roads into the Fair Trade market in the UK, supplying some of the major retailers such as Tesco and Marks and Spencers. The fruit imported by Compagnie Fruitière is sold in the main supermarkets in Southern France alongside fruit from Côte d’Ivoire; comments from company sources suggest that customers prefer the taste of Ghanaian pineapples over those from Côte d’Ivoire.

Even though Ghana has lost market share and has now fallen to fifth place as a supplier to the EU market, there is significant interest from the trade to identify a good alternative supplier to Costa Rica. There is often concern in an industry when one supplier has too high a market share because the buyers feel that they are susceptible to the exporter’s negotiating position, as well as to any interruptions in trade caused by, for example, adverse weather. Importers want an alternative supplier in another geographical area. Traditionally this has been the role that Côte d’Ivoire fulfilled, but its exports are declining rapidly. It should be recognized that Brazil could become the main alternate supplier; but Ghana is in an excellent position to fulfil this role; future strategies for the expansion of the pineapple industry should take cognizance of this. However, this will only happen if it makes considerable efforts to expand production, offer a wider range of shipping destinations, and improve the consistency and quality of the fruit.

Bananas dominate the EU fruit and vegetable imports at almost 4.7 million tonnes worth $2.7 billion. Supplies are dominated by Central and South American countries, but Ghana has a small and growing share of the market. In 2007, it exported 33,000 tonnes, up from less than 4,000 tonnes in 2001. Although it still lags well behind its West African neighbors, Côte d’Ivoire and Cameroon, Ghana is expanding its exports more rapidly than either of those two countries (figure I.3.2).

Virtually all of Ghana’s banana exports are by one company, Compagnie Fruitière. They report that exports are very successful and that the market demand in France for Ghanaian fruit is good. They claim the taste is better than the Central American fruit and there is a good market demand for the slightly smaller fruit produced in Ghana, which also gives it a distinct advantage. Compagnie Fruitière’s exports are to Southern Europe and they market most of the fruit through supermarkets in Southern France.

The market data and trade interviews regarding Ghana’s banana exports are very positive. Its trade is very reliant on one company and the logistics for exports are targeted at Southern Europe (via Port Vendres). If further expansion of the banana
exports can be encouraged, it will help reduce logistic costs and, hopefully, will eventually lead to more destinations being serviced by the shipping companies.

The EU market for bananas is very large and Ghana’s exports are increasing quickly; it therefore represents a good opportunity to achieve a significant volume of exports. If Ghana’s banana exports do keep increasing, the extra volume should help reduce transport costs and increase frequency of shipments, which will in turn help stimulate other sea-freighted commodities. Ghana, along with other ACP countries, is able to export bananas free of duty into the EU which gives it a significant advantage over Central and South America.

3.3 MANGOES

Trade statistics combine mangoes with guavas and mango-steens; but imports of guavas and mango-steens are very small compared with mangoes. In recent years, the EU imports of mangoes have increased from 136,000t to over 210,000t—with Brazil, followed by Peru, dominating the supply. After a few years of very low exports, Ghana has started to expand and its exports have now almost reached 1,000t (figure I.3.3).

The C&F value of Ghana’s mango exports are the highest of all the countries considered (table I.3.3). This is because
some are air-freighted and the other countries export mainly by sea. Air-freighted fruit seemed to be being squeezed out, but market share has been increasing since 2004 and is now about 28%.

If Ghana’s mango exports are going to expand and reach the level of say Côte d’Ivoire, then it will have to develop exports by sea. This will probably mean that the in-field management and post-harvest handling will have to improve to ensure that there are no quality problems.
European imports of papaya have nearly doubled from 19,000t in 2001 to 36,000t in 2007; although imports have actually decreased from a high of 42,000t in 2004. Brazil is the dominant supplier with currently a 67% market share. Other significant suppliers include Ecuador and Côte d'Ivoire. Ghana is the fourth major supplier, but its exports have dropped by almost half during the time that market demand doubled (figure I.3.4).

The recent decline in papaya imports over the last three years is interesting. On the surface it is difficult to be certain whether this is due to a decrease in demand, production difficulties in the main supplying countries, or other issues. The general view in the market is that Brazil’s strategy early in the decade of shipping more of the fruit by sea and less by the more expensive air freight failed (figure I.3.5). While sea freight reduced the costs of getting the fruit to the EU, it negatively impacted on quality, so the policy was reversed. Therefore the reduction seen in the export statistics is due to a decline in the Brazilian sea freight deliveries.

Because the papaya market is responsive to quality, it does present an interesting advantage for West Africa. The papaya produced in Ghana and Côte d’Ivoire is regarded as inherently better quality than the Brazilian fruit. It is for this reason that Utopia, a major UK fruit-importing company, helped establish a 250 ha papaya orchard in Côte d’Ivoire, which it would like to replicate in Ghana. The biggest processor of prepared fruit in the UK is also interested in investing in a fruit preparation business in Ghana.

**FIGURE I.3.4:** EU Imports of Papaya from Different Sources, 2001–2007

![Bar graph showing EU imports of papaya from different sources, 2001–2007.](image)

*Source: Accord Associates LLP based on Eurostat data*
3.5  CAPSICUM

The category “Capsicum” covers a wide range of items including bird’s eye chillies, sweet chillies, Scotch bonnet, etc. Overall, EU imports in this category have shown a good increase from 25,000t in 2001 to 36,000t in 2007. It is also pleasing to report that Ghana’s exports have increased almost five-fold during this period. Its growth has been much more rapid than Kenya, one of its traditional competitors in this market (figure I.3.6). It is also pleasing to note that the unit

**FIGURE I.3.5: EU Imports of Papaya**

![Graph showing EU imports of papaya from different sources, 2001-2007](image)

**FIGURE I.3.6: EU Imports of Capsicums from Different Sources, 2001–2007**

![Bar chart showing EU imports of capsicums from different sources, 2001-2007](image)

Source: Accord Associates LLP based on Eurostat data
C&F value of Ghana’s capsicum exports is one of the highest; only Kenya, Thailand, and Zambia are higher (Table I.3.4). These countries will have higher unit values partly because a significant part of their exports will be pre-packed. The growth in Ghana’s exports and the fact that it is growing faster than countries such as the Dominican Republic, which has cheaper air-freight costs to Europe is particularly encouraging. Ghana has a great opportunity to increase its exports as Kenya’s competitive position is being eroded by increases in air-freight rates; however, it is important to recognize that to compete effectively, Ghana must offer quality of product and service comparable to Kenyan exports.

3.6 RAVAYA

Ravaya, or small aubergine, is not a very significant item in the EU market, total imports are less than 2,500t (Figure I.3.7), but it is increasing quickly and should represent an interesting opportunity for Ghana. Kenya supplies almost half the EU’s demand; but Ghana has a significant air-freight cost advantage, and therefore has an excellent opportunity to expand its market share. The other significant supplier is the Dominican Republic, which has an effective air-freight rate similar to Ghana.

TABLE I.3.4: Average C&F Value of Capsicum Imported into the EU (€/T), 2007

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>VALUE (€/T)</th>
<th>SOURCE</th>
<th>VALUE (€/T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominican Rep</td>
<td>1,685</td>
<td>Turkey</td>
<td>1,171</td>
</tr>
<tr>
<td>Egypt</td>
<td>1,183</td>
<td>Uganda</td>
<td>1,767</td>
</tr>
<tr>
<td>Ghana</td>
<td>1,981</td>
<td>Zambia</td>
<td>6,554</td>
</tr>
<tr>
<td>Kenya</td>
<td>3,333</td>
<td>Zimbabwe</td>
<td>1,207</td>
</tr>
<tr>
<td>Morocco</td>
<td>838</td>
<td>Others</td>
<td>1,767</td>
</tr>
<tr>
<td>Thailand</td>
<td>4,936</td>
<td>EU27</td>
<td>1,476</td>
</tr>
</tbody>
</table>

Source: Accord Associates LLP based on Eurostat data

FIGURE I.3.7: EU Imports of Ravaya from Different Sources, 2001–2007

Source: Accord Associates LLP based on Eurostat data
3.7 OTHER VEGETABLES

Within the Eurostat data, there is a category for “other vegetables” which contains Asian and other ethnic vegetables. Ghana has traditionally been a significant supplier of Asian vegetables air-freighted to the EU; however exports have declined from 7,000 tonnes in 2003 to 2,500 tonnes in 2007. Kenya’s exports have also declined dramatically since 2001 (figure I.3.8). The market perception is that the traditional supplier of Asian vegetables, Kenya, is becoming less and less competitive because of high air freight costs (in excess of $2.10/kg). As Ghana has been reasonably active in this market for a number of years, some of the buyers expected that Ghana would profit from Kenya’s decline. However, this has not been the case, and now the bigger UK importers are increasingly looking elsewhere, for competitive pricing, volume, and performance.

There have been some minor efforts at exporting baby corn from Ghana (8 tonnes were exported from Ghana in 2007 compared with total EU imports of 6,500 tonnes). The yields of this crop are very low and it is normally only viable if it is grown on farms with cattle which can profitably use the by-products of the maize plants, or if the baby corn are marketed in mixed packs of temperate vegetables.

**FIGURE I.3.8: EU Imports of Other Vegetables from Different Sources, 2001–2007**

![Graph showing EU imports of other vegetables from different sources, 2001–2007.](image)

<table>
<thead>
<tr>
<th>Source</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turkey</td>
<td>9,188</td>
<td>3,505</td>
<td>5,388</td>
<td>4,137</td>
<td>5,884</td>
<td>5,891</td>
<td>3,840</td>
</tr>
<tr>
<td>Thailand</td>
<td>2,204</td>
<td>2,395</td>
<td>2,400</td>
<td>2,851</td>
<td>4,920</td>
<td>3,466</td>
<td>3,562</td>
</tr>
<tr>
<td>Morocco</td>
<td>3,583</td>
<td>3,598</td>
<td>4,409</td>
<td>3,985</td>
<td>4,781</td>
<td>3,843</td>
<td>3,383</td>
</tr>
<tr>
<td>Israel</td>
<td>1,262</td>
<td>1,275</td>
<td>1,627</td>
<td>2,178</td>
<td>4,134</td>
<td>3,775</td>
<td>3,486</td>
</tr>
<tr>
<td>Dominican Rep</td>
<td>1,233</td>
<td>1,707</td>
<td>2,833</td>
<td>3,778</td>
<td>3,304</td>
<td>4,298</td>
<td>3,831</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>4,668</td>
<td>4,089</td>
<td>5,136</td>
<td>5,075</td>
<td>5,211</td>
<td>3,825</td>
<td>3,898</td>
</tr>
<tr>
<td>Argentina</td>
<td>110</td>
<td>831</td>
<td>2,249</td>
<td>3,589</td>
<td>8,894</td>
<td>9,911</td>
<td>7,730</td>
</tr>
<tr>
<td>R South Africa</td>
<td>2,682</td>
<td>3,462</td>
<td>5,182</td>
<td>3,833</td>
<td>4,233</td>
<td>5,366</td>
<td>5,637</td>
</tr>
<tr>
<td>Kenya</td>
<td>16,789</td>
<td>17,655</td>
<td>16,953</td>
<td>9,804</td>
<td>6,328</td>
<td>5,249</td>
<td>4,674</td>
</tr>
<tr>
<td>Ghana</td>
<td>6,511</td>
<td>5,949</td>
<td>6,983</td>
<td>5,812</td>
<td>6,005</td>
<td>4,564</td>
<td>2,565</td>
</tr>
<tr>
<td>Others</td>
<td>19,118</td>
<td>26,106</td>
<td>29,297</td>
<td>24,479</td>
<td>26,613</td>
<td>25,659</td>
<td>32,328</td>
</tr>
</tbody>
</table>

Source: Accord Associates LLP based on Eurostat data
3.8 ROOT AND TUBERS

Figure 3.8.9 shows the progress of yam imports to the EU over the past seven years. Ghana leads the supplies to this growing market. For the most part the demand comes from ethnic West Africans living in Europe. The imports either pass through the wholesale markets or are distributed directly to retailers specializing in West African product.

However, despite the increase in volumes from Ghana, the value of imports from Ghana remains at about €5 million.

Imports of cassava for human consumption (as opposed to the large-scale bulk imports of animal feed) have been growing (figure 3.8.10). Costa Rica leads the suppliers with 80% of the market. Ghana has become the second supplier.

The trade in cassava is not strictly within the fresh produce category as the cassava is highly perishable and therefore peeled, diced into large chunks and frozen to withstand the sea voyage. Costa Rica also supplies “fresh roots” dipped in wax containing thiabendazole which increases shelf-life at ambient temperature to 6 weeks. Cassava is not valuable enough to cover the cost of air freight.

EU imports of sweet potatoes have grown rapidly from 16,000t in 2001 to 51,000t in 2007 (figure 3.8.11). The sweet potato trade has moved on from being positioned as an ethnic or exotic product and is now firmly in the mainstream supermarket trade. Israel and the U.S. dominate the supplies and despite efforts to introduce new varieties to Africa, there has been little progress from other suppliers.

**FIGURE I.3.9: EU Imports of Yams from Different Sources, 2001–2007**

<table>
<thead>
<tr>
<th>Year</th>
<th>Others</th>
<th>St Vincent</th>
<th>Nigeria</th>
<th>Jamaica</th>
<th>Costa Rica</th>
<th>China</th>
<th>Brazil</th>
<th>Ghana</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>627</td>
<td>183.6</td>
<td>222.8</td>
<td>1216.7</td>
<td>2879.3</td>
<td>842.7</td>
<td>2469.2</td>
<td>7755.9</td>
</tr>
<tr>
<td>2002</td>
<td>3,331</td>
<td>476.9</td>
<td>232.3</td>
<td>1312.2</td>
<td>4080.8</td>
<td>1440.4</td>
<td>3050.2</td>
<td>7889.8</td>
</tr>
<tr>
<td>2003</td>
<td>850</td>
<td>398</td>
<td>0.4</td>
<td>1149</td>
<td>2804.2</td>
<td>1142</td>
<td>3141.1</td>
<td>8340</td>
</tr>
<tr>
<td>2004</td>
<td>-115</td>
<td>349.6</td>
<td>0</td>
<td>1065.6</td>
<td>2784.5</td>
<td>1205.2</td>
<td>3325.1</td>
<td>9042.5</td>
</tr>
<tr>
<td>2005</td>
<td>64</td>
<td>270.9</td>
<td>11.5</td>
<td>641.5</td>
<td>2815.7</td>
<td>1458.1</td>
<td>2660.3</td>
<td>10678.4</td>
</tr>
<tr>
<td>2006</td>
<td>246</td>
<td>382.5</td>
<td>5.4</td>
<td>422</td>
<td>3068.2</td>
<td>1799.4</td>
<td>2385.5</td>
<td>11569.9</td>
</tr>
<tr>
<td>2007</td>
<td>1,229</td>
<td>472.8</td>
<td>0.1</td>
<td>422</td>
<td>4568.3</td>
<td>1682.6</td>
<td>1844.3</td>
<td>11048</td>
</tr>
</tbody>
</table>

Source: Accord Associates LLP based on Eurostat data
**FIGURE I.3.10:** EU Imports of Whole Cassava for Human Consumption, 2001–2007

![Graph showing EU imports of whole cassava for human consumption, 2001–2007.](image)

Source: Accord Associates LLP based on Eurostat data

**FIGURE I.3.11:** EU Imports of Sweet Potatoes from Different Sources, 2001–2007

![Graph showing EU imports of sweet potatoes from different sources, 2001–2007.](image)

Source: Accord Associates LLP based on Eurostat data
3.9 SUMMARY OF MARKET STATISTICS

A comparison of EU imports from Ghana for 2001 and 2007 shows that the value and volume of fruit imports have increased significantly and vegetables have not (table I.3.5). However, the increase in fruit imports is almost entirely due to the expansion in banana trade. As noted above, pineapple exports declined by 31% between 2004 and 2007. Despite this decline, pineapples are still the major export crop in terms of value—earning more revenue than the rest of the fruit together. The volume of vegetable exports has declined, but the total revenues are static. The 2,500 tonne increase in capsicum exports compensated for the 4,000 tonne reduction in the lower value “other vegetables.” Most of Ghana’s horticultural exports have underperformed in the period and have failed to keep pace with the increasing market demand. The impressive growth in the sector total is mostly a result of a single banana investment. However, there are some positive trends: apart from the arrival of Compagnie Fruitière and its pineapple and banana operations, HPW Ltd has made progress with pineapple exports and the developments of mango exports have been encouraging. In the vegetable sector, the move away from “other vegetables” to the higher value capsicums has also been very encouraging.

### TABLE I.3.5: Comparison of European Horticultural Imports from Ghana

<table>
<thead>
<tr>
<th></th>
<th>TONNES</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capsicums</td>
<td>418</td>
<td>2,947</td>
<td>732,980</td>
<td>5,835,875</td>
<td></td>
</tr>
<tr>
<td>Other Vegetables</td>
<td>6,511</td>
<td>2,565</td>
<td>9,740,472</td>
<td>4,140,256</td>
<td></td>
</tr>
<tr>
<td>Babycorn</td>
<td>1</td>
<td>8</td>
<td>6,955</td>
<td>9,283</td>
<td></td>
</tr>
<tr>
<td>Ravaya</td>
<td>97</td>
<td>174</td>
<td>119,080</td>
<td>357,125</td>
<td></td>
</tr>
<tr>
<td>Yams</td>
<td>7,756</td>
<td>11,048</td>
<td>5,242,715</td>
<td>5,372,009</td>
<td></td>
</tr>
<tr>
<td>Cassava</td>
<td>117</td>
<td>2,076</td>
<td>83,294</td>
<td>1,388,888</td>
<td></td>
</tr>
<tr>
<td>Sweet Potatoes</td>
<td>51</td>
<td>26</td>
<td>33,962</td>
<td>26,891</td>
<td></td>
</tr>
<tr>
<td>Sub-Total</td>
<td>14,951</td>
<td>18,844</td>
<td>15,959,458</td>
<td>17,130,327</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bananas</td>
<td>3,458</td>
<td>33,404</td>
<td>2,897,132</td>
<td>20,304,496</td>
<td></td>
</tr>
<tr>
<td>Pineapples</td>
<td>33,209</td>
<td>35,463</td>
<td>30,651,756</td>
<td>37,553,172</td>
<td></td>
</tr>
<tr>
<td>Papaya</td>
<td>1,937</td>
<td>1,042</td>
<td>2,272,874</td>
<td>1,910,112</td>
<td></td>
</tr>
<tr>
<td>Mangoes, guavas and Mangosteens</td>
<td>62</td>
<td>983</td>
<td>107,279</td>
<td>2,802,090</td>
<td></td>
</tr>
<tr>
<td>Sub-Total</td>
<td>38,666</td>
<td>70,892</td>
<td>35,929,053</td>
<td>62,569,870</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>53,817</td>
<td>89,736</td>
<td>51,888,511</td>
<td>79,700,197</td>
<td></td>
</tr>
<tr>
<td>% increase</td>
<td>67%</td>
<td></td>
<td></td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>% increase omitting bananas</td>
<td>12%</td>
<td></td>
<td></td>
<td>21%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Accord Associates LLP based on Eurostat data

### 3.10: THE EU MARKET FOR PROCESSED FRUIT

Ghana has been successful in attracting investors to establish fruit processing operations. The first significant investment was Blue Skies, which started producing fresh-cut (sometimes called prepared) pineapples and has since added fresh-cut mangoes, coconuts and fruit salad mixes. It is estimated that Blue Skies exported about 5,000t of prepared pineapples in 2007, which is the equivalent of 15,000t of fresh pineapples. More recently there have been investments by Pinora and PeelCo. Pinora produces juice from oranges and pineapples.
The market for prepared fruit is one of the most rapidly growing sectors in the EU grocery sector. The biggest market in Europe is the UK, where prepared fruit has doubled in value since 2004. It is now estimated to be worth €155 million/year with other countries trailing well behind (table I.3.6).

However, it is expected that the trend will be similar in other European countries to that shown by prepared vegetables. The drivers for consumption of prepared fruit and vegetables in the EU are the increase of disposable income, the promotion of healthy eating, enjoyment, and convenience—with convenience and enjoyment being the most important.

**TABLE I.3.6: Prepared Fruit Sales Value and Annual Increase, 2006–2007**

<table>
<thead>
<tr>
<th>Country</th>
<th>Market Size (€m)</th>
<th>Annual Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>155</td>
<td>33.6%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>16</td>
<td>28.5%</td>
</tr>
<tr>
<td>Germany</td>
<td>12</td>
<td>39.1%</td>
</tr>
</tbody>
</table>

Source: Accord Associates LLP based on TNS Worldpanel data

Pineapple chunks are the second most popular prepared fruit in the UK after the “classic fruit salad” and ahead of the “luxury fruit salad.” Pineapple pieces and pineapple slices are ranked sixth and tenth and mango pieces are twelfth. Pineapple is also a significant ingredient in many of the luxury fruit salads.

What is particularly encouraging for investors in Ghana is the rate of increase in the sales of fresh-cut fruits; the increase in sales was about 30% per year. In the UK, the average unit price of prepared fruits decreased by 8.4% during the last year which meant that the actual volume of exports of prepared fruit sales increased by 45.9%. The decline in average prices could have some significant repercussions; processors will be looking to trim some of their costs, including the cost of raw materials and they will also be looking to include cheaper ingredients in some of the fruit salads. Given the very significant air-freight costs associated with prepared fruit in Ghana and the increases over the last 12 months as the price of jet fuel has increased, Ghanaian processors could face more price pressure from the supermarkets and some of this might be passed on to the producers.

Virtually all of the prepared fruit consumed in the UK is sold through supermarkets: 25.4% by Marks and Spencers, 24.6% by Tesco, 19.2% by ASDA, and 11.1% by Sainsburys. In fact, only 3.9% of sales are through non-multiple outlets. Therefore, virtually all of the processed fruit has to be grown by producers who have GlobalGAP accreditation.

Set against this positive outlook is the argument that air-freighting food is unduly damaging to the environment. The strength of this point of view has faded somewhat over the last year as the true environmental cost of produce has become better understood. While there is no doubt that there is a significant environmental cost in air-freighting produce that is not internalized in the retail price, the international transport is only one of many negative impacts in the chain, not least of which is the impact of the European shopper driving to the supermarket. The hypocrisy of penalizing the African entrepreneur while ignoring the environmental footprint of the European consumer seems to have pushed the “air-miles” argument with a “fair-miles” case. In the case of prepared pineapple it would be interesting to know the comparative environmental impact of sea-freighting three tonnes of fresh pineapple as opposed to air-freighting one tonne of fresh-cut product.

In summary, the market for prepared fruit is growing very rapidly and it is very pleasing to note that investors have established successful operations in Ghana. There are other companies that are interested in making new investments. However, a number of other countries have also recognized the growth in this market segment and are starting to target the EU market. In particular, investments have been made in Brazil, which also grows a significant area of pineapple; this may become a significant competitor to Ghana. It is therefore important that consideration is given to supporting this sector to ensure that the competitive position is maintained and even strengthened.

---

4. The UK led the way in the marketing of prepared vegetables and now other European countries are starting to show good growth. However, the UK is still the biggest market for prepared vegetables. One of the issues that has restricted the uptake of fresh prepared fruit is that fruit requires a different cold chain from prepared vegetables.

The major direct cost associated with horticultural exports is freight. The frequency and destination of the air flights or sea vessels also has a major impact on market access. The structure of the sea and air freight services throughout the world have changed over the last few years and these might impact on Ghanaian horticultural exports.

4. AIR FREIGHT

The basis of Ghana’s horticultural exports to Europe was the air freighting of first pineapples and then Asian vegetables. Ghanaian exporters were able to compete effectively from the early 1990s because of the cheap freight that they negotiated. Cargo aircraft that delivered goods from Europe into Nigeria started calling at Accra to collect northbound freight. The space available increased as northbound freighters from South America began to call at Accra too and competitive rates, in the region of $0.70/kg, were available.

Since the mid-1990s, cargo aircraft have become much larger,1 and countries with smaller volumes of perishable goods have found it difficult to maintain good freight connections. The volume of exports that Ghana built up in the 1990s ensured that it was still a good destination for northbound freight.

More recently, the substantial increases in the price of oil have led to significant fuel surcharges on freight. However, the importers interviewed did not have a problem with either the price or quality of the air freight service out of Ghana. It is reported that the effective freight rates, i.e. including fuel and insurance surcharges, are about $1.20 to $1.40/kg. This is significantly cheaper than charges out of East Africa ($2.20/kg) but slightly more expensive than the Caribbean (Dominican Republic was often quoted at between $0.90 and $1.10/kg).

The future development of the worldwide air freighted produce business faces two threats: fuel prices and environmental concerns. While Ghana has relatively low air-freight costs compared to some competitors, the unit value of the exports is generally quite low and transport costs make up a greater proportion of the landed value. Figure I.4.1 shows, for example, the unit value of chillies exported from several origins. Fluctuations in transport prices will have less impact on the pre-packed Kenyan product destined for the supermarket.

Air freight space from Accra to Europe has recently expanded further with the start of a KLM/Air France service providing up to 40 tonnes capacity per week to Paris.

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1. In the early to mid-1990s, most of the cargo freight planes used to move perishable cargo out of Africa were either Boeing 707s or DC8s; these have now been replaced by much more fuel-efficient and quieter Boeing 747 freight aircraft. The Boeing 747 fleet are able to carry cargo much more cheaply than the older smaller aircraft.
Ten years ago the best option for Ghanaian fruit exporters was to develop sufficient volume of exports to attract refrigerated vessels to call at Tema, rather than depending on the more expensive reefer containers. Calculations in 1998 projected a 25% saving using reefer ships as opposed to containers.\(^2\)

However, the structure of the sea freight industry has changed in recent years with considerable investment in container ships but not reefers.\(^3\) This has led to an over-capacity in containerized transport which has resulted in a reduction in rates not seen in reefer vessels. While this may give exporters more flexibility, it is still important to build up the volume of horticultural exports to create competition in the shipping modes and to develop the selection of destinations. The volume of banana exports from Ghana’s Central and South American competitors has led to the development of services to a wide range of European ports.

Sea freight rates for refrigerated cargo from Ghana are comparatively high. A 40-foot reefer container is quoted at $5580\(^4\) from Tema to Northern Europe, equating to a cost of around $279/pallet. This is comparable to the rate on the AEL refrigerated boat to Southern Europe of about $220/pallet.

Apart from cost, the container services from Tema are disadvantageous because of the use of hubs in Europe. Maersk, for example, offload all containers at Algeciras in Spain for trans-shipment onto feeder vessels. If the schedule of the incoming vessel from Africa and the outgoing feeder vessel to other European ports do not coincide, the container remains at Algeciras until the next available sailing. This can add significantly to the journey time. On the other hand, AEL have dropped their reefer vessel sailings to Northern Europe from Tema and produce shipments must travel by road from Port Vendres in Southern France.

An increase in outgoing volumes of fresh produce would have a significant impact on the price, availability, and choice of destinations.

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3. The average lifespan of a reefer vessel is generally regarded to be between 26 to 28 years and the average age of the fleet is currently 21 years.

4. This is a ballpark figure and would be subject to negotiation on volume, etc.
5. SUMMARY OF GHANA’S POTENTIAL FOR HORTICULTURAL EXPORTS TO THE EU

Ghana has underachieved in supplying the EU market. It has comparative advantages, for example, good climate, reasonable soils, proximity to the EU market, cheap air freight costs, adequate infrastructure and good incentives provided by Government. However, it has lost market share in the pineapple, papaya and other vegetable markets. In contrast, it is making good progress with yams, bananas, mangoes and capsicum (table I.3.5). This section discusses what should be realistic targets for the medium to longer term value and volume of horticultural exports. It is assumed that there will be significant interventions to help the industry reach its potential; it is also assumed that these interventions will be focussed on creating the biggest impact within the industry instead of just helping smaller producers.

- **Pineapples**: The biggest disappointment over the last five years has been the decline in the pineapple exports. While it is accepted that part of this was due to the rapid change in the market’s preference for super-sweet varieties over the smooth cayenne, Ghana was possibly slow to react to this change. It was also disappointing to note that Ghana had fallen from being the third biggest supplier to fifth place. However, Côte d’Ivoire, as the second place supplier, has lost market share even more rapidly than Ghana and is now a similar sized supplier as Ghana.

In fact there is no obvious main alternative to Costa Rica, a fact that worries importers because Ecuador, Honduras, Panama, and Brazil are all similar sized suppliers as Ghana and Côte d’Ivoire. No buyer likes to be over dependant on one source, not only because of the supply risks but also because the negotiating position is weak. Vigorous alternatives are needed. Markets get nervous when more than two-thirds of supply are sourced from one country—which given that total EU imports could soon be 1 million tonnes/year, buyers will be looking to source over 300,000 tonnes/year from countries other than Costa Rica, and ideally most of it should come from one other country.

In order to spread their risk, buyers would like the alternative supply to be on another continent, which means that their preferred second buyer could be either in West Africa–Ghana or Côte d’Ivoire–or possibly South America–Brazil or Ecuador. Brazil and Ecuador have an advantage because of their more frequent and varied shipping destinations. There is considerable goodwill among buyers for trading with Ghana, but there are concerns about quality, reliability, and frequency of delivery. Therefore, if Ghana is to reverse its decline in pineapple exports, it must encourage larger and more technically-competent businesses to invest in pineapple production. If support is focused only on small farmers to export fair trade and organic produce, Ghana will remain a secondary supplier to a niche market.¹

Given that the opportunity for non-Costa Rican suppliers will be more than 300,000 tonnes/year in the medium term, Ghana should be targeting at least a third of this, i.e. over 100,000 tonnes/year. This could be done by attracting three of four more large investors to stimulate large scale production. With this volume of exports, sea freight would be more frequent and, it is hoped, there would be more varied destinations which would improve marketing. When the industry has reached this level and has a small number of major exporters, they could then purchase produce from smaller-scale farmers who would be contracted suppliers.²

- **Bananas**: There is an even greater potential for Ghana to supply bananas to Europe than pineapples. The total market is much larger, Ghana has a duty advantage compared to Central and South America, and in the last five years, Golden Exotics has made considerable

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¹ One importer noted that their preferred fair trade and organic supplier was Costa Rica. This is not surprising because the competitive advantage for fair trade and organic production is normally in the same countries as for conventional production.

² It is important that small-farmers are committed to supply one particular exporter to ensure that the GlobalGAP certification can be achieved.
progress in developing exports to the EU. One of the world’s major banana companies, Chiquita, has recently tried to invest in Ghana, but failed because it was unable to identify an appropriate local partner. However, if Chiquita or another major banana company could be persuaded to invest, it should be possible to develop an industry exporting more than 200,000 tonnes/year in the medium term. To put this into perspective, that would still be slightly less than Cameroon is currently exporting. In addition to the very significant revenues and employment opportunities this would generate, it would also vastly improve the logistics for marketing other tropical fruit.

- **Mangoes:** Ghana has made good progress in developing mango exports to the EU since the focus for production was moved away from the coastal plains to drier areas in the north of the country. Already exports have almost reached 1,000 tonnes/year and, given that consumption is increasing rapidly in the EU, it is hoped Ghana’s exports will reach 10,000 tonnes in the medium term. To put this target into perspective, that would still be less than Côte d’Ivoire is currently exporting.

- **Papaya:** Ghana’s papaya exports have been disappointing, but there is an indication that importers in the EU are interested in developing professional growers in West Africa because of the inherently good quality. If new investors can be attracted to invest in this crop, then Ghana could be the country to take advantage of an expected upturn in consumption of papaya. It is expected that Ghana has the potential to achieve exports of 5,000 tonnes/year.

- **Capsicum:** Capsicum exports have shown good growth from Ghana and the EU market is expanding quickly. This creates a good opportunity for Ghanaian exporters. It is anticipated that Ghana has the potential to export 5,000 tonnes/year in the medium term.

- **Ravaya:** As with capsicums, the EU market is expanding rapidly and Ghana should be able to take advantage of this growth. Therefore, it is expected that the potential is for exports to reach 500 tonnes/year in the medium term.

- **Other vegetables:** The EU market for “other vegetables” is reasonably constant, but the traditional main supplier, Kenya, is declining because of the high cost of air freight which creates an interesting opportunity for Ghana to exploit. Air-freight rates out of Ghana to Europe are significantly below those from Kenya ($1.20/kg compared with $2.20/kg), so this represents a good opportunity for professional growers and exporters to exploit. Therefore, it is estimated that Ghana has the potential to increase its exports to about 8,000 tonnes/year.

If Ghana reaches its medium term potential for horticultural exports to the EU, then it will market over 325,000 tonnes/year of fruit and almost 15,000 tonnes/year of air-freighted vegetables by 2015 (table 1.5.1). In total, this will generate over €250 million/year. Almost half the revenue is generated by the banana industry and when the pineapples are included, the two crops contribute almost 75% of the income. This highlights the importance of these two products. These two crops are not only important in terms of revenue, but they will help create the logistical infrastructure required to transport other higher value fruits such as mangoes and papaya. The potential earnings from the vegetables are much less—possibly about 10% of the fruit exports.

In addition to contributing significantly to Ghana’s trade, horticultural exports can create a very significant number of good quality jobs. It is estimated that if it reaches its medium term potential, this could be as many as 20,000 jobs.3 Most of the

### TABLE 1.5.1: Ghana’s Potential Tonnage, Value, and Employment Opportunities from Export Horticulture – 2015

<table>
<thead>
<tr>
<th></th>
<th>TONNAGE</th>
<th>PRICE €/t</th>
<th>TOTAL VALUE €</th>
<th>EMPLOYMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pineapples - sea</td>
<td>100,000</td>
<td>650</td>
<td>65,000,000</td>
<td>5,556</td>
</tr>
<tr>
<td>Pineapples - air</td>
<td>6,000</td>
<td>2,000</td>
<td>12,000,000</td>
<td>333</td>
</tr>
<tr>
<td>Bananas</td>
<td>200,000</td>
<td>600</td>
<td>120,000,000</td>
<td>8,000</td>
</tr>
<tr>
<td>Mango</td>
<td>10,000</td>
<td>1,200</td>
<td>12,000,000</td>
<td>833</td>
</tr>
<tr>
<td>Papaya</td>
<td>5,000</td>
<td>1,300</td>
<td>6,500,000</td>
<td>278</td>
</tr>
<tr>
<td>Others</td>
<td>5,000</td>
<td>1,500</td>
<td>7,500,000</td>
<td>278</td>
</tr>
<tr>
<td><strong>Total fruit</strong></td>
<td>326,000</td>
<td></td>
<td><strong>223,000,000</strong></td>
<td><strong>15,278</strong></td>
</tr>
<tr>
<td>Capsicum</td>
<td>5,000</td>
<td>2,000</td>
<td>10,000,000</td>
<td>2,500</td>
</tr>
<tr>
<td>Ravaya</td>
<td>500</td>
<td>2,000</td>
<td>1,000,000</td>
<td>250</td>
</tr>
<tr>
<td>Babycorn</td>
<td>250</td>
<td>3,500</td>
<td>875,000</td>
<td>125</td>
</tr>
<tr>
<td>Other veg</td>
<td>8,000</td>
<td>1,800</td>
<td>14,400,000</td>
<td>4,000</td>
</tr>
<tr>
<td>Others</td>
<td>1,000</td>
<td>2,500</td>
<td>2,500,000</td>
<td>500</td>
</tr>
<tr>
<td><strong>Total vegetables</strong></td>
<td>14,750</td>
<td>11,800</td>
<td>28,775,000</td>
<td>7,375</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>340,750</td>
<td></td>
<td><strong>251,775,000</strong></td>
<td><strong>22,653</strong></td>
</tr>
</tbody>
</table>

Source: Consultant’s estimates

3. In calculating employment creation, some employment assumptions were made, namely that professionally managed banana estates create one job per 25 tonnes of fruit exported, pineapples exports create one job per 18 tonnes, and mangoes and other fruit create one job per 12 tonnes. Vegetables create more jobs per tonne exported – in the case of Ghana it was assumed that one job was created per 2 tonnes exported.
jobs will be in the banana and pineapple industries. The assumptions for reaching the potential for these crops include that they are orchestrated by large professional companies who are targeting the multiple retail outlets who will demand GlobalGAP. This will ensure that the employment created will also include access to medical services and education, i.e. they will be good jobs. In addition to the direct employment opportunities, there will be many indirect jobs created servicing the export industry. Table 1.5.2 summarises the market potential.

### TABLE 1.5.2: Summary of the Market Potential for Ghanaian Export Horticulture

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>TRANSPORT</th>
<th>MAIN MARKET</th>
<th>MARKET STATISTICS - 2001</th>
<th>MARKET STATISTICS - 2007</th>
<th>CURRENT TREND</th>
<th>POTENTIAL 2015¹</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>COUNTRY</td>
<td>SEGMENT</td>
<td>SIZE (t)</td>
<td>SHARE (%)</td>
<td>SIZE (t)</td>
<td>SHARE (%)</td>
</tr>
<tr>
<td>Pineapple</td>
<td>Air</td>
<td>Switzerland/Italy</td>
<td>Wholesale</td>
<td>6,000t*</td>
<td>65%*</td>
<td>6,000t*</td>
<td>65%*</td>
</tr>
<tr>
<td>Pineapple</td>
<td>Sea</td>
<td>Mainland EU</td>
<td>Supermarket Fair Trade</td>
<td>27,000t</td>
<td>8.9%*</td>
<td>29,000t</td>
<td>4.3%*</td>
</tr>
<tr>
<td>Bananas</td>
<td>Sea</td>
<td>South EU</td>
<td>Supermarket</td>
<td>3,500t</td>
<td>0.1%</td>
<td>33,000t</td>
<td>1.2%</td>
</tr>
<tr>
<td>Mangoes</td>
<td>Air</td>
<td>South EU</td>
<td>Wholesale</td>
<td>62t</td>
<td>983t</td>
<td>0.5%</td>
<td>↑ ↑ ↑</td>
</tr>
<tr>
<td>Papaya</td>
<td>Air</td>
<td>South EU</td>
<td>Wholesale</td>
<td>1,937t</td>
<td>10%</td>
<td>1,042t</td>
<td>3.0%</td>
</tr>
<tr>
<td>Chillies</td>
<td>Air</td>
<td>UK</td>
<td>Wholesale</td>
<td>418t</td>
<td>1.6%</td>
<td>2,947t</td>
<td>8%</td>
</tr>
<tr>
<td>Ravaya</td>
<td>Air</td>
<td>UK</td>
<td>Wholesale</td>
<td>97t</td>
<td>25%</td>
<td>174t</td>
<td>7%</td>
</tr>
<tr>
<td>Asian veg</td>
<td>Air</td>
<td>UK</td>
<td>Wholesale</td>
<td>6,511t</td>
<td>2,565t</td>
<td>↓ ↓ ↓</td>
<td>8,000t</td>
</tr>
<tr>
<td>Yams</td>
<td>Sea</td>
<td>UK</td>
<td>Wholesale</td>
<td>7,750</td>
<td>48%</td>
<td>11,048</td>
<td>52%</td>
</tr>
<tr>
<td>Cassava</td>
<td>Sea</td>
<td>Netherlands</td>
<td>Wholesale</td>
<td>117</td>
<td>1.5%</td>
<td>2,076</td>
<td>9%</td>
</tr>
</tbody>
</table>

Source: Accord Associates LLP based on Eurostat data and trade interviews

Key: * Estimate

¹ Assumes that there are positive interventions
6. CONCLUSIONS

- The present study is a scoping exercise to review the options for a horticultural export strategy. It aims to identify the issues and problems that need to be addressed.
- By export horticulture we are referring in this phase to horticulture directed at profiting from the European market. This definition is important because the European market has quite different requirements from local or regional markets.
- We could also include North America and the Middle East here. North America is omitted from the reasoning because the comparative advantages of Ghanaian supply are insufficient, except perhaps in yams. The Middle East is providing some demand currently, for example in fresh pineapples and mangoes, and Ghana’s position here could be explored in more detail as an adjunct to the European market.

6.1 RECENT PERFORMANCE OF GHANAIAN HORTICULTURAL PRODUCTS IN EUROPE

- Ghanaian horticultural products are present in a number of European countries and are marketed through the multiple retailers and wholesalers.
- The major Ghanaian products sold in Europe are bananas, pineapples, mangoes, papayas, yams, chillies, and various Asian vegetables.
- There are some notable investment success stories in, for example, fresh-cut pineapple, orange juice, and bananas. Mangoes may be emerging now too.
- Yam and chilli exports have grown without significant investment, or indeed support, as these are aimed at ethnic markets where Ghana has some advantages either in airfreight cost (chillies) or in trading connections (yams).
- In the key product of pineapples, which currently account for 42% of the value of Ghanaian whole produce into Europe, Ghanaian exporters have lost market share in the period 2003 to 2007. The European market for pineapples has almost doubled in size, but Ghanaian industry has been unable to capitalize on this expansion.
- Current exports of whole pineapple fruit are 40% focussed in the Fair Trade niche. This does not leave room for rapid growth and is vulnerable to attack from Costa Rican competitors. Another 40% is successfully marketed through several channels in Europe by the investor, Compagnie Frutière.
- We conclude that Ghanaian horticultural products are not achieving their full potential in the European market. Can we learn from the achievements of the various donor programs?

6.2 WHY ARE GHANAIAN PRODUCTS NOT ACHIEVING THEIR POTENTIAL?

- We know that Ghanaian pineapple producers have been hard hit by the switch to MD2. However, at this traumatic time Ghana has dropped down from third largest to fifth place in the supplier rankings and market share has dropped from 10.5% to 4% between 2003 and 2007.
6.3 SO WHERE DO SMALL SCALE PRODUCERS FIT?

- Other products have also under-performed (mangoes and papaya, vegetables) and it is proving increasingly difficult to compete in the European arena.
- Ghanaian enterprises have been unable to convert the comparative advantages in any of these products into real competitive advantage. The existing comparative advantages (e.g. location, freight, climate, labor) are insufficient to continue to profit easily from the European market. Meanwhile, the major competitors in Central and South America are exporting from large scale, efficiently managed farms that are committed to servicing the market with planned programs of supply.
- Maintaining low costs, while achieving the European market standards of quality and performance, requires skills and capital. Modern equipment, efficient logistics, and strong management are now essential if an enterprise is to compete in Europe. This is even truer where there are few comparative advantages.
- We can therefore say that a business-like and technologically-innovative approach is needed, appropriately financed and well managed with technical expertise.
- Ghana needs investors and technical management to drive exports forward and to spearhead an opening for the Ghanaian smaller scale producers to utilize. Therefore we need to understand how to support current investments and how to attract further investment.
- Failure to move in this direction will result in Ghanaian output confined to the diminishing low price market in Europe and minor niches. Larger scale exports will impact on the sea-freight capability, with more frequent sailings, more varied destinations, and opportunities to lower costs.

Currently, the Ghanaian small scale producer is struggling to compete in the mainstream European market with fresh produce passing along a route of an aggregator consolidating product for export. This may once have been possible, and it still is where ethnic demand is concerned, but for the supermarket a new order of supply is needed. The supermarkets have performance requirements that stretch the capabilities of the best of their suppliers, while the competition between suppliers is acute.

- There is a significant contrast between the success in yams, exported to the European ethnic markets and the failure in sweet potatoes, sold through the supermarkets.
- Small scale producers tend to supply the local and regional markets. These can be very substantial and have a number of significant advantages over the more remote opportunities.
- Within the local market, there are opportunities to supply to processors and that way the small scale producers can access the Europe-directed supply chain. The opportunity for Smooth Cayenne pineapples does not appear to have been realized. There would seem to be a potential demand for 45,000 tonnes based on the current needs of Blue Skies (15,000 tonnes), and the reported capacity at Pinora (30,000 tonnes).

- This demand requires a greater production than was achieved by small scale farmers at the peak of Ghana’s export history. However, we need to understand the needs of the processor (Blue Skies requires both Smooth Cayenne and Sugar Loaf) and returns to the farmer from sales to processors.
- Ghana cannot base an industry on a market where the demand is focussed through two companies. We must broaden the processing base.
- This requires investment in processing plants and the development of an outgrower base. Then, small scale farmers will have an important role to play in supplying processors. Sales to local processors are more attractive than exporting in terms of linkage, contracting and payment.
- Similarly, outgrowers have a role to play in supplying nucleus farms and supplementing grower/exporters. Indeed, some UK supermarkets, keen to support the small scale farmers, are promoting this route. The model here can take various forms but most likely will be based around a nucleus of production and will certainly require significant investment.
- On the Smooth Cayenne production, we should note that there remains a demand for 5,000 tonnes of high-end premium air-freighted product. Perhaps this can be expanded with an appropriate marketing initiative.
6.4 WHAT ARE THE IMPLICATIONS FOR A NATIONAL STRATEGY?

- This study is directed at preparing a strategy for building exports to Europe. We believe that it is important to recognize the separation of the local and regional supply chain from the export oriented chain, and then address the need to attract investment into export horticulture.

- We need to look at the opportunities for investment; what induces investment; why do other countries attract more investment; what are the experiences of current investors in Ghana; and where can we find investors? We need recommendations based on evidence. We need to assess the capacity and willingness for investment from within Ghana as well as from foreign sources.

- With an investment oriented approach, the development of Europe-directed horticultural exports will cut across several ministerial responsibilities. We note, for example, that preliminary discussions with existing investors suggest that the major issues are not agronomic but concern transport, currency, management skills and VAT on imports. The initiative will require active co-ordination and promotion.

- As regards horticultural production, the medium-term focus of the Ministry of Agriculture should be clearly on support to the smaller scale producers, and the value chain approach taken by FASDEP II is important here. The work developing the small scale farmer sector will be critical to the health of the overall industry, supporting the processors and the diversity of producers will bring sturdiness to the sector.

- Europe-directed horticulture will impact on the rural economy with employment and opportunities for outgrowers once the investment in a competitive, managed industry is in place.

- The activities of the ministries need coordination, and, for this, the National Horticultural Task Force may be the appropriate vehicle. In effect, it could become a horticultural export development council merging the current roles of the trade associations.

- There is a risk in the current donor environment that momentum and knowledge will be lost as the current projects come to the end of their terms. An arrangement needs to be found, and perhaps it is the NHTF, whereby the lessons learned from the project-based approach can be applied to a more general strategy.
Part I - Scoping Review

7. NEXT STEPS

The next stage is to develop a strategy to assist Ghana in maximizing its potential in the European market for produce, both fresh and processed.

7.1 VALIDATION

Before we embark in this direction we need to validate our approach with the sector leaders in Ghana. There needs to be agreement that although there have been developments and achievements in the market, Ghana is not maximizing its potential and positioning itself competitively.

A shift in emphasis is needed to take export horticulture upwards: export-oriented horticulture needs a solid business core because it can no longer be expected to grow simply out of aggregations of small scale operations. To progress in the European market and achieve the potential benefits, Ghana must have a foundation of lead firms capable of exploiting the European demand for tropical fruit and vegetables.

Without developing a strong business culture, the Ghanaian exports of fresh produce will be confined to low value markets (for example, yams and ethnic market chillies) with limited growth potential, or to niches in the higher value offerings (such as Fair Trade pineapples) resulting in slow growth and vulnerable to the aspirations of the South American competition. If Ghana is to achieve a realistic target of sales to Europe in excess of 300,000 tonnes per year by 2015, then the building blocks of larger investments, well-equipped, with efficient logistics, and above all soundly managed, will be needed. Pioneers such as Blue Skies, HPW, ITFC, Compagnie Fruitière and Pinora are showing the way forward.

This is a different approach from the current development orientation that views the smallholder as a competitor in the European market. First, a stronger foundation of agri-businesses is needed. Through these Ghana can gain the macroeconomic benefits of employment, fiscal revenue and foreign exchange that export horticulture offers. Second, the small scale independent producer can be encouraged to join the export supply chain through this structure of processors or estates supplemented by outgrowers.

The strategy for export horticulture, therefore, focuses on the agri-businesses or lead firms. Encouraging investment, developing technical expertise, supporting good management, and upgrading the infrastructure and improving the operating environment will secure the foundation.

Support to the small scale farmers growing export crops would then be directed at their position as suppliers to this value chain. So, the support must be planned in partnership with the businesses with the aim of an increasing return to all in the chain from expanding export sales.

Export horticulture is, by definition, a part of the wider Ghanaian horticultural picture but it forms a distinct subset where the issues are firmly commercial and not problems of food security, nutritional status, or indeed subsistence. Failing to separate them does not best serve the diversity of producers. Assistance and support must be allocated appropriately.
What capabilities are required to successfully supply the European/British supermarket trade?

The performance requirements in terms of programs, volume, promotion, and customer service need to be fully appreciated. Selling into this sector is not only a question of conforming to the regulations of the GLOBALGAP, but also of matching the customer service levels of competing suppliers. An example mentioned earlier in this report noted the difficulty of competing in the sweet potato market, where significant sales pass through the supermarkets, compared to the yam market, where most sales are outside of the supermarket sector.

Are there other markets and products that might be of interest?

Are there opportunities for small scale producers in other products or other arenas, such as the niche markets of organic, fair-trade, or other geographic destinations?

Who are the lead firms and what are their needs?

The industry leaders should be identified and their needs appraised. Key improvements include:

- Infrastructure—roads, airport facilities, power—development;
- Transportation access and cost reduction;
- Shed 9 utilization; and
- Middle management training and capacity development.

What are the current requirements for outgrowers? How can we stimulate growth?

Pinora, for example, is under-supplied with pineapples. How do we expand the opportunities and develop the supply? There is a great base of small scale production in the Ghanaian horticulture sector. With the appropriate linkages these producers can supply the European market, through the processors and the larger grower/exporters. The diversity of producers provides a broader foundation on which to base the industry.

Are there potential partners in Ghana?

Having failed to find a partner, Chiquita was unable to proceed with its plans to establish production in Ghana. However, the door is not closed and they may yet be interested. The possibility of other potential partners should be investigated urgently.

Different investors will use different models but most will require some kind of partnering in order to establish facilities in Ghana. Identify and interview potential players.

What can we learn from the widespread failures among SPEG members and in particular from the demise of Farmapine?

A more detailed analysis of the collapse of some of the companies and the survival strategies of the remaining ones may provide useful pointers for the industry as a whole. Who has succeeded in the MD2 supply chain and what can we learn from them?

What can be done to develop capabilities of management and innovation?

MiDA has allocated $66 million to training of Farmer Based Organisations and yet there seems to be a shortage of management capability available in agribusiness. We need an appraisal of the currently available training in agribusiness management. Then, a component to augment the present capability can be incorporated, if needed, into the strategy for export horticulture.

It is critical that the industry has the capacity to introduce and adopt innovation in order to remain competitive. The position of export horticulture in relation to the other national agricultural products will determine to some extent the resources that can be allocated. The requirements for support should be developed together with the potential customers so that a mechanism, perhaps involving matching grants, can be developed.

What are the current policy attractants for investment? How can they be best adapted for export horticulture?

We believe that Ghana has the potential to supply in excess of 300,000 tonnes of fresh produce annually to Europe within the next eight years. This would create over 20,000 direct jobs, a far greater number of indirect jobs, and have a knock-on effect in terms of developing the infrastructure and logistical capabilities for produce exports. The potential rewards justify an assertive policy to encourage investment.

How is the export horticulture sector best directed?

What might a development council look like? What would be the Terms of Reference? Might it be responsible for driving through the opening and management of Shed 9? Would the National Horticultural Task Force be the appropriate foundation for this role? How can it be made accountable?

The appropriate balance of direction from the various ministries and boards need to be appraised. There are issues beyond agriculture here that concern investment, export, and treasury. The appropriate institutional support needs to be defined.
Overview of the Comparative and Competitive Position of Producers Attracting Investment
There are many examples we could review, but suggest the following:

*Ethiopia* – a newcomer on the air-freighted horticulture scene and growing quite rapidly through a process that has been driven by incentives and support from central government and based on the country’s comparative advantages.

*Senegal* – expanding supplier to Europe, based on low sea-freight costs and short shipping times to Southern Europe.

*Egypt* – development of processing of produce.

*Costa Rica* – what attracted the investment to create the competitive position?

The ability to involve small scale producers in the chain is a key issue to be researched here.

Identify Potential Investors and Interview Them
Who are they?

What do they want?

What would make Ghana attractive?

Sources of Finance
What sources are available for agricultural production or processing projects in Ghana? The range of sources has expanded significantly over the past ten years, and is no longer confined to national or multilateral donor facilities. Can the IFC be incorporated into this strategy?

Collate the Information into a Strategy for the Horticultural Export Sector
The final strategy report taking the view forward to 2015 will be presented in Ghana.
A summary of each of the donor projects that have recently been or currently are directed at export horticulture follows. It has not been possible in the time available, nor would it be appropriate in this forum, to provide an evaluation of the plans or achievements of these projects.

1.1 HORTICULTURAL EXPORTS INDUSTRY INITIATIVE (HEII)

HEII grew out of the recommendations of the 2003 World Bank report on the horticulture sector and formed a component of the much larger AgSSIP program. The broad objective was to consolidate the gains in export horticulture by securing the competitive position of Ghanaian producers. Seven key activities were envisaged:

1. Post-harvest infrastructure
   - Refurbishment of Shed 9 at Tema
   - Upgrading of perishable handling at Kotoka International Airport
   - Development of field post-harvest centres

2. MD2 sourcing and development

3. Planting Material Sourcing and Dissemination
   - Trials

4. Innovative Research and Development
   - GIS
   - Technical innovation
   - Dissemination & extension

5. Food Safety & Quality Management
   - Pesticide Regulations
   - GAP
   - Certification

6. Industry ownership and farmer equity
   - Shed 9
   - Kotoka Perishable handling
   - Seed sourcing operations

7. Strategic support systems
   - Strategic studies
   - Horticulture agribusiness information hub
   - Market intelligence tools
   - Project monitoring

Eventually, substantial changes to the plan were needed. The decision to extend the refurbishment of Shed 9 at Tema used a greater portion of the budget than had been forecast. This component was considered to be a priority and other activities were sacrificed, among them developments to Kotoka International Airport and the field post-harvest centers. With a running time of barely three years there was little opportunity to carry out research and development, but there were successes in a number of areas such as the introduction of sweet potato varieties and trials on okra and melon varieties. Apart from Shed 9, other success stories include the rollout of almost 5 million MD2 plantlets for multiplication, food safety work leading to harmonized lists of registered pesticides, the development of the Ghana Standards Board laboratories, and work on GAP certification with TIPCEE and MOAP. HEII also applied matching grants to support the ITFC mango outgrower project at Tamale, and developed the strategic support systems for the industry with GIS.

While there has been an overall evaluation of the AgSSIP program there does not appear to have been a detailed evaluation of HEII. A more complete assessment of the contributions would be useful. That said, HEII has succeeded in raising the profile of the sector dramatically, both within MoFA and to the donor community (TIPCEE, MiDA, EMOAPI), bringing substantial support to the sector.

1.2  EXPORT MARKETING AND QUALITY AWARENESS PROJECT (EMQAP)

EMQAP is financed by the African Development Bank and began in 2007. The objective is to increase the incomes of horticultural crop farmers and exporters and of cassava producers. It is being implemented in Central, Eastern and Volta Regions and Greater Accra and focuses on export fruits (e.g. pineapple and papaya) and vegetables (e.g. chillies and eggplants), as well as cassava. The project has four components: (i) Production and Productivity Enhancement; (ii) Export Marketing Promotion and Infrastructure Improvement; (iii) Capacity Building; and (iv) Project Coordination and Management. There are plans to construct four temperature controlled pack houses, to upgrade over 400km of feeder roads, to develop demonstration farms in each region, and to continue the work of HEII on GAP.

1.3  GHANA PRIVATE-PUBLIC PARTNERSHIP FOOD INDUSTRY DEVELOPMENT PROGRAM (GHPPP)

GHPPP was initiated in 2002 and ran for 30 months. The program linked together Michigan State University’s (MSU) Partnership for Food Industry Development, Fruits and Vegetables (PFID-F&V) program, Royal Ahold, a Dutch supermarket and food service company, and the NGOs involved in the USAID Trade and Investment Reform Program (TIRP), namely AMEX International, TechnoServe, and CARE International.

The partnership worked toward five objectives:

1. Develop logistical chain to achieve products of specified consistency, quality, and safety.
2. Develop skills and capabilities of all participants in the horticulture supply chain.
3. Establish a Ghanaian NGO with the capability to lead the horticultural industry in sustainable and profitable development.
4. Provide technical assistance where needed to entities in all segments of the horticultural supply chain.
5. Develop and market commercially viable nutritional products for children and pregnant women and other natural products.

1.4  TRADE AND INVESTMENT PROGRAM FOR A COMPETITIVE EXPORT ECONOMY (TIPCEE)

TIPCEE is a five year program funded by USAID and implemented by Chemonics in a consortium with CARE and TechnoServe, among others. The program began in 2004 and the goal of TIPCEE is to increase Ghana’s private sector competitiveness in world markets through an improved enabling environment and a strengthened capacity of the private sector to respond to market demands. The objectives for TIPCEE can be grouped into four broad categories: expanded market access, more integrated industry/cluster activities, improved performance of enterprises and smallholders, and key policy and regulatory constraints addressed and solutions proposed.

Since the project’s inception, TIPCEE’s Export Business Development (EBD) and Enabling Environment (EE) components have made significant progress in implementing practical improvements in the supply chains of various horticultural industry commodities and in reforming the Ghanaian policy and regulatory landscape. To complement its basket of high-value export commodities—pineapple, mango, papaya, cashew, vegetables, and medicinal plants—and provide greater outreach to smallholder farmers, TIPCEE expanded its approach to include more traditional food crops—identifying maize, citrus, onions, and tomatoes as new target commodities.

The Export Business Development Component comprises three initiatives:

1. Development of innovations and knowledge tools:
   - The development of crops-specific training materials for good agricultural practice (GAP) and integrated pest management (IPM) in conjunction with MoFA/EMQAP and GTZ/MOAP
   - Improve product quality norms and standards in conjunction with GSB
- Develop GLOBALGAP (EUREP GAP), Fair Trade, and other quality assurance systems in collaboration with GTZ/MOAP and MoFA/HEII
- Geographic Information Systems
- Strengthening supply chain management systems including financial management systems templates, post-harvest infrastructure designs, and the Last Mile Initiative (LMI), which uses ICT to improve the linkage and data exchange between farmers and nucleus exporters
- Enhance Financial Management and Facilitate Investment Support
- Strengthen associations

2. Activities to deepen outreach and dissemination, building on the achievements and pilot studies of the past three years to extend the coverage of GAPS, certification and norms and standards;

3. Market access and strategic partnerships:
   - Support to the www.ghanafreshproduce.org website with a market monitor and a logistics bulletin board

1.5 GERMAN TECHNICAL COOPERATION (GTZ) AND GERMAN DEVELOPMENT SERVICE (DED)

GTZ and DED jointly implement the Market Oriented Agriculture Programme (MOAP) funded by the German Government. The program improves upon the competitiveness of agricultural producers, processors and traders on regional, national and international markets. The program uses a value chain approach based on pineapple, citrus, mango, chili, guinea fowl, grasscutter and aquaculture.

The program began in 2004 and runs until 2013.

The components of the program include:

- Value chain development through market analysis, chain linkage, technology, and capacity building
- Public sector development through support to planning and policy and donor coordination
- Private sector development through institutional development of associations (e.g. HAG and SPEG), support to market access, export promotion, and trade fairs (e.g. Fruit Logistica), quality and certification standards and product innovation.

1.6 THE MILLENNIUM DEVELOPMENT AUTHORITY (MIDA)

The Millennium Challenge Account compact for a grant of $540 million was signed in August 2006. The initial disbursement was made in March 2007 and the compact will run for five years (i.e. late 2012/early 2013).

The goal is the “reduction of poverty through economic growth led by agricultural transformation.”

2. A pilot effort using GIS technology to map 3,000 farms in the citrus supply base has helped link the farmers with the major juice processors in Ghana.

Within this goal are two objectives:

1. Increase production and productivity of high value cash and food crops in three selected zones of Ghana;
2. Enhance the competitiveness of high value cash and food crops in local and international markets.

Three projects will work towards these objectives:

1. Agriculture Project ($241 million)
   - Increased farmer and enterprise training in commercial agriculture
   - Increased irrigation development
   - Land tenure facilitation
   - Improved post-harvest handling and value chain services
   - Improved access to credit on farm and value chain services
   - Improved linkages to farmlands and markets = rehabilitation of feeder roads (950 km)

2. Transportation Project ($143 million)
   - Enhanced access to air and sea ports—upgrade to N1 sections
   - Improved trunk road network in Afram Basin
   - Improved Volta Lake Ferry services

3. Rural Development Project ($101 million)
   - Support for Community Services
     - Energy for Domestic and Commercial uses
     - Water and Sanitation Facilities
     - Educational and Vocational facilities
   - Strengthen rural financial institutions
   - Strengthen public sector procurement capacity

The targets of the MiDA compact are:

1. 1,200 Farmer Based Organisations (FBOs) participating in commercial agriculture activity
2. 60,000 farmers trained in commercial agriculture activity
3. 120 enterprises trained in commercial agriculture activity
4. 51,000 farmers adopting new technologies and farming methods
5. 10–14% post-harvest lost at farm gate (down from baseline 20%)
6. 120 ponds and weirs constructed
7. 5060 ha irrigated
8. 34 post-harvest structures constructed
9. 385,120 tonnes of products passing through post-harvest treatment (total for five years)

The program will operate in 23 districts in three zones: the Southern horticultural belt, the Afram Basin and a Northern zone.

Immediate deliverables of the agriculture project will include training of FBOs, credit to nucleus farmers, a pack house at Kotoka International Airport, construction of pre-coolers on nucleus farms.

The overall responsibility for the implementation of the compact program rests with the Millennium Development Authority (MiDA). MiDA engages ministries, consultants and contractors for the execution of the activities. MiDA is subject to Government of Ghana audit requirements as well as the audit provisions of the compact. MiDA has a 14 member board including at least five ministers, representatives of the District Assemblies in each zone, and representatives of the private sector and NGOs.

Implementation of the activities is assigned in the first place to the Central Management Consultant (CMC) who has a co-ordinating role for the three Regional Implementation Consultants (RICs). Oversight of the contracts is maintained by the Agriculture Project Manager at MiDA. There are a number of other implementing agencies for various components such as the infrastructure development project and the rural services.

The four roles of CMC and RICS are now filled. However, the third and final RIC was not appointed until the start of May 2008.

Regarding budgets, the agricultural Project Activity is forecast in table I.A.1.

To this we can also add a part of MiDA’s Rural Development Project. There is an electrification component that will bring power supply to cooling systems in pack houses and agro-processing plants.
**Table I.A.1: Budget for MiDA Agriculture Project Activity (in millions)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Farmer &amp; Enterprise Training</strong></td>
<td>CMC to develop framework for FBO training</td>
<td>$66.0</td>
</tr>
<tr>
<td></td>
<td>RIC to implement FBO training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MoFA to prime FBOs for training</td>
<td></td>
</tr>
<tr>
<td><strong>Post Harvest Activity</strong></td>
<td>Provide 3 public pack-houses in Southern Zone</td>
<td>$20.3</td>
</tr>
<tr>
<td></td>
<td>Pre-coolers for nucleus farmers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Construct perishable cargo centre at KIA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Upgrade the institutional capacity of 3 institutions. Small sale grain storage facility</td>
<td></td>
</tr>
<tr>
<td><strong>Irrigation Development Activity</strong></td>
<td>Provide 10 weirs</td>
<td>$27.7</td>
</tr>
<tr>
<td></td>
<td>110 dams</td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least 5,000 ha under irrigation</td>
<td></td>
</tr>
<tr>
<td><strong>Agric credit and other credit</strong></td>
<td>Provide short and medium term credit to the agriculture value chain</td>
<td>$40</td>
</tr>
<tr>
<td></td>
<td>Post harvest infrastructure (storage services)</td>
<td>$8</td>
</tr>
<tr>
<td><strong>Land Activity</strong></td>
<td>Create 9 Title Registration Districts</td>
<td>$10.7</td>
</tr>
<tr>
<td></td>
<td>Facilitate land transactions via on-demand services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clear backlog of land cases in 10 Circuit Courts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Train &amp; build capacity in public/private sectors involved in Land Administration</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>$172.7</td>
</tr>
</tbody>
</table>

Source: [www.mida.gov.gh](http://www.mida.gov.gh)
Over the last few years in Europe there has been strong promotion of the health benefits of consuming more fruit and vegetables. However, despite increased advertising, consumption has been remarkably static or even declining. Recently published data shows that fruit consumption within the EU member states was 107 kg per capita in 2006 (down from an average over the previous five years of 108 kg). The decline was more marked for vegetables: in 2006 the consumption was 98 kg per capita compared to 103 kg averaged over the previous five years. This represents a decline of 0.7% in fruit consumption and 4.5% in vegetable consumption.¹

It is recognized that this is an over simplification of a very complex market, but it does indicate that overall, the EU fruit and vegetable market is, at best, mature. In mature markets there are always opportunities, especially in specific niches where growth is often driven by innovation and product development. In the case of fruit and vegetables, convenience foods, pre-packs/prepared and ready-to-eat line items have also driven the expansion of different market categories.

In the UK, the retail value of fruit and vegetable sales was £8.47 billion in 2003,² which was a small increase of just over 2% per year between 1998 and 2003. These data do not include the food service supply chain; where the value of fruit and vegetables consumed has been calculated at £1.5 billion.³ In the UK, retail fruit sales have shown increases across all broad categories (table I.A.2), which are attributed to increased snacking, the consumption of “smoothies” and the realization of their dietary importance for healthy eating. Retail fruit sales are dominated by bananas, apples, and citrus—all of which exhibited small increases in sales between 2000 and 2002. Interestingly, in percentage terms, the category that exhibited the biggest increase in sales was “other fruit”—a group that includes mangoes, pineapples, and papaya. In other words, even though the spending on fruit may only be growing slowly in the UK, the increase is most rapid in the sector where much of Ghana’s exports are positioned.

Within the UK vegetable sector, sales of salads and greens showed the biggest growth while the main losers were onions and root crops (table I.A.3). The growth in salads is related to the promotion of pre-packs and specialty tomatoes.

### TABLE I.A.2: Retail Value of Fruit Sales in the UK, 2000–2002 (£ millions)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2002</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bananas</td>
<td>643</td>
<td>665</td>
<td>+ 3.4%</td>
</tr>
<tr>
<td>Apples</td>
<td>613</td>
<td>617</td>
<td>+ 0.7%</td>
</tr>
<tr>
<td>Citrus</td>
<td>490</td>
<td>499</td>
<td>+ 1.8%</td>
</tr>
<tr>
<td>Grapes</td>
<td>276</td>
<td>280</td>
<td>+ 1.4%</td>
</tr>
<tr>
<td>Stone fruit</td>
<td>276</td>
<td>278</td>
<td>+ 0.7%</td>
</tr>
<tr>
<td>Soft fruit</td>
<td>245</td>
<td>246</td>
<td>+ 0.4%</td>
</tr>
<tr>
<td>Pears</td>
<td>153</td>
<td>155</td>
<td>+ 1.3%</td>
</tr>
<tr>
<td>Other</td>
<td>367</td>
<td>410</td>
<td>+ 11.7%</td>
</tr>
<tr>
<td>Total</td>
<td>3,630</td>
<td>3,762</td>
<td>+ 4%</td>
</tr>
</tbody>
</table>

Source: Mintel data, taken from Fresh Fruit and Vegetables (May 2003)

### TABLE I.A.3: Retail Value of Vegetable Sales in the UK, 2000–2002 (£ millions)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2002</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salads</td>
<td>1,162</td>
<td>1,236</td>
<td>+ 6.4%</td>
</tr>
<tr>
<td>Greens</td>
<td>726</td>
<td>752</td>
<td>+ 3.6%</td>
</tr>
<tr>
<td>Mushrooms</td>
<td>399</td>
<td>407</td>
<td>+ 2.0%</td>
</tr>
<tr>
<td>Roots</td>
<td>399</td>
<td>391</td>
<td>– 2.0%</td>
</tr>
<tr>
<td>Onions</td>
<td>218</td>
<td>195</td>
<td>– 10.6%</td>
</tr>
<tr>
<td>Other</td>
<td>726</td>
<td>781</td>
<td>+ 7.6%</td>
</tr>
<tr>
<td>Total</td>
<td>3,630</td>
<td>3,762</td>
<td>+ 4%</td>
</tr>
</tbody>
</table>

Source: Mintel data, taken from Fresh Fruit and Vegetables (May 2003)
and the innovation of the multi-colored pre-packs. The increase in sales of greens (a group that covers cabbage, broccoli, green beans, and peas) was also due to increased sales of pre-packs and baby vegetables. Sales of root crops, which are dominated by carrots, showed a downturn. The value of mushroom sales increased despite downward pressure on prices associated with imports. The biggest loser was onions, despite an increase in the sales of speciality lines such as red onions. The possible impact of these changes in vegetable consumption on market opportunities for Ghanaian farmers is difficult to interpret because these vegetables are dominated by EU production. However, the biggest growth sector was “other vegetables,” a category that would include many of the vegetables imported from Ghana.

The main supply chain for retailing fruit and vegetables was multiple-retail chains, accounting for 84% of the retail sales in 2002, an increase of 2.2% over 2000 (table I.A.4). The category showing the biggest decrease was greengrocers and independent retailers, which declined by a very significant 76%. Market stalls and other outlets showed small increases. From the perspective of the Ghanaian producer, it is important to recognize that the multiple-retailers represent the biggest market and the largest growth. Suppliers to the multiple-retailer supply chain should be GlobalGAP certified; which highlights the importance of this private sector agricultural standard to Ghana’s ability to access the EU horticultural markets.

There are a number of factors that affect consumers’ decision-making when buying fruits and vegetables—even if they do not contribute to significant overall growth.

- Advertising and promotion of the “5 a day” campaign is expected to stimulate the consumption of fruit and vegetables.
- The increase in “snacking” has increased fruit consumption—this is probably the reason for the growth in fruit noted above. This was especially noticeable among younger people.

- Health concerns and the increase in numbers of people in higher income groups. As higher income groups eat more fruit and vegetables, continued improvement in the national economy will stimulate the demand for fresh fruit and vegetables.
- Supermarkets increasingly recognize that fresh produce is a “destination item” and therefore are putting greater efforts into improving the quality and range of fresh fruit and vegetables and adding more resources to promote the sector and thereby attract more customers.

Despite all these positive drivers that should be impacting fruit and vegetable sales, the indications from the above data are that total sales of fruit and vegetables in the EU are remarkably static; often trying to increase market share in a mature market can be both difficult and expensive. However, Ghana is fortunate in that the product lines it produces for export are actually showing good growth. For example, the four main fruit lines that Ghana exports to the EU showed a 33% increase between 2001 and 2007: the growth in pineapples and papaya is particularly impressive (table I.A.5). The expansion in the four categories of vegetables that Ghana exports to the EU are slightly less than the fruit, but still the growth is much better than the growth in the overall EU vegetable consumption.

### Table I.A.5: EU Imports of Certain Horticultural Products, 2001–2007

<table>
<thead>
<tr>
<th>Product</th>
<th>2001</th>
<th>2007</th>
<th>% Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pineapples</td>
<td>374,748</td>
<td>829,243</td>
<td>121%</td>
</tr>
<tr>
<td>Bananas</td>
<td>3,801,895</td>
<td>4,882,893</td>
<td>23%</td>
</tr>
<tr>
<td>Mango</td>
<td>136,830</td>
<td>211,570</td>
<td>55%</td>
</tr>
<tr>
<td>Papaya</td>
<td>18,848</td>
<td>36,481</td>
<td>94%</td>
</tr>
<tr>
<td>Total fruit</td>
<td>4,332,321</td>
<td>5,760,187</td>
<td>33%</td>
</tr>
<tr>
<td>Capsicum</td>
<td>25,486</td>
<td>35,833</td>
<td>41%</td>
</tr>
<tr>
<td>Ravaya</td>
<td>375</td>
<td>2,438</td>
<td>550%</td>
</tr>
<tr>
<td>Babycorn</td>
<td>4,965</td>
<td>6,509</td>
<td>31%</td>
</tr>
<tr>
<td>Other veg</td>
<td>67,347</td>
<td>74,933</td>
<td>11%</td>
</tr>
<tr>
<td>Total fruit</td>
<td>98,173</td>
<td>119,713</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: Accord Associates LLP based on Eurostat data

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4. The climate in Europe prevents the cultivation of the horticultural products considered in this table; therefore total imports will approximately be the equivalent to total consumption.
The background to the EU’s policy in supporting trade with ACP countries goes back to 1963 when the European Economic Community initiated preferential trade agreements with its former colonies (Treaty of Yaounde). Then, starting in 1975, the EU agreed to give ACP countries unilateral preferences to its markets under the four Lomé agreements with the hope of boosting trade.

When the last Lomé agreement ended, new incentives to stimulate trade were negotiated and approved (the Cotonou Agreement). This called for the creation of reciprocal trade agreements, or Economic Partnership Agreements (EPAs) between the EU and regional blocks of ACP countries. It was expected that regulations covering Ghana’s trade with the EU would be incorporated within ECOWAS (Economic Community of West African States) and that the EPAs would be agreed before the end of 2007. The EPAs were expected to continue the trade preferences already enjoyed by ACP exporters and also be a comprehensive agreement to help reduce transaction costs for companies, improve transparency, and help create bigger markets for both ACP and EU countries.

Progress in establishing an EPA with ECOWAS did not happen as rapidly as expected and towards the end of 2007, there was a fear that Ghana’s horticultural exports to Europe might be subjected to import tariffs. Most sub-Saharan African countries were not overly concerned about the lack of progress with EPAs as they could export goods into the EU under the EBA (Everything but Arms) initiative. However, as Ghana is not an LDC (Least Developed Country), the EBA initiative does not apply and its horticultural exports could be levied charges under the General System of Preferences (GSP). For instance, the GSP tariff for pineapples would be 5.8% of the C&F value, and bananas would have attracted a €176/tonne levy.

Ghanaian exporters would have been severely constrained if an EPA was not agreed upon, and therefore on 13 December 2007, Ghana and the EU intialled an interim EPA which would allow 100% free access to the EU market except for rice and sugar, which would have transition periods. The Côte d’Ivoire signed a similar agreement six days earlier.

It is expected that the bilateral EPA will eventually be replaced by an agreement between ECOWAS and the EU. This will require some negotiations within ECOWAS to harmonize the agreements on imports from the EU, but this is not expected to be a serious issue for horticultural exports as any amendments will most likely revolve around imports from the EU. There is a very slight chance that the intialled agreements might not be accepted by the World Trade Organization (WTO), but again this is unlikely.

In summary, there were concerns during late 2007 that the slow pace of negotiating the EPA by ECOWAS might negatively impact Ghanaian horticultural exports. However, the intialling of the bilateral EPA between Ghana and the EU has removed this concern.
All horticultural produce imported into the EU must meet certain legal standards. These standards are principally to protect consumer health and to ensure fair trade practices in the food trade. The basic regulations normally applied are the Codex standards.1 Codex is recognized in the relevant World Trade Organization (WTO) agreements as the international body able to provide the minimum standards required to protect the consumer. The EU has been negotiating community membership of Codex for some years, and this has now been achieved.

In addition to meeting the basic Codex standards, imported horticultural produce must be accompanied by a phytosanitary certificate issued by the relevant Government department in the exporting country, confirmation of its country of origin (EUR 1 forms); it must be labelled correctly, each actor in the supply chain must be able to document where the produce was procured from and who it was bought from and finally the produce must not have pesticide residues above certain maximum levels. On the whole, most professional exporting organizations are able to fulfil these requirements relatively easily.

In addition to the minimum legal standards, the major EU supermarket chains have established their own standards which are more stringent than the Codex based ones. As most of the horticultural produce in Northern Europe is retailed through the major multiple supermarkets,2 it is important that Ghanaian exporters do attain the certification required to access supermarkets. The mostly widely used private sector standard was established in 1997 by the EuroRetailer Produce (EUREP) working group and this was referred to as EUREPGAP. However, it has grown in importance and the EUREP Board decided to re-brand it in 2007 as GlobalGAP—but it is still often referred to as EUREPGAP.3 The basic aim of GlobalGAP is exactly the same as the minimum Codex standards, i.e., to ensure that the fresh fruit and vegetables sold by retailers are safe for human consumption. Attaining GlobalGAP is not a legal requirement, but it is regarded as the minimum standard that exporters must have before they can supply the main European retailers.

In addition to GlobalGAP, some supermarkets demand their own standards. For example, in the UK, these include Tesco’s “Nature Choice” and Marks and Spencer’s “Field to Fork,” but if an exporter can achieve GlobalGAP, then it is not normally too difficult to achieve the standards demanded by specific supermarkets. The final variants on private food standards are organic and fair trade, both of which some Ghanaian exporters have benefited from.

One of the key facets of private sector standards is the ability to be able to trace the history of a product throughout the supply chain from field to the consumer. This essentially requires a comprehensive system of record keeping. It is a much higher standard than the minimum EU legal requirement, which is just a record of who it was bought from and who it was sold to.

There are a number of misunderstandings about GlobalGAP. It is sometimes thought to be extremely difficult to achieve certification and that it is costly. In fact achieving these private sector standards is not that difficult and many farmers in Ghana, often with capacity building from donor projects, have already achieved GlobalGAP. It can be costly for a small farmer because they are not able to spread expenses over a large quantity of produce; especially if significant investments are required in building toilets and chemical stores.

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1. The Codex Alimentarius Commission was created in 1963 to develop food standard guidelines.
2. It is estimated that over 80% of horticultural produce is sold through the big seven supermarket chains in the UK and, in (Section 3.10) it was noted that 96% of the fresh prepared fruit was sold through supermarkets. All this produce must therefore meet GlobalGAP standards.
3. This decision was announced on September 2007 at the 8th global conference in Bangkok.
The EUREP working group is aware that it is more difficult for small farmers and in order to reduce costs, a collective certification scheme (GlobalGAP Option 2) was established to allow groups of farmers to comply as a unit. The cost of achieving GlobalGAP Option 2 in Kenya has been calculated at $1,270 for establishment and $350/year for maintenance. Even though an effort has been made to reduce the cost to small farmers, many Kenyan farmers regard $350/year as too high and many have allowed their certification to lapse. Because of the high cost of establishing and maintaining GlobalGAP, some donors have concentrated on assisting small farmers to achieve certification.

One of the criticisms of GlobalGAP has been that it is focussed on the European market and does not take full cognizance of the specific problems of small farmers in Africa. While this might be true, it should be noted that Ghanaian producers are supplying European supermarkets with produce and Golden Exotics has even been awarded Tesco’s Nature’s Choice gold accreditation.

GhanaGAP is being developed as more sympathetic to production systems in Africa. It has been pointed out that some other countries have established their own standards, e.g., Chile, Kenya, and Thailand. However, it should be recognized that ChileGAP was established to harmonize private sector standards demanded by the North American and European retail markets; it basically took the most stringent demands from both markets and established one standard that was acceptable to both. ThaiGAP has been primarily established to meet the demands of the EU supermarket chains who are investing in Thailand. As yet, there have been no positive outcomes from the establishment of the KenyaGAP.

The concept of establishing standards for a local and regional market is commendable, but Ghanaian exporters who want to target the EU should concentrate on attaining GlobalGAP standards as this will help the most with market access.
A selection of relevant, reports, publications and presentations are listed below. The collection of reports is collected on a CD-ROM with a hyperlinked index. The CD-ROM is available at EMQAP.

Abt Associates Inc. 2006  Fresh Produce Market Competitiveness Study
Accord Associates 2001  The European Pineapple Market Reactions to Different Varieties & Ghana’s Market Position
Afari-Sefa, Victor and Siegfried Bauer 2005  The Interlinks Between Agricultural Export Diversification, Food Security and Livelihood of Farm Households in Southern Ghana. Conference on International Agricultural Research for Development
Ahold 2002  Ghana. Sustainable horticultural export chain
Chamberlin, Jordan 2005  Spatial Perspectives on Development Opportunities in Ghana IFPRI
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PART II – RECOMMENDED ACTIONS

Prepared for
World Bank Sustainable Development Network (WB-SDN)
Africa Region, Agriculture and Rural Development (AFTAR),
The Republic of Ghana Ministry of Food and Agriculture, and
European Union All ACP Agricultural Commodities
Programme (EU-AAACP)

Prepared by
Natural Resources Institute
2010
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Our vision for commercial horticulture in Ghana is a flourishing sector built with businesses that are profitable, sustainable, and able to respond effectively to change. Such an industry has great potential to provide employment and so contribute to the efforts to ameliorate rural poverty.

We focus our vision on the commercial since the targets and priorities for development are rather different. We are concerned here with production and marketing of fruit and vegetables as a business for profit. Further, we believe that successful businesses will pull the wider horticulture sector forward with technological, social, legislative, and economic linkages.

Today, commercial horticulture in Ghana is not flourishing. We see year-on-year growth in most products, and there are some success stories that show what can be achieved, but there has been a widespread inability, across the portfolio of products, to exploit the export market opportunities competitively and effectively.

Part I of this report provided an overview of the Ghanaian export horticulture sector to examine the performance of the sector between 2003 and 2007 and to review the constraints. That was the first phase of defining a new strategy for horticulture and Part II will examine the goals and how they might be achieved.

Part I suggested a number of steps to be taken:

- Validation
- What capabilities are required to successfully supply into the European/British supermarket trade?
- Are there other markets and products that might be of interest?
- Who are the lead firms and what are their needs?
- What are the current requirements for outgrowers? How can we stimulate it?
- Are there potential partners in Ghana?
- What can we learn from the widespread failures amongst SPEG members and in particular from the demise of Farmapine?
- What can be done to develop capabilities of management and innovation?
- What are the current policy attractants for investment? How can they be best adapted for export horticulture?
- How best to direct the export horticulture sector?
- What are the comparative and competitive positions to producers attracting investment?
- Who are the potential investors and what do they need?
- What are the Sources of Finance?

The process of answering these questions led to the development of a strategy for the horticultural export sector. However, in taking the first step of validating the findings with the various actors in Ghana it became clear that there were many other questions raised that might have a bearing on the strategy, depending on how the concept of a strategy was defined. In particular, the scope of the strategy has been broadened to include commercial horticulture not aimed at distant export markets.

We have tried in the present report to cover many different aspects of the Ghanaian horticultural scene as well as the domestic and external trade environment. While this contributes to building a solid business case for the strategy, the diversity of research would swamp the strategy itself if presented in one long narrative. The research that supports our conclusions has therefore been separated out as a separate section of background papers each of which stands alone. From each paper the key conclusions have been abstracted and are presented here, in chapter 2, as the basis for the strategy.

Before moving on, it is perhaps helpful to have updated data to hand. In the period between the research for Part I and the preparation of this strategy, trade data show a continuation of the trends noted earlier (table II.1.1).
In the banana trade, volumes have increased by 50% since 2007. The export data for 2008 show that the contribution of the Golden Exotics Ltd production was the most significant difference in Ghanaian exports, which had not exceeded 5,000 tonnes per year previously. The 2008 export data show banana exports of 48,280 tonnes from Ghana to the EU, of which Golden Exotics contributed 44,580 tonnes. The discrepancy with import data in table II.1.1 is a consequence reporting times and volumes in the pipeline.

Pineapples show a modest increase in volume over the period but hidden within is a dramatic change in the fortunes of the participants. The switch in preference of the European supermarket buyers from the traditional smooth cayenne variety to the MD2 and the impact this had on the Ghanaian growers is now well known. The scale of the change is perhaps less well recognized (figure II.1.1).
Golden Exotics report pineapple exports of 13,500 tonnes in 2007 and 10,000 tonnes in 2008. SPEG does not capture all data.

Not only have volumes dropped away rapidly, but the industry is now heavily dependent on the output of two companies; neither of which, incidentally, were significant players in the early part of the decade. If it were not for the growth of exports by Golden Exotics (whose output dropped in 2008 because of changes 18 months earlier) and Bomarts, the true state of the Ghanaian pineapple industry would be apparent.

We expect output to increase in 2009 and then grow gradually year-on-year as the two leaders expand and as others gradually improve their capability with the new, more difficult crop. The opportunity here however is now significantly greater than in 2003 when Europe imported about 375,000 tonnes: imports in 2008 exceeded 920,000 tonnes.

Mango exports have crossed the 1,000 tonne mark with the increased output from northern plantings and are set to rise further.

Papaya, meanwhile, still dependent on the output of two operations, has fallen back.

Chillies have grown well in volume, but these are still exported as the most basic bulk packed product and not capturing the potential value of selection and pre-packing. The Ghanaian advantage here lies in the cheap air freight which cannot be matched by other origins, and so the product can be sold in the low value wholesale markets.

Among the root crops, yams and cassava are both exporting significantly more and are successful in their own ethnic markets, benefiting from the low production costs in Ghana. The comparison with sweet potatoes, where Ghana has made no headway against key suppliers such as Israel and the U.S.A., is interesting because these are the higher value and the supermarket demand has grown strongly.

Further updates of the EU market can be found in Background Paper E1.
2: KEY MESSAGES FROM SECTION III BACKGROUND PAPERS

2.A OUTGROWERS

2.A.1 FARMAPINE

No attempt should be made to rehabilitate FARMAPINE or recreate the experiment1

The company, FARMAPINE, was established with the assistance of the World Bank in 1998 as part of a Bank project to enable several hundred smallholders to sell directly to the EU market.

The company structure was based on the World Bank’s Farmer Ownership Model and by 2002 FARMAPINE was the second largest pineapple exporter in Ghana. Four years later, however, in 2006, the company was declared bankrupt and ceased trading.

We reviewed the history and investigated the current status and concluded that the project was a badly designed and badly managed operation whose demise was only hastened by the trauma of switching production to MD2. FARMAPINE’s great failing lay in the management which not only lacked commercial thinking, but was also top heavy, lacked business experience, managed finances appallingly and had no vision for the future of the business.

2.A.2 CONTRACT FARMING

Potential for contract farming for processing...

...especially if there are opportunities to implement improved agronomic management.

The logic behind contract farming is that the buyer gets a guaranteed supply of raw material where price, quantity, delivery time, and quality are assured. The farmer benefits because of the assured market. Both parties also benefit because contract farming gives the opportunity for transaction/market costs to be taken out of the chain as well as providing a conduit for information flow.

We explored the concept and reviewed the application in Ghana. We find that there are a number of benefits as well as disadvantages. There are few examples of contract farming being undertaken in Ghana horticulture with small-scale farmers. There is, in effect, contract farming with the suppliers of fruit, almost exclusively with medium and large-scale producers, for the fresh-cut industry, but similar arrangements are not yet seen in juicing. Only ITFC2 with its mango operations shows contract farming for fresh fruit. Contract farming is not seen in the vegetable supply chain.

1. The current status of other Farmer Ownership Model projects in other countries should be reviewed as there may be valuable lessons. We suspect that not only was the implementation at fault in Farmapine, but the model itself is not suitable for the export of fresh produce where smallholders now struggle to compete. See Paper D2. The model may well have applications in other crops (groundnuts, cocoa, coffee) or markets (local, regional) where production by smallholders can be competitive.

2. ITFC—Integrated Tamale Fruit Company— is a private company cultivating organic mangoes in Northern Region of Ghana. ITFC operates a nucleus farm of some 160 ha supplemented with the production of some 1,300 small scale outgrowers each with 0.4 ha of mangoes. The production is aimed at export.
2.A.3 LOCAL AND REGIONAL MARKETS FOR FRESH PRODUCE

Good opportunities... The difficulty of serving the distant export markets brings to the fore the role of local and regional markets. Can these markets provide alternative trading opportunities to support further growth and development of Ghana’s export horticulture industry? This paper attempts to answer this question by looking at the current state and future prospects of domestic and regional markets.

...but we need a better understanding through some focused research into the trade and markets. Our review suggests that the markets are growing by 10% per year or more, driven by an expanding population, with increasing wealth supported by increases in the expatriate population and tourism. We propose that there are challenges in servicing these markets that could be overcome if better understood.

2.A.4 EXPORT SUPPLY CHAINS

We need to quantify the links in terms of volumes and pricing. The position of the various players in the fresh and processed produce supply chains is illustrated graphically.

2.B BUSINESSES

2.B.1 SOURCES OF FINANCE

Funds for financing horticultural projects are available... During the research many farmers and agribusinesses claimed that their biggest constraint was shortage of finance. There are a wide range of sources of finance available from development banks, commercial banks, merchant banks, local equity investors and even some donor finance. This Background Paper discusses some of the main issues raised by interviews with the different financing institutions.

...but existing quality projects with good management are rare. The key conclusion from the review of the sources of finance is that there are funds available in Ghana for investment in export horticulture; while interest rates may not be as low as businesses might like, the finance institutions struggle to identify good investments with the quality of management needed to ensure that the business plan targets are met.

To accelerate growth... However, if the government wants export horticulture to expand, there is probably need for “off-farm” finance to open up new areas of land.

...there is a need for finance to open up new areas for export horticulture. Currently there is some reluctance by investors to open up new areas and consequently much of the agricultural and horticultural development is taking place in existing production areas where there is already electricity, good roads, and other services such as a trained workforce. Serious considerations need to be given to a fund to assist businesses who invest in new, green-field sites and/or investments in plantation crops.

2.B.2 FRUIT PROCESSING

Good progress in attracting investment... Processing of horticultural crops provides another opportunity for farmers to market their crops; and sometimes it can be a useful opportunity to sell product that does not meet export market standards.

...but we need innovation and research to... Ghana has made good progress in attracting investment in processing. It is estimated that there is current capacity in Ghana to process about 40,000 tonnes of pineapples and about 30,000 tonnes of citrus each year.

... reduce raw material production cost
We expect that the fresh-cut industry will continue to expand steadily providing it can continue to improve quality, processing efficiency and reduce costs to be able to compete with the EU-based factories. Recommendations include efforts directed at innovation and research into reducing production costs and also innovation and improvements in processing efficiency and quality to reduce processing costs; market research and marketing missions for potential new niche markets.

2.B.3 POTENTIAL EXTERNAL INVESTORS

Among the constraints on the Ghanaian horticultural export industry we would include a shortage of top-quality management and supervisors, poor technical support, and lack of innovation. The rapid expansion of Compagnie Fruitière and Bomarts demonstrates what can be achieved when management and technical expertise are added to Ghana’s comparative advantages.

If Ghana is to expand its portfolio of horticultural exports in both volume and range, it needs an increase in the pool of top-quality managers and technical expertise. This can be achieved from within by training, and externally by recruiting foreign investors.

To date, importer attempts to establish strategic partnerships with existing exporters have not been successful. It is therefore crucially important that efforts are made to attract large-scale and world-class horticultural businesses to Ghana; along the lines of Compagnie Fruitière investment in Golden Exotics.

If this arrangement can be replicated (in both tropical fruit and vegetables), then it will help Ghana attain the economies of scale to become even more competitive.

2.B.4 PROFITABILITY OF CROPS AND FARM SIZE

Government and development partners have focused much effort on supporting the smallholder farmer as export horticulture is often seen as a good opportunity to generate income, employment and improve the level of skilled workers in rural areas. The export pineapple industry provided benefits for significant numbers of smallholders in peri-urban areas around Accra between 1983 and 2005.

However, times change. Most smallholders have now disappeared from the export pineapple value chain. The reasons for this need to be fully understood: is it an inability to supply quality fruit profitably, and if so then why, or did the failure of so many exporters so damage their smaller suppliers that they in turn were unable to continue with pineapples, or does export marketing now impose conditions which are difficult for small-scale farmers?

In the authors’ opinion all three factors have contributed. The higher costs of production are difficult for the under-resourced small-scale farmer even though the eventual return maybe higher. The losses incurred from the collapse in demand of Smooth Cayenne undoubtedly discourage the risk of higher losses, not least when the agronomy is only now becoming clearer. Further, it is suggested that the production costs for a large farm are lower than those of his outgrowers. None of the major exporters interviewed expressed any interest in buying pineapples from small farms in the future. Those that use outgrowers stipulate a minimum farm size of 30–40 acres. A minimum threshold might be established by further work.

Other papers (C3, D2) explore these problems further, and, while there are issues peculiar to pineapples, the authors believe that there are many competitive issues in today’s
export horticulture market that are unsuitable for the small-scale producer participation unless linked through a professional business with close market linkages in the destination market. An alternative model is urgent if the rural economy is to profit from export horticulture.

2.C  COMPETITIVENESS AND INNOVATION

2.C.1   GHANA’S COMPARATIVE POSITION

There are comparative advantages...
...but the industry has not converted these into competitive advantage.

Ghana has considerable comparative advantages as an exporter of horticultural products. This Paper summarizes the advantages and then considers the country’s recent performance.

In conclusion, we argue that the reasons why Ghana has not succeeded in establishing a much larger horticulture export industry include a shortage of excellent managers, insufficient top quality supervisors and middle management; there is a lack of a culture to innovate, many of the export farms lack professionalism to compete. We believe that there is a need to benchmark the performance of Ghana’s exporters against the competition.

2.C.2   INNOVATION

Stimulate with...
...matching grants...
...tax relief...
...collaboration...
...benchmarking

If Ghana is to succeed in developing a world class and competitive export horticultural industry, it must innovate. We discuss here the meaning and relevance of innovation and the relative roles of the private and the public sectors.

We believe that there are various needs including: incentives for the private sector to innovate, perhaps with matching grants and also tax-relief; supplementary technical assistance for those companies that want to innovate; a more collaborative approach that promotes the exchange of ideas and information; benchmarks, in terms of costs and process.

2.C.3   CREATING COMPETITIVE ADVANTAGE

In the short-term bring in managerial expertise from outside...
...in the medium term develop a training programme for practical management....
...to build a cadre of locally trained managers for the longer-term.

Following on from the preceding two papers we argue that if Ghana is to create competitive advantage, it will be through high quality, professional and innovative management.

Good technical management can be recruited internationally in the short-term, but it will be necessary to improve the agricultural training establishments to ensure that there are sufficient good quality Ghanaian managers.

Government and donors should consider providing finance for on-farm training of supervisors and middle-management. Initial developments should consider how to improve the quality of management by easing restrictions for work permits and reducing the tax burden on internationally recruited staff. But the longer term solution lies in schemes to provide on-farm training for supervisors and middle-management.

We would like to see a scheme for accelerated learning for selected university graduates, probably operating at a regional level in West Africa, which would provide a combination of training programmes in business with placements in companies offering practical management experience.
2.C.4 CASE STUDIES OF COSTA RICA, ETHIOPIA AND THAILAND

The export of fresh produce is an important part of Costa Rica’s economy. The industry is valued at over a billion dollars and it is dominated by the banana and pineapple sectors. Until the mid-1990s fresh produce exports were led by the banana sector, and although this still occupies almost 50% of the value of Costa Rican fresh fruit and vegetable exports, the importance of pineapple has increased significantly.

In the early 1990s, Costa Rica was a minor player in the world fresh pineapple export market, but since then Costa Rica has become the leading exporter in both the USA and European markets. The key factor has been the pivotal position of one transnational company, Del Monte Fresh Produce, which had been fortunate in acquiring a key innovation, a new cultivar that created market differentiation to the extent that it became the new market standard.

Over a short period of time, Ethiopia has become the second largest flower exporting country in Africa, after Kenya. In 2008 exports reached USD118 million from 1,200 ha with 80 growers employing 90,000 people. The Ethiopian flower sector has experienced high growth from a low base over the last five years through significant foreign direct investment attracted by the incentives provided by the Government.

In Thailand, fresh and processed fruit and vegetables play an important part in the economy and the export sector, with trade to neighbouring countries in the region providing the main export markets. The Government played a key role in changing policies that had restricted foreign investment, which has stimulated inward investment.

2.D POLICY AND INSTITUTIONS

2.D.1 HAG AND SPEG: WHO HAS SURVIVED?

Modern businesses need the agility or ability to respond rapidly and efficiently and thrive in a changing and unpredictable business environment. The change in market demand from smooth cayenne pineapples to MD2 required companies to invest rapidly in a new product, new production and post-harvest technologies and in knowledge and expertise for an efficient operation.

The experience of HAG and SPEG members illustrates that most businesses in Ghana lacked the agility to meet these challenges.

The lesson from the HAG and SPEG survivor’s story is that any strategy for the future of the export horticulture industry in Ghana should seek to promote well-resourced businesses that will have the ability to respond pro-actively to change and compete effectively as an alternative supplier to Costa Rica.

The futility of some donor efforts to support small exporters was illustrated by HAG who complained that some donors provide a lot of training but the members lack the resources to implement any of the knowledge gained from the training.

2.D.2 PLANS POLICY AND INSTITUTIONAL SUPPORT

In horticultural exports, support from government and donors to date has for the most part been focused on the small-scale farmer as s/he was the basis of most agricultural activity in Ghana.
chains in the primary export markets...

...and the competitive challenges now demand performance that can only be met by a well-managed business-like industry.

The industry needs institutional support...

...that invites and encourages inward investment...

...and recognizes that large scale farming is the engine of growth in horticulture exports...

...while supporting small-scale farmers as suppliers with extension services...

...and developing a capacity to collaborate and innovate.

We believe that it is important now to recognise that the export horticulture sector needs a fundamentally different approach to that which might currently apply to other sectors of agriculture.

This change has been brought about by the developments in the primary market, Europe, where the change in structure of retailing and the management of the supply chain has resulted in challenges that today can only be met by large-scale farmers.

To derive the economic benefits from the opportunities in supplying the European market, we must first develop a large-scale farming sector and use this to penetrate the market and secure position. This will then open opportunity for the small-scale farmers. The sector-specific needs include:

From the Government

- Policies friendly to investment and the private sector—there has been much progress in this arena over recent years and it is clear that Ghana is attracting increasing interest from investors. Specific to export horticulture are problems in land tenure, the processes of resolving contract disputes, issues of bureaucratic overhead such as Customs, VAT, tax and so on.
- Support to the large scale farming sector as the engine of growth in horticulture exports. This links the Private Sector Development Strategy, the Trade Sector Support Programme with MOFA which has been noted as absent.
- Support through extension to the small-scale farmers;
- Development of the capacity to innovate—management of research
- Support to regional trade—border procedures, infrastructure etc

From the Donors

- Investment in developing the sector—we need specific attractants for investment, for example developing the infrastructure to bring investment into an area, but also in support of the smaller commercial farmers.

From the NGOs

- Continued support to the small-scale farmer—ensuring that returns are maximised in the linkage of small farmers into the supply chain; strengthening farmer organisations; ensuring that the rewards of commercial horticulture reach the widest range of beneficiaries

From the private sector

- Maximum collaboration—the present proliferation of trade organisations (HAG, SPEG, VEPEAG, GAVEX, PAMPEAG and five different mango associations) are not cost-effective to their members, lack co-ordination, lack strength for advocacy, and are unable to tackle the bigger issues. In place we propose a single, private sector led authority capable of collaborating with all players (not only private sector but also government, donor, NGO) and driving the development of the commercial horticulture sector—for exports and the local market. The roles are elaborated in the main report here.

Socially and environmentally responsible development ensures a sustainable growth in the sector.
2.D.3 LAND ACQUISITION

In Ghana, land issues are perceived to impede investment...

...and current efforts are aimed at a long term resolution.

An immediate, practical initiative is needed...

...identifying, demarcating and securing the title of areas for development...

...to be offered for investment

To the potential investor in agriculture the availability of land is one of the first questions to be answered by the pre-investment enquiries. In Ghana, the acquisition of land, and the security of rights to its use, is widely perceived as a significant impediment to investment.

The situation in Ghana, with the application of both statutory and customary rights, is quite typical of many African countries and it is tempting to look elsewhere for solutions. However, the similarities are often superficial and the local socio-economic environment, the previous history, the pressure on the land can be markedly different. Even at the local level there are variations in how the customary rights are applied and there can be no single solution.

The thrust on land in Ghana is for the most part statutory with an emphasis on land titling and registration. This will be a long and arduous process and our concern here is to find a process that eases the route for the investor from 2010 onwards, rather than to comment on the overall process of reform.

The development of a Land Bank Directory is a welcome and practical step, but needs to go further. Larger tracts need to be assembled; the tracts should be properly surveyed and demarcated and agronomic information made available; a clear Government policy should be formulated within the development plans for the provision of off-farm infrastructure such as bringing water supply and power to the edge of the farm.

The Government might consider a role in intermediation, for example leasing the land in order to sub-let it to an investor. We propose that a Horticultural Development Fund is established to secure land for horticultural investment.

2.E EXTERNAL MARKETS

2.E.1 EU IMPORTS OF SELECTED TROPICAL PRODUCTS

We provide an update of the trade into Europe of the major horticultural exports of Ghana.

- Imports of pineapples to the EU grew by a further 11% from 2007 to 2008. The increment was entirely supplied by Costa Rica where exports to the EU increased by 100,000 tonnes. Sendings from other significant origins were stable or down from 2007.
- Imports of bananas to the EU grew by 163,000 tonnes (3.5%) from 2007 to 2008. Ecuador, Colombia and the three West African origins of Cameroon, Ghana and Côte d’Ivoire all recorded significantly increased sales. Output from Costa Rica fell.
- Imports of mangoes to the EU are still growing and reached 229,000 tonnes in 2008. Sendings from Ghana went above 1,000 tonnes for the first time.
- European imports of papaya appear to be stabilising. Côte d’Ivoire showed a strong jump in exports while Ghanaian output seems steady.
- EU imports of chilli capsicums grew to 38,000 tonnes in 2008 up from 36,000 in 2007. Ghanaian exporters lost market share with slightly reduced sendings in 2008.
- Ravaya (baby aubergine) is a small market in the EU but recording strong year-on-year growth. Exports from Ghana are small, but the potential to substitute both Kenyan and Thai exports with cheaper air-freight is clear.
“Other Vegetables”: This category includes okra and other Asian vegetables, parsley and pumpkins and squashes among others that the customs statistics for imports do not separate out. The UK has shown strong growth in butternut squash imports and this explains much of the growth of imports in this category from southern hemisphere suppliers such as South Africa and Argentina. 

- **Yams** are the success story of Ghanaian fresh vegetable exports. The business goes from strength to strength with increasing market share. 

- **Cassava** imports to the EU have levelled off. Costa Rica dominates the supplies. Ghana could send more and compete with Costa Rica, but the local market is strong and cassava has particular importance in food security. 

- EU imports of **sweet potatoes** have grown further and reached a total of 57,000 tonnes in 2008. There is further opportunity for growth in the market. Imports are dominated by products from the U.S. and Israel. The U.S. now leads the exporters. Despite efforts at introduction in Ghana and expansion of the production, exports remain insignificant.

### 2.E.2 SUPERMARKET AND IMPORTER BUYING PRACTICES

The EU supermarket sector offers access to an enormous market...

...but the supply chain is highly managed by a few very large companies...

...and access demands levels of performance from the suppliers only found in the best managed companies.

Sustainability in the produce production and transport is an important driver of new opportunities...

... but this is not simply a label and suppliers must be capable of matching best practice.

### 2.E.3 THE CREDIT CRUNCH AND ITS IMPACT

Fresh produce is used by supermarkets to attract customer loyalty...

... and in-store offers on fruit and vegetables were a noticeable retailer response to the economic downturn...

Retailers and brands that can demonstrate empathy with consumers in tough times gain loyalty and retain customers who may be tempted to move to a discounted offer elsewhere. As a consequence of this trust relationship, retailers and brands often try to anticipate consumer concerns or move faster than consumer demand to enhance perceived brand empathy and consequently protect sales.

Fresh produce developed through the 1990s as an important own-brand statement. Fresh produce became a destination category for which shoppers will switch stores.

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3. **CSR**—Corporate Social Responsibility is a business model that requires the deliberate inclusion of public interest into corporate decision-making.
The produce department moved from the back to the front of the store and was given high priority for constant availability, freshness and value, with shelf area doubled. This emphasis continued through the price rationalisation of 2009, with fresh produce being some of the most visible and prolific in store offers.

One of the major food casualties of the economic downturn was organic fresh produce. Discounting and promotional activity, more common in the mainstream lines, had been applied to the previously premium-priced ethical brands where the consumer would normally be aware that they were paying more as an ethical or lifestyle choice purchase.

After a decade of producer investment in standards and ethical sub-brand labels to meet the evolving EU supermarket needs, it is apparent that ethical niche labels are not protected from the pressure to reduce prices. Similarly, production systems that do not yield effective commercial volumes or margins cannot rely on a price premium that recognizes better stewardship or practices.

The paper concludes that concerns of climate change and food security will impact on the long distance food imports:

- Climate change is likely to dominate brand messages in the near term. Therefore, understand the carbon footprint and exploit any natural advantage in low carbon production.
- Food security concerns will force retailers to justify why they are trading food in countries that cannot feed their own population issues. Therefore promote a country profile and awareness that Ghana is capable of sustaining its people and maintaining a professional and vibrant export market.

2.E.4 ALTERNATIVE REGIONAL MARKETS

We review the opportunities that might be available in alternative markets to the members of the European Union. Specifically the markets of the Middle East, North Africa and the Lebanon and South East Europe are evaluated.

There is potential for sales to all three areas. None of the markets here are particularly demanding in standards or SPS requirements (note however that Bulgaria, Romania and Slovenia are members of the EU), but some have quite high import tariffs. It is important to remember however, that the importance of the multiple retailers is increasing in all these markets too, and that a number of European supermarkets are developing a presence here as well. They in turn will bring in their own private standards.

The opportunity in all the markets needs to be seen in its proper perspective: there is neither the scope nor the depth found in the EU and these markets will not form the foundation from which to grow a flourishing export industry. They are however important in two aspects. Firstly, the opportunistic trade, less demanding in standards, can benefit the medium size exporters of Ghana. Secondly, the markets provide the well-established supplier with an opportunity to extend its reach beyond Europe, and no profitable opportunity should be ignored.

2.E.5 BANANAS

Ghana provides an opportunity to diversify the sources of supply of bananas...

The world banana market is fragmented, relatively static and highly distorted. The single most important and dynamic market is the EU. Growth in new markets has been rather disappointing.

The world’s banana market is very concentrated in a few large companies and through very powerful supermarket chains.
...even if it is not able to compete with the top-rank producers...

...it remains competitive with other origins

Ghana has preferential access to the EU which makes banana production attractive in the short-run. If the latest round of WTO negotiations re-starts and is concluded, it is highly likely that this margin of preference would be severely eroded4.

Ghana is better placed to produce bananas efficiently than many traditional producers such as the Caribbean countries, but would struggle to compete with the very large-scale and low labour-cost profiles of Latin America.

2.E.6 ALTERNATIVE PRODUCE

Babycorn, lychee and asparagus...

...would exploit the comparative advantage of Ghana to Europe air-freight rates...

...while butternut, avocado and sweet potatoes...

...are sea freighted and can gain advantage from the shorter shipping times than competing origins.

We assess the potential opportunity in the European imports of a variety of products. We have selected the products on the basis of known potential as well as agronomic suitability. All will require a high degree of management for export but the greater proportion would be suitable for small scale cultivation: for example, much of the Kenya export of avocados is based on small scale farmer output, while the Thai babycorn industry is heavily dependent on small scale growers.

All the crops could be cultivated in Ghana, and some have been for many years but have not developed far as export crops.

The butternut and sweet potatoes are more durable than other fresh produce and could be grown further away than the usual two to three hours travelling time from a port that most produce requires.

Trials to establish the profitability of each will be needed if the opportunity is to be developed and this raises the question of who should be responsible for such research and introduction. At present, the private sector has very limited resources to carry out such research on a systematic basis. This underlines the need for a capacity to innovate. The list of crops here is only intended to be indicative; it is neither comprehensive nor are the opportunities for profitability assured.

2.E.7 FRUIT JUICE MARKETING OPPORTUNITIES

To more fully exploit the opportunities and utilise installed capacity we need to....

...research the local market...

...research the export markets...

...identify strategic partnerships with European manufacturers...

...and encourage inward investment

It is estimated that the processing capacity is possibly in the order of 20,000 to 30,000t of finished product. We consider the market opportunities and constraints for further expansion of the fruit juice industry in Ghana. In order to fully exploit the opportunity for fruit juices in Ghana, it is important:

- That the local market is fully researched to understand the demands and estimate the scale of the opportunity for local processors and to estimate when it is likely to be satisfied.
- To identify export opportunities; both in terms of markets and products that they could sell.
- To identify potential European-based fruit juice manufacturers who might be interested in establishing strategic partnerships with Ghanaian processors.
- To give assistance to foreign companies that wish to invest expertise and finance in either processing and production in Ghana.

4. Dec 2009, since this paper was written, a deal has been reached between the EU, Latin America, the ACP countries and the USA. The terms include a reduction in the tariffs on bananas from Latin America to Europe, dropping from €176/tonne to €148/tonne in January 2010, and then falling to €114/tonne in 2016.
3: OPPORTUNITIES

Table II.3.1 updates the projections shown in the 2008 report to include more recent data and a longer time horizon. These projections are based on the opportunity that we see for product in the export markets. They are not based on the current capacity of the horticulture industry in Ghana and they assume a competitive ability to increase market share.

We believe that the projected production is achievable both in terms of production and marketing, but it is only realistic if some substantial investments are made. The growth rates required to achieve these outturns will not be incremental improvement in yields or expansion of acreage. The opportunity can only be realized by the application of finance, management, and technical know-how.

There are two important points about the scenario presented here:

- The opportunity is based on existing products that are already produced in Ghana. There is not a risk associated with predictions based on new crops.
- The figures do not take into account other markets, though we believe (see Background Paper E4) that these opportunities are rather smaller.¹

The rewards for achieving these levels of output are impressive:

1. Foreign exchange sales of €288 million (C&F) annually
2. Direct employment of 23,000 people in the production of these crops.
3. At current minimum wages, the jobs would contribute $14 million to the rural economy every year.
4. The number of jobs created indirectly in servicing the exports and supplying the producers would be substantially greater.
5. With 16,000 tonnes air freighted and 375,000 tonnes exported by sea, the number of sailings and flights would increase markedly, as would the range of destinations served. This would benefit the smaller players, providing a range of alternative markets and carriers.
6. An estimated 17,000² ha will be in production. The likely total requirement for land will be at least double this figure in order to allow for crop rotations as well as farm infrastructure. The rental income will be important.

¹. Golden Exotics report total banana exports of 46,910 tonnes in 2008 of which 44,580 tonnes (over 95%) went to the EU.
². Based on conservative assumptions for yields of the crops listed in Table II.3.1
### TABLE II.3.1: Projected Exports from Ghanaian Horticulture in 2017

<table>
<thead>
<tr>
<th>VOLUME (TONNES)</th>
<th>2008</th>
<th></th>
<th>PROJECTED ANNUAL GROWTH IN EU IMPORTS</th>
<th>2017 TONNES</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOTAL EU IMPORTS</td>
<td>FROM GHANA</td>
<td>GHANA SHARE</td>
<td>TOTAL EU IMPORTS</td>
<td>FROM GHANA</td>
<td>GHANA SHARE</td>
</tr>
<tr>
<td>Pineapples</td>
<td>922,855</td>
<td>35,601</td>
<td>3.9%</td>
<td>4%</td>
<td>1,300,000</td>
<td>92,000</td>
</tr>
<tr>
<td>Bananas</td>
<td>4,854,559</td>
<td>45,951</td>
<td>0.9%</td>
<td>3%</td>
<td>6,300,000</td>
<td>255,000</td>
</tr>
<tr>
<td>Mango</td>
<td>228,864</td>
<td>1,098</td>
<td>0.5%</td>
<td>4%</td>
<td>325,000</td>
<td>6,500</td>
</tr>
<tr>
<td>Papaya</td>
<td>35,940</td>
<td>1,061</td>
<td>3.0%</td>
<td>1%</td>
<td>39,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Ravaya</td>
<td>2,816</td>
<td>375</td>
<td>13.3%</td>
<td>5%</td>
<td>4,300</td>
<td>1,000</td>
</tr>
<tr>
<td>Capsicum(Chilli)</td>
<td>38,416</td>
<td>2,737</td>
<td>7.1%</td>
<td>4%</td>
<td>54,600</td>
<td>4,500</td>
</tr>
<tr>
<td>Babycorn</td>
<td>6,442</td>
<td>16</td>
<td>0.2%</td>
<td>3%</td>
<td>8,400</td>
<td>2,100</td>
</tr>
<tr>
<td>Yams</td>
<td>23,273</td>
<td>13,468</td>
<td>57.9%</td>
<td>4%</td>
<td>33,000</td>
<td>21,500</td>
</tr>
<tr>
<td>Cassava</td>
<td>23,725</td>
<td>2,561</td>
<td>10.8%</td>
<td>2%</td>
<td>28,000</td>
<td>3,500</td>
</tr>
<tr>
<td>Sweet potatoes</td>
<td>57,082</td>
<td>44</td>
<td>0.1%</td>
<td>8%</td>
<td>114,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Pineapples</td>
<td>€593,489,228</td>
<td>€33,577,747</td>
<td>€838,500,000</td>
<td>€59,340,000</td>
<td>€645</td>
<td></td>
</tr>
<tr>
<td>Bananas</td>
<td>€2,909,889,137</td>
<td>€29,340,703</td>
<td>€3,780,000,000</td>
<td>€153,000,000</td>
<td>€600</td>
<td></td>
</tr>
<tr>
<td>Mango</td>
<td>€267,944,723</td>
<td>€2,417,928</td>
<td>€380,250,000</td>
<td>€7,605,000</td>
<td>€1,170</td>
<td></td>
</tr>
<tr>
<td>Papaya</td>
<td>€53,031,659</td>
<td>€1,732,688</td>
<td>€60,450,000</td>
<td>€3,100,000</td>
<td>€1,550</td>
<td></td>
</tr>
<tr>
<td>Ravaya</td>
<td>€6,131,712</td>
<td>€692,747</td>
<td>€10,320,000</td>
<td>€2,400,000</td>
<td>€2,400</td>
<td></td>
</tr>
<tr>
<td>Capsicum(Chilli)</td>
<td>€51,566,807</td>
<td>€4,943,055</td>
<td>€73,290,000</td>
<td>€11,700,000</td>
<td>€2,600</td>
<td></td>
</tr>
<tr>
<td>Babycorn</td>
<td>€21,748,818</td>
<td>€42,984</td>
<td>€28,350,000</td>
<td>€8,097,000</td>
<td>€3,856</td>
<td></td>
</tr>
<tr>
<td>Yams</td>
<td>€31,981,551</td>
<td>€22,821,413</td>
<td>€55,902,000</td>
<td>€36,421,000</td>
<td>€1,694</td>
<td></td>
</tr>
<tr>
<td>Cassava</td>
<td>€17,249,844</td>
<td>€1,810,458</td>
<td>€19,600,000</td>
<td>€2,450,000</td>
<td>€700</td>
<td></td>
</tr>
<tr>
<td>Sweet potatoes</td>
<td>€35,438,008</td>
<td>€31,846</td>
<td>€85,500,000</td>
<td>€4,500,000</td>
<td>€750</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>€97,411,569</td>
<td></td>
<td>€288,613,000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The export horticulture sector in Ghana is in a serious predicament: if it continues as it is, it may grow gradually but it will lose market share in the face of increasingly severe competition, even with the application of resources to improve infrastructure and support the industry. The alternative is to introduce change, and bring in world-class investors to provide a solid base from which the industry can push forwards towards our projections of foreign exchange sales of €288 million (C&F) annually.

We forecast that Ghana could almost treble its earnings from horticulture within a decade: the natural advantages of the workforce, the soil, the water, the climate, the location, and the products are all there already. With the application of finance, expertise, management, and collaboration the necessary scale can be achieved to revitalize the industry. The scale itself brings competitive advantage: it allows investment in research, market development, innovation, training, and value addition.

Ghana needs its export horticulture industry: there are families that depend on it and there are many more that could benefit from it. A flourishing industry will support thousands directly and even more indirectly in servicing the industry. New opportunities for contract farming can be opened up and land that currently earns little can be brought into production achieving an income for the communities and employment for the people.

We propose a two step strategy:

1. Encourage and support initiatives by international class companies in the fresh produce business to invest in Ghana and to establish significant businesses under their own management.
2. Ensure that Ghanaian investors and producers are able to benefit from the incoming technical and managerial skills, the infrastructure, and the marketing links established by the investing companies.

### 4.1 RATIONALE

The background papers that make up Part III of this strategy report collate our findings from a wide range of research into the export horticulture sector, its markets, and its competitors.

Taken together, the papers indicate an industry toiling hard to make any headway in the export markets.

Serious activity in the major fruits (pineapples, bananas, mangoes, and papaya) is limited to supply from a handful of companies. Many that were growing or trading pineapples have gone or are debilitated. The success stories in the vegetable arena are confined to products where opportunities for growth are relatively limited (yams and cassava) and there is no attempt to differentiate the product (chillies) from commodities sold on price alone.

In its present state, the horticulture sector is poorly structured to service the major markets in Europe; the reality is a sector of undercapitalized small producers lacking the resources, and often the capabilities, needed to partner with European distributors. They become confined to selling into niche markets (e.g., Fair Trade) or commodity markets (e.g., bulk-packed chillies for ethnic wholesale markets).

Yet there is ample opportunity available with important economic benefits. There are comparative advantages (of water, climate, and logistics) that give access to that opportunity as well (see Background Paper C1). It is not the will or the support that is lacking: farmers have lost their livelihoods trying to service this market, innovative farms have failed (see Background Paper A1—Farmapine), financing has been offered and accepted, and donor funds applied to technical and marketing support.

The model itself is now no longer appropriate to the operating environment. Small-scale farmers on their own cannot sustain competition in the European markets for fresh
produce; they cannot achieve the volume and consistency of supply that the major distributors require for major products such as pineapples and mangoes.

Export horticulture is unusual among agricultural endeavours in that it is no longer suited to independent small-scale operators (see Background Papers B4 and D2). This was not always so (the Ghanaian pineapple industry was founded on the labors of small-scale farmers) but the European retailing of fresh produce has undergone a dramatic change in the last 25 years, and the small supplier is being squeezed out as the traditional production and export structures no longer fit the supply chain (see Background Papers E2 and E3).

Table II.4.1 illustrates some of the competitive issues here.

| TABLE II.4.1: Competitive Strengths and Weaknesses of Different Farm Types |
|-------------------------------------------------|-----------------|-----------------|-----------------|-----------------|
| SMALLHOLDER FARMERS | SMALL INVESTOR-FARMERS | LARGE-SCALE FARMING |
|                     | NON-COMMERCIAL | COMMERCIAL | NON-COMMERCIAL | COMMERCIAL | NON-COMMERCIAL | COMMERCIAL | NON-COMMERCIAL | COMMERCIAL | NON-COMMERCIAL | COMMERCIAL |
| Land                | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          |
| Finance/Credit      | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          |
| Inputs: access/purchase | ✔          | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          |
| Skilled labour: access | ✔          | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          |
| Unskilled labour: motivation/ supervision | ✔ ✔ ✔ | ✔ ✔ ✔ | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          |
| Contacts/network    | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          |
| Market knowledge    | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          |
| Technical knowledge | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          |
| Product traceability and quality assurance | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          |
| Risk management     | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          | ✔              | ✔          |

Source: Leavy and Poulton (2007)¹
Key:
Non-commercial farmers might sell some produce but do not or cannot make their entire living from farming
Commercial farmers tend to be market-oriented and make a living from selling their output
✔ = poorly positioned
✔✔✔ = well positioned

Growing fresh produce for export involves other challenges that further reinforce the competitive superiority of large-scale farmers over small-scale operations, including:

- Supply management in terms of timing and volume
- Post-harvest handling
- Logistics management
- Export financing
- Communication

To overcome their competitive failings, the small-scale farmer must be able to operate in collaboration with the large-scale enterprises that can participate in the overseas markets. Without this collaboration the small-scale farmer is confined to the national and regional markets.

These markets, it should be stressed, are substantial (see Background Paper A3) and provide plenty of opportunity for sales. In addition, there are opportunities to add value in the processing sector (see Background Papers A4, B2, and E7) for local and regional markets. Distant market opportunities for processed products are more difficult since the comparative advantages, such as seasonality and air-freight rates, are lost, but if a competitive product can be offered, then the opportunities are there.

There needs to be a solid foundation of commercial horticulture as a business, run professionally, able to access finance whether it is debt or equity, and achieving the scale and service that European distributors need. This will not exclude the small player from participating; rather it will provide the conduit for them to supply the export market. Empirically, this is clear from other examples around the world.

There are other external markets available, either niche or informal wholesale, or indeed other geographical markets (see Background Paper E4), such as the Middle East, which offer possibilities; but they offer neither the scale of the European market, where volume and range of markets is unmatched, nor do they achieve full value out of the comparative advantages where other origins maybe better placed to supply.

A comparison with the horticulture industry in New Zealand is interesting here. Industry exports grew from $110 million (fob) in 1980 to just short of $2 billion in 2007 (figure II.4.1).

FIGURE II.4.1: Horticultural Exports from New Zealand (NZD million, fob)

If we are to achieve the vision of a flourishing sector in Ghana, built with businesses that are profitable, sustainable, and able to respond effectively to change, then we need to encourage investment. When the targets of Table II.3.1 are being met, export horticulture will be making a substantial contribution to the Ghanaian economy and helping to meet the Millennium Development Goals. We need to see more companies following the example of Compagnie Fruitière and establishing larger scale operations, bringing in finance, and technical and managerial expertise. We need more ITFCs to develop outgrower schemes. We need more Blue Skies and Pinora able to add value and manage contract growers. Without such investment, growth will be slow and in time will falter.

Other case studies presented here (Background Papers C4, C5 and C6) all point to the need for investment in larger operations that can bring in the management, technology, and know-how needed to develop the foundation of an industry. With that foundation, small-scale enterprises can develop too.

Our researches for this strategy have highlighted the external interest in investing in Ghana (Background Paper B3). Following one interview, a Kenyan vegetable producer and exporter, Vegpro,2 has established a company in Ghana and begun negotiating the lease on land. We know of two other potential investors ready to investigate the opportunities at this time.

Points of note include:

- A huge industry is not dependent on value addition: processed fruit (except wine) and vegetables make a limited contribution.
- The industry is not depending on niche opportunities: certified organic exports contributed about 3% of export earnings. This is an important contribution to the portfolio but not a foundation of the industry.
- There is a breadth and depth in the marketing: in 2007 exports were sent to 121 countries. Exports to 46 countries exceeded NZD1 million. Japan and Australia each receive more than 50 products with values exceeding NZD100,000.
- Only in Australia does New Zealand have the advantage of relative proximity: the other key markets in Japan, U.S.A, UK, and EU are distant.

- There is a high economic return from a relatively small area: total horticultural area is estimated at 118,000 ha.
- Areas are brought into production according to their potential: horticultural activities are distributed throughout New Zealand to exploit the full range of climates.
- There are advantages to be exploited and disadvantages to be overcome in growing fresh produce in New Zealand: there are significant comparative advantages in being a southern hemisphere supplier of temperate crops, producing a counter-season crop, and in its range of climatic conditions. However, it also has significant disadvantages in terms of distance to market, land values and labor costs.
- Total on-farm investment at NZD14 billion and off-farm at NZD24 billion.
Our researches into the sources of finance (Background Paper B1) indicate that local funds are available for horticulture, but lack suitable sponsors. The financial sector is reluctant to invest in small-scale farms to any extent. There are a number of reasons for this:

- The management of the investment has fixed up-front costs appraising the opportunity and during the lifetime of the investment in management. There is therefore a minimum size of investment able to bear these costs;
- Any investor will assess the potential profitability of a project and then apply a discount according to the perception of risk. Apart from the fact that the parameters for profitability here are not well understood, the small-scale farmer is poorly equipped to mitigate the risks, which include climate, pest and disease, market fluctuations, transport, and so on;
- With tree crops there is a long lead time of negative cash flow before the investment starts to generate revenues. Inevitably this increases the risk and the small-scale farmer is not well placed to offset the delay with returns in annual or other crops.
- The small-scale farmers in the Ghanaian horticulture sector are poorly equipped to manage debt, particularly where servicing a loan further reduces the poor returns on exiting equity capital.

At present pricing, investment in horticulture must seek external funds. The local cost of borrowing, even allowing for inflation, works against the financial viability of long term loans. We envisage an industry structure based on a number of larger growers and exporters, technically and financially capable of managing supply chains to Europe. These will interact with smaller growers on a number of levels, perhaps under contract as suppliers or by sharing resources and infrastructure, or through demonstration and training. The smaller growers will also benefit indirectly through the additional services such as freight or input supply that come with greater volumes, or indeed through supplying the larger growers with specific products. With secure supplies produced efficiently, the economics of the processing sector will improve as well.

The tremendous growth in the New Zealand horticulture industry was powered by investment and directed by innovation and training. The industry now incorporates a wide range of producers: some very large independent operators and many smaller growers depend on collaboration in shared infrastructure such as pack houses, combined marketing efforts, and joint training programs.

The Ghana Investment Promotion Centre (GIPC) was established in order to encourage, promote, and facilitate investments in all sectors of the economy except mining and petroleum. Its mandate is therefore very wide. We believe that for a focused effort on horticultural investment, the GIPC should be supported by a development authority specifically dedicated to commercial horticulture. Such an authority would provide (among other initiatives described in Chapter 5, Table II.5.1) not only the expertise to attract investors, but also the ability to coordinate the investment efforts with the general development of horticulture in Ghana.

We find equivalent authorities in many other producing countries and one of the key benefits for investors is the one-stop-shop approach where all the investor’s needs in terms of information, forms, applications, and advice are handled out of one office. The GIPC would of course remain the focal point for government services to investors, but where its current mandate covers the range of economic sectors in Ghana, we are proposing that specialized help is provided by a horticultural development authority. That way the GIPC can offer tailored expertise and the authority can co-ordinate investment within the broader scenery of horticulture in Ghana.

We see the role of an authority as initially one of investment promotion and development in support of GIPC, managing the development funds, but quite soon broadening into an authority that leads the sector forwards on all fronts. The background papers here identify a diversity of actions that will be needed to develop a balanced sector (see figure II.4.2). The role of the development authority will be to manage these activities in a coordinated drive that applies government and donor resources to the sector.

3. For example Kenya (www.hcda.or.ke); Ethiopia (www.shpea.org); Pakistan (www.phdeb.org.pk); New Zealand (www.hea.co.nz).
Sector Plan for Commercial Horticulture in Ghana

**Business**
- Production of fruit and vegetables for local, regional and export markets

**Mission**
- Supply a diversity of markets with fresh produce
- Achieving high standards of quality and service
- Maintaining principles of social and environmental care with integrity
- Enhancing the reputation of Ghana

**Vision**
- A flourishing sector built with businesses that are profitable, sustainable and able to respond effectively to change.

**Goals**
- **2017**
  - A preferred origin for tropical produce among EU supermarkets
  - Supplying >15 national markets both in and outside EU
  - Annual long distance exports of 390,000 t of fresh produce
  - Annual exports of processed fruit and vegetables equivalent to 50,000 t of fresh produce
  - 30,000 people employed directly by export oriented fresh produce businesses

**Focus**
- I. Production and Commercialization
  - Legislation
  - Infrastructure
  - Business Environment
- II. Customers
  - Local Markets
  - Regional Markets
  - Export Markets
- III. Financials
  - Fiscal Aspects
  - Investment
  - Credit
  - Matching Grants
- IV. Industry Capabilities
  - Capacity for Innovation
  - Technical Capability
  - Managerial Capability
  - Leadership

**Strategies/Initiatives**
- Land
- Infrastructure
- Off-farm Infrastructures
- Contract Farming
- Environmental
- Technical
- Benchmarking
- Local and Regional Market Research
- Export Market Opportunities
- Safety and Standards
- Local and Regional Promotion
- Brand Ghana
- Tax and Duty Regimes
- Local Investment Promotion
- Foreign Investment Promotion
- Credit
- Research Co-ordination
- Innovation Fund
- Training Scheme
- Donor Partner Co-ordination
- Liaison with Government
- Crisis Management
- Umbrella for Special Interest Groups (SPEG et al)

**Action Plans**
- Acquisition Process
- Development Land Demarcation and Preparation
- Off-farm Infrastructures
- Contract Farming
- Local and Regional Market Research
- Export Market Opportunities
- Safety and Standards
- Local and Regional Promotion
- Brand Ghana
- Tax and Duty Regimes
- Local Investment Promotion
- Foreign Investment Promotion
- Credit
- Research Co-ordination
- Innovation Fund
- Training Scheme
- Donor Partner Co-ordination
- Liaison with Government
- Crisis Management
- Umbrella for Special Interest Groups (SPEG et al)
4.2 LAND

Horticulture has special needs, and the acquisition and tenure of land, followed by the provision of infrastructure (roads, power, and water) to the farm gate, are the most problematic. These are reviewed in more detail in Background Paper D3.

An investor looking at the opportunities for cultivating fruit and vegetables in Ghana will first look at whether suitable land (usually flat, well-drained soil, close to water) is available and then whether access and power are available. Without these characteristics any further exploration is hypothetical.

We know that the business-enabling environment, and even the available incentives, is already in place because Ghana is already attracting investment in a number of sectors through the efforts of the Ghana Investment Promotion Centre (GIPC). In the World Bank’s Doing Business rankings, Ghana ranks in seventh place in sub-Saharan Africa (46 countries)—between Zambia and Kenya.

But there remain questions over the ease with which an investor may secure, maintain, and assign the rights to farm a suitable holding of land. At present, land acquisition is handled on a case-by-case basis. Once an investor has identified a suitable area, negotiations begin, title searches are set in motion, and the process takes an unpredictable, but substantial length of time. If Ghana is to attract investors, this must change: any promotional work will be undone by delays in securing the usufruct rights to the land.

The difficulties with land tenure have long been recognized and the Land Administration Project is taking steps to solve the problem. But the titling and registration of land is a long-term project and the need for horticultural investment is urgent. Further, it is important to appreciate that the number of potential investors is limited and there is increasing competition among neighboring countries for their interest. The availability of land is a key attractant.

4.3 INFRASTRUCTURE

The available infrastructure at the farm boundary is an important determinant of the suitability of the land for investment. There must be good access to roads and available water and power. We suggest that these should be provided independently of the investor as part of an area development plan to attract investment. Funding for this element would be combined within the Horticultural Development Fund noted above.

The on-farm infrastructure is, of course, the responsibility of the investor, but elements might be considered in advance and sold as part of the lease.

Background Paper D3, therefore, presents a proposal to build on the work of the Land Administration Project, which has begun a land bank database, whereby a fund would be established to be applied to demarcating and securing suitable land, in order to attract investment into an area. Initial focus might be applied to the Accra Plains on either side of the Volta River below the Kpong Dam. A survey of potential land use, bearing in mind the logistical requirements of perishable produce (say three hours from a port), is urgent. In time, with the development of production of less perishable produce, for example sweet potatoes or butternut squashes (Background Paper E6), more distant regions might usefully be developed.

We propose that a Horticultural Development Fund be established to secure land for horticultural investment. Depending on the area, the costs incurred in demarcating, negotiating, and leasing the land would not be so substantial and would anyway be recovered by the sale of a lease and the monies revolved. Various stages of acquisition could also be maintained, with fully leased or simply under a Memorandum of Understanding signed with the local customary authority or title holder.

While we appreciate that large scale land acquisition is a sensitive topic, more so following the massive investments in a number of African countries by foreign companies and funds, the total area required to generate the target volumes in table II.3.1 are small by comparison to oilseed or biofuel investments and have a substantially higher labor requirements. It may even be preferable to involve a government agency, such as the Horticultural Development Authority mentioned above with the GIPC, in a role of intermediation where the agency holds the head-lease and sublets the land to the investor. This topic needs further discussion in the implementation of the strategy. The issues are further discussed in Background Paper D3.

6. The advantage being that the investor only negotiates with one entity and is protected from spurious claims while the Government can manage the lease and the consideration in terms of ground rent and community development.
4.4 MANAGEMENT

Background Paper C3 considers how to develop a competitive ability in the Ghanaian horticulture sector and concluded that it would come from high quality, professional and innovative management. Good technical management can be recruited internationally in the short term, but it will be necessary to improve the agricultural training establishments to ensure that there are sufficient well-trained Ghanaian managers.

We propose a scheme for accelerated learning for selected university graduates, probably operating at the regional level throughout West Africa, which would provide a combination of training programs in business with placements in companies offering practical management experience.

A Management Training Fund will be needed for this purpose.

4.5 INNOVATION

In Background Paper C2 we review the issue of innovation. If Ghana is to succeed in developing a world class and competitive export horticultural industry, it must innovate. We suggest various requirements to support innovation including matching grants to encourage companies to innovate, supplementary technical assistance for those companies that want to innovate, and the use of benchmarking to focus innovative efforts.

An Innovation Fund will be needed for this purpose.
The foregoing discussion and the collection of papers appended here identify a number of challenges to developing export horticulture. In summary these are:

1. The need to actively promote investment in horticulture in Ghana through a targeted marketing effort that applies resources to the identification of potential investors and encouragement of their participation in Ghana.
2. The need to find a practical solution to the issues of tenure of plots of land suitable for larger-scale export horticulture.
3. The need to improve the competitive abilities of the industry with world-class management.
4. The need to develop a capacity for innovation to maintain competitiveness.
5. The need to unify efforts in horticulture, both export oriented and locally focussed, as well as harmonizing the efforts of the government, donor partners, NGOs and the private sector.
6. The need to manage resources and apply them strategically to the horticulture sector.

We have laid out a strategy in chapter 4 based on the opportunities identified in chapter 3 and using the background papers, summarized in chapter 2, as a foundation. The financial and economic rewards are undoubtedly worthwhile: the employment possibilities, the contract farming opportunities, and the reinvigoration of the industry will benefit the rural population while the tax revenues and foreign exchange earnings will contribute to the national budget.

We believe that a new, unified approach is needed to implement the strategy in order to meet the various challenges, and the means for such an approach does not currently exist in Ghana.

We propose that the implementation of the strategy be the responsibility of a purposely created authority. For the present, we will call that authority the Ghana Commercial Horticulture Development Authority (GCHDA), but a suitable, shorter title can be selected at the time of creation. The GCHDA will bring together the various existing trade organizations under one umbrella. The GCHDA will coordinate their activities so that they can maintain their sector interests while deriving strength from collaboration.

It is important to be quite clear that such an agency should not replace the existing institutions: it is intended to consolidate effort through collaboration. The existing institutions whether they are trade organizations, such as SPEG or HAG, VEPEAG, GAVEX, or PAMPEAG; or government agencies, such as GEPC or GIPC; or Ministries; or NGOs all will have a role to play within the authority. Without the coordination and collaboration Ghana horticulture will not achieve the scale necessary to compete internationally.

### 5.1 AIM OF THE AUTHORITY

To convert the potential of Ghanaian horticulture into a sustainable reality.

#### 5.1.1 TIMELINE

There are two distinct phases in the GCHDA. In Phase I, GCHDA will lead the turnaround of the export horticulture sector and develop the business environment. Phase I will continue for five years and will require external funding. At the end of this period, the GCHDA should evolve into a longer term industry support capacity, and in Phase II the GCHDA should be funded by the industry itself.

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1. Similar arrangements are seen various horticultural industries: for example, in the UK research and development are facilitated by the Horticultural Development Company within which are found a number of specialist stakeholder groups by crop. Similarly the continued success of horticulture in New Zealand is led by an authority ‘Horticulture New Zealand’ that incorporates 22 product groups into a single advocacy organisation. There are many other examples.
Phase II continues for as long as the industry is willing to support the GCHDA. A rolling three year business plan will provide targets, strategies and monitor progress.

5.1.2 ROLES

In Phase I the primary focus will be on investment, from both foreign and local sources. This role will include not only investment promotion, through collaboration with GIPC, but also support to investors in terms of land identification and acquisition and supporting infrastructure. This will be achieved through the Horticultural Development Fund. The secondary role will be to develop the wider aims of the strategy elaborated here. A key early step will be the development and application of the Management Training Fund and the Innovation Fund. Further support can be applied to the processing sector as appropriate.

The business plan for Phase II will prioritize the activities elaborated in table II.5.1 A number of these will be carried out as needed by external contractors or organizations, most likely in response to requests and payment from member organizations. For example, the market or technical research can be commissioned and paid as needed.

<table>
<thead>
<tr>
<th>TABLE II.5.1: Potential Roles for the GCHDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Strategy</td>
</tr>
<tr>
<td>• Definition</td>
</tr>
<tr>
<td>• Implementation</td>
</tr>
<tr>
<td>• Revision</td>
</tr>
<tr>
<td>2. Co-ordination</td>
</tr>
<tr>
<td>• Allows sector identities to be maintained, while co-ordinating activities</td>
</tr>
<tr>
<td>• Co-ordinates donor partner support to the sector</td>
</tr>
<tr>
<td>• Manages funding to the sector</td>
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<tr>
<td>• Provides a unified sector response to issues of the day</td>
</tr>
<tr>
<td>• Provides networking and linkage opportunities</td>
</tr>
<tr>
<td>• Oversight of Shed 9 and other such facilities</td>
</tr>
<tr>
<td>3. Technical</td>
</tr>
<tr>
<td>• Innovation in production and processing</td>
</tr>
<tr>
<td>• Manages/ co-ordinates research</td>
</tr>
<tr>
<td>• Knowledge management</td>
</tr>
<tr>
<td>• Technology transfer for production and processing</td>
</tr>
<tr>
<td>4. Economic</td>
</tr>
<tr>
<td>Investment Promotion</td>
</tr>
<tr>
<td>• specialised support to the GIPC</td>
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<tr>
<td>• outreach</td>
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<tr>
<td>Market development</td>
</tr>
<tr>
<td>• Market intelligence – not only external but also domestic and regional, fresh and processed</td>
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<tr>
<td>• Industry promotion</td>
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<tr>
<td>• Quality/safety</td>
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<td>• Standards</td>
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<tr>
<td>• Reputation</td>
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<tr>
<td>5. Social</td>
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<tr>
<td>• National development issues</td>
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<tr>
<td>• Regional issues</td>
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<tr>
<td>• Nutritional issues</td>
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<tr>
<td>• Labour issues</td>
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<tr>
<td>6. Environmental</td>
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<tr>
<td>• Pesticides</td>
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<td>• Water extraction</td>
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<tr>
<td>• Water pollution</td>
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<tr>
<td>• Carbon footprints / air-freight</td>
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<tr>
<td>• Biodiversity</td>
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<tr>
<td>7. Legal</td>
</tr>
<tr>
<td>• Linkage to international organisations – eg WTO, EC</td>
</tr>
<tr>
<td>• Trade barriers</td>
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<tr>
<td>• Contract farming</td>
</tr>
<tr>
<td>• Mediation service for land, contract farming, trade disputes</td>
</tr>
<tr>
<td>8. Political</td>
</tr>
<tr>
<td>• Advocacy/lobby</td>
</tr>
<tr>
<td>• Linking public and private</td>
</tr>
<tr>
<td>• Business enabling environment</td>
</tr>
</tbody>
</table>
With such investment, the sector can grow to achieve its potential not only in the distant export markets but also in local and regional ones. With the incoming investment will come training and experience that will contribute to the human and social capital.

5.2 MANAGEMENT AND STAFFING

For the first five years the GCHDA will require external funding (see chapter 6 below) and we propose an international tender for an experienced contractor to set up and run the GCHDA for the duration of Phase I. The contractor should be well experienced in procurement and compliance in the development sector as this phase will preferably be funded by a donor. Further there will be a need for a variety of short term technical support that should be within the capability of the contractor. The contractor must be able to call in advice on investment promotion as well as property management.

In Phase I, success depends on the ability to bring in investors and mobilize the industry. It is therefore imperative that the GCHDA is led by managers with a working experience of the international fresh produce trade and of a caliber to deal at board level with transnational investors. The GCHDA should be led and staffed by a relatively small team with a background in private sector commerce, preferably the fresh produce/horticulture industry.

A strategy for investment promotion must be refined early in the program in conjunction with the GIPC. The strategy should take into account not only the experience in horticultural promotions of other African investment agencies but also the lessons of other successful countries such as Argentina, Brazil, and New Zealand. The strategy must also incorporate the Horticulture Development Fund and a strategy for easing the acquisition of land.

We envisage a general manager supported by a staff of three officers with international experience and each working with a counterpart. A small complement of clerical support staff would also be needed. Each of the three officers would have a particular area of responsibility, namely Investment Promotion, Investment Development, and Technical Advisor. The terms for each will be constructed in due course.

From year six therefore we plan a smaller secretariat.

A rolling three year business plan will provide targets, strategies, and monitor progress.

If Phase I has not proved sufficiently successful in reinvigorating the export horticulture industry, there will be insufficient support from the players to continue the work of the GCHDA. At this point, the position will need to be re-evaluated: either the GCHDA can be wound up or further external funding must be sought and justified on the basis of performance to date.

5.3 SCRUTINY

The GCHDA should provide clear value for money. It should also command respect from those funding it.

Oversight throughout should be provided by a board, chaired by the Minister of Agriculture, with representatives of the different sectors within commercial horticulture in Ghana. We envisage a total of 11 members, including three representatives of the fruit and vegetable producers, a representative of the GIPC, a bank representative, a lawyer, an academic, a senior official from MoFA and from MOTI, and a donor partner representative.

As such the board will be essentially non-political.
6: FUNDING

6.1 GCHDA PHASE I

At the outset, the GCHDA will rely on donor funding and support in order to turn the industry around. We are recommending that Phase I is planned to last for five years. If, by that time, the commercial horticultural industry is not sufficiently strong to support its own trade organization, then we must conclude that the industry has no need of it in the private sector format. We envisage that the funding for Phase II should come from an industry levy perhaps supported or underwritten by government funds such as those available at EDIF. It would be advisable to begin the industry funding before the end of the donor funding in order to accumulate some reserves.

We have prepared an indicative budget for the first phase of the GCHDA (table II.6.1). This is a draft indication of the potential resource needs of the organization. Its final definition will be elaborated by a tender process when the roles and expectations of the GCHDA are agreed.

6.2 GCHDA PHASE II

Among the tasks of the GCHDA in Phase I will be the preparation of a business plan for Phase II supported by the industry itself. We envisage that this will derive from a levy on the exports, and that, with a lean secretariat, the financial burden will not be onerous.

6.3 PROJECT FUNDING

The GCHDA will operate a number of funds. They include:

- Innovation fund
- Management training fund
- Horticultural development fund

These will require external support, for indeed other donor partners. The definition of the funds and financial inputs needs to be developed. A first commitment to fund should be in place before the contract for the management of the GCHDA is put out to tender. Further funding may be sought in the course of Phase I of GCHDA and indeed other funding opportunities may arise.
### TABLE II.6.1: Indicative Budget for Phase I of the GCHDA

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<tr>
<th>US DOLLARS</th>
<th>UNITS</th>
<th>COST</th>
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<th>YEAR 3</th>
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<td>Market Research / Standards / Processing</td>
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<td>186,319</td>
<td>186,319</td>
<td>186,319</td>
<td>931,597</td>
<td></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>2,192,319</td>
<td>2,392,919</td>
<td>2,613,579</td>
<td>2,723,205</td>
<td>2,976,894</td>
<td>12,000,000</td>
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PART III - BACKGROUND PAPERS

Prepared for
World Bank Sustainable Development Network (WB-SDN)
Africa Region, Agriculture and Rural Development (AFTAR),
The Republic of Ghana Ministry of Food and Agriculture,
and
European Union All ACP Agricultural Commodities
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Prepared by
Natural Resources Institute
2010
Boxes, Figures, and Tables

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A: OUTGROWERS

A.1 FARMAPINE

A.1.1 INTRODUCTION

Smallholder farmers typically lack the resources required for direct access to high value export markets. Their produce must therefore pass through an intermediary such as a commercial exporter. All exporters are obviously commercial in nature, and some observers have seen the exporter/smallholder farmer relationship as exploitative, which has fed a desire to find ways to support smallholders to access export markets directly.

One such idea is the World Bank’s Farmer Ownership Model (FOM) that was piloted in Zambia in the 1990s. The FOM concept was transferred to Ghana in 1998 to create a company called FARMAPINE, which was intended to enable several hundred smallholders to sell directly to the EU market. FARMAPINE had a production capacity of 7,000 tonnes of fruit per year and initially appeared highly successful.

By 2001–2002, FARMAPINE was Ghana’s second largest exporter of pineapple with a 17% share of exports, while Jei River was the largest exporter with 18% of the export volume. As a result many papers were written to highlight the success of the FOM concept and suggest replication in other countries. However, this success was short-lived and FARMAPINE is no longer operational (table III.1.1).

This paper records the story of FARMAPINE with a view to highlighting the lessons for future interventions of this type.

A.1.2 HISTORY

In 1998, the Agricultural Diversification Project (ADP) of World Bank entered into an agreement agreed with TechnoServe, AMEX-International, and the Government of Ghana (PPRSD) to support the establishment of FARMAPINE as an example of the FOM concept developed from ideas piloted in Zambia. The objective of the FOM project was to “Provide for increased participation of poorer households in income generation through a group approach (WBR-22439 of 2001).” The WB-ADP provided a loan of $1.4 million repayable over seven to ten years at 7% to establish FARMAPINE, and an additional one year’s worth of working capital for the production and operation of FARMAPINE. This loan was administered by IDA (Addo 2003, Graffham 2004, and Yeboah 2005).

FARMAPINE was incorporated in March 1999 and operations started in September 1999. According to a report of the World Bank (2001), the original membership was 164 farmers with an average of 1.9 acres of smooth cayenne planting each. According to Takane (2004), FARMAPINE was formed with five farmer cooperatives (178 farmer members) controlling 80% of shares, and 20% allocated equally to two small producer/exporters (Garbo Limited and Kokobin Farms Limited) merged into FARMAPINE. According to Brown and Sander (2007), FARMAPINE originally had 178 farmers with 150 hectares (371 acres) of smooth cayenne ready for export in 2000; all growers were situated in the Akwapim range within 30 km of FARMAPINE’s base at Nsawam, which is 50 km north of Accra.

The five cooperatives and two former exporters were contracted to supply all production to FARMAPINE and in return FARMAPINE would provide all inputs on credit, technical assistance for production and planning, and logistics and administration for export of the crop. FARMAPINE would purchase, grade, pack, and market all exportable grade fruits and provide payment at market price less deductions for credit.

### TABLE III.1.1: FARMAPINE Export Volumes of Smooth Cayenne for 2000–2009

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonnes</td>
<td>3,500</td>
<td>5,865</td>
<td>6,162</td>
<td>4,958</td>
<td>4,766</td>
<td>4,235</td>
<td>1,161</td>
<td>27</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: SPEG and GEPC data.
Non-exportable fruit would remain the property of the individual farmers (Brown and Sander 2007). The FARMAPINE system had a core team of 80 staff and a management team of seven: the Managing Director (MD), an Export Manager, a Senior Farm Production Manager, two Field Production Managers, a Quality Control Manager and an Accountant. In addition, a management board was created consisting of the MD, representatives from each of the five farmer cooperatives and two former exporters, and a representative of TechnoServe (Graffham 2004).

By 2003, there were 360 registered growers but only 216 were active and they had 150 ha (371 acres) of production. Additional growers were taken on as non-shareholders on an individual basis to supplement the efforts of the original 178 shareholding farms (Graffham 2004, Jensen 2005). It is interesting to note that the 216 farmers who were active in 2003 had the same area of production as the 178 farmers in 1999–2000, indicating a lack of resources to expand the production base. The outlets for FARMAPINE’s produce in the EU consisted of Germany (40% of sales), UK (15%), Belgium, Netherlands, and Italy. One box of pineapples was selling for $3.50, well below the $15 per box for MD2, making for a very poor return, but FARMAPINE lacked the resources to invest in MD2 (Graffham 2004). In August 2003, FARMAPINE was GLOBALGAP (formerly known as EurepGAP) certified. The total area of GLOBALGAP certified land was 60.55 ha (150 acres) or 40% of the production area. Farm sizes ranged from 0.3 to 5.76 ha (0.7–14.2 acres) with an average farm size of 1.69 ha (4.67 acres). Fifteen of the GLOBALGAP farmers were clustered around one village, while the rest were scattered around ten other villages (Graffham 2004).

During 2003, funds provided under the original IDA loan proved insufficient and a second loan, consisting of $250,000 at 16% interest and 1 billion Cedis (equivalent to $118,217 at US$1 = 8459 Cedis) at 33.5% interest, was obtained from Barclays (GH) Limited. However, FARMAPINE continued to experience financial difficulties and in September 2004, Professor Antwi was replaced by Mr. Chris Foli as MD of FARMAPINE. FARMAPINE was restructured in an attempt to put the company on a sounder commercial footing. Measures included restructuring of the WB–IDA debt, reduction of core staff from 80 to 65 to reduce overhead costs, streamlining farmer membership to focus on 300 proven growers, and negotiations with carton suppliers for a schedule of deferred payments. A deal was done with Akwapim South Rural Bank to provide new sources of credit for purchase of inputs. Arrangements were made with the tissue culture laboratory at Cocoa Research Institute of Ghana (CRIG) for production of MD2 plantlets to assist FARMAPINE in converting from smooth cayenne to MD2 (Danielou and Ravry 2005).

Professor Antwi stated that poor fruit quality and high levels of rejections at ports of entry were FARMAPINE’s major problems in the latter part of 2004. He took steps to improve production and post-harvest management, and reported that by January 2005 the level of rejections had been reduced to a minimal level. However, soon after being appointed, Mr. Foli discovered that the previous management team had been very poor at keeping track of outstanding receivables. He managed to recover €120,000 of outstanding payments from buyers in the EU, but this went directly to Barclays to service the loan obtained in June 2003. Even with the recovery of the €120,000 of outstanding payments, the Barclays loan had to be rescheduled; it was converted to Cedis and repayments were scheduled for a two-year period starting in May 2005. However, the rescheduled debt could not be serviced due to changes in the market (MD2 replacing smooth cayenne) that started to impact FARMAPINE between May and July 2005.

In 2004–2005, FARMAPINE explored Fair trade certification as a way out of their financial problems. In September 2004, FARMAPINE attained Fairtrade Labelling Organization (FLO) certification (Advance Consulting 2008). The first shipment of FLO-certified produce was sent in October 2004 but was rejected on quality grounds. In January 2005, a second shipment of FLO-certified produce was sent to TESCO via Compagnie Fruitière. Plans were in place to sell 5,000 tonnes of FLO-certified fruit per year (from May 2005), but this failed as TESCO required MD2.

FARMAPINE lacked the resources and scale of operation for successful conversion from smooth cayenne to MD2 (Fold and Gough 2008). West African Fair Fruits (WAFF) worked with FARMAPINE to support the farmers converting from smooth cayenne to MD2, but production costs averaged $5,000 per ha for MD2, substantially higher than the $2,227 per ha for smooth cayenne. In addition, MD2 required a much higher level of agronomic input. The high production costs and absence of sufficient agronomic expertise made MD2 an unsuitable variety for production by small-scale growers. FARMAPINE could not afford to invest in MD2 and was forced to rely on government and NGO initiatives to obtain free planting materials. WAFF supplied free MD2 planting material but this was only sufficient to plant 8 ha over one year. Attempts to source MD2 planting material from the CRIG were even less successful: FARMAPINE obtained only between 250 to 600 plantlets over a six-month period, which was sufficient for less than 0.1 ha.
May to July 2005 was crunch time for FARMAPINE as EU buyers were completing the switch to MD2 by procuring most of their supplies from Costa Rica. FARMAPINE had made promising sales in the first quarter of the year, but from May 2005 most buyers either stopped buying from FARMAPINE or reduced purchases to a minimal level. By September 2005, FARMAPINE only had three customers in the EU willing to buy smooth cayenne and all of this had to be FLO-certified.

In 2006, export volumes dropped to an unsustainably low level (table III.1.1). Five unsuccessful attempts were made to obtain re-financing, but FARMAPINE’s poor financial state made approval of loans impossible. In November 2006, newspapers (The Statesman, 2006) reported that FARMAPINE had been declared “bankrupt” and that creditors were going to court, 400 staff (including 150 casuals) had been laid off, and that workers were claiming no wages had been paid for seven months. The courts allowed FARMAPINE until June 2007 to try and find a solution to their problems. It is interesting to note that although several documents refer to FARMAPINE’s going bankrupt, at the time of this writing, the MD denies it, and claims that FARMAPINE is still technically a going concern although no exports have been made since March 2007.

A.1.3 ANALYSIS

According to a World Bank report (2001) serious flaws existed in the FARMAPINE model from its inception in 1998. In particular, no provision was made to cover foreign exchange risks. The IDA loan was made in foreign currency, imported fertilizers were purchased in U.S. dollars advanced as credit, but repayments for inputs were made in Cedis. Inputs purchased in 1999 when the exchange rate was 2,647 Cedis per dollar were repaid in October 2000 when the Cedi had been devalued to 5,800 Cedis per dollar. As a result, farmer repayments covered less than 50% of the original value of the inputs. This had serious implications since purchases of the next round of imported inputs were much more expensive. Overall the massive devaluation of the Cedi in 2000 resulted in a rapid shrinkage of the value of the loan provided to FARMAPINE farmers for working capital.

According to Brown and Sander (2007), as early as August 2000 prices paid by FARMAPINE to its farmers were 10–25% lower than for other exporters creating opportunities for side-selling. According to Dannson et al. (2003), by late 2002 payments to farmers were delayed by four to five months and loans for input purchases had been stopped.

Addo (2003) raised concerns over the high administrative overhead associated with FARMAPINE. In 2002, FARMAPINE employed 80 full-time staff to support 167 small farms to export 6,000 tonnes of smooth cayenne. The FARMAPINE management team had seven staff including a senior academic. Addo (2003), commenting on FARMAPINE management, said “There is little vision for the future and little anticipation of changes and risks. The influence of the farmer cooperatives in the decision making process is unclear.”

Interviews with the management of FARMAPINE in 2004 (Graffham 2004) revealed a company with a rather academic approach to business. FARMAPINE resembled a short-term donor-funded project with elaborate structures, but no clear vision for growing the business. In contrast, most other major pineapple exporters had relatively low levels of infrastructure, and management that was much more focused, showed more drive to develop the business, and could cope with changing scenarios such as the market demand for MD2.

Fold and Gough (2008) said a major contributing factor for the failure of FARMAPINE was a massive overinvestment in an expensive administration building, grading and packing shed, and trucks for transport. FARMAPINE made the mistake of using up the working capital on infrastructure; as a result, credit for input was stopped and payments to farmers were delayed by five months or more. Farmers attempted to recover losses by side-selling which disrupted the business plan of FARMAPINE.

A.1.4 CURRENT SITUATION

No exports have been made since March 2007 since all of FARMAPINE’s customers have switched to MD2, but two of the former FARMAPINE cooperatives are still producing and selling small volumes of smooth cayenne pineapples to Blue Skies and Agrofair. FARMAPINE has no assets other than the empty administration block and has not been able to repay the original IDA loan or subsequent loans obtained from Barclays.

The MD of FARMAPINE believes that the business could be revived if previous debts were cancelled and a new investment of at least $3 million was made, although this seems highly unlikely to occur. In addition, the MD of FARMAPINE believes that each farmer would need at least 60 acres of MD2 to be viable. The total area required would be 1000 acres which would allow 300 acres to be available for harvesting, and the rest being in production or fallow. This would not be possible under the original FARMAPINE model which
focused on small-scale growers with 1–5 acres each, and would have to be solved by providing the company with their own land to support the bulk of production.

A.1.5 CONCLUSION AND STRATEGIC IMPLICATIONS

Like other pineapple producers and exporters in Ghana, FARMAPINE suffered from the change in market demand from smooth cayenne to MD2, and it would be easy to attribute the company’s demise to this single factor. However, would FARMAPINE have survived in a world without MD2? Unfortunately, all the evidence points to FARMAPINE being a badly designed, badly managed operation that would have collapsed even without the coming of MD2, although the collapse might have taken slightly longer.

FARMAPINE’s great failing rests with the management, which not only lacked commercial thinking, but was also top heavy, lacked business experience, managed finances appallingly, and had no vision for the future of the business. As early as 2004, it had been noted that FARMAPINE felt more like a short-term donor-funded project than a commercial enterprise and contrasted badly with some of the truly commercial exporters in Ghana (Graffham 2004).

Experience from many countries has shown that you cannot make a group of resource poor smallholders into a big export business for the simple reason that the members lack the necessary resources, knowledge, and experience to operate such a scheme. Where groups have succeeded, it is usually with the support of a major commercial exporter.

In developing a strategy for the future of Ghana’s export horticulture industry, FARMAPINE should be recognized as a costly mistake that should be avoided in future. Support should focus on large commercial businesses with proven track records and no attempt should be made to rehabilitate FARMAPINE as this will simply waste scarce resources.

REFERENCES


A.2 CONTRACT FARMING

A.2.1 INTRODUCTION

Over the last few years there has been considerable discussion in Ghana and elsewhere in Africa about the merits of contract farming. The logic behind contract farming is that the buyer gets a guaranteed supply of raw material where price, quantity, delivery time, and quality are assured. The farmer benefits because of the assured market. Both parties also benefit because contract farming allows for transaction/market costs to be taken out of the chain, as well as providing a conduit for information flow.

At its simplest, in a traditional contract farming system the market intermediary—trader or processor—agrees to buy product from the farmer—either all the product from a fixed land area or a fixed tonnage—at an agreed price providing minimum quality standards are met. However, there are
many ways that the system can break down. Perhaps the most common failure is caused by a disparity between the open market price and the contract price: a higher open market price tempts the farmer to “side-sell,” while a lower market price tempts the buyer to evade the contract by claiming substandard quality.

Contract farming can be very successful, but perhaps the most significant problem is default by one party. The real solution is not contract enforcement, but in the small-farmer selection process and the establishment of good and transparent working relationships. Well-organized and well-managed contract production provides considerable benefits to both the market intermediary and the farmers because it helps secure the quality and quantity of raw material that is the lifeblood of successful agribusiness and it provides a guaranteed market for the farmer.

There are many advantages of well-run contract farming operations, including:

- Shorter supply chain and reduced transaction costs,\(^1\) hence lower factory-gate prices and/or higher farm-gate prices;
- Assured market prices which will enable the farmer to concentrate on improving yields and quality;
- Reliable supply of raw material, which is vital for exporters to fulfill forward contracts or processors to manage factories efficiently;
- Farmers can be provided with production credit, often in the form of inputs;
- Farmers also benefit from the transfer of new skills and techniques because contract farming provides the basis for establishing effective extension services, either private or public;
- Facilitation of the introduction of new crops or varieties;
- Meeting a buyer’s requirement for “traceability”, “due diligence”, or a code of practice;
- A contracted raw material supply is cheaper than investing in land and own-production;
- Reduction of risk of investing in new processing techniques and equipment.

There are also disadvantages, which may include:

- Overhead costs of establishing contracted production can be significant, e.g., inputs, staffing, training, adaptive research. These overhead costs must eventually be recovered, but it is hoped that they can be recovered out of the shorter supply chain and reduced transaction costs;
- Side-selling by farmers to evade repayment of loans for inputs, etc.;
- If the training and motivation of market intermediaries or agents or company staff is sub-standard, then their contracted farmers would not improve their quality and yields, thus leading to an unstable supply chain.

The national benefits for supporting the promotion of contract farming include:

- The development of a cadre of well-organized, trained farmers capable of delivering an ordered supply of appropriate quality produce which is a strong asset for agribusiness development;
- If contract farming leads to more efficient agribusinesses, it will lead to increased employment and improve international competitiveness;
- Safer pesticide usage and more respect for environmental issues through improved technical distribution;
- More commercially focused farmers.

There are a few factors that are critical to successful contract farming, for instance:

- All the actors in the supply chain must receive a fair reward for their efforts; if this is not the case, the scheme will ultimately fail;
- The key to the success is that costs of managing the system must be fully recovered in the price structure to ensure sustainability;
- Farmers should be located in clusters—which reduces the cost of servicing the farmers as well as giving them the benefits of exchanging intelligence;
- The cropping should not conflict with farmers other obligations, including food security;
- All parties in the chain must honor the terms of the contract. This is especially important for the agribusiness if it is going to develop the long-term loyalty of the farmer;
- As with all progressive businesses, there needs to be a continuous process of improvement, both in terms of the product and in production practices;
- Training of farmers is the core of the process;
- Farmers’ opinions should be heard; the formation of farmer groups is important;

\(^1\) The farmer will not incur some of the traditional marketing costs, such as transport, aggregation, taxes, cesses, etc.
• Above all, the selection of farmers is vital. Farmers need to be selected on the basis of their
  • proven track record for reliability; any history of side-selling could disqualify them,
  • farm size, the farm must be sufficiently large to be an economic prospect for the market intermediary,
  • suitable soils and climate

Perhaps the most important aspect of contract farming is the pricing arrangement. Whatever pricing arrangements are used, the application must be transparent. There are a number of systems used to establish prices; each has good and bad points and care must be taken to decide on the system that is fairest to most actors in the chains, e.g.:

• Fixed prices are commonly used when there is no alternative market outlet. Typically fixed prices are agreed at the start of the season and for all parties it is a simple system. However, fixed price systems tend to have problems when there are alternative buyers and side-selling/buying occurs.

• Flexible prices are often based on applying a formula to global market prices. The global price can be used to calculate farm-gate and market intermediary prices using a pre-agreed formula. This system has the advantage that the agribusiness is always able to market the end product at a profit—but most of the risk of price fluctuation is taken by the farmer.

• Local spot-market price can be used but it is important that the price be reviewed periodically—perhaps weekly or every two weeks—and all parties must understand clearly how it is calculated. The system is widely used in Thailand by small-scale agribusinesses. One of the key issues with this system is to include a reward for improved quality. It is unlikely that this system could be used for export horticulture in Ghana.

• Maximum-minimum price contracts have been successfully introduced in more developed countries, e.g., potato farmers supplying frozen French fry manufacturers. These are where the agribusiness buys at market price between an upper and lower limit. The upper limit is set so the agribusiness can still compete in the market and the lower limit allows the farmer to make sufficient margin to cover costs.

• Prices on a consignment basis are when the price is based on sale price, sometimes after input costs have been deducted.

Key to developing the best contract farming relationships is trust; hence the selection of the farmer is crucial. It is also important to understand the minimum size of land holding required to ensure that the farmer gets an acceptable return in order to prevent the temptation of side-selling.

It must be noted that some successful contract farming operations work because there is only one buyer for the farmer’s produce, i.e. where there is a monopsony. This has the advantage that farmers are unable to side-sell and that the sole buyer is able to recover the input supplies and extension costs. Examples of monopsonies include tobacco and sugar. However, in the case of export horticulture, this does not apply as there is more than one buyer for most commodities.

**A.2.2 DEVELOPMENT OF CONTRACT FARMING IN THE PINEAPPLE INDUSTRY**

When Ghana started to develop its horticultural exports to Europe in the 1980s and 1990s, the exporters relied on small-farmers being able to supply produce. At the time, the main export was pineapples: the farmers grew the smooth cayenne variety and there was no demand for certification. The general practice was for the traders to buy fruit from farmers and airfreight it to Europe. The relationship between farmers was simply that of a buyer and seller; there were no efforts to establish long-term relationships, develop planting programs or supply technical advice. There were no pre-arranged buying prices; the trader simply agreed on a price with the farmer at the time of purchase; in other words, this was not contract farming.

Over the past decade, there have been a number of changes in market requirements (see table III.1.2). For example, most EU buyers expect produce to be GLOBALGAP certified and the market now demands MD2 instead of smooth cayenne. Both these changes have made it much more difficult for small-farmers to supply on an ad hoc basis, but have strengthened the need for the establishment of more formal contract farming. The need for GLOBALGAP certification makes it much more important to have a pre-determined supply chain and the switch to MD2 meant that considerable investment was required in new planting stock, which most farmers could not obtain. The growing of the newer variety proved to be much more difficult than was expected. Therefore, the importance of small-farmer production of export pineapple production has diminished, as the problems of FARMAPINE demonstrated (see Background Paper A1). Fortunately, it is still vital in some commodities such as citrus for the processing sector.

The supply of pineapples for export is more and more concentrated on large-scale production One exporter noted that as
recently as 2005, 40% of his exports were from out-growers, but now it is all from his own production (from either his own or rented land). There have been considerable efforts by donors to help re-establish small-farmers as a major source of export pineapple production, but Background Paper B4 estimates that the minimum area of export pineapple production required for profitability is about 16 ha; or a total farm area of at least 54 ha. In other words, it is outside the range of most small-farmers.

One solution to this problem might be the introduction of contract farming to groups of small-farmers such as the Gomoa Okyereko Pineapple Growers Association (GOPGA). GOPGA has seven members, six of whom are GLOBALGAP certified under option 2. These members have 25 ha under pineapple production. They have the advantage of being close to their market, and a processor which removes the need for expensive investments in a cold chain. Currently GOPGA makes acceptable margins, but these will fall drastically next year when it has to pay for its certification audit. It should also be noted that GOPGA members were atypical of most smallholders: members were well resourced and had alternative sources of income. Thus, there appears to be much less opportunity than there was once for small-farmers to participate profitably in the pineapple export value-chain.

The Integrated Tamale Fruit Company (ITFC) presents a model, unusual in Ghana, of a nucleus estate operating with outgrowers to supplement production. The nucleus farm, established over nine years, has some 160 ha and is based on Zill, Amelie, Kent and Keitt varieties of mango. The 1,400 outgrowers supplement production with a further 560 ha of which some 25% is drip-irrigated. There are plans for full coverage with irrigation. Early problems with the stone weevil appear to have been solved and exports are gradually increasing, reaching 300 tonnes in 2007, mostly to Lebanon and Egypt. The managerial difficulties in such an operation should not be underestimated, and the need to also support alternative crops for food security for the outgrowers compounds the problems. Nevertheless, the project has a target in excess of 10,000 tonnes of production by 2015.

2. In Background Paper B4, it was estimated that in 2003–2004 pineapple production was split between approximately 12 large farms (300–700 ha), some 40 medium sized operations (20–150 ha), and possibly as many as 10,000 small farms with productive areas ranging from 0.2 ha to 10 ha.

3. For further review see ITFC: Organic Mangoes Improving Livelihoods for the Poor in the UNDP series Growing Inclusive Markets (www.growinginclusivemarkets.org)
There is also considerable interest in establishing contract farming for horticultural processing. In theory, there are a number of reasons why this might be sensible: in particular, in order to compete efficiently, processors must have a reliable source of cheap raw material—and in many instances the quality standards demanded by the processor are less than by the export market. However, on further investigation this does depend on the type of process. The two main processors of fresh-cut fruit, Blue Skies and PeelCo, buy from 34 and 5 growers respectively and have informal contract arrangements. These have been established because they need assured supply of a minimum quantity to be certain of meeting the market demand.4

There might be more opportunities for using contract farming for raw material supply to juice manufacturers. The supply of oranges to Pinora is almost entirely from small-farmers. However, despite being the lifeblood of this factory, Pinora has to pay market prices for the citrus because it has to compete with the local market buyers (market queens), as well as traders exporting to the neighboring countries.

Pinora has recently taken responsibility for buying the produce of the Coastal Growers Association which consists of 3,000 farmers with an average orchard size of less than 2 ha and poor yields. The company recognizes the importance of helping farmers to improve yields and quality, and reduce costs. However, it faces a problem of how to recover the extension costs associated with increasing yields. Perhaps in reality, it should be in a position to use its dominance in the market to become the industry price setter.

The dilemma for the juice processing industry in Ghana is that once it has exploited niche market opportunities for organic and fair trade, it will have to compete in the mass commodity juice market where competitive position is often gained by cheap raw material, economies of scale, and lower transport costs. However, support for contract farming might benefit both the small-farmer and processor in the longer term.

Background Paper E7 notes that Ghana fruit juice has a competitive advantage supplying the organic and fair trade market, but it needs a much cheaper cost base if it is to remain competitive in the commodity juice market. However, all the indications are that small-farmer production does not necessarily deliver cheap raw material unless there are major breakthroughs in the technical management of production. For example, in addition to improving management in the citrus orchards, it has been suggested that it might be cheaper to produce pineapples for processing by leaving the crop in the ground for a second harvesting season. Obviously these ideas need to be proven, but if they are, then it will be necessary to get the message across to farmers and contract farming could be used.

A number of recent pineapple juice investments have been made by businesses that already grow pineapples or other fruit, e.g., Milani, Jei River, 2K Farms, etc. These investments have been made to make use of the fruit that cannot be marketed fresh and the short-term aim is to market the output locally. However, the local markets will soon be saturated (the price of imported concentrate is significantly lower) so these businesses will have to seek export opportunities and may need to utilize small-farmers to get sufficient throughput to spread the processing overheads.

A.2.3 CONCLUSION AND STRATEGIC IMPLICATIONS

The main strategic issues that emerge are that:

- There are few examples of contract farming being undertaken in Ghana with small-scale farmers. There is, in effect, contract farming with the suppliers of fruit for the fresh-cut industry; but there is not yet with juicing or with exports, except for ITFC mangoes. The arrangement for supplying fruit for fresh-cut is almost exclusively with medium and large-scale producers. Only ITFC shows contract farming for fresh fruit. Contract farming is not seen in the vegetable supply chain.
- There could be some benefits for establishing contract farming for processing, especially if it was proven that it was necessary to implement improved agronomic management.

REFERENCES

A.3 LOCAL AND REGIONAL MARKETS FOR FRESH PRODUCE

A.3.1 INTRODUCTION

Many Ghanaian exporters of fresh produce (mainly fruits and vegetables) are finding it difficult to continue participating in the value chains of the distant export markets. For example, out of a total membership of more than 20 only 10 SPEG members now actively export.\(^{5}\) The number of active exporters in the ranks of the Horticulturists Association of Ghana is even smaller. As the paper on SPEG and HAG indicates, most small-scale exporters have dropped out of the distant export value chains. Smallholder farmers are particularly affected by this development.\(^{6}\)

The difficulty of serving the distant export markets brings to the fore the role of local and regional markets. Can these markets provide alternative trading opportunities to support further growth and development of Ghana’s export horticulture industry? This paper attempts to answer this question by looking at the current state and future prospects of domestic and regional markets. The paper focuses on fresh fruits and vegetables, excluding derivatives such as juice and canned products.

A.3.2 CURRENT SITUATION

Market Size

Local—and presumably regional—markets absorb some of the greater volume of fresh produce that is often called “residual” or export “rejects” (FAGE and USAID-TIPCEE 2008). Assuming export yields of 80% of production, an export tonnage of 90,000 implies a residual volume of 22,500 tonnes. This is quite significant volume that is traded in the domestic markets and perhaps through informal channels in the sub region as well.

In terms of value, retail food sales in Ghana in 2006 were estimated at approximately $1.2 billion,\(^{7}\) as shown in Table III.1.3 below. According to trade sources, retail food sales have grown at not less than 10% annually since the introduction of trade liberalization policies by the Government of Ghana in the early 1990s. Based on 11% share (see consumption of fruits and vegetables as percentage of food budget in Table III.1.4) of a value of roughly $715 million, i.e., $540 million increased by 10% for the years 2007, 2008, and 2009, for locally produced food, the local market for fruits and vegetables may be worth close to $80 million in 2009.

At $80 million the value of the local market for fruits and vegetables compares quite favorably with earnings from exports, which stood at €80 million in 2007 (see Part I of the present report) However, prices in the local market tend to be lower than in export markets. When so-called market ladies buy “residual fruit” from farmers on the spot, the offer price is often fairly low. With mangoes, for example, a kilo sold by a farmer for export is priced around 30 pesewas, whereas the “residual fruit” sold to the local market might fetch 10 pesewas (FAGE/USAID-TIPCEE 2008). Anecdotal evidence suggests, however, that but for these markets many smallholder farmers and small-scale exporters would perhaps have dropped out completely of the fresh produce industry in Ghana.

As shown in Table III.1.5, the West African domestic market for food staples is $20.1 billion. Assuming a 10% share for fruits and vegetables, the West African domestic market is $400 million. A lot of this may, however, actually represent in-country trade and consumption. It is more realistic to base the size of the West African market for fruits and vegetables on the total intraregional trade for food staples in West Africa which is also estimated to be $400 million (Table III.1.5). In

<table>
<thead>
<tr>
<th>TYPE OF FOOD PRODUCT</th>
<th>%</th>
<th>US$ MILLION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imported high-value food products (HVP)</td>
<td>32</td>
<td>384</td>
</tr>
<tr>
<td>Partly processed and packaged in Ghana</td>
<td>8</td>
<td>96</td>
</tr>
<tr>
<td>Totally processed in Ghana</td>
<td>15</td>
<td>180</td>
</tr>
<tr>
<td>Locally produced foodstuffs, including fresh fruits and vegetables, meat, and fish</td>
<td>45</td>
<td>540</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>1200</td>
</tr>
</tbody>
</table>

Source: USDA Foreign Agricultural Service based on industry sources (importers) and Ministry of Trade & Industry.

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5. See paper on SPEG and HAG, Background Paper D1.
principle, therefore, the size of the West African market for fruits and vegetables (assuming a 10% share of the size of intra-regional trade in food staples) may be $40 million. This looks quite small. It may, however, be a reflection of the fact that most of the countries in the sub-region share common climatic conditions and may thus be self-sufficient in the production of most of the fruits and vegetables that would otherwise have been traded. It may also be a reflection of the challenges of intra-regional trade.

**Market Structure and Trends**

As shown in figure III.1.1 and table III.1.6 below, Ghana’s retail food sector consists of supermarkets (accounting for 1% of total retail sales), convenience stores/small grocery stores (30%) and traditional open air markets (69%).

**TABLE III.1.4: Summary of Fruits and Vegetables Consumption Patterns in Sub-Saharan Africa**

<table>
<thead>
<tr>
<th>FRUIT AND VEGETABLES</th>
<th>ETHIOPIA</th>
<th>BURUNDI</th>
<th>MALAWI</th>
<th>MOZAMBIQUE</th>
<th>TANZANIA</th>
<th>RWANDA</th>
<th>KENYA</th>
<th>UGANDA</th>
<th>GHANA</th>
<th>GUINEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of house-holds consuming</td>
<td>94</td>
<td>81</td>
<td>96</td>
<td>94</td>
<td>99</td>
<td>94</td>
<td>91</td>
<td>89</td>
<td>99</td>
<td>98</td>
</tr>
<tr>
<td>Quantity (kg/person/year)</td>
<td>26.7</td>
<td>34.4</td>
<td>52.8</td>
<td>61.4</td>
<td>57.8</td>
<td>62.8</td>
<td>114.0</td>
<td>64.2</td>
<td>73.7</td>
<td>68.1</td>
</tr>
<tr>
<td>Value (US$/person/year)</td>
<td>3.8</td>
<td>11.5</td>
<td>22.7</td>
<td>18.1</td>
<td>13.2</td>
<td>15.3</td>
<td>27.7</td>
<td>10.6</td>
<td>36.3</td>
<td>22.7</td>
</tr>
<tr>
<td>Price (US$/kg)</td>
<td>0.14</td>
<td>0.34</td>
<td>0.43</td>
<td>0.29</td>
<td>0.23</td>
<td>0.24</td>
<td>0.24</td>
<td>0.17</td>
<td>0.49</td>
<td>0.33</td>
</tr>
<tr>
<td>Percentage of food budget</td>
<td>4.5</td>
<td>5.8</td>
<td>14.1</td>
<td>14.7</td>
<td>11.8</td>
<td>15.6</td>
<td>9.8</td>
<td>9.2</td>
<td>11.3</td>
<td>10.6</td>
</tr>
<tr>
<td>Percentage of total budget</td>
<td>2.7</td>
<td>4.1</td>
<td>9.3</td>
<td>9.8</td>
<td>8.3</td>
<td>12.6</td>
<td>6.9</td>
<td>5.1</td>
<td>6.9</td>
<td>5.5</td>
</tr>
<tr>
<td>Percentage of house-holds consuming &lt; 146 kg/person/year</td>
<td>99</td>
<td>72</td>
<td>92</td>
<td>90</td>
<td>91</td>
<td>90</td>
<td>47</td>
<td>88</td>
<td>87</td>
<td>87</td>
</tr>
</tbody>
</table>

**TABLE III.1.5: Size of Sub-Saharan African Agricultural Markets**

<table>
<thead>
<tr>
<th>MARKET</th>
<th>EAST AFRICA</th>
<th>SOUTHERN AFRICA</th>
<th>WEST AFRICA</th>
<th>TOTAL SSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>BILLION US$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional exports to non-Africa</td>
<td>2.2</td>
<td>2.4</td>
<td>4.0</td>
<td>8.6</td>
</tr>
<tr>
<td>Nontraditional exports to non-Africa</td>
<td>1.3</td>
<td>2.8</td>
<td>2.0</td>
<td>6.1</td>
</tr>
<tr>
<td>Other exports to non-Africa</td>
<td>0.5</td>
<td>0.7</td>
<td>0.7</td>
<td>1.9</td>
</tr>
<tr>
<td>Intra-African trade</td>
<td>0.4</td>
<td>1.1</td>
<td>0.4</td>
<td>1.9</td>
</tr>
<tr>
<td>Domestic markets for food staples</td>
<td>17.6</td>
<td>12.1</td>
<td>20.1</td>
<td>49.7</td>
</tr>
</tbody>
</table>

Source: IFPRI based on trade figures from UN COMTRADE, 2002, and; domestic-market figures from FAOSTAT, 2003.
The share of supermarkets is particularly low in Ghana compared, for instance, with South Africa (55%) and Kenya (10%) (TechnoServe 2004). This has, however, perhaps changed with the recent entry of Shoprite onto the Ghanaian supermarket scene. Some estimates suggest that supermarkets in Ghana may now have 5% share of retail trade (USDA FAS 2007). The low share of supermarkets may also be reflective of the fact that, as is the case elsewhere in sub-Saharan Africa, currently their reach extends little beyond the urban elite. Their future importance will depend on their ability to sell food products to the lower income sections of society.

On the whole, supermarket growth and penetration is expected to contribute to the growth and development of the fresh produce sector. It is important to realize, however, that supermarkets, especially during their development phase, take a smaller share of the fresh produce markets than the packaged foods markets (TechnoServe 2004). The smaller scale farmer, generally also, has difficulty accessing the supermarket segment, but it can be a useful learning process to raise the capabilities of participating suppliers.

Generally the key trends in the domestic market, and for fresh produce, reflect trends elsewhere in Africa. The market, as already noted, is growing at a reasonable rate of 10% per annum. Others project that the size of the market is set to double by 2015 (Diao and Hazell 2004). This growth is driven largely by:

- A growing population
- Rising income levels due to an expanding private sector
- An expanding middle class where both parents work outside the home
- A relatively large and growing expatriate community
- A trend towards more eating outside the home, especially during lunch hours and weekends
- A rapidly growing tourism sector (including a greater number of hotels and fast food restaurants)
- Increased rural to urban migration

### A.3.3 KEY ISSUES AND RECOMMENDATIONS

In spite of the growing market size, agricultural markets in general, and fresh produce markets in particular, continue to be characterized by a number of factors that constrain the prospects they would otherwise have offered to producers, especially smallholder farmers. The key constraining factors include limited and asymmetric market information, lack of coordination, inadequate markets for storage and finance, lack of contractual arrangements to transfer risk, lack of smallholder market power, and increased market risk for producers. Market institutions (e.g., business associations and farmer-based organizations) that are expected to support exchange are especially weak, and public policies do little to help informal trade and small-scale traders.

Another key issue, particularly for smallholders, is the rate at which modern retail outlets will grow in the domestic market, and the extent to which smallholder farmers will be excluded from their “preferred supplier networks.” It is obvious, however, that most of Ghana’s fresh produce traded in the domestic market will continue to be carried by convenience shops and small groceries and in particular the traditional open air markets. Smallholder welfare will be more heavily influenced by developments in these systems than by access to the supermarket sector per se. Efforts to increase smallholder access to domestic market opportunities should, therefore, be seen as a much broader agenda involving improvements in wholesaling and retailing in general. The focus should particularly be on four areas:

1. Investments to improve traditional wholesale markets, e.g., the Agbogbloshie and Mallam Atta fruits and vegetable wholesale markets in Accra. Improved logistical efficiency, especially for loading and unloading, will reduce costs and improve hygiene. Additional work to improve hygiene will make these markets more attractive for a broader range of retailers. Similarly, improved grades and standards, and more easily available information on prices and

### TABLE III.1.6: Structure of Retail Food Outlets in Ghana

<table>
<thead>
<tr>
<th>RETAIL OUTLET TYPE</th>
<th>AVERAGE SIZE (S.Q.M)</th>
<th>NUMBER</th>
<th>MARKET SIZE SERVED</th>
<th>AVERAGE ANNUAL TURNOVER</th>
<th>LOCATION</th>
<th>STOCK LEVEL</th>
<th>SERVICE METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supermarkets</td>
<td>10–200</td>
<td>10</td>
<td>1%</td>
<td>$3.5 million</td>
<td>Urban</td>
<td>Full line</td>
<td>Self-serve</td>
</tr>
<tr>
<td>Convenience stores/ small groceries</td>
<td>&lt;10</td>
<td>Approximately 200,000</td>
<td>30%</td>
<td>$50,000</td>
<td>90% Urban</td>
<td>10% Self-serve</td>
<td>90% assisted</td>
</tr>
<tr>
<td>Traditional markets</td>
<td>10–1,000</td>
<td>&gt;3,000 locations</td>
<td>69%</td>
<td>$4 million</td>
<td>60% urban</td>
<td>40% rural</td>
<td>Very limited</td>
</tr>
</tbody>
</table>

Source: USDA Foreign Agricultural Service.
volume by grade of product, will increase market transparency and further attract customers. The Ministry of Food and Agriculture may need to revive, perhaps in partnership with a private sector operator, the radio price bulletin in order to improve the market information (MIS) system. Cell phones and internet technology can be important complements—not replacements—for radio dissemination.

2. The investment to improve the traditional wholesale markets should be accompanied by similar investments in traditional retail markets to improve cleanliness and logistical efficiency.

3. Innovations and investments to shorten the fruits and vegetables supply chain. This may involve promoting the fresh produce trade to new entrepreneurial wholesalers who can work directly with farmers’ groups. This may require providing training to both the wholesalers and farmers’ groups.

4. Promoting selective partnering with the supermarket sector and agro-processors to reduce the cost to them of dealing directly with smallholder farmers. This may require third party intermediation either by a large farmer, an entrepreneurial wholesaler, or an NGO. This intervention and shortening the supply chain would require careful planning and implementation as the experience with similar nucleus estate/outgrower schemes have not worked well in Ghana and elsewhere in Africa.

Another intervention that can help to turn the domestic market growth into real trading opportunities, and alternative and/or complementary markets, is infrastructure development. Market access infrastructure—both road and communication networks linking farms to major centers of consumption—is crucial. Transportation is one challenge that requires particular attention. According to IFPRI, it is not uncommon for African farmers to receive only 10–20% of the market value of the products they sell, with the remaining 80–90% being lost to transportation and marketing costs. This is largely the case in Ghana with regard to the domestic market.

Similarly, production-side investments to improve productivity and product quality in order to enhance competitiveness would be required. These investments should include improved post-harvest handling facilities, which could process fruit and vegetables into forms that can be easily stored; and better trucking and haulage services aimed at reducing the risky nature of the fresh produce trade in the domestic market.

In addition, turning the market size into opportunity can be achieved through education and behavior-change programs that promote fruit and vegetable consumption. Such market development efforts would have to take into consideration the demographic, cultural, and psycho-social factors that affect consumer choices. The focus should, among other things, be on translating accurate and useful information to consumers about the health benefits of consuming the abundant fruits and vegetables available to them.

These recommended interventions apply generally to the fresh produce trade in the wider West Africa region as well. It has been noted, for instance, that poor infrastructure and institutional barriers are among the major constraints that prevent African countries from exploiting their comparative advantages (Diao and Hazell 2004). IFPRI says model experiments show that reducing African countries’ own trade barriers and improving market efficiency could significantly increase intraregional agricultural trade and per capita agricultural incomes. Intra-ECOWAS trade in fruits and vegetables will definitely get a boost if the institutional challenges that currently militate against the general free movement of goods and persons are addressed.

A.3.4 CONCLUSION AND STRATEGIC IMPLICATIONS

The domestic and regional markets are growing rapidly. The opportunities here will be significantly greater than in exporting, but will need to be properly understood. It is recommended that further work and focused research be undertaken to assess the real prospects of local and regional markets for fresh produce. It should cover the challenges of serving these markets as well and how to address the identified challenges.

REFERENCES


A.4 EXPORT SUPPLY CHAINS

FIGURE III.1.2: Pineapple Supply Map

FIGURE III.1.3: Banana Supply Map 2008

Golden Exotics plans to expand its production capacity to 70,000 tonnes in 2011.
Perishable export sectors usually demonstrate quite simple supply chains, and Ghana is no exception.

It would be useful to have secure numerical data for each link covering the number of participants as well as the volume and value of product. We have made estimates where possible but these need to be confirmed.

Nevertheless, it is apparent to us that small scale farmers currently make a rather small contribution in volume to the export sales. This was not always so, where pineapples, for example, grew as an export crop from the small scale farmer demographic.
B: BUSINESSES

B.1 SOURCES OF FINANCE

B.1.1 INTRODUCTION

During the research for the strategy study, many farmers and agribusinesses claimed that their biggest constraint was shortage of finance. For example, George Donkor, Director of Georgefields, when talking of marketing fruit in Europe states that “inaccessibility to the necessary credit is limiting our ability to tap into these opportunities.” Other farmers interviewed also made similar comments about needing more loan finance—and preferably with low interest rates. This did seem to be in contrast to the development and commercial Banks interviewed, who seemed to be looking for investments that they thought would be profitable, and could therefore service their loans.

It is obvious that any business needs sources of finance from either internally generated funds or sourced externally to the business. Businesses normally require equity, as well as loan finance that can be short, medium, or long-term. Agribusinesses in Ghana are lucky in that there are a wide range of sources of finance available from development banks, commercial banks, merchant banks, local equity investors, and even some donor finance. This Background Paper discusses some of the main issues raised by interviews with the different financing institutions.

B.1.2 CURRENT SITUATION

Development banks—Ghana is well-served by having a number of development banks based in Accra, including International Finance Corporation (IFC), DEG (which is a member of KfW banking group) and Proparco. These organizations specialize in medium to longer-term lending—often about five to seven years—and generally for large investments. Ideally they are seeking investment opportunities of at least a minimum of $5 million (Proparco) to $10 million (DEG). Generally, development banks do not like to take more than about a third of the project’s financial needs, and often are happier if the loans are shared with another bank. Classically, they would expect the sponsor, or sponsors, to provide about 35% to 40% of finance (mainly as equity) and then a development bank along with another bank would share the remaining financing burden.

Development banks will take small equity positions in companies, especially if it helps with the overall financial repayment schedules. If they do take equity, they normally look for an exit strategy within five to eight years. Proparco also provides funds for Fidelity Capital Partners to invest in Ghanaian companies as a means of trying to assist smaller companies.

All the Ghana-based development banks state that they are interested in finding agricultural projects to invest in, but have been disappointed in the quality of many of the proposals—and often find that they are too small. They are trying to address these problems. For example, Proparco manages another AFD fund, FISEA, which is aimed at smaller projects. FISEA and DEG have funds available for technical assistance to try to ensure that the investments are successful.

The development banks would like to increase their portfolio of horticultural investments, but have had problems because many of the proposals have been below their minimum thresholds, and they have been concerned at the potential viability of the proposals.

1. Eurofruit Magazine, August 2009, page 54. In the same interview for the magazine, Mr. Donkor also reports that pineapple prices in Europe “continue to be on the slide”—which presumably puts pressure on the margins that are achieved.

2. Proparco—the Société de Promotion et de Participation pour la Coopération Economique—is a development finance bank, whose main shareholder is Agence Française de Développement (AFD). The French government-owned institution is part of the country’s foreign aid and contributes to economic and social progress in many developing and emerging market countries including Africa.

3. FISEA—Fonds d’investissement et de soutien aux entreprises en Afrique—is part of the initiative to promote growth in Africa which President Sarkozy announced in South Africa in February 2008. This is a €250 million fund and half the projects will involve taking equity stakes in investment funds so that these can in turn invest in African businesses. However, the other half will be earmarked for direct equity investment.
In addition to the international development banks, Ghana also has the Agricultural Development Bank (ADB) and the Export Development Investment Fund (EDIF), both of which will supply medium-term loans and will take equity positions. Both organizations want to promote agricultural investments, which include horticultural exports but face a number of difficulties. Both organizations lack the specific expertise to appraise horticultural export investments; they are more comfortable with traditional farming activities. However, the ADB has supported Kingdom Premium Fruits (KPF), which obtained a grant from the Italian Government to install a fruit juice processing line. ADB sourced this finance from MIDA and, in turn, lent to KPF to secure pineapples from 700 ha. In addition, the ADB also owns a share of Jei River and provides working capital; it has also supported Sunripe (with Fidelity Capital Partners) and 2K Farms. Therefore, the ADB is actively involved with sourcing finance for a number of horticultural processing operations. Its interest rates for local currency are 27%, and it lends Foreign Exchange at LIBOR plus a margin to cover risk and the bank’s operational costs.

EDIF is a more complicated situation. It is funded by a cess on imports equivalent to 0.5% of the value of all imported goods. This money is supplied to commercial banks at 12.5% interest who then lend to their clients for specific investments at 27% to 30%. Much of the money has been lent to newly-created groups of farmers who have often failed to repay the loans. These groups often requested loans to cover equipment such as tractors. However, EDIF had disbursed no funds in the first half of 2009 because it has not had a full complement of directors. It is expected that five new directors will soon be appointed and EDIF will be fully operational. It does recognize the importance of supporting export horticultural projects, and it did sign a Memorandum of Understanding with a major South African processing company to build a juice factory—but nothing came of it. EDIF would like to become more actively involved with horticulture, but seems to be lacking the necessary expertise to identify sound investments.

Commercial banks are important in providing short-term finance. They mainly lend local currency and demand full collateral.

Merchant banks are a possible source of equity finance. The development banks listed above will sometimes take equity; in addition, Fidelity Capital Partners is a venture capital and private equity funds management company. It is financed by development banks (FMO from Holland, SIFEM from Switzerland, and TIL from Tunisia) and the Fidelity Bank in Ghana. It seeks to invest in companies that project a minimum internal rate of return of at least 25% and expects to have a strategy to exit the investment within five to six years. They will invest up to a maximum of $3 million in a project; but may join a consortium up to a maximum of $10 million. To date they have little involvement with export horticulture though they plan to invest in Sunripe, the fruit juice processing company.

Donor support has been important for the development of some commercial export horticultural investments. The Italian Government has provided fruit processing equipment for a number of farms, e.g., KPF, Jei River, and 2K Farms. Some development banks, e.g., DEG, also provide technical assistance to help businesses they financed address any problems they encounter. Obviously, the donors have also been vital in assisting with development of infrastructure. It is interesting to report that Coca Cola has been active in supporting one of the smaller fruit juice companies by providing equipment and training of staff. Without this support, the company would not have gained the certification needed to access the EU market.

The Millennium Development Authority (MIDA) has established a $35 million fund to cover credit requirements for the agricultural value chain. The fund aims to augment the supply of and access to credit provided by financial institutions operating in the Intervention Zones, It provides seasonal credit to Farmer Based Organizations (FBOs) through commercial and rural banks, as well as through non-traditional channels, such as input suppliers. It also provides medium-term credit through banks to finance capital goods, such as irrigation and post-harvest processing and storage facilities. To date some $13 million has been disbursed among over 750 beneficiaries, made up of agro-chemical and input suppliers, tractor services operators, smallholder farmers and nucleus farmers with GLOBALGAP certification to export to international markets, medium scale farmers in the production of local food staples, a fruit processing plant, and a fertilizer production plant, among others.

Local investors could be a source of finance to stimulate export horticulture. There are a number of locally-based companies that have made considerable profits in recent years, for example the beer manufacturers, suppliers of telecommunication services, and soft drink companies. Some of the companies in these industries might be prepared to invest some of their retained earnings in export horticulture as both a way of diversification and to gain added publicity for supporting another industry, which is labor intensive. The challenge is finding good and attractive investments that are well managed. Perhaps more so than the development banks, they
will be much more focused on identifying potentially profitable investments.

B.1.3 CONCLUSION AND STRATEGIC IMPLICATIONS

The key conclusions from the review of the sources of finance are:

- There are funds available in Ghana for investment in export horticulture; interest rates may not be as low as businesses might like. The problem for the finance institutions is the difficulty of finding good investments, with the quality of management needed to ensure that the business plan targets are met. Interest rates at most finance institutions reflect LIBOR and the risks associated with export horticulture industry.

- Perhaps the main strategic conclusion is that if the government wants export horticulture to expand, there is probably a need for “off-farm” finance to open up new areas of land. Currently there is some reluctance by investors to open up new areas, and consequently much of the agricultural and horticultural development is taking place in existing production areas where there is already electricity, roads, and other services such as a trained workforce. The cost of installing such infrastructure makes it much more unattractive for the private investor. Of course, from a developmental point of view, it would be much better if new areas of land were “opened-up.” If in addition to installing off-farm infrastructure, the business grows tree crops where there are a number of years before the investment starts generating a positive cash flow, it is highly unlikely that such an investment would be attractive to most investors. Therefore, serious consideration needs to be given to a fund to assist businesses who invest in new, green-field sites and/or investments in plantation crops. More work needs to be done to establish the principles of the fund, but it is suggested that in order to encourage the private sector to make on-farm investments in certain locations, the government would provide the off-farm infrastructure. This would not only stimulate the short-term investment by new horticultural enterprises and plantations, but would provide the platform for smaller farmers and agribusinesses to invest in the medium and longer term. The main aim of the off-farm fund would be to stimulate commercial investments, by attracting new investment. This would probably be foreign investment in the short term, but local investment in the longer term. Before such a fund is established, it will be important to undertake a feasibility study to project the benefits of attracting new businesses into the rural economy. The study would need to take into account the number of jobs created, the value of bringing in new technologies, the opportunities for associated businesses, etc.

B.2 FRUIT PROCESSING

B.2.1 INTRODUCTION

Processing of horticultural crops provides another opportunity for farmers to market their crops; and sometimes it can be a useful opportunity to sell product that does not meet export market standards. Until the expansion of fresh produce exporting, the only significant processing of fruit was carried out at the Nsawam Cannery owned by Gihoc Distilleries Company Limited (GDCL). There had been other investments, such as a lime concentrate factory, that had come and gone and there were small local operations, but the activity was quite limited. In the mid 1990s, Athena Foods opened a juice factory at Tema based on pineapple for the local and regional markets. Other companies followed, but the amount of fruit bought for processing was small as a percentage of total production.

The intervention that made Ghana internationally recognized as a serious player in fruit processing, and led to the increase in the scale of the sector, occurred in 1998 when Blue Skies invested in a fresh-cut fruit factory to supply some of the major UK supermarket chains. This operation has now expanded its range of markets, and half its output is sold into mainland Europe. A German investment in recent years has opened a second fresh-cut factory, Peelco, which focuses on supplying a German supermarket chain. The business strategies of these companies are predicated on the all-year-round processing of pineapples, but mangoes, papaya, passion fruit, and coconuts are also processed in order to market mixed fruits.

There are now a range of other companies that have established fruit juice operations, and it is expected that a major Spanish fruit juice company will soon be investing in Ghana. The main fruit processed is pineapple, but some orange juice processing is also developing. Traditionally, most of the processors used smooth cayenne pineapples, but have now moved to the super-sweet varieties as they are more readily available.
In recent years there has been an increase in processing capacity for juice production. Coastal Groves initially processed and exported dried citrus peel supplied both from its own farms and from outgrowers. It then invested in a juice factory in 2003. Pinora, a German-Ghanaian investment, was established to process both pineapples and oranges. In 2008, it redesigned its processing facilities and currently only takes oranges, but may invest in a modern, more efficient processing line to process pineapples again. Recently, it has agreed to manage Coastal Grove’s processing facilities and buy its fruit. Another potentially large operation is Sun Ripe, which has a theoretical processing capacity of 20,000 tonnes of fruit per year, but only expects to procure half this amount. There are a number of other, smaller investments in fruit juice production which are mainly targeted at the local market including Milani, Blue Skies (which exported fruit juices to Marks & Spencer), Jei River, 2K Farms (which expects to produce purées), and other smaller operations such as Amoah’s. There are also a number of cottage-scale operations that process juice and sell in recycled packaging.

In addition to fresh-cut and juicing operations, there is some interest in producing dried fruit, but this is a small market opportunity. The USAID-funded West Africa Trade Hub (WATH) is trying to help small businesses sell into the American market, and Hans Peter Werder (HPW) is investigating opportunities in Switzerland and Southern Europe.

In summary, there has been considerable investment by a number of companies in fruit processing capacity, especially in juice production. No doubt the juice companies will have considerable competitive advantage over imports on the local markets, but when this market opportunity is saturated, competing on the export markets will be much more difficult. Companies have successfully sold into the EU niche markets, e.g., organics and fair trade, but have found it much more difficult to compete in the much larger “non-differentiated” segment of the market.

### B.2.2 CURRENT SITUATION

As with any business, it is important to understand the competitive position in different markets in order to project the likely success of any investment.

- **Fresh-cut pineapples.** The main market is in the EU, where there is demand for a convenient pack of prepared fresh pineapples. Ghana’s competition is factories in Europe that use imported sea-freighted fruit. The competitive advantage for the Ghanaian fresh-cut business is that during the preparation of pineapples, the peel and crown are discarded. The discarded material accounts for about two-thirds of the weight of the fruit. Therefore, even though the fresh-cut product must be air-freighted (at about $1.30/kg) and the whole fruit can be sea-freighted (at about $0.30/kg), the savings associated with not transporting waste material and the cheaper cost of labor for processing makes it competitive. However, the Ghanaian factories are now facing considerable competition from European-based companies that buy sea-freighted fruit with the crowns removed at the source (which improves the packing rate per box) and use mechanical peelers which can compete reasonably effectively. One advantage that Ghanaian fresh-cut factories still have is that they are supplying fresher fruit than the European-prepared product, which will have been harvested over two weeks previously.

- **Juice.** Until recently the main market opportunities for juice have been the local and regional markets. However, the recent investments will mean that the industry has to be competitive in Europe. Some exporters have been able to supply high-priced niche markets such as organics and/or fair trade. As these niches become saturated, the manufacturers will have to compete in the mainstream, or conventional, markets. The basis for competition in this market is price and this is mainly impacted by cheap raw material, economies of scale, and transport costs. The cheap raw material can either be using rejects from the export trade or growing the crop specifically for processing.

- **Dried fruit.** The opportunities for exports of dried tropical fruit in Europe are small compared with fresh-cut fruit and juices. The WATH project is trying to help market dried fruit in the U.S., but report that the Ghanaian product is not competitive; exporters claim they need an FOB price that is the same as the retail price of Costa Rican product. Ghana might have some competitive advantage in the niche organic and fair trade markets, but apart from this, it is difficult to see where Ghanaian exporters might be able to derive competitive advantage.

It is estimated that there is current capacity in Ghana to process about 40,000 tonnes of pineapples and about 30,000 tonnes of citrus each year (Table III.2.1). National processing
TABLE III.2.1: Current capacity and status of fruit processing in Ghana, 2009

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>MAIN PRODUCTS</th>
<th>PROCESSING CAPACITY (T/YR)</th>
<th>FRESH PRODUCE EQUIVALENT (T/YR)</th>
<th>OTHER COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Skies</td>
<td>Fresh cut fruit and juice</td>
<td>5,000</td>
<td>15,000</td>
<td>Juicy for local market</td>
</tr>
<tr>
<td></td>
<td>– Pineapples</td>
<td></td>
<td></td>
<td>Export</td>
</tr>
<tr>
<td></td>
<td>– Other fruit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pinora</td>
<td>Fruit juice (single strength)</td>
<td>10,000</td>
<td>28,000</td>
<td>Line not yet installed</td>
</tr>
<tr>
<td></td>
<td>– Oranges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>– Pineapples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunripe</td>
<td>Fruit juice (single strength)</td>
<td>10,000</td>
<td>20,000</td>
<td>Not yet operational</td>
</tr>
<tr>
<td></td>
<td>– Pineapples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Athena</td>
<td>Fruit juice, organic and fair trade</td>
<td>300</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>– Pineapples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeli River</td>
<td>Fruit juice (single strength)</td>
<td>1,000</td>
<td></td>
<td>For local market</td>
</tr>
<tr>
<td>PeelCo</td>
<td>Fresh cut fruit</td>
<td>1,000</td>
<td></td>
<td>Export</td>
</tr>
<tr>
<td></td>
<td>– Pineapples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>– Other fruit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coastal Grove</td>
<td>Dried peel and juice</td>
<td></td>
<td></td>
<td>Managed by Pinora</td>
</tr>
<tr>
<td></td>
<td>– Oranges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amoah</td>
<td>Fruit juice (single strength)</td>
<td>500</td>
<td></td>
<td>Trades as 5 S Fruta juice</td>
</tr>
<tr>
<td></td>
<td>– Pineapples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kingdom Fruits</td>
<td>Fresh cut fruit and asceptic juice</td>
<td></td>
<td></td>
<td>Based in Volta region</td>
</tr>
<tr>
<td></td>
<td>– Pineapples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milani</td>
<td>Juice</td>
<td></td>
<td></td>
<td>Local market</td>
</tr>
<tr>
<td></td>
<td>– Pineapples</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Accord Associates, based on interviews undertaken during the study.

capacity will increase considerably when the proposed investments by Forewin (Ghana) and Don Simon (Spain) are completed and may be further supplemented by other investments that are planned. However, if these investments do occur, it could put considerable pressure on the availability of raw material; in fact, it is likely that proposed juicing factories could not simply rely on residual quality from export crops.

In the Background Paper (E7) on the market opportunities for processed fruit, it is noted that the local and the niche international markets are small and would easily be flooded by the output from the expected investments. Therefore, the Ghanaian production will have to compete in the “non-differentiated” international marketplace. In order to do this, it is imperative to have a reliable supply of cheap raw material, as well as economies of scale and efficient processing facilities.

B.2.3 CONCLUSION AND STRATEGIC IMPLICATIONS

There are a number of important strategic issues that need to be addressed. These include:

- Increased supply and reduced cost of raw material. There is simply not sufficient second quality fruit available to establish a significant juice industry, and farmers will have to grow crops specifically for processing. If they continue to grow pineapples in the same way as for export, it will result in lower net returns. Therefore, it is imperative to investigate ways of reducing production costs; for example, keeping the plants in the ground for a second year which means that establishment costs will be over a greater tonnage and, although the average fruit size will decline, this will not impact too dramatically on the fruit juicing process. Other alternatives might be growing varieties specifically for processing that have higher juice contents, etc.

- Economies of scale to increase profits. Efforts will be needed to enable farmers to make a profit at lower raw material prices, but it might also be necessary to encourage some larger-scale plantations to spread the overhead.
Broader customer base. Ghana should investigate regional and other markets to identify markets where Ghana might have more of a competitive advantage. The European and the American markets are large, but also very competitive; therefore it is important that other markets not be overlooked.

Ghana has made good progress attracting investment in processing. We expect that the fresh-cut industry will continue to expand steadily if it can continue to improve quality, processing efficiency, and thereby reduce costs to be able to compete with the EU-based factories. The biggest investments are being made in the juice sector, but it is likely that there will have to be a restructuring of the raw material supply base if all of these businesses are to remain viable. Opportunities for increasing the production of dried fruit are very limited.

Recommendations for future action are to:

- At the factory level, stimulate processing innovation and the adoption of new technologies, probably introduced from outside of Ghana, to improve processing efficiency and product, probably through the provision of technical assistance and the establishment of a matching grant facility.
- At the farm level, encourage innovation and research specifically targeting the reduction of production costs. This could be achieved by supporting research or encouraging the processing companies to invest in farmer-field trials (possibly through the matching grant facility).
- Market research and marketing missions for potential new niche markets.

B.3 POTENTIAL EXTERNAL INVESTORS

B.3.1 INTRODUCTION

Among the constraints on the Ghanaian horticultural export industry we would include a shortage of top-quality management and supervisors, poor technical support, and lack of innovation. The rapid expansion of Compagnie Fruitière and Bomarts demonstrates what can be achieved when management and technical expertise are added to Ghana’s comparative advantages. If Ghana is to expand its portfolio of horticultural exports in both volume and range, it needs an increase in the pool of top-quality managers and technical expertise. This can be achieved from within by training, and externally by recruiting foreign investors, who, besides finance, would bring their own managerial, technical, and marketing expertise.

Issues of training are discussed elsewhere (Background Paper C3); this paper investigates the opportunities for attracting external organizations to invest money and expertise and the incentives they might require. We have interviewed a range of companies with different attributes (table III.2.2). What these companies have in common is that they could all provide business management and major technical expertise in either production or marketing; and most have the capability of providing some equity, but would not necessarily become the main investor.

Fyffes is a major trader of tropical fruit, having been divested from Total Produce about three years ago.4 It has made investments in South America and South Africa and is comfortable investing in green-field sites. The company knows that Ghana has great potential for tropical fruit. Representatives of Fyffes visited the country on a number of occasions three years ago, but believed that most of the current producers do not have the skills and scale to match their market demands. They are now reviewing their sources from Africa and would consider an investment in Ghana, as well as Mozambique and Angola.

Fyffes prefers Ghana because it is nearer to Europe which should mean shorter delivery times and cheaper freight costs, as well as reducing its carbon footprint. One problem is that they “do not know where to start.” They explained that they needed information on incentives, how to establish a company, help with collecting climate and soil data, site selection, and basic cost data. Their requirement would be for a minimum of 1,000 ha to grow bananas, but they would prefer between 2,000 and 3,000 ha, so they would have the opportunity to expand the banana production and diversify into pineapples.

Fyffes would be looking for help gathering data to prepare a business plan; they hope that this help could be provided by an organization that has a good knowledge of horticulture and an understanding of the business/investment environment in Ghana. Fyffes believes that bananas grown in Ghana tend to be smaller than the market in North Europe prefers, but thinks that this issue can be mitigated by either a better fertilizer regime or marketing mainly in Southern Europe. Until a site has been selected and a business plan has been

4. For more information about Fyffes PLC, go to www.fyffes.
produced, Fyffes cannot estimate the financing requirement, but would hope that the government would ensure that the road, irrigation, electricity, and communication infrastructure would be available at the edge of the farm. They would either like to purchase or have the land on a long lease (50 years or more) and they would want to be able to bring in their own management.

If a company such as Fyffes made an investment in tropical fruit production, it would organize its own freight logistics. Other, smaller, exporters could benefit from another boat service and route being added. The plan would be to export a minimum of 75,000 tonnes/year and probably a lot more, creating about 2,000 on-farm jobs and significantly adding to the throughput at Tema port. If Fyffes did invest and grew a significant area of pineapples, it might become a source of reasonably priced raw material to the nascent juice processing industry, because it would have some fruit which did not meet export standards.

Following the initial interview for the Horticultural Strategy Study, Fyffes requested a further meeting with a number of its senior executives and would like to visit Ghana to view possible sites and gather information to develop a business plan and feasibility study. It would also be important that they understand all the relevant incentives available through GIPC.

### TABLE III.2.2: Characteristics of Potential External Investors in Ghana

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>CHARACTERISTICS</th>
<th>PRODUCTS</th>
<th>LEVEL OF INTEREST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canavese</td>
<td>Based in Marseilles, it already invests in WREL</td>
<td>Imports mainly tropical fruit</td>
<td>High—supplies technical expertise from Côte d’Ivoire to VREL. Is considering further investment.</td>
</tr>
<tr>
<td>Fyffes</td>
<td>Very major global fruit traders</td>
<td>Bananas, pineapples, and other tropical fruit</td>
<td>High—reconsidering their procurement and investment strategy.</td>
</tr>
<tr>
<td>Katope Univeg</td>
<td>A French subsidiary of a very large multinational</td>
<td>Concentrates mainly on fruits and has plantations in South Africa</td>
<td>High—interested in establishing large plantations for pineapples and bananas; Ghana is in their focus.</td>
</tr>
<tr>
<td>Rima</td>
<td>An expanding importer based in Paris</td>
<td>Imports half its produce from Africa, mainly South Africa</td>
<td>High—already imports from West Africa, but not Ghana. Wants to start sourcing from Ghana and plans to establish an office in West Africa.</td>
</tr>
<tr>
<td>South African Producers</td>
<td>A number of the larger producers are looking to diversify</td>
<td>Wide range, but limited by climate</td>
<td>High—there is considerable interest to diversify risk and climate and Ghana would be an option.</td>
</tr>
<tr>
<td>VegPro</td>
<td>Biggest Kenyan vegetable exporter to EU</td>
<td>Babycorn, sweet potatoes, squash, and other vegetables</td>
<td>High—possible investment in Ghana as a step towards becoming a global player. Wants to visit Ghana.</td>
</tr>
<tr>
<td>Bakkovor</td>
<td>Very large fresh fruit processing business</td>
<td>Mainly fresh fruit, some vegetables</td>
<td>Medium/high—would like to procure Ghanaian pineapples, but have quality and hygiene concerns.</td>
</tr>
<tr>
<td>Chiquita</td>
<td>In the top 3 global players of bananas</td>
<td>Bananas and pineapples</td>
<td>Medium/high—visited Ghana many times but failed to find a local partner.</td>
</tr>
<tr>
<td>Sworld</td>
<td>Importer based in France and the UK</td>
<td>Narrow range of products; includes pineapples</td>
<td>Medium—been trading with Ghana for almost 10 years with disappointing results. Recognizes the potential, but needs to find the right partner.</td>
</tr>
<tr>
<td>Univeg DFM</td>
<td>A German subsidiary of a large multinational</td>
<td>Wide range of fruit and vegetables</td>
<td>Medium/high—used to trade with Ghana but now concentrates on other countries. Would like to be updated on future developments/incentives.</td>
</tr>
<tr>
<td>Camellia PLC</td>
<td>A large multinational with farms in Kenya, Malawi, South Africa and India</td>
<td>Wide range of crops, including pineapples and avocados</td>
<td>Low—Ghana not currently on “their radar” but would like more information and to be updated on future developments/incentives.</td>
</tr>
<tr>
<td>Kolla</td>
<td>Major German horticultural trader</td>
<td>Interested in tropical fruit from Ghana</td>
<td>Low—disappointed with Ghanaian quality and reliability of sea-freighted fruit. Wish to be informed.</td>
</tr>
<tr>
<td>Total Produce</td>
<td>De-merged from Fyffes</td>
<td>Vegetables and temperate fruit</td>
<td>Low—prefers to buy and market produce; does not set up green-field operations.</td>
</tr>
<tr>
<td>Duerbeck</td>
<td>A family-owned importer based in Germany</td>
<td>Concentrates mainly on fruit</td>
<td>None—even though the company has made investments in South America, they do not have the resources to work in Africa.</td>
</tr>
<tr>
<td>Eurobanan</td>
<td>Importer based in Spain; does not get involved with production</td>
<td>Wide range</td>
<td>None—has a strong history with Fyffes and Total Produce. Is not interested in investing outside Spain.</td>
</tr>
</tbody>
</table>

Source: Accord Associates, based on interviews during the study.
VegPro is the biggest vegetable grower in Kenya as well as being one of the major fruit and flower exporters. Vegetable trade is seriously interested in investing in Ghana for a number of reasons. The climate provides an opportunity to diversify its cropping range, the cheaper air freight to the EU would make some lines more competitive, and the good sea freight links would open up a new range of cropping options. VegPro has the technical competence to grow a range of sub-tropical and tropical vegetables for export by air. In addition, it would develop sea freight for more durable root crops.

The company would be looking for about 250 to 350 ha of cultivable land with irrigation (center pivots) as a minimum to start and the capacity to at least double or triple that when the first plantings have been successful. It is likely that such an investment would create 750 to 1,500 on-farm jobs would increase the average value of air freight exports, and would help justify the building of a cold store at the airport. However, perhaps the biggest benefit of attracting a company such as VegPro to invest in Ghana would be that it would vastly improve Ghana’s reputation as a serious supply base for vegetables and therefore encourage other companies to follow its lead. The improved transport and marketing links would be a tremendous asset for smaller-producers to exploit.

Following the initial interview as part of the Horticultural Strategy Study, VegPro management visited Ghana three times to evaluate this opportunity. Like Fyffes, they noted that it would be preferable if there was “one-stop-shop” to understand the incentives and advantages of investing in Ghana, as well as providing background information. VegPro noted that Ethiopia is working hard trying to attract foreign companies to invest and the Ethiopian government ensures that the areas it has designated for development have good road infrastructure and electricity.

Chiquita is one of the top three corporate companies involved with the production and global trade of bananas. They are the biggest and most important supplier to Europe. Chiquita’s management has stated that it wants to increase output from Africa by growing an extra 8,000 ha. They have visited Ghana a number of times and were impressed by the incentives offered to investors and the infrastructure, i.e., the roads and the perishable cargo handling facility at Tema, as well as the climate. However, Chiquita’s business model stipulates that it provides all the technical and marketing expertise, but a local partner provides all the finance. Despite a number of visits, a local partner has not been identified, and consequently they are now investing their technical resources in Mozambique and Angola, even though neither location has the sea-freight advantages of Ghana. More recently, Chiquita has tried to identify potential suppliers of pineapples for their trading operation. However, Chiquita’s potential involvement as a buyer is less attractive to Ghana than as an investor.

Chiquita obviously appreciates that Ghana is an attractive place to invest, and lessons need to be learned from their failure to find a suitable business partner. If there had been an agency that had the specific knowledge and contacts to find appropriate local partners, then the outcome might have been different. The failure to attract Chiquita has meant the loss of 2,000 jobs and significant foreign exchange earnings. Subsequent conversations with Chiquita have indicated that there is still a chance that they could invest in Ghana, but they would require an invitation and considerable effort to identify possible business partners. In the past, Chiquita met with farmers as possible business partners; unfortunately they did not have the financial resources or the technical and managerial capability. Most of the farms were also too small.

Total Produce separated from its parent company, Fyffes, to deal mainly with vegetables and temperate fruit, while Fyffes is more focused on bananas and other tropical fruit. Therefore, Total Produce’s interest in Ghana would be as a potential supplier of vegetables. When interviewed, the management did not have any great interest in Ghana because previous investments in green-field sites have not been successful and they would prefer to buy existing operations. Total Produce has invested in India through a joint venture with the Tata Group, but their involvement is mainly to bring their marketing and distribution skills to the new operation.
The conclusion of the interview was that an investment in Ghana was probably outside their normal business practices, and they did not have a large demand for the vegetables that Ghana could produce. However, they would like to be kept aware of any opportunities in Ghana.

**Camellia PLC** is a well-established group of companies\(^\text{13}\) that includes activities in agriculture/horticulture, banking and finance, food stores and distribution, and engineering. It was initially based on tea production and export in India but now has a number of operations in Africa in Kenya, Malawi, and South Africa. Given that Camellia has a number of farms in Africa and expertise in horticultural production, it is seen as a potential investor in Ghana.

Camellia noted that currently Ghana was “not on their radar” for investments in the short-term, but they still requested to be kept apprised of any developments and opportunities. In particular, they would be interested in understanding more about the economic incentives, especially about free trade zones. They commented that incentives are particularly important in order to make investments in tree crops attractive. The issue of land tenure would need clarification.

**Bakkovor** is an Icelandic company that operates over 60 factories processing fruit and vegetables in 10 different countries. About 86% of their output is sold in the UK, mainly to the major UK retailers. They have factories in France, Spain, Belgium, and Italy from which they service most of the rest of Continental Europe. They have recently invested in the Czech Republic and bought a factory in South Africa. Their interest in Ghana is as a supplier of fresh fruit for their European-based factories. In particular, they are interested in having another source of pineapples to supplement their current suppliers in Costa Rica. They have visited Ghana and met some of the growers, but were disappointed by the quality standards—in particular the efforts to maintain the hygiene standards required by multiple British retailers. They are significant buyers of pineapples (400 to 500 tonne/week) and have agreed to procure trial shipments from one Ghanaian grower. If this works well, they could increase their order. If they could be assured of quality standards and reliability, there could be an opportunity to expand their supply base.

**Anton Dürbeck** is a family company located near Frankfurt, Germany. Even though it is a family business, it is one of Germany’s main independent fresh produce importing companies. It has traded regularly with Ghana and the Côte d’Ivoire and has made investments in production in Ecuador and Chile. In recent years, the trade with Ghana has been unsatisfactory and, as a consequence, the company has no interest in investing. This is partly due to the fact that compared with the big multinationals, they do not have sufficient resources. Despite the lack of interest, Dürbeck noted that Ghana would be perhaps the country in Africa that he would most like to work with and would like to be kept informed if there were significant improvements in fresh fruit production and/or the investment climate changed.

**Univeg DFM** (Direct Fruit Marketing) is part of the large Univeg group that concentrates on marketing fruit to Germany and Austria. It regards itself as a small company within a large group; it has a turnover of over €1 billion and employs over 1,000 people.\(^\text{14}\) It used to import from Ghana, but has now stopped and concentrates on South America and South Africa where the quality is more consistent and the suppliers are more reliable. However, Univeg noted that all respectable fruit importers must invest in their supply chains to be able to secure reliable supplies.

The Managing Director of Univeg DFM is not currently interested in Ghana but suggests that communications be maintained with the Operations Director.

**Kölla** was originally a major importer of commodities such as tea, coffee, animal feed, and dried fruit, but has now evolved to become one of Germany’s leading fruit and vegetable traders. Its head office is in Hamburg, but it has offices in Switzerland and Spain.\(^\text{15}\) Its main lines are grapes, pineapples, and mangoes which are mostly procured from South and Central America. It does successfully import airfreighted pineapples from Ghana (through Koranco) for the French market. Kölla is primarily an importer of fruit and is not really interested in making any investments in their supply chains.

GTZ invited the General Manager of Kölla to visit Ghana to explore the opportunities. Unfortunately, the outcome of this visit was not positive. They concluded that the growing areas for mangoes were too humid, though they neglected to visit the area around Tamale. They imported about 10 containers of pineapples by sea, but the quality of the sea freighted pineapples was “rubbish”; the majority of the fruit were spoilt by internal browning.

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13. For more information, go to www.camellia.plc.uk
14. For more information, go to www.univeg.de
15. For more information, go to www.koella-online.de
**Sworld** is based in France and the UK and has been trying to establish links with Ghanaian growers and exporters for almost 10 years. The company recognizes Ghana’s potential but has been constantly disappointed by the erratic quality and unreliable supply base; it now has no desire to continue trading. Sworld has happily pre-financed inputs for Ghanaian exporters, but its capital and resource base is too small for it to make larger investments. Sworld aims to develop long-term partnerships with their suppliers; a sort of strategic alliance, but the suppliers must be professional and serious.

**Eurobanan** is a large Spanish importer with strong historical links with Fyffes. It only gets involved with Spanish producers and does not invest in non-Spanish farmers. It is not willing to invest in production outside of Spain.

**Rima** is a rapidly expanding importer based in the Rungis market in Paris. It specializes in importing produce from Africa, but does not yet have any suppliers in Ghana. The majority of its imports are fruits from South Africa, but it has established the Booranga brand to market beans from Burkina Faso. Its future strategy is based on importing a wider range of produce from Africa and also to work closely with the producers to ensure quality and hygiene. To achieve these objectives, the company is considering establishing an office in West Africa to enable it to oversee production and export logistics. This office could also provide technical support to the growers to help improve yields and quality. Rima is considering Accra as a potential base for their West African operations, especially if they can identify some producers who would enter into strategic partnerships.

Rima’s concept of having a regional office to coordinate and work with producers is imaginative. It is similar to the situation in Zimbabwe in the late 1980s and early 1990s: following a number of years of high tobacco prices, there were many Zimbabwean farmers who had considerable cash surpluses and were looking to diversify the crops they grew and the markets they accessed. Some started to grow cut-flowers, mainly summer flowers, and very quickly a number of Dutch marketing companies based themselves in Harare to provide technical support to the farmers, coordinate transport, and help with marketing. These Dutch importers were so successful that the Zimbabwean farmers moved away from the low-value summer flowers to the higher-value roses, and by the early 2000s, the industry was worth $60 million/year with a substantial workforce.

In South Africa, Rima has entered into strategic marketing agreements with a number of large growers. It was suggested that perhaps some of their South African suppliers might like to diversify their production base to another country to spread financial risk.

Rima would like to continue dialogue about establishing an office in Accra. It was suggested that when one of their procurement managers is next in West Africa, they should meet some Ghanaian producers and see for themselves the country’s potential. To facilitate this, they have been given contacts with MIDA and TIPCEE projects.

**Katope Univeg** was originally Malet Azoulay who then joined with Katope before being bought by the large Univeg group (turnover €2.2 billion, making it one of the world’s largest fresh produce companies). Katope Univeg is based in Paris, and before they were sold had a turnover of about €250 million. They are predominantly fruit importers who used to have pineapple plantations in Côte d’Ivoire. Since the political troubles in the country, they now source from Costa Rica. They also have plantations in South Africa and have a history of sourcing from Ghana. In Ghana, they have been disappointed by the quality of the suppliers. They recognize that they are over-reliant on Costa Rica as a source, and would like to have another reliable supplier of good quality fruit, preferably closer to Europe. The eight to ten days shipping time from Tema makes Ghana particularly attractive to the Univeg group. They are still concerned about the political situation in Côte d’Ivoire and have considered trying to source pineapples from Brazil, but have had pest and disease problems. Therefore, in the right circumstances, they would invest in a plantation in Ghana.

In addition to pineapples, the Univeg group would also be interested in establishing a banana plantation. Currently the group has a small investment in Surinam, but they are reliant on the big multinational banana companies such as Chiquita. Once established with pineapple and bananas, the group might be interested in producing and/or buying papaya and mango.

The comparative advantages of Ghana are well appreciated by Katope Univeg, i.e., the climate, short shipping times, and the economic and political stability in the country. They also understand the need to make their own investment with their own management and control systems. They would need to be able to access large areas of land—a minimum of 2,000 ha, with the potential to reach 5,000 ha as the investment

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16. For more information, go to [www.eurobanan.com](http://www.eurobanan.com).
17. For more information, go to [www.rimalfrance.com](http://www.rimalfrance.com).
increased. Ideally they would want two sites, one for pineapples and one for bananas and they should be within two to three hours drive of Tema. They would require title to the land and would expect to have reasonable roads, electricity, and possibly irrigation water to the farm-gate. They would take responsibility for all on-farm finance.

The meeting with Katope Univeg was particularly encouraging in that they expressed serious interest in investing in Ghana. They stressed that they would need to be sure that they would get good support from the government and would need a specific entity to interact with that would assist in sorting out issues and problems as they arose.

Canavese is based in Marseille and has been trading with Ghana for almost ten years, importing both bananas and pineapples. Currently, the company works closely with Volta River Estates Ltd (VREL). It also has a plantation in Côte d’Ivoire. Canavese recognizes that there is considerable benefit in sharing some of their management and expertise; a senior manager from Côte d’Ivoire visits Ghana every two months.

Canavese is interested in increasing their investment in Ghana because they see it as an important source of bananas and pineapples in their future strategy. They are considering what form this investment might take, e.g., establishing a new plantation or investing in an existing unit. Canavese would appreciate being kept abreast of any new developments and incentives that could influence its decision.

South African producers could be another source of potential investment in Ghana. The interview and follow-ups with the Kenyan company, VegPro, demonstrated that there was considerable interest by African producers in diversifying into Ghana. South Africa has a highly efficient horticultural sector and is the biggest sub-Saharan exporter of horticultural produce to Europe. However, exporters have difficulty developing significant trade in tropical produce because the climate is largely sub-tropical and even temperate, which imposes seasonality and/or quality limitations. South Africa also has limited water for irrigation (it is one of the most arid countries in the world), marginal market access (surface connections to Europe are effectively 28 days), and there are considerable concerns about the effect of AgriBEE. Despite the climate limitations, South Africa produces all-year-round tropical fruit. For example, pineapples (primarily Queen) are grown in Hluhluwe about 340 km south of the southernmost point of the coastal tropical belt in East Africa. Though these are produced all year, winter quality is poor and farmers find it difficult to circumvent the strong tendency to produce a ‘natural’ crop in mid-summer (flowers are initiated by a combination of plant size, short days and cooler temperatures). The situation is similar for tomatoes, papaya, and bananas though the details of the difficulties are different.

These circumstances have led to a degree of interest by some farmers in investing in production in complementary or more tropical climates:

- The main South African grower of pineapples is Cassie Badenhorst; because of the climate difficulties, he has explored opportunities in Mozambique on a number of occasions. However, Mozambique has an unfriendly investor environment (see the World Bank Logistics and Ease of Doing Business indices for Mozambique).
- Another company, Colours, had started clearing land in Goba (near Maputo) for midsummer papaya production before stopping their investment over phytosanitary concerns—they were unhappy about the ability of the Mozambique government to control the spread of Bactrocera invadens which was discovered in Cabo Delgado early in 2008.
- In addition, a number of South African banana growers in South Africa have successfully invested in Mozambique for importing into South Africa. Mango farmers have invested in Central Mozambique to take advantage of the seasonality to sell to Johannesburg fresh fruit processors, who in turn export to the EU.

These are clear examples of South African producers of tropical crops who have actively looked at investing outside their country. It is possible that some could be encouraged to invest in Ghana if they could be given some support.

It is recognized in South Africa that the investment climate in Ghana is attractive; the success of Compagnie Fruitière in establishing Golden Exotics is well known to South African horticultural producers. However, it is important that efforts are made to promote the potential of Ghana to possible investors in South Africa to ensure that they understand how easy it is to establish businesses and the support they would get to overcome any administrative barriers. In the World Bank’s comparison of 183 countries, Ghana ranks 92 in the ease of establishing businesses.

19. For more information, go to www.canavese.fr.
20. The “Black Economic Empowerment legislation in Agriculture” which makes demands for the emergence of black majority owned agricultural companies in terms of land ownership, production capacity, and improved market access.
21. For more information, go to http://www.doingbusiness.org.
of doing business; it ranks even lower for the categories “starting a business,” “obtaining construction permits,” and “employing workers.” However, it does well in “securing property.” Companies do make use of this website and therefore they would need to be assured that they would receive help in establishing a new business.

In addition to promoting investment opportunities to producers, it is also important to recognize that South Africa has considerable expertise in processing and marketing. Ceres, a major fruit juice company, has already considered joint ventures in Ghana and Shoprite has established a large supermarket with plans to open more.

B.3.2 CONCLUSION AND STRATEGIC IMPLICATIONS

A number of major companies in the fresh produce industry have been interviewed. In general, there has been considerable interest in possibly investing in Ghana. Interviewees recognized the comparative advantages of Ghana; some had even visited the country to gain a greater understanding. Others want to get more information regarding fiscal incentives, ease of obtaining land holdings of sufficient scale that they could expand into, and government help with the provision of services and infrastructure.

In essence, there appear to be two entry points for external fresh produce companies that want to become more actively involved with Ghana:

1. First, importers want to develop strategic alliances with existing producers; they would be prepared to invest with some pre-finance and specific technical expertise to help the producer meet quality standards. Many importers noted that it is increasingly important that they develop a close relationship with suppliers to ensure that quality standards can be maintained and produce is delivered reliably and on schedule. In other words they are looking to develop strategic relations with suppliers and are prepared to help supply some technical support and provide some pre-finance. It is therefore disappointing to note that many of the Ghanaian suppliers have not been able to develop such strategic rapport with EU-based importers. Many importers interviewed commented that there was a lack of professionalism among Ghanaian producers and exporters which inhibited establishing strategic partnerships.

2. Second, companies recognize that the level of performance of most production units is not “world class” and therefore they want to bring in their own management and expertise and establish a new venture; either on a new site or by buying an existing farm. It has been noted elsewhere that there is a need to improve the management and technical capacity of many of the current growers/exporters; it is hoped that if some of the “world class” businesses interviewed do invest their skills and experience in Ghana, it might encourage the existing companies to review their managerial and technical capabilities.

To date, attempts to establish strategic partnerships with existing exporters have not been successful, and should therefore not be a priority for Ghana. The second entry point involving external fresh produce companies wanting to invest in production should be the priority to stimulate horticultural exports. There appear to be two main reasons that external companies are interested in investing in production in Ghana—to diversify their product range by expanding into a different climate and, to reduce their reliance on their current production base.

It is therefore crucially important that efforts are made to attract large-scale and world-class horticultural businesses to Ghana; along the lines of Compagnie Fruitière investment in Golden Exotics. If this arrangement can be replicated—in both tropical fruit and vegetables—then it will help Ghana attain the economies of scale to become even more competitive. It will also be a good example for existing producers to show that if they improve their performance, then they too can establish good and more profitable relations with importers. However, it is important to realize that meetings arranged between importers and Ghanaian farmers that have been undertaken over the last 10 to 15 years have not been successful and a new approach is needed; too many of the previous attempts have focused on trying to establish trading relationships between exporter and importer.

Given the interest shown by these interviews, it is important that the lessons learned from the interviews with potential investors are incorporated in the strategy for the development of the industry. These include:

- It is important that there is a promotional effort that has considerable horticultural expertise to be able
to work with potential new investors. Within the Horticulture Authority proposed in the strategy here, we would expect an investment promotion capability to collaborate with the GIPC to support new investors.

- The most important factor in determining whether a company will invest in a new area is whether the agro-climatic and soil conditions are suitable. It is recognized that for many tropical and sub-tropical crops, Ghana is extremely well suited. After the agro-climate and soils, the next most important issue raised by many of the people interviewed is whether sufficient land holdings are available, because the external investors will need large areas so that they can expand production. It is important to understand that the issue is not confined to availability: there are questions of cost, security of tenure, and transferability. The progress of the Land Administration Project is critically important here and it is expected that the investment capability within the Commercial Horticulture Authority would assist potential investors to find sites and to deal with any land tenure issues.

## B.4 PROFITABILITY OF CROPS AND FARM SIZE

### B.4.1 INTRODUCTION

Ghana’s high value horticulture industry has been built mainly around the export of pineapples and much smaller quantities of mango, papaya, Asian vegetables, and yams to markets in the EU. Quite recently, significant investments have been made in the production and export of bananas, but the main focus continues to be pineapple, and for this reason the bulk of this paper will deal with issues concerning production of pineapples.

Most traditional agricultural production in Ghana is done by small-scale growers. These growers are characterized by very limited access to resources, and typically have farm sizes of less than 2 ha. Government and donors have focused much effort on supporting the smallholder farmer as this fits in with policies for improving household incomes in rural areas. Export horticulture is often seen as a good opportunity to generate income, employment, and improve the level of skilled workers in rural areas. Evidence shows that the export pineapple industry did provide benefits for significant numbers of smallholders in peri-urban areas around Accra between 1983 and 2005 (Fold and Gough 2008). However, times change, and, according to Fold and Gough, most smallholders have now been excluded from the export pineapple value chain.

In this paper we explore the reasons for this exclusion and ask the question—is there any future for small-scale growers in high value export horticulture? We consider this question to be particularly important as donors and government continue to commit resources to try and bring smallholders back into the value chain. Is this the right approach, or would these resources be better allocated elsewhere?

### B.4.2 BACKGROUND

The export pineapple industry developed in Ghana between 1983 and 2005. During this period exports were mainly of locally available varieties such as smooth cayenne and Victoria, which were also sold on the local market. In the early days, exporters were forced to rely on existing production which centered on large numbers of small farmers, most having less than 2 ha of land (Takane 2004, and Fold and Gough 2008). Some of the larger and more successful exporters also invested in their own farms with much larger areas of production. However, even the larger exporters still relied on smallholders for between 30 and 40% of their production in many cases.

In 2003–2004, Ghanaian pineapple production was split between approximately 12 large farms of 300–700 ha, some 40 medium-sized operations of 20–150 ha, and possibly as many as 10,000 small farms with productive areas ranging from 0.2 ha to 10 ha. Most of the smaller farms and some of the medium-scale operations were loosely associated (no written contracts) with one or more of the larger exporting farms. In most cases, the smallholders operated individually, but in some cases the exporter encouraged the formation of farmer groups. In 2004, most of the larger farms were GLOBALGAP (formerly known as EurepGAP) certified as single farm sites; very few small farms were certified but some large farms were exporting non-certified produce from outgrowers hidden under the exporters main farm certificate (Graffham 2004). One exception to the general situation was FARMAPINE (see Background Paper A1), a World Bank-funded farmer ownership model where some 300 small-scale growers (32 were GLOBALGAP certified in 2003–2004) had been organized to form a farmer-owned exporting business.

The question might be asked as to why the larger farms were continuing to source from small and medium-scale outgrowers? Large commercial exporters have many reasons for sourcing from outgrowers. These can include...
access to land, transfer of production risks to a third party, access to water, low-cost labor, quality and attention to detail, political reasons, and corporate social responsibility. Obeng (2004) quoted by Takane (2004) summed up the advantages of Ghanaian smallholders for pineapple production as follows:

- 22% lower production cost compared to large farms
- Low labor cost due to reliance on family labor (do not need skilled labor)
- No requirement for large initial investment to start production
- Cheap locally-available planting material
- Low level of inputs and simple tools for production
- Pineapple is not temperature sensitive

According to Takane (2004) the disadvantages of smallholder production were small volumes, quality control, and inability to comply with new customer requirements—such as private voluntary standards. However, these disadvantages were evidently outweighed by the many advantages enumerated above. Larger exporting farms normally had a higher level of mechanization, but most still lacked irrigation and none of the exporters had proper packing facilities or cold chain management systems. In many ways the larger farms were often like big versions of the small operations, with few signs of the type of sophisticated management normally associated with large commercial farms.

Cost data for smallholder production collected in April 2004 (table III.2.3) shows that an acre of smooth cayenne would cost approximately $1,228 and yield profits of $891 given an export percentage of 60% of fruit harvested. Inputs accounted for ~43% of the costs of production (Graffham 2004). Under these conditions production was affordable and profitable for most smallholder farmers. At the time, the pressing issue appeared to be the high cost of compliance with private standards. Graffham highlighted this as an emerging issue and demonstrated that 17 of the 32 GLOBALGAP-certified FARMAPINE farmers would be unable to pay for maintenance and certification costs without external support. However, we will see in the next section that a more pressing issue was about to emerge that would remove nearly all smallholders from the export chain by 2007.

### B.4.3 CURRENT STATUS

In September 2001, tragic events in the U.S. forced Costa Rica to diversify their market for the new MD2 variety of pineapple into Western Europe. MD2 proved a great success, and the EU markets started to switch from the traditional varieties grown in Ghana to MD2. The switchover was gradual, but by mid-2005 the market for smooth cayenne and Victoria had collapsed, leaving only small residual markets for organic and fair trade products. A few of the big farm/exporters in Ghana responded early to this shift in market demand and invested heavily in the new variety. One of the biggest farm/export companies reported purchasing $1.5 million of MD2 plantlets from Costa Rica in 2002 at a cost of $0.80 per plantlet. Another company invested heavily in tissue culture facilities. Simply investing in planting material was not sufficient; many of the larger farms lost much of their working capital in learning the hard way that the agronomy of MD2 was different from the traditional varieties.

These data show the higher yield of MD2 based on production costs that might be nearly three times higher than the traditional varieties. In terms of unit costs, the MD2 is cheaper to produce, but evidently requires more inputs and management to achieve these levels of output.

MD2 was found to be a more sensitive crop requiring better production management, careful harvesting, and rapid

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**TABLE III.2.3:** Comparison of Smallholder Production Costs for 1 Acre of Smooth Cayenne in Comparison to Current Costs for Small and Medium-Scale Production of 1 Acre of MD2

<table>
<thead>
<tr>
<th></th>
<th>SMOOTH CAYENNE</th>
<th>MD2-1</th>
<th>MD2-2</th>
<th>MD2-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant population</td>
<td>20,000</td>
<td>20,000</td>
<td>20,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Exportable yield kg</td>
<td>9,023</td>
<td>26,047</td>
<td>28,500</td>
<td>36,503</td>
</tr>
<tr>
<td>Labor cost $</td>
<td>466</td>
<td>649</td>
<td>1,208</td>
<td>735</td>
</tr>
<tr>
<td>Input cost $</td>
<td>531</td>
<td>2,595</td>
<td>1,976</td>
<td>2,168</td>
</tr>
<tr>
<td>Fixed costs $</td>
<td>231</td>
<td>115</td>
<td>Not given</td>
<td>141</td>
</tr>
<tr>
<td>Total cost $</td>
<td>1,228</td>
<td>3,359</td>
<td>3,184</td>
<td>3,044</td>
</tr>
<tr>
<td>Cost $/Kg</td>
<td>0.14</td>
<td>0.13</td>
<td>0.11</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Source: Smooth cayenne data (Graffham 2004), MD2-1 and 3 (TIPCEE) and MD2-2 (Prudent Farms).
cooling within one to three hours of harvesting. This last factor forced the larger exporters to invest in cold chain management systems. According to Lopez-Ventura and Miller (2009), a complete system for cold chain management requires an investment of $838,370.

The small and medium-scale farms were unaware of the coming of MD2 until mid-2005 when the market for smooth cayenne collapsed. This was very late in the day for investment in a new variety with a lead time of 18–24 months before the first harvest of fruit. The smaller farms also had no resources for investment in new varieties. Farmers had purchased smooth cayenne suckers for the equivalent of $0.01–0.06, so the investment in MD2 plantlets costing $0.80 per plantlet was realistically unattainable. Smaller farms were forced to rely on the government and donors who invested heavily in multiplication and distribution of planting material in the hope that this would solve the problem.

Unfortunately, access to MD2 planting material was not the only problem associated with the new variety. Input costs increased by four or five times compared to production of traditional varieties (table III.2.3). Production of MD2 requires the use of plastic mulch, adding between $300 and $400 to the cost of production for one acre. Additional labor costs are incurred for manual clearing of the remains of old plastic mulch and laying new sheets. The higher input costs associated with growing MD2 are mainly associated with increased use of fertilizer and pesticides meaning that the farm must have access to a much higher level of working capital.

Had Smooth Cayenne been given similar inputs and care, substantially higher yields might have been achieved; this would be an interesting comparison for further work in view of the interest that some processors have in maintaining this variety.

Overall, the production costs for MD2 are too high for most under-resourced smallholders. For the larger farms the initial investments for MD2 are very high: one exporter estimated that establishing MD2 production on virgin land could cost between $13,000 and $15,000 per hectare.

Data provided by TIPCEE indicated that smallholders could still make a profit from MD2, and this view is supported by at least one exporter.24 That said, calculations made with outgrowers linked to one of the larger exporters indicated a less favorable profitability (table III.2.3).

Another problem with procuring MD2 from smallholders highlighted by the major exporters was cold chain management. MD2 is a temperature sensitive product that must be cooled within one to three hours of harvest. This is a very difficult proposition when trying to collect produce from large numbers of small farms scattered over a wide area and accessed by poor quality roads. According to Fold and Gough (2008) every hour of delay in cooling can reduce shelf-life by one day in the EU. It is unsurprising that the majority of exporters are unwilling to source from the smaller farms.

One possible solution is for farmers to form a group and manage a collective production area. One such group is the Gomaa Okyereko Pineapple Growers Association (GOPGA). GOPGA has seven members, six of whom are GLOBALGAP certified under option 2. GOPGA has 60 acres of pineapple production, approximately 60% of which is allocated to MD2. The rest is used for sugarloaf and small amounts of smooth cayenne for sale to local and regional markets. GOPGA supplies MD2 to Blue Skies for processing, obviating some of the shelf life issues associated with exports of whole fruits. They have the advantage of being located on the main Winneba to Accra road and can reach their main customer within two hours without going through Accra. Production is well managed, and effort has been made to reduce production costs. For example GOPGA has reduced the cost of fertilizer inputs by $175 per acre by replacing chemical fertilizers in the basal dressing with organic fertilizer purchased in bulk from Blue Skies.

Production records show that GOPGA is currently making a 40% margin on sales of MD2 to Blue Skies. However, this margin will drop drastically next year when the group has to pay for its own GLOBALGAP certification audit. It is estimated that costs for GLOBALGAP certification will account for 31% of current profits. It should also be noted that GOPGA members were atypical of most smallholder members as they are well resourced and have alternative sources of income.

### B.4.4 Conclusion and Strategic Implications

Much donor effort has been spent on supporting smallholder farmers with training, planting materials, agronomic advice and payment of costs of GLOBALGAP, FLO and organic certifications. For a relatively small number of farmers like the GOPGA group, donor support has brought real benefits. However, for the majority, production of MD2 is too expensive—the input costs and the cold chain require significant resources. It could also be argued that MD2 is an “industrial” crop developed for production on
large plantations and is thus best suited for large-scale commercial production with high levels of mechanization. This argument is supported by an observation made during the current mission that the production costs for one large farm were 38% lower than those of his outgrowers. Simultaneously, an increasingly competitive market is applying downward pressure on prices that only the most efficient production can endure.

None of the major exporters interviewed expressed any interest in buying pineapples from small farms in the future. Those that use outgrowers stipulate a minimum farm size of 30–40 acres. Under current conditions there seems to be little role for the smallest farms in MD2 production and donor resources would be better invested elsewhere. An alternative model is urgent, then, if the rural economy is to profit from export horticulture.

REFERENCES


c.1 GHANA’S COMPARATIVE POSITION

C.1.1 INTRODUCTION

Ghana has considerable comparative advantages for establishing an export horticultural industry. This Background Paper summarizes the advantages and then considers the country’s recent performance, identifying areas where the export horticultural industry has failed to develop comparative advantages into competitive advantage.

- **Climate** - When considering export horticulture, the critical comparative influence is the climate. Ghana has an excellent climate for tropical and sub-tropical fruit and vegetable production, and the reasonably even temperature throughout the year gives the opportunity for all-year-round production. While there are temperature variations in the country, especially in some of the higher areas, it must be recognized that the temperatures are too warm for temperate crops, which is why there have been problems with growing green beans for export.

- **Freight** - Cheap air freight in the 1980s and 1990s gave an important advantage to the export of fresh produce from Ghana. At the time, Nigeria required a considerable amount of air freighted imports from Northern Europe, and the freight operators needed northbound cargo to fill their empty planes. There were three main opportunities—West African countries, East African countries (mainly Kenya) or Southern Africa (mainly South Africa). The advantage of collecting northbound cargo from Ghana or another West African country lay in a much shorter empty leg and the proximity to Europe. Local businesses used this comparative advantage to establish the air freight of pineapples and some vegetables. Air freight charges were about $0.70/kg compared with $1.50 to 2.00/kg from many of the other countries supplying the EU market with fruit and vegetables. Currently, average freight rates for Ghana to Northern Europe lie in the range $1.00 to 1.20/kg. This is still cheaper than many other countries supplying Europe from, for example, East and Southern Africa, and Thailand. This should be giving Ghana a competitive edge; however, the Dominican Republic has significantly cheaper freight rates ($0.65 to $0.75/kg) than Ghana currently enjoys. In recent years, the Dominican Republic’s vegetable exports have increased significantly at the expense of Ghana’s.

The comparative position on sea freight is more complicated. Ghana has an advantage in that it is near to Europe and therefore the freight costs should be cheap. However, there is an issue of critical mass. Sufficient critical mass is needed to attract larger vessels—which reduce the unit cost—and to ensure the frequency of arrivals needed to keep the European markets supplied constantly with fresh product. It is also important that there be sufficient critical mass to allow boats to cover a range of routes to different destinations. Currently, Ghanaian sea-freight exporters have a very limited number of direct destinations in a reasonable voyage time, but if the volume of exports can be expanded, it is likely that other routes will be established, for example to South-Eastern Europe.

Proximity to Europe also gives cargo from Ghana an advantage in a smaller carbon footprint for the freight element. This allows importers who want to improve their “green credentials” to source from Ghana rather than, say, Costa Rica.

- **Land, soils, and water** - Ghana has a significant amount of uncultivated land that could be used for horticultural production. However, a number of farmers claim that it is difficult to get land with sufficient infrastructure or near enough to the airport or port. Therefore, it might be necessary to encourage new investment by developing the road and electricity infrastructure in some new areas. Issues of land availability are discussed in more detail in Background Paper D3. The soils in Ghana are varied; some are certainly good for horticultural production...
Giving good yields and quality. Currently, Ghana’s main horticultural export, pineapple, is mostly rain-fed. However, it is assumed that if the production of pineapples is to expand into different areas, then the introduction of irrigation might be necessary. Also, if other higher value crops are to be grown, especially vegetables, then irrigation will be essential to attain yields and be certain of meeting the market demands. Ghana has considerable water resources, e.g., the Volta River and Lake Volta. It is important that these resources are made available to farmers and investors.

Yields and quality - The combination of soils, climate, and water has meant that Ghana is able to produce good yields and quality and is able to compete with other countries. In fact, Compagnie Fruitière claims that the bananas produced in Ghana are not only good quality (if a little small), they are the cheapest that the group grows in West Africa. There are a number of reasons for this including climate, soils, and good management.

C.1.2 CURRENT SITUATION

Although Ghana should have sufficient comparative advantages to compete effectively in the European market, many exporters have found it extremely difficult to remain competitive. Most SPEG members have experienced significant declines between 2003 and 2008 (table III.3.1). The exceptions to this have been Golden Exotics (Compagnie Fruitière) and Bomarts. In fact, if these two companies are taken out of the SPEG export data, exports dramatically declined from 32,294 tonnes in 2003 to 9,069 tonnes in 2008—which is indicative of that failure. Part of the decline is due to the problems with FARMAPINE (Background Paper A1), but the exports of every other SPEG member listed in table III.3.1 also showed declines between 2004 and 2008. Usually this is attributed to the slow switch from Smooth Cayenne to the super-sweet varieties, but it also indicates that many of the SPEG members have not been able to build on their comparative advantages; in other words, they have not remained competitive.

| TABLE III.3.1: Pineapple Exports by SPEG Members 2003 to 2008 (Tonnes) |
|-----------------|--------|--------|--------|--------|--------|--------|
|                 | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   |
| Jai River       | 6,557  | 6,431  | 6,634  | 6,471  | 1,635  | 1,720  |
| Farmapine       | 4,958  | 4,766  | 4,235  | 1,161  | 27     |        |
| Milani          | 3,555  | 4,503  | 3,728  | 2,999  | 2,969  | 2,277  |
| Prudent         | 3,303  | 3,820  | 1,984  | 2,200  | 2,414  | 1,671  |
| Georgefields    | 2,340  | 2,889  | 2,225  | 1,589  | 1,027  | 1,207  |
| Chartered       | 1,289  | 2,260  | 1,381  | 654    | 303    | 424    |
| Silwood         | 1,200  | 1,661  | 699    | 432    | 254    | 271    |
| Phoenix         | 1,165  | 875    | 569    | 76     |        |        |
| Koranco         | 1,153  | 1,502  | 2,083  | 2,246  | 1,995  | 828    |
| Unifruit        | 1,066  | 1,406  | 1,298  | 1,008  | 533    |        |
| Horizon         | 1,018  | 1,171  | 633    | 167    | 113    | 164    |
| Golden Exotics  | 328    | 938    | 3,100  | 8,048  | 11,911 | 8,563  |
| Bomarts         | 530    | 2,851  | 1,618  | 2,770  | 4,664  |        |
| Others          | 4,690  | 5,741  | 2,581  | 2,324  | 2,445  | 507    |
| Total           | 32,622 | 38,493 | 33,999 | 30,993 | 28,396 | 22,296 |

Source: Accord Associates based on data supplied by SPEG.

Ghana’s vegetable exports have also been erratic over the last few years (figures III.5.5–III.5.10). Despite the comparative advantage conveyed by cheap freight rates and good climate, Ghana has not established a significant vegetable export industry based on adding-value to the vegetables. Again, this suggests that it has not yet been able to convert the country’s comparative advantages into a competitive industry.

Unlike Kenya, Ghana as failed to create a substantive industry adding value to farmer’s crops beyond cheaper freight rates. This is partly because the climate in Ghana does not permit the range of vegetables demanded by the indigenous

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population in Europe (e.g., fine vegetables and legumes), and better management is and technology are required before it can export competitively. The markets for Asian and other tropical vegetables that Ghanaian exporters focused on is smaller and generally lower value than the niches targeted by Kenyan exporters. However, there are indications that market opportunities for the vegetables that can be grown in Ghana may be increasing which might present an opportunity to establish a larger and more professional value-added export vegetable industry.

C.1.3  CONCLUSION AND STRATEGIC IMPLICATIONS

The simple analysis of Ghana’s comparative position is that it has sufficient advantages to be a major player in the export industry, but, to date, it has not exploited its position. There are a number of reasons for this.

The first is that the management is not sufficiently good. This applies to both senior management and middle management and supervisors; but the main problem is with senior management. The companies do not have sufficient skills to install a culture of innovation and professionalism.

The issue of innovation is discussed in more detail in the next Background Paper (C2). Innovation not only applies to the introduction of new products and processes, but also the determination to continually strive to improve yields and quality of existing crops, as well as finding ways to reduce costs. An example of not having the culture to continually find ways of improving quality was reported by UK-based pineapple buyers who visited a number of SPEG members in June 2009; they reported that they were disappointed by the lack of effort made to control and maintain quality, yet alone having staff specifically mandated to improve standards.

The lack of professionalism covers all aspects of management, from maintaining and improving in-field yields and controlling costs, through to establishing good long-term marketing strategies. In fact, one of the key constraints identified by the stakeholders at the 6 June meeting at the IFC offices was the lack of excellent management. In addition to a shortage of superior management, it was also reported that the middle management, supervisors, and workforce were not as experienced as in some of the neighboring countries. This was explained by the fact that Ghana has a much shorter history of export horticulture than, for example, Ivory Coast and Cameroon.

Besides management, another reason reported for Ghana’s failure to make best use of its comparative position is a lack of finance. The issue of finance is discussed in more detail elsewhere (Background Paper B1). However, a distinction should be made between the need for finance required for establishing new investments and for financing ongoing operations. If an established farming company is well-managed, then it could be argued that finance should not be a problem for maintaining its operations and steady expansion. However, access to competitively priced and flexible finance can be an issue if a significant expansion of an industry is required.

Sometimes a country’s comparative advantages can be negated by a poor enabling environment. In Ghana, it is generally recognized that the enabling environment for business is generally conducive; the GIPC helps new investors obtain tax holidays, the economy is liberalized, and in general the government is pro-business. Without doubt, there will always be actions that governments can take to encourage further investment, and if finance was subsidized and the need for collateral was reduced, then it is probable that more investment would occur. However, the provision of subsidized finance on its own does not always lead to the establishment of a sustainable industry. For example, in the case of Ethiopia, it certainly initiated considerable interest in the floricultural sector and contributed very significantly to the rapid expansion of the country’s flower exports. However, a number of the investments have had problems repaying the loans, and there has been some restructuring of the industry (see Background Paper C5).

In order to understand exactly how competitive Ghanaian horticultural exporters are, it is important that benchmarking is introduced. Benchmarking can involve monitoring yields, quality, and costs; but it is also important that processes are measured and compared. Examples of process monitoring can include measuring temperatures at different parts of the cold chain, the time taken to remove field heat, the number of times the product is physically handled and the percentage of rejects at different parts of the chain.

### Notes

1. Benchmarking is an important technique to help companies, and indeed countries, become more efficient. Originally the concept of a benchmark was as a reference or measurement standard used for comparison; it probably originated as a surveyor’s mark on a permanent object of predetermined position and elevation which could used as a reference point. Now it is applied more widely to measure the performance of a company’s (or a country’s) costs, outputs, quality, service or process efficiency against best practices elsewhere and it can be vitally important to understanding the competitive position. Benchmarking an organization can be used to help establish targets, priorities and improvements, leading to competitive advantage and/or cost reductions. In addition to using benchmarking data to establish competitive position, it can also be very important for establishing internal management targets to drive efficiency, cost savings, etc.
The review of comparative advantages and the subsequent discussion of why Ghana has not succeeded in establishing a much larger horticulture export industry show that:

- There is a shortage of excellent managers;
- There are insufficient top quality supervisors and middle managers;
- There is a lack of a culture to innovate;
- Many of the export farms lack the professionalism to compete;
- There is a need to benchmark the performance of Ghana’s exporters against their competition.

C.2 INNOVATION

C.2.1 INTRODUCTION

In the previous Background Paper (C1), it was shown that Ghana has made disappointing progress in converting its comparative advantages into a competitive trading position for its horticultural industry. A number of suggestions were put forward as to why this has not happened including a shortage of world-class management and lack of innovation. Michael Porter (1990) wrote “Companies achieve competitive advantage through acts of innovation. They approach innovation in its broadest sense, including new technologies and new ways of doing things.” This Background Paper discusses how innovation can be encouraged in Ghana to enable the export horticultural industry to better compete on international markets.

The World Bank (2009) has undertaken a review of Ghana’s Science Innovation and Technology Policy. This review starts by acknowledging that “many analysts feel that the country has for decades performed well below its potential.” The report goes on to say that “there is growing evidence that effectively harnessing knowledge through the successful application of science and technology and building a strong national innovation system are keys to economic growth and broader development, improved standards of living, and poverty reduction. To sustain its recent achievements and accelerate progress towards becoming a middle-income economy, Ghana needs to make a concerted effort to strengthen its science, technology, and innovation (SCT) capabilities, strengthen its national innovation system and improve its innovation performance.” The paper reviews much of Ghana’s agricultural-based education establishments and research capabilities and concludes that the country’s failure to develop an innovation culture is the fault of the public sector. The report produces convincing evidence that the public sector SCT capability is inadequate, but it should also be recognized that the private sector has a considerable role in creating innovation. In fact, it could be argued that the private sector will be the driver for the country’s innovation in the short-term and, maybe if the public sector is given more support, it will be able to contribute in the longer-term.

C.2.2 WHAT IS INNOVATION?

Understanding what is meant by innovation is an important starting point for identifying its role in the strategic development of Ghana’s horticultural export industry. One definition is “the creation of new ideas/processes which will lead to change in an enterprise’s economic or social potential” (Drucker 1998). Often, innovation is used as a synonym for new products, but crucially it is much more wide-ranging than this. It can include:

- New products, e.g., new crops;
- New production technologies, e.g., to improve farm yields and/or quality;
- Improvements in the supply-chain, e.g., to reduce the number of times a crop is handled;
- New or enhanced services provided to the customer, e.g., more timely deliveries, more consistent quality, etc.);
- New processing technologies, e.g., peeling, slicing products, etc.);
- New approaches to rewarding and empowering employees (human resource innovation), e.g., creating a culture to encourage employees to suggest improvements;
- New ways of financing and investment decisions;
- New methods of acquiring, storing, transforming, and transmitting information;
- New types of organizational structure within the agribusiness;
- New tools and techniques for measuring and allocating costs.

Innovation is not just a new product, but a range of processes, and it is important to realize that all these incremental improvements in the process are vitally important in helping agribusinesses maintain their competitiveness. Generally, the private sector is the main drivers of innovation as companies try to get ahead, or stay ahead, of their competition.
If Ghana’s horticultural exports are to expand, it is important that the export companies out-compete their competition. To achieve this, it is important to discuss how the public sector and donors can create an environment to encourage this.

C.2.3 THE ROLE OF THE PUBLIC SECTOR
As noted in the review of Ghana’s SCT policy (World Bank 2009), the public sector has an important role to play, which can include the provision of tax incentives and matching grants for innovation and even the training of company executives in the best way to harness internal innovation. The report makes a number of key recommendations, including the establishment of a National Innovation Agency or Foundation to spearhead the formulation and implementation of an explicit and coherent national innovation policy, together with designing an implementation policy and strengthening the legislature in innovation policy-making. While these recommendations will help in the longer-term, the recommendations directed at the private sector are more important for consideration for the development of the export horticulture strategy. One of the key recommendations was to increase investments in improving physical infrastructure.

C.2.4 STIMULATING THE PRIVATE SECTOR
The private sector recommendations of the SCT policy review include:

- Building the skills and promoting an entrepreneurial culture;
- Sharpening economic targets and the country’s technology focus, for example, through technology assessment exercises and technology foresight exercises;
- Implementing measures to develop the private sector and promote innovation in enterprises; and
- Finding ways to ensure greater executive and political leadership on STI development.

C.2.5 HOW TO STIMULATE INNOVATION WITHIN PRIVATE SECTOR COMPANIES
Trying to encourage an innovative culture within a company is difficult. It is not simply a matter of making incentives available, but often requires cultural change within the company—often starting with the CEO. There has been considerable research on the changes in company culture that are needed to stimulate innovation. While not all the ideas apply to agribusinesses in Ghana, some certainly do. For example:3


- Senior management should encourage all staff to come forward with new ideas; each of them must be treated seriously by the senior management and the company must sponsor some risky, but innovative, schemes.
- The top management must create a vision for the company that allows employees to understand why change and innovation are necessary. The management must convey to their employees what are the company’s objectives and what issues might be challenging its competitive position.
- The company must respect, protect, and reward employees who generate or facilitate innovative ideas.
- A company must accept risks and mistakes as part of the innovation process. Of course, some of the financial risk of failure can also be covered by the public sector in terms of tax relief and grants for trying innovative ideas.
- A company must realize that all employees can contribute to innovation. It is also important that middle-management acts a facilitator between employees and top management and does not filter the ideas. In fact, the companies that best innovate are those that have a very flat reporting system; innovative ideas should go straight to senior management.
- The company must encourage employees to practice lateral thinking, which is thinking outside of the normal path without preconceived ideas.

These examples of what corporate cultural changes are required have been included to demonstrate that innovation comes from all levels in a company; it is not the sole responsibility of the CEO. It is therefore important that the concept of innovation is considered specifically in the Ghanaian context, and perhaps training can be designed for agribusinesses. In particular, if companies want to benefit from government support, participation in training courses to implement innovation awareness could be a condition.

C.2.6 CONCLUSIONS AND STRATEGY IMPLICATIONS
If Ghana is to succeed in developing a world class and competitive export horticultural industry, it will not do it simply by copying other countries’ strategies, but by getting better yields, producing better quality at cheaper prices, and producing goods that are not yet on the market. In order to achieve these goals, Ghana can begin by learning from other countries as a starting...
point. But it must be recognized that if Ghana is to overtake these other countries, it must innovate, not duplicate.

While it is appreciated that the SCT Policy review has a wide range of recommendations, there are four specific areas that need to be focused on:

- The creation of incentives for the private sector to innovate. This could be achieved by a matching grant for innovation. The World Bank promotes such matching grants in other countries, e.g., Zambia, and consideration should be given to establishing such a scheme in Ghana.
- The provision of enhanced tax-relief for private sector R&D.
- The introduction of specific technical assistance for companies that want to innovate. This technical assistance should be a prerequisite before any company can benefit from the matching grant described above.
- The promotion of an exchange of ideas and information by encouraging participation in appropriate trade shows, finding opportunities for graduates to work in export horticulture in other countries, and encouraging technical specialists to visit Ghana to exchange ideas and increase the knowledge base of agribusinesses.

Finally, it is important that the export horticultural industry starts to establish benchmarks; both in terms of costs and the process. These benchmarks are important to measure Ghana’s performance against other countries and to generate targets for Ghana to surpass. In addition, benchmarking is extremely useful for companies to set internal targets for them to improve their performance.

REFERENCES


C.3 CREATING COMPETITIVE ADVANTAGE

C.3.1 INTRODUCTION

In Background Paper C1, it was shown that despite having considerable comparative advantages for export horticulture, Ghana has failed to convert those into competitive advantages. The Background Paper C2 discussed the importance of innovation in creating the competitive edge. This paper highlights some other areas that can be important in creating competitive advantage.

The prime way to create a competitive company out of comparative advantage is through the way a business is managed, in other words, through people. It can be supported by all employees of a company, and the public sector, including donors, can also facilitate or accelerate the advent of competitive advantage. However, care must be taken to ensure that government or donor actions do not mask comparative disadvantages, e.g., through subsidies. Alternative public sector support should not slow down the attainment of competitive advantage, by excessive support to an industry which then becomes “lazy” and therefore loses the motivation to strive for continual improvement.

C.3.2 MANAGEMENT

Management is vital for creating and maintaining competitive advantage. Any business can start trying to exploit comparative advantages, but it is good management that does this efficiently. It is also management that conveys the culture for the continual improvement in quality, yields, and the standard of service to the customers. It is also management that is continually looking for ways to reduce costs, and develops new products and improvements in the business processes. In fact, the lack of a continual drive to improve is perhaps one of the main reasons why most of the exports of most SPEG members have declined in recent years (figure III.3.1). Most SPEG members claim that the reduction was due to competition from Costa Rica, which not only introduced the super-sweet varieties, but also had more comprehensive logistics and serviced the market better. However, even though SPEG members now export almost entirely super-sweet varieties, exports are still declining, with the exception of Golden Exotics and Bomarts. It could be argued that if the management capabilities of SPEG members were better, they might either have seen the advent of the super-sweet varieties sooner, or produced better quality Smooth Cayenne, so that the decline in the pineapple industry would have been less dramatic. It is so

4. For more on the definition and description of benchmarking, see Background Paper C1.
important to remain competitive by continually striving for improvements and innovation.

Successful export horticultural businesses elsewhere in Africa bring in foreign management to ensure that they have the technical skills to produce the quality and achieve the yields needed to be competitive. Also, most successful businesses have a very clear marketing strategy. In Ghana, the most successful pineapple exporters have sensible marketing strategies; letting companies in Europe take care of the marketing so the Ghana-based management can concentrate on yields, quality, and costs.

Export horticultural businesses need to monitor their performance against the competition, especially when they are establishing themselves; in other words some benchmarking information is required. Benchmarking is not only important for comparing progress with other countries and other companies, it is also essential for internal management purposes, as it monitors the company’s own standards, which then becomes the target to improve on.

C.3.3 PROFESSIONALISM

Running a very professional business is really a variant of good management. However, it deserves special emphasis because it is so important. For many companies, the attraction of exporting is that the market size is much larger than local markets. However, to remain competitive, it is important that costs are carefully managed, the applications of inputs are optimized, and great care is taken to ensure that there is no waste. In other words, it is important to have accurate and timely management information systems. It is also necessary to have well-qualified and trained staff to deal with all aspects of running a successful business; in the case of a pineapple grower, it is not simply enough to have a farm manager; specially trained people are required to monitor quality and ensure the standards demanded by the European buyers are attained. For example, it is necessary to have an agronomist who both closely monitors the crops and undertakes trials to improve them. An accountant is needed to understand the profitability of the business, as well as to project and update projected cash flows; specialist financial advice might also be needed to ensure that best sources of finance are utilized. It is often important to employ specialized human resource managers. In other words, it is essential that all the key aspects of running a business are covered by professional and well-trained staff. As with other aspects of management and corporate culture, it is important that as part of the professionalism required to manage an export horticultural business, all staff must adhere to the underlying drive to achieve better yields, improve quality, and to reduce costs. Also, they must all contribute towards the innovation needed to create a world-class business, as well as responding to the customers’ requirements while respecting all employees and the environment.

C.3.4 THE ROLE OF GOVERNMENT AND DONORS

It is important to recognize that competitive advantage is created by the business itself, but government and donors can help and assist. Assistance is particularly beneficial when new industries are being established. For example, at a macro level, governments can ensure that there are appropriate education establishments so that there are plenty of well-trained specialists who can fulfill positions in businesses. Donors can help with training, by either financing training courses or through on-the-job training programs. However, when the industry has become more established, it would be hoped that it would take over some of the training needs. Training to help achieve competitive advantage is discussed in more detail in the next section.

Government can help establish industries through subsidized finance, fiscal incentives, by providing good infrastructure and efficient services, as well as an effective investment promotion agency, etc. In other words, it can create an attractive enabling environment. This does not actually ensure that a company will be competitive; they just make it easier for them to become established. In fact, many other countries

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5. Golden Exotics reported pineapple exports of 13,500 tonnes in 2007 and 10,000 tonnes in 2008.
provide a very conducive enabling environment and Ghana should follow suit to ensure its businesses are not at a disadvantage. Perhaps the most important supportive action for the Government of Ghana is that it makes a commitment to respond quickly to the private sector’s requests for help; i.e., it should have a culture which is committed to supporting export horticulture.

C.3.5 TRAINING

Having well-educated management and trained staff is vitally important to establishing a successful export horticultural agribusinesses. In the Review of Ghana’s Science, Technology, and Innovation Policy (World Bank et al. 2009), specific recommendations were made for research and higher education institutions, such as the Council of Scientific and Industrial Research, the Crop Research Institute (Kumasi), the Food Research Institute (Accra), and the University of Ghana at Legon. These recommendations for enhancing these institutions are endorsed, but it must be recognized that it will take a few years for the benefits to percolate down to the horticultural industry to improve its competitiveness. These recommendations will benefit the export horticultural industry in the long-term. However, it will be important for the syllabus of the agricultural education establishments to ensure that appropriate focus is given to courses relevant to export horticulture and processing.

Some countries have established an institute specifically designed for the training of middle-management and supervisors for the horticultural industry. One example is the NZTT in Zambia which was established in the 1990s using funds left over from an EU project. Further finance was provided by the horticultural export industry, as well as from the Dutch and Norwegian governments. This College provides a three-year diploma course with a strong emphasis on practical horticultural production. In other words, it will benefit the industry in the medium-term. Undoubtedly, NZTT provided excellent training for the students who were very successful in getting good jobs after they graduated. Unfortunately for Zambia’s export industry, very few got jobs on the export farms; they were recruited by NGOs and other agribusiness supporting organizations. Therefore the training certainly improved the job opportunities of the students, but did not have the direct effect it was expected to have on the agribusinesses. It should also be noted that the Zambian export horticultural and floricultural industry did not perform as well as had been expected when the initial business plans for the NZTT were developed, so perhaps there were not as many on-farm job opportunities as had been anticipated.

In addition to running three-year diploma courses, the NZTT also undertook considerable on-farm training for the introduction of GLOBALGAP certification and other private standards. The NZTT management claim that the on-farm training to middle managers and supervisors was very successful and perhaps this might be a more effective model for Ghana to implement, especially as the benefits should start to accrue to businesses in the short-term. Countries with a much longer history of export horticulture have already developed a cadre of middle management and supervisors who understand the standards and quality needed. A much younger and smaller industry such as in Ghana does not have such a pool of trained and experienced people to draw upon.

Providing training to existing staff will certainly help Ghana improve its ability to compete in international markets. However, it is important that there is a pool of talented managers who are well trained and understand international agribusiness. An interesting training model has been developed in the UK called Management Development Services Ltd (MDS).7 MDS was established about 25 years ago by a group of about 25 companies who recognized that they had to attract more top graduates if they were going to remain competitive. MDS was set up as a non-profit educational entity for graduates with management potential who wanted to work in the fresh food and produce industry. MDS provides the graduates with an accelerated management training program which consists of four six-month placements in the members’ companies. These placements are real and practical management jobs and the members commit to giving the students one-on-one training. There is also formal off-the-job training which consists of finance and accounting, negotiation skills, man-management, marketing, business strategy, etc., and the graduates are expected to do dissertations on each of their placements. When they have completed the program, they attain a Certificate in Food and Fresh Produce Management validated by a University; approximately 90% of the students then gain employment in one of the members’ companies. While being trained, the students get paid a salary. MDS is funded by the members paying an enrollment fee, an annual subscription, and a daily charge during the students’ secondment. The strength of this scheme comes from members working in partnership towards a common goal, even though some may be competitors in the commercial world. It is overseen by a board of directors appointed from within the membership.


7. http://www.mds-ltd.co.uk
Given the need to attract good graduates and ensure that their training reflects the needs of the industry, it is recommended that a similar scheme be established in West Africa. Initially, if 10 to 15 horticultural-based businesses could be identified as interested in providing placements and eventually employing graduates, and were willing to partly finance the scheme, then graduates could be recruited from each participating country. The number of graduates per country would be the same as the number of members. It would be necessary to have a small office to administer the scheme, perhaps in Accra. The office would also organize the formal off-the-job training using a combination of local and international training. Once the scheme is running, it might be possible to include short-term placements (two to four weeks) in EU-based companies to complement the in-Africa secondments. In the UK, the scheme is driven and entirely funded by the members. If it was established in West Africa, it is anticipated that it would be funded by donors, as well as by members. It is estimated that to train 10 to 15 students per year, it would cost on the order of $300,000 to $400,000/year. It is strongly recommended that an evaluation is made to confirm the interest from major horticultural export companies in Ghana and other countries in West Africa as well as government and donors to establishing the equivalent of a MDS in West Africa. The management of MDS has already expressed interest in assisting in adapting their concept for West Africa.8

C.3.6 CONCLUSIONS AND STRATEGY IMPLICATIONS

If Ghana is to create competitive advantage, it will be through high quality, professional, and innovative management. Good technical management can be recruited internationally in the short-term, but it will be necessary to improve the agricultural training establishments to ensure that there are sufficient good quality Ghanaian managers over the longer term. Government and donors should consider providing financing for on-farm training of supervisors and middle management. Specifically, it is recommended that Ghana:

- Improve the quality of management by easing restrictions for work permits and reducing the tax burden on internationally recruited staff.
- Establish a scheme to provide on-farm training for supervisors and middle management.
- Establish a scheme for accelerated learning of selected university graduates in West Africa based on the MDS program described above.

C.4 CASE STUDY: COSTA RICA

THE DRIVERS FOR SUCCESS IN THE EXPORT MARKET FOR FRESH PINEAPPLE

C.4.1 INTRODUCTION

The export of fresh produce is an important part of Costa Rica’s economy. The industry is valued at over a billion dollars and dominated by the banana and pineapple sectors, which account for approximately 90% of the value of the exports of fresh fruits and vegetables (UNCTAD 2007).

Until the mid-1990s, fresh produce exports were led by the banana sector, and although bananas still occupy nearly 50% of the value of Costa Rican fresh fruit and vegetable exports, the importance of pineapple has increased significantly. In the early 1990s, Costa Rica was a minor player in the world fresh pineapple export market, which was dominated by Côte d’Ivoire (exporting the Smooth Cayenne cultivar). But since then, there has been a dramatic reversal, and Costa Rica is now the leading exporter in both the U.S. (table III.3.2) and Europe (table III.3.3).

The expansion and subsequent dominance of Costa Rica in the export market for fresh pineapples is inextricably linked to one company and its ability to exploit technological innovation within a favorable institutional setting. In exploring the reasons behind this dominance, the following drivers have been identified:

- Technological innovation;
- Governance structure and the role of transnational companies;
- Enabling environment.

8. One of the key recommendations for the establishment of such a scheme would be that it was on a regional basis; there would not be sufficient companies in any one West African country to make it work. A special forum on the regional training in agriculture, including horticulture, in 2006, demonstrated that there is now a substantial regional market for training in terms of both supply and demand.
TABLE III.3.2: Volume (tonnes) of Imports of Fresh Pineapple to the U.S. for the Period 2003 to 2008

<table>
<thead>
<tr>
<th>Country</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costa Rica</td>
<td>392,323</td>
<td>438,954</td>
<td>522,520</td>
<td>574,954</td>
<td>583,316</td>
</tr>
<tr>
<td>Honduras</td>
<td>24,728</td>
<td>34,419</td>
<td>32,988</td>
<td>12,685</td>
<td>22,620</td>
</tr>
<tr>
<td>Ecuador</td>
<td>33,608</td>
<td>37,199</td>
<td>36,830</td>
<td>33,411</td>
<td>28,331</td>
</tr>
<tr>
<td>Guatemala</td>
<td>2,918</td>
<td>17,563</td>
<td>32,491</td>
<td>33,086</td>
<td>25,790</td>
</tr>
<tr>
<td>Mexico</td>
<td>14,974</td>
<td>27,033</td>
<td>27,339</td>
<td>22,073</td>
<td>38,730</td>
</tr>
<tr>
<td>Thailand</td>
<td>4,191</td>
<td>3,996</td>
<td>4,548</td>
<td>3,488</td>
<td>4,096</td>
</tr>
</tbody>
</table>

Source: Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics.

TABLE III.3.3: Volume (Tonnes) of Imports of Fresh Pineapple to Europe for the Period 2003 to 2008

<table>
<thead>
<tr>
<th>Country</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costa Rica</td>
<td>250,425</td>
<td>363,169</td>
<td>500,131</td>
<td>570,034</td>
<td>669,751</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>136,009</td>
<td>99,685</td>
<td>94,409</td>
<td>59,253</td>
<td>58,902</td>
</tr>
<tr>
<td>Ghana</td>
<td>51,421</td>
<td>44,984</td>
<td>40,120</td>
<td>35,166</td>
<td>35,583</td>
</tr>
<tr>
<td>Ecuador</td>
<td>27,521</td>
<td>32,998</td>
<td>38,553</td>
<td>49,037</td>
<td>48,128</td>
</tr>
<tr>
<td>Panama</td>
<td>9,627</td>
<td>12,111</td>
<td>31,394</td>
<td>37,624</td>
<td>38,847</td>
</tr>
<tr>
<td>Brazil</td>
<td>10,233</td>
<td>12,675</td>
<td>16,382</td>
<td>26,367</td>
<td>24,688</td>
</tr>
<tr>
<td>Honduras</td>
<td>17,571</td>
<td>25,275</td>
<td>26,581</td>
<td>26,336</td>
<td>23,109</td>
</tr>
</tbody>
</table>


C.4.2 KEY DRIVERS FOR SUCCESS

Investments in technical innovation: The first key driver in Costa Rica’s rapid ascendency has been successful innovations in cultivar development and production technology. In 1978, a research program into the development of fresh pineapples for export was initiated by Fresh Del Monte Produce Inc. through its subsidiary company in Costa Rica (Vagneron et al. 2009).

A key outcome of the research was the development of the new cultivars with good quality, appearance, and consumer acceptance, and high productivity. These new cultivars had their origin in the breeding program at the Pineapple Research Institute, Hawaii, which conducted research on behalf of Del Monte, Maui Land & Pineapple Company, and Dole. On the dissolution of the Institute in 1986, Del Monte took the hybrids PRI#58-443 and PRI#5858-1184 (named CO-2 and MD-2, respectively) to its plantations in Costa Rica for further development. The climate and soil conditions in Costa Rica were found to be ideally suited to the productive potential of these hybrids. This crucial factor, combined with favorable fruit characteristics, meant that MD2 (commercialized as Del Monte Extra Sweet Gold) soon became the dominant cultivar in the fresh pineapple market. The development and exploitation of these new hybrids transformed the market for fresh pineapples which until then had been based on the Smooth Cayenne cultivar, which was not well adapted to fresh fruit supply chains.

Research by the public and private sector to develop new cultivars, particularly lines of proprietary low-acid, super-sweet pineapples, has continued in order to expand market penetration through product differentiation. For example, Del Monte launched a new cultivar in 2006, Honey Gold, which was developed after five years of extensive research and product testing.

Governance: Although technological innovation has provided the impetus to develop the export market, a key driver in

10. Fresh Del Monte Produce Inc. is the full name of a fruit and distribution company that markets most of its produce under the brand name Del Monte. Fresh Del Monte Produce Inc. is often referred to as Del Monte and this practice has been used in the rest of this paper. It should not be confused with Del Monte Foods, an American processing and distribution company.

11. Bright-gold, very sweet, low-acidity flesh, high resistance to parasites and internal rot, skin that turned amber when ripe, and, crucially for long-distance marketing, the ability to survive cold storage for up to two weeks, and with longer consumer shelf-life and easy storability.

12. Also known as MA2 (Patent Pending), it has a smooth, distinctive bright yellow exterior; a slightly sweet flavor; and an intense aroma, and offers consumers a particularly long shelf life at room temperature.
turning this into a significant market advantage has been the early and continuing dominance of one company, Del Monte, able to exploit this innovation (Fold and Gough 2008).

This exploitation was possible because Del Monte:

- Obtained ownership of two hybrids of pineapple that it could exclusively exploit for a number of years, which included a ten-year patent in the U.S. to secure its dominance in that market, and in France, presumably in order to block production in Côte d’Ivoire and marketing in the EU by other companies (Fold and Gough 2008);
- Had the research capacity to undertake development of the hybrids, particularly the necessary cultivation practices to realize the productivity potential, and to exploit Costa Rica’s favorable climatic conditions to produce the flavor characteristics of the hybrids and yields required for commercial exploitation;
- Had extensive existing banana plantations and infrastructure as the basis for expanding into the pineapple sub-sector, beginning in 1996 with the planting of one holding of 4,000 ha, with the necessary management systems and cold chain (Vagneron et al. 2009);
- Had the economy of scale to continue to invest in intensive agricultural practices and industrial management methods throughout their production systems, and to meet new challenges such as the implementation of food safety schemes such as GLOBALGAP;
- Had fully integrated production, handling, transport, and marketing systems;
- Had the capability to mount a marketing campaign to promote their produce and grow the business even though the market price for these hybrids was higher than for Smooth Cayenne (price premium of 75% over the Smooth Cayenne price).

In this way, Del Monte was able to develop, consolidate, and expand its pineapple business in Costa Rica and begin to penetrate the marketplace, beginning in the U.S. before spreading to Europe. Its dominance through MD2 as the market standard and capacity to manage the value chain up to the retail sector meant that it was able to exert as much, if not greater, governance on the chain relative to that of the key players in the retail sector.

After the patent expired, other transnational and large companies were able to expand their production and market opportunities with their own sweet cultivars, although they had to compete against the established market presence and reputation of Del Monte and its ability to continually innovate and develop market differentiation with new cultivars and product attributes, e.g., carbon neutral supply chains.

In addition to the large transnational companies, there has been a proliferation of pineapple plantations managed by independent small, medium, and large-scale producers in Costa Rica and elsewhere, some of whom contract their production at fair prices to the multinationals. However, even in Costa Rica, the level of participation by smallholders in the export markets is low due to high transaction costs in undertaking the recommended cultivation practices and in meeting food safety and quality requirements (Piñeiro and Díaz Ríos 2007).

**Enabling environment:** The first stage in Costa Rica assuming greater importance in the fresh pineapple trade was the decision by Del Monte to move its operations from Hawaii to Costa Rica in the early 1980s (Fold and Gough 2008). The choice of Costa Rica was linked to the favorable institutional environment as part of the structural adjustment programs that provided incentives (e.g., tax payment certifications, tax exemptions for imported machinery and agricultural inputs, and exemptions from income taxes) for transnational companies interested in the export market for non-traditional goods.

In addition to these internal incentives, in the 1980s the U.S. adopted trade preference programs under the Caribbean Basin Initiatives to support and stabilize countries such as Costa Rica. Under these agreements, both bananas and pineapples can be exported to the U.S. free of any duty (Mora 2007). Also, WTO most favored nation status allows Costa Rica duty-free exports of pineapple.

Under the adjustment programs promoted by USAID, the World Bank, and the International Monetary Fund, the Costa Rican government introduced a new agricultural policy, “Agriculture of Change,” designed to promote the production of commodities for export. These policies favored transnational corporations, particularly local subsidiaries of Del Monte, who benefited from export promotion incentives (Hansen-Kuhn 1993, Pomerada 2006).

In addition, the Costa Rican land law allows for foreign ownership of freehold land. There is no disincentive to foreign investors acquiring land for commercial agriculture.

In addition to supporting private sector development, the Costa Rican government has one of the highest levels of investments in agricultural research and development in Central America, totaling $29.9 million in 2006 (Stads 2008). In Costa Rica, government research bodies focus on smallholder...
issues while university research addresses medium and large-scale farmers. However, there are no evaluations to assess the effectiveness of this investment compared to the private sector’s own research undertakings.

C.4.3 CONCLUSIONS

In assessing the factors that have propelled Costa Rica to a dominant position in the global market for fresh pineapple, the key factor is the pivotal position of one transnational company, Del Monte, which had been fortunate in acquiring a key innovation—a new cultivar that created market differentiation to the extent that it became the new market standard. Del Monte was able to exploit this fully through an economy of scale that allowed it to dominate the market in the U.S., followed by ascendency in European markets. This was possible because the management and infrastructure systems had already been developed through its long-standing and major position in the global banana markets.

The facts that Costa Rica had the favorable climatic and soil conditions to realize the potential of these new cultivars, and a financial environment that attracted transnational companies to invest in agriculture, could be considered crucial contributory factors. However, it could be argued that these were not the primary drivers of success.

REFERENCES


C.5 CASE STUDY: ETHIOPIA

C.5.1 INTRODUCTION

The export of fruit, vegetables, and cut-flowers from Ethiopia has a checkered history. Private sector-led trade in the early 1970s was superseded by state-run farms and export companies after the revolution of 1974 and the introduction of the policies of the Derg. Horticultural exports fell drastically. It was only after the collapse of the Derg and the Mengistu Government in 1991 that new private sector operations began to emerge, and these sectors began to grow. However, there has been a divergence of the fruit and vegetable sector and the cut-flower sector in taking advantage new opportunities for agricultural development.

C.5.2 THE FRUIT AND VEGETABLE SECTOR

In the fruit and vegetable sector, exports are dominated by two state farm operations—Upper Awash Agro-Industry Enterprise (650 ha) and Horticulture Development Enterprise (200 ha)—both established in 1979-80 and mostly cultivating green beans, with expected export volumes of around 15,000 to 20,000 tonnes. Two private exporters cultivate around 50 ha each of green beans (mainly bobby beans) and have outgrowing arrangements with a limited number of farmers in their vicinity, an arrangement that is supported by the Common Fund for Commodities (CFC), an EU funded CFC project. In addition to beans, there are some exports of mangetout, chillies
and babycorn; there is also some interest in establishing fresh herb production units, specifically for the EU market. However, bobby beans currently represent 99% of the exports to the EU (Joosten 2007) and Ethiopia performs comparatively badly compared to other sub-Saharan countries (table III.3.4).

**TABLE III.3.4:** Sub-Saharan African Vegetable Exports to the EU, 2003

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>VOLUME (TONNES)</th>
<th>SHARE OF TOTAL (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>48,183</td>
<td>41.8</td>
</tr>
<tr>
<td>South Africa</td>
<td>22,112</td>
<td>19.2</td>
</tr>
<tr>
<td>Senegal</td>
<td>8,551</td>
<td>7.4</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>7,810</td>
<td>6.8</td>
</tr>
<tr>
<td>Ghana</td>
<td>7,719</td>
<td>6.7</td>
</tr>
<tr>
<td>Zambia</td>
<td>7,132</td>
<td>6.2</td>
</tr>
<tr>
<td>Uganda</td>
<td>3,189</td>
<td>2.8</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>2,840</td>
<td>2.5</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>1,375</td>
<td>1.2</td>
</tr>
<tr>
<td>Madagascar</td>
<td>1,179</td>
<td>1.0</td>
</tr>
<tr>
<td>Gambia</td>
<td>1,074</td>
<td>0.9</td>
</tr>
<tr>
<td>Ivory Coast</td>
<td>1,014</td>
<td>0.9</td>
</tr>
<tr>
<td>Tanzania</td>
<td>842</td>
<td>0.7</td>
</tr>
<tr>
<td>Others</td>
<td>2,146</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>115,166</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>


Investment levels in the fruit and vegetable sub-sectors for development of export production for the high quality markets in Europe, North America, and Japan have been restricted to a few projects only. The current entry barriers in the international fruit and vegetable markets appear to be a major restricting factor. In order for a new vegetable exporter to enter the market in a significant way, it would be necessary to make a major investment in “high-care” facilities, as well as expanding the range of produce to meet the necessary standards in high value export markets, because of special license requirements.

A strategic review of the sector by Joostens (2007) provides a bleak picture of the sector, including:

- Limited availability of the right fruit and vegetable varieties for exports—directly or as processed products;
- Lack of adequately developed technical know-how and experience with advanced fruit and vegetable cultivation;
- High cost of importing specific inputs, e.g., pesticides required to meet the necessary standards in high value export markets, because of special license requirements;
- Minimal local advice and assistance available for introducing and certification of quality assurance and traceability systems required by the export market;
- Lack of competitive advantage compared to existing nearby suppliers to the high value markets.

### C.5.3 FLOWER SECTOR

The lack of growth in the fruit and vegetable sector is in stark contrast to the dynamism present in the flower sector, which has experienced growth in both the number of private sector farms (figure III.3.2) and the increased volume of exports (figure III.3.3). The expansion of Ethiopia’s flower exports has been exceptionally rapid. In less than a decade, Ethiopia has become the second largest flower exporting country in Africa, after Kenya, with 70% exported to the Netherlands and 10–20% to Germany. This growth continued into 2008, with exports reaching $118 million\(^{13}\) from 1,200 ha cultivated by 80 growers employing 90,000 people\(^{14}\) (full and part-time, with about 70% of the employment total being women). This compares to export earnings in Kenya of $504 million\(^{15}\) in a sector which employs 100,000 directly and nearly two million, indirectly. The expansion of Ethiopia’s flower exports have been exceptionally.

Most of the farms are growing roses in greenhouses, but there are five producing cuttings, as well as some carnation, lily, and open-field summer flower production.

The success of the sector has been attributed to the following drivers for change (Belwal and Chala 2008):

- The enabling environment provided by the government;
- Private sector initiatives, with strong foreign direct investment; and
- Supporting organizations.

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13. Compared to exports of $20 million for fruit and vegetables. See also www/guardian.co.uk/business/feedarticle.
Besides these drivers, it should be recognized that the industry also benefited from:

- The availability of loan finance without a requirement for collateral;
- Considerable donor support to enable exporters to reach yield and quality standards to be competitive in Europe; and
- Subsidized airfreight.

Enabling Environment

The government has been instrumental in stimulating the sector through a package of measures (Gebreeyesus 2008), which include:

- Attracting investors to Ethiopia with the availability of land to lease from the government—52 farms (83%) obtained land directly or indirectly from the government. Land is not only cheaply available but also secure for an average 27.5 years, but extending up to 90 years in some cases. Most of the flower farms are located within a radius of 50 km from Addis Ababa and clustered in few areas—on average it takes one hour and 40 minutes for loaded tracks to reach the airport. The land already has roads and electricity, and the government will continue to invest in improving the road infrastructure;
- Establishment of the Ethiopian Investment Agency within the Ministry of Trade, which acts as one-stop shop, and provides a package of incentives to investors (both domestic and foreign), engaged in either new enterprises or expansion. These incentives include a 100% exemption in customs duties on floriculture-related imports, transfer of such imports to another investor enjoying similar privileges, income tax holidays of five years, with a provision of carrying forward the loss, tax-free remittances for a foreign investor, and an investment guarantee. Investments in exports are exempted from income taxes if at least 50% of the output is directly exported, or if at least 75% of the output is indirectly exported for a period of no less than five years (Joosten 2007);20
- Ensuring that work permits are readily available for managers and other technical staff.

16. At altitudes of around 2,400 to 2,600 meters, the Ethiopian Highlands around Addis Ababa are characterized by climatic conditions that are very suitable for the production of medium-to large-sized rose varieties (intermediates and T-hybrids). Other regions that are located at lower altitudes of 1,100 to 1,800 meters (Rift Valley, Upper Awash and Ziway) are suitable for the production of small-to medium-sized rose varieties (sweet-hearts and intermediates), and other flowers like summer flowers and cuttings.


18. It is a very effective one-stop shop that assists potential new investors in sorting out any problems quickly.

19. Despite creating a very attractive investment environment, the Government still exerts considerable control over foreign currency regulations and the foreign exchange rates. The system of foreign exchange is not as liberal as in Ghana.
Private Sector Initiatives

Growth has been driven by the private sector, attracted by the physical attributes of the country—available suitable land, water, etc.—and incentives provided by the government, other governments and donors. The floriculture industry, which had only two flower growers as recently as nine years ago, has grown in leaps and bounds to a total of 100 companies (of which 83 are member of EHPEA) and 46 have started to export their flowers to the European market.

The sector has attracted a relatively high level of foreign direct investment with 26 flower farms (40.6%) being fully foreign-owned, 23 (35.5%) owned domestically, and the rest joint ventures (Gebreeyesus 2008). Holland, India, and Israel take the lead with about 34%, 22%, and 12% of the total number of foreign-owned farms, respectively. Some returning exiles took advantage of the more favorable government support to invest in the sector. The industry is characterized by almost all top-management being foreign, mainly from Holland, Israel, and increasingly from India.

Some companies view Ethiopia as a safer place for investment; their transfer from Kenya to Ethiopia has been instrumental in growing the sector. For instance, Sher Ethiopia, the largest flower company, owned by Dutch citizens, started business in Ethiopia in 2005, while it still had rose production on 300 ha of farming land in Kenya. It sold the farm in Kenya in 2007 and consolidated its operation in Ethiopia. Sher now has 500 ha of land in Ethiopia, half of which has been developed into greenhouses. Its business scheme is different from the hundreds of other farms in Ethiopia in that it leases fully prepared plots—initial investments including construction of greenhouses, irrigation systems, packing sheds, cold rooms, and other facilities, as well as the installation of machinery—to other private investors, and provides training and market access (Gebreeyesus 2008). There are currently about six companies—two domestic and four Dutch—that grow roses and vegetables on the farms leased from Sher Ethiopia. Sher’s strategy for its fruit and vegetable business is an outgrowers scheme, where the company provides local farmers with seeds and teaches them the farming techniques, and the latter supply their produce, which Sher plans to export to international markets.

This business model developed by Sher Ethiopia21 allows other companies to start immediately on a large scale, without having to take big financial and technological risks themselves. Perhaps the real advantage of this Sher model is that they take over marketing and logistic arrangements; and the grower can concentrate on obtaining high yields, good quality and controlling costs, which are essential for running profitable operations.

The private sector has also taken the lead in supplying and managing appropriate agro-chemicals, their disposal, and the tolerance for pesticide residues. Agri-Sher Trading PLC is now handling the mass import of agrochemicals (Anon. 2008).

Supporting Organizations

One of the key enabling factors in the export drive has been the formation of the Ethiopian Horticulture Producers and Exporters Association (EHPEA).

EHPEA was established in September 2002 as a not-for-profit organization to represent the whole horticulture sector (i.e., vegetables, fruits, and flowers). It is the only national association representing the sector, and has the overall aim of promoting sustainable growth of Ethiopia’s private sector horticulture production and exports. To achieve this, its core objectives are:

- To bring together horticulture exporters in order to promote the private sector export horticulture industry;
- To represent and promote the interests of the private export horticulture sector at national and regional levels, such as through discussions in the Public-Private Forum and with the Chambers of Commerce as well as with airlines, cold storage, and airport handling agencies;

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20. However, the Government has stopped giving favorable loans to flower projects (Flower Tech 2008).

21. In addition to this business approach, Sher has an ambitious social responsibility program which includes building a school, hospital, and sports stadium for the local town (Africa News 2008).
• To help build the capacity of EHPEA members to understand international markets and to meet their demands;
• To assist in the promotion of horticulture exports in international markets; and
• To represent and promote the interests of the export horticulture sector at the international level.

EHPEA resolved a lack of airfreight capacity by facilitating the bringing together of 30 flower growers in 2004 to form the Ethio Horti Share Company to broker and facilitate the transportation of flowers to their export destinations with Ethiopian Airlines (Nair and Coote 2007). The support from the government through the national airline has resulted in Ethiopian exporters being able to achieve freight rates less than their main competitors, e.g. Kenya. Sher Ethiopia and Trade Path International have recently established Flower Port Cargo Plc in order to rent three Boeing 747-200s and a half-load capacity of one MD-11 aircraft for one year (Meseret 2008); this initiative might start when the government implements its open skies policy. The importance of these initiatives is illustrated by the report of the Uganda Flower Exporters Association (UFEA), which indicated that airfreight costs from Entebbe, Uganda, have increased from $1.90 per kg to $2.60 per kg, forcing companies out of business or encouraging them to relocate to Ethiopia (Shuti 2008). The Ethiopian Government is committed to an open skies policy, though this has yet to be implemented, and it will probably be postponed until the leases on the Ethiopian Airlines freighters have expired.

Another initiative that enhances competitiveness and market access of Ethiopian flowers has been the code of practice developed by EHPEA containing standards for the implementation of good agricultural practices, protection of the environment, and the employment and welfare of the farm staff. A joint venture between EHPEA and Ethio Netherlands Horticulture provided the training for the first ten flower farms in 2009 to become certified (Hortinews 2009).

In addition to training, the EHPEA is also able to help members, and prospective members, access donor funds for feasibility studies for new investments.

To further boost the horticultural sector, the Ethiopian Horticulture Development Agency was established in June 2008, as an autonomous national agency under the Ministry of Agriculture. Its objectives are:

• To ensure the fast and sustainable growth of horticultural production and productivity;
• To facilitate the export of diversified horticulture products which meet international food safety standards; and
• To coordinate the development of supporting services.

Other supporting organizations/bodies include:

• Ethiopian Export Promotion Agency (EEPA)—a government body in the Department of Trade and Industry that provides a number of services to promote all exports, including: training and support to exporters; ensuring that export procedures of various institutions are relevant and conducive to export development; undertaking and disseminating studies of overseas markets; linking exporters with foreign importers; facilitating participation by exporters in international trade fairs and trade promotion events; collecting, analyzing, and disseminating trade-related information; encouraging coordinated and efficient working arrangements between producers, exporters, and service providers.

• Ethiopian Investment Authority (EIA)—serves as a one-stop shop for all investors and has played a major role in facilitating foreign investments in the horticulture sector, providing the following services:
  • Provides the necessary information required by investors;
  • Approves and issues investment permits to foreign investors;
  • Provides trade registration services to foreign investors;
  • Issues operating licenses to approved foreign investments;
  • Notarizes Memorandum of Association and Articles of Association;
  • Grades construction contractors;
  • Approves and registers technology transfer agreements;
  • Registers export-oriented non-equity based foreign enterprise collaborations;
  • Provides advisory and aftercare services to investors;
  • Approves expatriate posts and issues work permits to foreign employees;
  • Facilitates the acquisition of land and utilities by foreign investors.

• Public-Private Dialogue Forum—chaired by the Minister of Trade and Industry. The Forum was
established in 2002 and has a sub-group, which discusses issues relating to the horticulture sector. Members of the Forum include stakeholders from the private and public sectors. Contentious issues affecting private sector operators are frankly discussed and mutually acceptable solutions sought. Among the issues discussed that affect the horticulture sector are air freight availability and cost, as well as the high level of handling charges, the level of withholding tax on imports (subsequently reduced), customs procedures, and land availability.

The Ethiopian export sector has received aid from a number of donors, including:

- **UK/DFID** has provided funds for strategic market studies, establishing and supporting the EHPEA with funding provided for the office and full-time Executive Director, consultancy support, workshops and provision of market information, and a European market access tour for horticulture and roses.
- **Netherlands** supported a 50-strong trade mission from the Netherlands in May 2003 as well as funding Business to Business Partnership for horticulture companies. They have also assisted in the development of a code of conduct on environmental standards and the preparation of the Strategic Paper and capacity building for farmers. Also, they have provided a considerable number of PSOM grants for innovation.
- **USAID** has established the market-led Ethiopia Agribusiness and Trade Expansion Program to energize the horticulture sector, which has provided technical and financial support in production, post-harvest handling, transport logistics, GLOBALGAP certification, and market and trade studies. USAID funding concentrates almost exclusively on fruit and vegetables.
- **ILO** has provided assistance for worker welfare and training in the safe use of pesticides.
- **CBI** has provided assistance for improving post-harvest handling and market recognizance.
- **Swedish Chamber of Commerce** has provided training.
- **DAG PSD TWG** (Development Assistance Group Private Sector Development Technical Working Group), which is chaired by USAID and the World Bank, has been coordinating and harmonizing the donors in the area of private sector development.

In addition to supporting in-country activities, the Netherlands government has been particularly important in support to the Dutch private sector through the Cooperation in Emerging Markets (PSOM) program to reduce poverty by supporting sustainable economic development. The aim of PSOM is to share some of the initial financial risks that Dutch companies, or Dutch-Ethiopian joint ventures, will face when investing in emerging markets in developing countries. Proposals amounting to a maximum of €600,000 can be awarded a contribution of up to 60% of the financial requirements. From 2003 to 2006, 13 Dutch-Ethiopian companies have been awarded PSOM grants of €6.2 million as part of an overall investment program of €10 million by the companies (a further five grants were awarded in 2006).

### C.5.4 CONCLUSIONS AND STRATEGY IMPLICATIONS

There are many valuable lessons to be learned from the Ethiopian flower sector. It has experienced relatively high growth from a low base over the last five years through significant foreign direct investment attracted by the incentives provided by the government. Government support has provided these financial incentives, as well as easy access to large fertile tracts of land in favorable locations. Donors, particularly the Dutch Government, have provided direct support to the private sector and have also facilitated the development of the sector through supporting key nodal organizations, such as Ethiopian Horticulture Producers and Exporters Association. Importantly, the private sector has shown a willingness to work together in resolving issues such as freight costs and supply of inputs. Specifically, the industry has been supported by:

- An efficient one-stop shop (the EIA) that welcomes potential new investors, provides information, and quickly sorts out problems.
- The provision of areas of land with good soils, infrastructure, and services. Any land disputes over ownerships are sorted out by the government.
- Attractive loan finance provided by the government where normal demands for collateral have been relaxed.
- Attractive incentives for new investors in terms of tax-free status, tax holidays, etc.
- Recognition that world-class management is required to establish a competitive horticultural industry.
- Donors’ provision of considerable support for training supervisors, middle management, and workers.
Donor support that has been available for undertaking feasibility studies, operations of the EHPEA, and innovation.

The national airline coordinated and organized air-freight for the exporters and charged a rate less than neighboring countries.

Above all, in Ethiopia certain locations have considerable comparative advantages for floricultural production—which means that as the support is gradually reduced, the industry should be sustainable. It must also be recognized that some of the investments have not been successful and the EIA has some non-performing investments. These are often associated with companies that replaced expatriate management after two years to save money, but yields and quality suffered. Also, the professionalism of some of the investments was not up to standard and the management deviated from the original plan without EIA approval. Some of the non-performing investments have been taken over by other companies and are now productive. It is likely that over the next two years, there will be some restructuring of the Ethiopian floricultural industry into the hands of fewer larger players, but the efficiency of production will increase. It is also likely that some new, higher-value, products will be added to the range of exports It is still expected that it will maintain its current levels of exports, and importantly, its current level of employment.

REFERENCES

C.6 THAILAND

THE DRIVERS FOR SUCCESS IN THE EXPORT MARKET FOR FRESH PRODUCE

C.6.1 INTRODUCTION

The Thai economy is export dependent, with exports accounting for 60% of GDP. Thailand imports more non-agricultural goods than it exports; however it manages to maintain a trade surplus because exports of agricultural goods exceed significantly corresponding imports. Hence, the balance of agricultural exports plays a key role in the Thai economy and supports the population’s standard of living.

In 2007, Thailand was ranked seventh in the world for exports of agricultural and food produce with a value of $24.7 billion, or 2.52 % of world export (Wannamolee 2008). Much of the value of these exports comes from rice, rubber, cassava; horticulture is a relatively small sub-sector, but it is expanding rapidly. Like some other countries in South-East Asia—in particular Thailand, Indonesia, Malaysia, and Vietnam—Thailand more than doubled their horticulture exports, keeping pace with Central America as a major exporter, producing a similar line of products, and increasingly competing in the same markets (Reardon and Flores 2006). The rapid rise in exports is due partly to investment in infrastructure and productive capacity, and basic improvements in shipping and packaging technology that have since the mid-1980s greatly reduced transport costs for meat, seafood, and fresh produce. In addition, there have been foreign direct investments, such as Dole (Reardon and Flores 2006).

23. Thailand’s farming community accounts for approximately 38% of the country’s population of 65 million.
24. Thailand is the largest exporter of rice, rubber, tapioca, pineapple products, canned tuna, and shrimp products.
Approximately 4 million hectares are dedicated to fruit-bearing and perennial trees, while vegetables are cultivated on 210,000 hectares, resulting in 24 million tons of fresh produce and processed products valued at $289 million for fresh fruit, $199 million for vegetables and $1.1 billion in processed\textsuperscript{25} fruits and vegetables in 2005 (Hoffman 2007).

\textbf{C.6.2 FRUITS}

Thailand cultivates a wide range of fruits—indigenous local fruits, such as durian, longan, mangosteen, mango, rambutan, banana, orange, jackfruit, papaya, and pineapple; and temperate zone fruits introduced in the northern region, such as apple, grape, pear, and strawberry. Fruits are exported in both fresh and processed forms, as frozen, dried, sugared, vacuum-packed, and in jam or syrup. The top five items are canned pineapple, modified pineapple juice, fresh durian, fresh longan, and dried longan.

Fresh fruit is exported to wide range of markets, particularly in the region (table III.3.5).

\begin{table}[h]
\centering
\caption{Value of Exports of Fresh Fruit to Principal Markets}
\begin{tabular}{l|cccccccc}
\hline
 & TOTAL & ASEA \ & CHINA & JAPAN & HONG KONG, ETC & OTHER ASIA & EU-15 & U.S. AND CANADA \\
\hline
U.S.$ million & 288.5 & 67.9 & 98.7 & 14.9 & 50.0 & 10.1 & 16.7 & 22.3 \\
\% Export market & 100 & 23.5 & 34.2 & 5.2 & 17.3 & 3.4 & 5.8 & 7.7 \\
\hline
\end{tabular}
\end{table}

\textsuperscript{25} Thailand is the fourth largest developing-country exporter of processed fruit and vegetables after China, Turkey, and Brazil.

\textsuperscript{26} The farm size is generally between 0.8 and 1.6 hectares for asparagus growers, and between 0.24 and 0.32 hectares for baby corn growers.

\textbf{C.6.3 VEGETABLES}

Vegetables are marketed as fresh, processed, and as seeds. About 73 varieties are commercially produced, including those with edible roots and leaves, such as cabbage, carrot, sweet potato, and potato; those with edible stems, leaves, flowers, and shoots that are consumed fresh or as cooking ingredients, such as red onions, onions, garlic, cauliflower, coriander, and morning glory; those with edible fruits, such as cucumber, chili, and tomato; and those with edible seeds, such as pumpkin and sugar pea. About 39 varieties of vegetables are fed into 136 factories to be processed for export. As with fruits, regional markets are important, but increasingly the EU is taking fresh vegetables such as babycorn (table III.3.6).

\begin{table}[h]
\centering
\caption{Value of Exports of Fresh Vegetables to Principal Markets}
\begin{tabular}{l|cccccccc}
\hline
 & TOTAL & ASEA \ & CHINA & JAPAN & HONG KONG, ETC & OTHER ASIA & EU-15 & U.S. AND CANADA \\
\hline
U.S.$ million & 198.8 & 15.3 & 0.9 & 86.2 & 19.2 & 5.8 & 47.8 & 11.6 \\
\% Export market & 100 & 7.7 & 0.4 & 43.4 & 9.8 & 2.9 & 24.0 & 5.8 \\
\hline
\end{tabular}
\end{table}

The EU has become an important destination for babycorn, while asparagus exports are directed mainly to Japan and South-East Asia. These commodities are mostly produced by smallholders\textsuperscript{26} who link to the exporters through packhouses and under contract farming arrangements, sometimes involving intermediary traders (Hoffman 2007).

\begin{table}[h]
\centering
\caption{Value of Exports of Fresh Vegetables to Principal Markets}
\begin{tabular}{l|cccccccc}
\hline
 & TOTAL & ASEA \ & CHINA & JAPAN & HONG KONG, ETC & OTHER ASIA & EU-15 & U.S. AND CANADA \\
\hline
U.S.$ million & 198.8 & 15.3 & 0.9 & 86.2 & 19.2 & 5.8 & 47.8 & 11.6 \\
\% Export market & 100 & 7.7 & 0.4 & 43.4 & 9.8 & 2.9 & 24.0 & 5.8 \\
\hline
\end{tabular}
\end{table}

\textsuperscript{25} The farm size is generally between 0.8 and 1.6 hectares for asparagus growers, and between 0.24 and 0.32 hectares for baby corn growers.

\textbf{C.6.4 CRITICAL ISSUES AND DRIVERS FOR CHANGE}

It has been suggested that Thailand, along with other Asian countries, has developed economically by implementing “shared growth strategies” consisting of two components: encouraging high savings and long-term investments, and upgrading organization, technology, and management (Page 2005). Growth was at the center of the public policy agenda and highly visible wealth-sharing mechanisms—such as universal primary education, land reform, and free basic health care—which were put in place to induce non-elites to support the growth process.
In assessing the sector it is apparent that key drivers for change have been government support, the retail sector, and donors.

C.6.5 ENABLING ENVIRONMENT

Until the 1980s, agricultural exports were viewed as a source of government revenue and it was not until 1986 that the tax on rice exports was removed (Warr and Kohpaiboon 2009). Although taxes have been removed, the government has adopted a market-oriented approach and has not moved to subsidizing agriculture directly since many important agricultural commodities are net export items. Policies on the various agricultural commodities have been determined individually in response to circumstances that varied depending on the commodity rather than forming part of a single, integrated agricultural policy approach.

The Thai Government employs a range of measures to restrict imports of palm oil, rubber, rice, and sugar, including non-tariff instruments permitting a high degree of discretion on the part of government officials (Warr 2008). This set of import controls includes import prohibitions, strict licensing arrangements, local content rules, and requirements for special case-by-case approval of imports. The commodities for which these restrictions are applied include the four mentioned above as well as onions, garlic, potatoes, pepper, tea, raw silk, maize, coconut products, and coffee. Apart from support to soybeans, sugar palm oil, and dairy, Thailand’s interventions have seldom taken the form of directly intervening in agricultural commodity markets. Instead, cash transfers to village organizations, subsidized loan schemes (not linked to agricultural production), and a generally good system of public infrastructure in rural areas have been the main instruments of intervention for rural development. It is suggested by Warr (2008) that “the unusual export orientation of Thai agriculture must be an important explanation for this outcome” in agricultural development.

Although the government does not provide any direct financial assistance to the agricultural sector, it does actively provide indirect support in a number of areas including improvements to infrastructure and transport, research, negotiating market access regulations and trade agreements, training, and improving food safety; the latter aspect being particularly important in accessing high-value markets.

Analysis by IFPRI of government spending in developing countries has identified that, at 10 to 15%, Thailand devotes a relatively high level of its budget to agriculture and an additional 10% to research (reported in Akroyd and Smith 2007). The government supports a number of research institutes, e.g., Chiang Mai University and Chanthaburi Horticultural Research Centre. Thailand is also host to the Asian Vegetable Research and Development Centre-Asian Regional Centre, which aims to improve nutrition and reduce poverty through vegetable research and development.

Land Tenure

In Thailand land may be held as freehold or leased. The rights to freehold have various restrictions, and foreign individuals or companies may not own freehold land, except in particular circumstances. There are a number of different types of title deeds to land in Thailand ranging from the top level where the registered holder of the title has full rights over the land, through an intermediary step where there is title but the official measuring of the boundaries and placing of markers has yet to be carried out, to a situation where the authorities have yet to recognize ownership.

Leases up to 30 years are available and can be sold. For foreign companies wanting land for industrial or commercial purposes, renewable leases of 50 years duration are available.

These arrangements appear to be satisfactory and do not in themselves deter investment in commercial agriculture. They are relatively straightforward and transparent.

Trade Agreements

Thailand has negotiated a number of bilateral, regional, and multilateral free trade areas (FTAs) with developed and developing countries to expand agricultural exports. FTAs have been concluded and implemented with ASEAN for the ASEAN Free Trade Area (AFTA), Australia, New Zealand, Japan, China (as part of Early Harvest Scheme for ASEAN-China FTA), and India. The Early Harvest Program is designed to accelerate the implementation of China-ASEAN Economic Cooperation Framework Agreement and has reduced the tariffs of agricultural products in particular, including livestock, meat, fish, dairy products, live plants, vegetables, fruits, and nuts, so that the ASEAN countries can attain early access to China’s huge domestic market prior to the establishment of the full FTA.

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27. Except for price support and input subsidy schemes for soybeans and sugar.
Following consultations between the public and representatives of the private sector, relevant government agencies, and academics, the Government of Thailand developed negotiating strategies\(^\text{28}\) to be used in establishing agricultural agreements:

- Emphasize Thai agricultural products with high competitiveness, such as rice, tropical fruits, rubber, and processed food;
- Allow appropriate timeframes for adjustment for sensitive agricultural products;
- Cover market access problems arising from sanitary and phyto-sanitary (SPS) measures and environmental issues, and establish cooperation to facilitate trade by entering into Mutual Recognition Arrangements (MRA), which can provide for appropriate technology transfer;
- Determine appropriate standards for agricultural imports to ensure safety for Thai consumers.

The Thai Government has become more proactive in challenging market access regulations. For example, the National Plant Protection Organization (NPPO) of Thailand was successful in its request to the U.S. government to amend federal fruit and vegetable regulations to allow importation into the U.S. of longan, lychee, mango, mangosteen, pineapples, and rambutan (Evans and Nalmpang 2008).

In addition to government assistance, the sector is supported by the Thai Fruit and Vegetable Producers Association, which was established in 2006 by 40 companies, mostly exporters, in order to:

- Enhance good and cooperative relationships between exporters, producers, government agencies, service providers, and other stakeholders by working together;
- Provide knowledge on food safety and quality assurance systems for members and the general public through training and seminars;
- Develop a center for members to share market information, knowledge, and other important issues;
- Provide linkage to other stakeholders, such as farmers’ groups, cooperatives, and others thereby strengthening the Thai produce industry.

**Food Safety**

Addressing food safety concerns—particularly levels of pesticide residue—has become more important when trying to access or maintain access to certain markets. The government has been highly supportive in addressing food safety in the agricultural sector. The Ministry of Agriculture and Cooperatives, through its Department of Agriculture (DOA), has set up a national good agriculture practice scheme and is responsible for control and inspection (Wannamolee 2008). In support of the national GAP, the National Bureau of Agricultural Commodity and Food Standards (ACFS) was established in 2002 to develop national standards of agricultural commodities and food products. Since 2003, ACFS has set up a number of national GAP standards on crops, livestock, and fisheries, developed largely in accordance with the requirements of FAO/WHO. The Department of Agricultural Extension (DoAE) is mandated to promote national GAP among smallholder farmers, with a focus on training those farmers that are producing for—and are connected to—the fresh fruit and vegetables export business. In 2006, DoAE launched the project “Promotion of Safe Agricultural Products” for 31 crops nationwide with the aim of assisting farmers to understand the principles and framework of national GAP.

By May 2008, DOA had registered 363,946 farms for GAP, with 169,886 farms being certified with an area of 190,621 hectares, excluding rice farms (Wannamolee 2008). The majority of the certification for fruits were longan (59,247 farms/58,178 ha), durian (11,073 farm/18,487 ha), mangosteen (14,295 farms/18,306 ha), and mango (7,469 farms/16,465 ha). In addition, vegetables—baby corn (1,382 farms/736 ha) and asparagus (1,608 farms/533 ha) were also certified. The scheme also trains, inspects, and certifies input suppliers and food processors.

The Thai Government and its institutions provide free services, such as training, inspection and certification, to assist farmers in complying with the national GAP standard and obtaining certification. While the national program for food safety has undoubtedly raised standards, the level of certification is not yet sufficient to guarantee entry into high-value EU markets. However, with support from the private sector and donors, e.g., GTZ, a program of GLOBALGAP implementation and certification has been initiated. The number of GLOBALGAP-certified producers in Thailand is high for the region, but lower in total compared to countries such as Chile and India, but comparable in total to Kenya (table III.3.7). Of particular note is the high numbers for smallholder certifications under Option 2).

In addition to direct GLOBALGAP certification, a GTZ project is working with the Thai Fruit and Vegetables Producers’ Association and Kasetsart University to set up a ThaiGAP.

TABLE III.3.7: Number of GLOBALGAP-Certified Producers in 2007

<table>
<thead>
<tr>
<th></th>
<th>OPTION 1</th>
<th>OPTION 2</th>
<th>PMOS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>25</td>
<td>701</td>
<td>7</td>
<td>726</td>
</tr>
<tr>
<td>Vietnam</td>
<td>0</td>
<td>11</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>China</td>
<td>75</td>
<td>191</td>
<td>19</td>
<td>266</td>
</tr>
<tr>
<td>Chile</td>
<td>956</td>
<td>209</td>
<td>4</td>
<td>1165</td>
</tr>
<tr>
<td>India</td>
<td>411</td>
<td>616</td>
<td>13</td>
<td>1027</td>
</tr>
<tr>
<td>Kenya</td>
<td>31</td>
<td>575</td>
<td>27</td>
<td>606</td>
</tr>
</tbody>
</table>


with the aim of having it benchmarked to GLOBALGAP (Hoffman 2007). However, it remains to be seen if the European retailers accept this benchmarked standard.

Private Sector

It has been suggested that agricultural growth in national, regional, and international markets has been achieved through linking smallholders to firms and financial institutions. A World Bank report (2005) illustrated these linkages through the example of a smallholder potato growers’ cooperative whose members developed a sustainable rice-potato production system on holdings of about one hectare per farmer. Local government officials worked with the cooperative to establish links and contracts with potato-processing firms to establish a sustainable value chain. The farmers ensured a steady supply of quality potatoes to the processors. This helped to build trust between the value chain actors and to grow this sector.

Another important driver has been the growth in consumer wealth which has stimulated the retail sector. The retail food sector was estimated to be worth $31 billion in 2004, with growth at 35% in the previous four years (World Bank 2006). Thailand’s retail sector has diversified and expanded to include hypermarkets (all foreign-owned), shopping centers, supermarkets, and convenience stores, as well as the more traditional outlets, including wet markets, and family-run stores. This has been accompanied by an increase in growth and foreign inward investment in the food manufacturing sector, with companies such as Royal Ahold and Tesco establishing modern retail formats. Many global food companies use Thailand as a low-cost center for further processing and for the re-export of food products to markets across the Asian region.

This has stimulated the market for raw food materials and has even been suggested as the catalyst for growth in fresh produce exports through retailers such as Ahold (Kohli 2007). In 1996, Royal Ahold started a joint venture with the Central Retail Corporation to form the TOPS chain, which established the World Fresh Distribution Centre to supply retail outlets. The TOPS management decided to embrace the certification system for good agricultural practices of the Department of Agriculture (Buurma and Saranark 2006).

Another example of private sector initiatives in the sector was the Thai Fresh project initiated in 1999 when Golden Exotics Holland and KLM Cargo established a distribution and packing center in the vicinity of Bangkok airport (Buurma and Saranark 2006). To improve the quality and food safety of the fresh produce and to develop further integration of the supply chain, a regional post-harvest center was built in 2003 in the production region of Ratchaburi Province. The post-harvest center serves as a knowledge hub for the growers, providing extension services and farming inputs so that they can apply good agricultural practices and integrated crop management techniques. This integrated value chain project has built competencies in the smallholder sector to ensure that the necessary quality assurance (QA) levels are reached in accessing high-value EU markets. A key feature of developing the chain was the need for the private sector technical staff to train and support farmers in implementing the QA systems because the Government-led national certification system had limited financial means, and a lack of capacity restrained it from taking a more prominent role.


30. Royal Ahold is no longer involved in retailing in Thailand.
C.6.6 CONCLUSIONS AND STRATEGY IMPLICATIONS

Thailand has an agricultural sector that is crucial in maintaining a positive trade balance. Fresh and processed fruit and vegetables play an important part in the economy and the export sector, with trade to neighboring countries in the region providing the main export markets. Government policies to support the sector have centered on indirect intervention—providing support, infrastructure, and training—with particular emphasis on food safety certification, recognizing the increasing demands in this area. The private sector has played a significant role through developing the retail and food manufacturing sectors aiming to meet the needs of an increasingly affluent urban population. The government played a key role in changing policies that had restricted foreign investment, which has stimulated inward investment, although there are concerns that foreign-owned businesses are too dominant.

In shaping this sector, the following key factors have been important:

- Governmental support to infrastructure and transport systems and general financial support to rural communities;
- Government investment in research and agricultural institutions, such as extension and standards organizations;
- Government lead in developing good agricultural practices and food hygiene certification systems;
- Development of trade agreements in key market destinations;
- Increase in national and foreign private sector investment in food manufacturing and the retail sector, which has opened up opportunities for smallholders in accessing markets;
- The establishment by the private sector, with support from donors and government, of a large number of GLOBALGAP-certified smallholder supply chains.

REFERENCES


D: POLICY AND INSTITUTIONS

D.1 HAG AND SPEG: WHO HAS SURVIVED?

D.1.1 INTRODUCTION

In developing a strategy for Ghanaian export horticulture, it would be useful to look at the performance of the existing exporters and to understand the reasons for their success or failure over the last five years. Perhaps the easiest way to approach this is to examine data for the members of the Horticulturists Association of Ghana (HAG) and Sea-Freight Pineapple Exporters Association of Ghana (SPEG), as virtually all of the pineapple exporters belong to one or both of these associations.

D.1.2 CURRENT STATUS

In 2004, HAG and SPEG had a collective membership of 54 companies who were actively involved in exporting fruit to the EU. These companies had a theoretical capacity to export 2,215 tonnes of fruit per week. The exporters ranged in size from 1 tonne per week to 250 tonnes per week, but 60% were quite small with capacities of less than 25 tonnes per week (table III.4.1). Over the course of the year, 21 SPEG members accounted for exports of 38,494 tonnes of fruit (table III.4.1). About 50% of the exporters had GLOBALGAP (formerly known as EurepGAP), FLO, or organic certification. However, certification to private standards was confined to companies with capacities greater than 15 tonnes per week.

By 2008, the position had changed dramatically: of the 21 SPEG members active in 2004 only 11 had survived and exports had dropped to just 21,883 tonnes (table III.4.2). Of the 11 exporters active in 2008, one has since ceased exporting, leaving just 10 survivors from the list of exporters active in 2004. Although the number of active exporters has dramatically dropped from 54 to just 11 companies, the decline in export capacity was only been 40% as this rationalization was mainly the smaller companies withdrawing from export. (table III.4.1).

In fact, data from HAG and SPEG indicates that with a few exceptions only businesses with a capacity of 60 tonnes per week survived. The survivors among the smaller businesses have become FLO (Fair trade) and organically certified and are exploiting these niche markets. Of the bigger exporters only FARMAPINE has stopped trading and this a special case dealt with in detail in background paper A1. All of the survivors have at least GLOBALGAP certification and 63% of the larger

<p>| Table III.4.1: Summary of HAG and SPEG Members Export Capacity |
|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>EXPORT CAPACITY MT/WEEK</th>
<th>MEMBER OF HAG</th>
<th>MEMBER OF SPEG</th>
<th>PRIVATE STANDARD CERTIFIED</th>
<th>EXPORTING IN 2004</th>
<th>EXPORTING IN 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 to 250</td>
<td>2</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>60</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>30 to 40</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>9</td>
<td>2</td>
<td>4</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>1 to 5</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>26</td>
<td>27</td>
<td>54</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Data supplied by HAG and SPEG, membership and capacity data are also available at www.ghanafreshproduce.org.

| TABLE III.4.2: Comparison of SPEG Members Exports in 2004 and 2008 |
|----------------------|-----------------|
| Export volume MT     | 2004 | 2008 |
| No of exporters      | 21   | 11   |

Source: Derived from data supplied by SPEG.
businesses are also FLO certified highlighting the increasing importance of private standards for market access.

The 11 survivors from 2004 have had mixed fortunes: two of the largest businesses have expanded and their exports have grown from just 4% of the total in 2004 to 60% of the volume in 2008. The other nine companies have fared badly, experiencing drops in export volumes ranging from 45% to 88% when compared to 2004 levels. Of these, only five appear to have prospects of long-term survival.

The obvious question is why did so many exporters fail between 2004 and 2008? The answer lies in the switch in demand by EU buyers from traditional varieties like smooth cayenne to the new industrial variety known as MD2. Switching to MD2 required multimillion dollar investments in planting material, farm mechanization, cold chain management systems and improved production, and post-harvest management and control. SPEG and HAG members were affected differently by the coming of MD2. The majority of SPEG’s membership was larger exporters (table III.4.1) that had the best chance of coping. Most of the HAG members were smaller exporters (table III.4.1) and hence had the least capacity to cope with the change, which required high levels of resources for a rapid and efficient response.

The larger SPEG members suffered badly in most cases simply because they were ill-prepared for the change to MD2. With a few exceptions, most did not invest to improve their performance several years before the crunch in mid-2005. Even those that did invest in planting material and mechanization from 2002 onwards still lost large amounts of their working capital through costly mistakes due to not understanding the different agronomic requirements of MD2. Most of these failures were due to having large areas planted with varieties that no longer met market requirements. Resources were not available to make the necessary investments required for successful production of MD2 and the companies were forced out of the export pineapple business.

Ninety percent of HAG members had capacities of less than 40 tonnes per week and lacked the necessary resources to cope with the change to MD2. Many of these businesses had no proper packing facilities and very little mechanization on farm. Compliance with private voluntary standards such as GLOBALGAP was the exception rather than the norm. For example, Graffham (2004) observed during a visit to a small exporter with 110 acres of land planted with smooth cayenne on a farm which little infrastructure; the owner complained that putting farm infrastructure in place to meet the requirements for GLOBALGAP would cost $37,000. The owner was not able to afford this as well as the higher costs associated with growing MD2 (table III.4.1) and the investment that would be needed in a cold chain. It comes as no surprise to find that exporters of this size were unable to invest in MD2.

HAG said that only a few of their members (two large exporters) could afford to invest in MD2 plantlets, the rest had to rely on the government and donors as a source of planting material. According to HAG, all their members received planting material from government and donor initiatives during 2006. However, these plants did not survive and 80% of HAG members no longer have MD2 on their farms. This was simply due to the inability of members to finance production of MD2. Chemical inputs costing five times as much as those for traditional varieties forced most of the HAG members out of the export pineapple business. HAG said that a few members still grow some smooth cayenne, some of the larger farms are selling pineapple juice on the local market but the majority have stopped pineapple production and diversified into cassava and maize for the local market.

D.1 IMPACT ON THE TRADE ASSOCIATIONS

In their current state, it is difficult to see how the trade associations can contribute to the export horticulture sector. Certainly, the membership is not strong enough to either direct public policy or positively influence the business environment. At best the associations can provide support to their members with services; but, because the membership is largely financially insecure, this could only be achieved with external funding.

The trade associations are no longer in a position to drive the sector forwards. There have been times, for example, when SPEG coordinated vessel chartering, that the associations did indeed provide some leadership. But associations emerge from active, expanding, and collaborating businesses; they are not suited to a remedial role in an industry in distress.

Trade associations can be powerful, but only when the members need them. These needs inevitably change with time and market dynamics—the role of SPEG is now more of oversight of the operation of Shed 9 than in its original conception of sea-freight chartering. Some difficult questions need to be asked at this stage, not only of the members, but also of the donor partners. The value of the organizations and of the funding, in particular, needs to be appraised against commercial return—can trade show attendance and/or exhibiting be justified in terms of sales, for example?
D.1.4 CONCLUSIONS AND STRATEGY IMPLICATIONS

Modern businesses need the agility or ability to respond rapidly and efficiently to thrive in a changing and unpredictable business environment. The change in market demand from smooth cayenne to MD2 required companies to invest rapidly in a new product, new production and post-harvest technologies, and in knowledge and expertise for an efficient operation. The experience of HAG and SPEG members illustrates that most businesses in Ghana lacked the agility to meet these challenges. Only the largest and most well-resourced businesses have survived the change and show signs of long-term prospects.

Dawson and Aguiar (2007) studied the comparative levels of agility between the Ghanaian and Costa Rican pineapple industries and identified factors that could impact adversely on a firm’s ability to respond to change in a timely and cost effective manner, which they called agility gaps. They found that the industry in Costa Rica experienced five agility gaps. In contrast, Ghana’s pineapple industry experienced 30 agility gaps. Costa Rica was better able to meet demands for change because the industry is dominated by large well-resourced farms with typical areas of 7,500–17,000 acres. Most production in Ghana was from small farms and even the largest farms only had 1,500 to 2,000 acres, which was small in comparison to Costa Rica. It is interesting to note that Ghana’s two success stories are larger well-managed operations that have shown a much higher level of agility than the other exporters in Ghana.

The lesson from the HAG and SPEG survivors’ story is that any strategy for the future of the export horticulture industry in Ghana should seek to promote large well resourced businesses that will have the ability to respond pro-actively to change and compete effectively as an alternative supplier to Costa Rica. The futility of some donor efforts to support small exporters was illustrated by HAG who complained that some donors provide a lot of training but the members lack the resources to implement any of the knowledge gained from the training.

REFERENCES


D.2 PLANS, POLICY AND INSTITUTIONAL SUPPORT

D.2.1 INTRODUCTION

We do not intend to review again the government policies or the support of donors and NGOs directed at export horticulture. This was summarized in Part I of the present report and a more comprehensive, critical review, which covers the wider scope of agriculture in Ghana, is provided by Wolter (2008).

In horticultural exports, support from government and donors to date has for the most part been focused on the small-scale farmer because smallholders were the basis of most agricultural activity in Ghana. Wolter continues:

“...The horticultural sector has emerged as a favourite target of donors and the GoG. The examination of several large projects reveals that donors are increasingly taking a value chain approach and trying to link smallholder farmers to exporters via outgrower schemes. Still, even within the donor efforts to promote commercial agriculture through outgrower schemes, project approaches vary according to donor preferences. While multilateral donors such as AfDB work through government structures and try to avoid areas which are dominated by large international companies, USAID is taking exactly the opposite approach by working mostly with international consultancy firms outside the GoG and trying to establish links between the Ghanaian private sector and large international companies. While it is too early to assess the effects of the projects, experiences from the recent investments of international companies in the pineapple and cocoa sector suggest that the linking of smallholders to international companies can be beneficial for both sides...”

Now it is important to recognize that the export horticulture sector needs a fundamentally different approach than might currently apply to other sectors of agriculture. This change has been brought about by the developments in the primary market, Europe, where the changes in the structure of retailing and the management of the supply chain have resulted in challenges that today can only be met by large-scale farmers.¹ To derive the economic benefits from the opportunities

¹ We use the terminology of large-scale or small-scale farmers in a relative sense rather than in terms of absolute acreage cultivated; the distinction also refers to managerial capability and capitalization.
in supplying the European market, a large-scale farming sector must be developed and used to penetrate the market and secure position. This will then open up opportunities for the small-scale farmers.

It is important at this point to be clear about the structure of horticultural production. There are many small-scale farmers involved in horticulture in Ghana. Those actively involved in growing for export, however, are few. There were times when large numbers contributed to the export pineapple market, but the difficulty of MD2 cultivation, and the stringencies of GLOBALGAP production have forced them out of the sector. Small-scale producers predominately export products where there is no need for GLOBALGAP certification, and therefore are subject to low margins and high risk.

**D.2.2 ANALYSIS OF CURRENT SITUATION**

The difference between export horticulture and other crops and markets lies in the relative ability of categories of farmers to compete. Table III.4.3 summarizes the apparent strengths and weaknesses of different categories of producer. The table identifies the area in which each producer category might be the most competitive: the small scale-farmer, who makes use of the family and is not an employer, is better able to provide low-cost motivated labor than the large-scale farmer, who must manage a workforce. But where working capital and risk is an issue, the positions are reversed.

The small-scale farmer rarely leads, but, in the commercial class, is reasonably positioned to meet many challenges. Once weaknesses are identified, for example, technical constraints, these can be addressed through extension or project assistance.

Growing fresh produce for export involves other challenges that further reinforce the competitive superiority of large-scale farmers over small-scale operations including:

- Supply management in terms of timing and volume;
- Post-harvest handling;
- Logistics management;
- Export financing;
- Communication

Leavy and Poulton (2007) also recognized that the competitiveness of different farm types varies according to which crops and which markets are involved. These parameters then can be incorporated into a table of competitiveness as shown in table III.4.4 below.

Large-scale farming operations are ahead in long distance horticultural exports, but the view is inconclusive for the competitiveness of small-investor farmers and the commercial smallholders. Note that this is a relatively recent state of affairs, brought on by retail market and supply-chain developments in Europe: ten years ago the small-investor farmer (i.e., SPEG member) was well able to compete. Other crop/market combinations will not have changed as much.

According to Leavy and Poulton the small-scale farmers and the investor farmers can be competitive in the national and regional markets and this is indeed the experience in Ghana. These markets offer substantial potential, particularly because of the increasing needs of the processing sector.

The divisions could be finer still, by horticultural crop and market type, for example. A comparison of chillies to EU wholesale markets against chillies to EU supermarkets, or yam exports compared to MD2 pineapples, might show

| TABLE III.4.3: Competitive Strengths and Weaknesses of Different Farm Types |
|-----------------------------|-------------------|------------------|-----------------|
|                             | SMALLHOLDER FARMERS | SMALL INVESTOR- | LARGE-SCALE     |
|                             | NON-COMMERCIAL     | FARMERS          | FARMING         |
| Land                        | ✓                  | ✓                | ✓               |
| Working capital/Credit      | ✓                  | ✓                | ✓               |
| Inputs: access/purchase     | ✓                  | ✓                | ✓               |
| Skilled labor: access       | ✓                  | ✓                | ✓               |
| Unskilled labor: motivation/ | ✓                  | ✓                | ✓               |
| supervision                 |                   |                  |                 |
| Contacts/network            | ✓                  | ✓                | ✓               |
| Market knowledge            | ✓                  | ✓                | ✓               |
| Technical knowledge         | ✓                  | ✓                | ✓               |
| Product traceability and    | ✓                  | ✓                | ✓               |
| quality assurance           |                   |                  |                 |
| Risk management             | ✓                  | ✓                | ✓               |

✓ = poorly positioned ✓✓✓ = well positioned

Source: Leavy and Poulton (2007).
how each scale of enterprise can fit a particular crop or market, but it overlooks the opportunity in mutual support and symbiosis. In other words, the large-scale farmer can benefit from the low-cost supply of motivated family labor of the small-scale farmer,2 while the small-scale farmer can gain access to markets through the ability of the large-scale counterpart to consolidate product and manage the transaction costs efficiently.

Ghana lacks the community of large-scale farmers in horticulture. This deficiency hinders the participation of small-scale farmers and indeed farmer investors in the export market. Hitherto, policy and support has focused exclusively on the small-scale farmer. In some respects this is not surprising, since not only were the large-scale operations absent (though farmer investors have been ignored too), but the small-scale farmers are the foundation of Ghanaian agriculture, have the most needs, and are the least equipped, in terms of technology, credit or skills, to overcome those needs.

Support for the small-scale farmer seems imperative, economically and politically. But it could be argued that, on the contrary, the absence of a large-scale farming sector has counteracted much achievement in bringing the small-scale farmers forward. Thus, for example, GLOBALGAP training may help with farming practices, but not with penetrating a market of fickle consumers. The counter-argument that the small-scale farmer risks substitution by the larger investment ignores the current reality of an uncompetitive sector which is not sustainable.

**D.2.3 CONCLUSIONS AND STRATEGY IMPLICATIONS**

To develop the potential in export horticulture, efforts should concentrate on building a strong, large-scale commercial sector capable of leading the industry forward and combining profitably with the small-scale operations. The sector-specific needs include:

1. From the Government:
   - Policies friendly to investment and the private sector—there has been much progress in this arena over recent years4 and it is clear that Ghana

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2. For example, see Background Paper C6 on babycorn in Thailand.
3. FASDEP II (2007) notes that “The weakness of FADEP I, in terms of targeting, was that it failed to recognise the different categories of farmers… …The pursuit of a modernised agriculture in FASDEP II will target different categories of farmers according to their needs.”
is attracting increasing interest from investors. Specific to export horticulture are problems in land tenure, the processes of resolving contract disputes, issues of bureaucratic overhead, such as Customs, VAT, taxes, and so on;

- Support to the large-scale farming sector as the engine of growth in horticulture exports. This links the Private Sector Development Strategy, the Trade Sector Support Programme, with MOFA which has been noted as absent (Wolter 2008);
- Support through extension to the small-scale farmers;
- Development of the capacity to innovate—management of research;
- Support to regional trade—border procedures, infrastructure, etc.

2. From the Donors:
- Investment in developing the sector—specific attractants for investment, for example, developing the infrastructure to bring investment into an area, but also in support of the smaller commercial farmers.

3. From the NGOs:
- Continued support to the small-scale farmer—ensuring that returns are maximized in the linkage of small farmers into the supply chain; strengthening farmer organizations; ensuring that the rewards of commercial horticulture reach the widest range of beneficiaries.

4. From the private sector:
- Maximum collaboration—the present proliferation of trade organizations (HAG, SPEG, VEPEAG, GAVEX, PAMPEAG, and five different mango associations) are not cost-effective to their members, lack co-ordination, lack strength for advocacy, and are unable to tackle the bigger issues. Instead a single, private sector-led authority capable of collaborating with all the players needs to be established to drive the development of the commercial horticulture sector—for exports and the local market.
- Socially and environmentally responsible development that ensures sustainable growth in the sector.

REFERENCES


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D.3 LAND ACQUISITION

D.3.1 INTRODUCTION

To the potential investor in agriculture, the availability of land is of utmost importance. If land is scarce, it will be expensive; if land acquisition is difficult, there will not only be additional expense but lost time; and if tenure of the land is not secure, then the whole project is at risk.

In Ghana, the acquisition of land, and the security of rights to its use, is widely perceived as a significant impediment to investment. How far these difficulties impact in practice is difficult to gauge: there is prolific anecdotal evidence of constraints and there are numerous documented reports of spurious claims and encroachments, but there are also examples of investments that have succeeded in acquiring and using the land they sought.

Much depends on the extent of land required and the location. Unfortunately for the Ghanaian export horticulture sector,
the need to establish production within a few hours of the port/airport puts potential investment areas in the region of highest population concentration, where land for agricultural development is difficult to acquire. One outcome is that the larger holdings are often made up of several smaller properties that are not necessarily contiguous.

D.3.2 THE CURRENT SITUATION

There are two major classes of land tenure in Ghana: customary lands and public land. Customary lands are owned by the stools, skins, or families, under the authority of the chiefs, family, or group heads, for the benefit of that group. Public lands, acquired by outright purchase or inherited from colonial days, are held by the state for public use.

The customary lands are said to be “allodial,” which is to say that the title to the land is inalienable and cannot be taken by any operation of law. The title is held by the chief or family head and the land is made available through a transfer of the rights to profit from the output of the property (i.e., usufruct). Such rights can be acquired through various arrangements such as tenancy, lease, share contracts, and loans.

It is important to note that customary law evolves: it is not static but adapts with cultural interactions, population pressures, socio-economic change, and political developments (including conflict). Naturally, not all systems evolve simultaneously, and consequently, the customary systems may vary across Ghana. Note also that some 80% of rural land in Ghana is held by customary authorities.

The secondary, or derived, rights to cultivate the land can be inherited or traded. As such a complex web of rights has evolved that has not necessarily been recorded, but will often extend to parties who have long since moved away. Therefore, the potential investor who seeks to lease a tract of land is confronted from the outset with the multi-headed task of identifying all those holding primary and secondary rights within the boundaries of the plot in question. In remote areas this may be less difficult, although there might still be complicating pastoral rights. In the more populous areas, the issues multiply with diverse rights-holders claiming deeds and titles.

Problems with the land sector in Ghana include:

- Indiscipline in the land market—encroachment, multiple sales of the same plot, unapproved development, spurious claims to title/deeds, etc.;
- Costly and time-consuming legal support services—land acquisition can be onerous and defending the tenure uncertain;
- The customary authority may gain personally from a lease without benefit to the constituents who may not be consulted;
- Land administration services that are confronted with a huge organizational task;
- An increasingly landless population, which inevitably politicizes the acquisition of land.

Underlying issues behind these problems include:

- Uncertain boundaries—with no cadastre for reference and outdated deeds and/or titles, the demarcation of a tract of land is inevitably open to dispute;
- Compulsory state acquisition of land that may then not have been used or compensated or may have left the autochthonous communities landless.
- The rules of customary tenure are not fully codified—but are complex, extensive, and may vary between local authorities;
- Lack of transparency and accountability at the level of the customary authorities.

Further issues are evolving, including:

- Increasing population pressure—through demographic growth, which in turn leads to land holdings becoming subdivided—and the movement and urbanization of populations;
- The diaspora of extended family members increases the difficulty of getting agreement throughout the family (important where there are multiple interests in a larger plot), and a remote relative may return to claim earlier rights;
- A concentration of land-holding as property gains in value.

D.3.3 RECENT EFFORTS AT RESOLUTION

A National Lands Policy was formulated in 1999. The long-term goal of the policy was to stimulate economic development, reduce poverty, and promote social stability by improving security of land tenure by simplifying the processes for accessing land and making it fair, transparent and efficient, developing the land market, and fostering prudent land management. The policy has since been implemented by the Land Administration Project (LAP) that started

in 2003. The LAP was due to end in 2008, but a two-year extension will take it through to the end of 2010.

The LAP will continue with:

- Legislative review leading to harmonization of land laws and customary practices;
- Institutional reforms and development, including the creation of Customary Land Secretariats;
- Demarcation of boundaries of allodial land and titling and registration of land interests;
- Systematic titling of land interests;
- Improvements to the land administration services.

The institutional reform component has led to a Land Commission Act gazetted at the end of 2008 which establishes a Lands Commission with divisions for survey and mapping, land registration, land valuation, and public and vested lands management. Note that the Office of the Administrator of Stool Lands remains under the Ministry of Local Government and Rural Development and Environment.

Three Ministries (Land, Food and Agriculture, and Local Government) have now collaborated to research and identify potential lands for investment. These are listed in a Land Bank Directory which is available both on the internet and in print. The directory, now in its second edition, lists the tracts of lands available for investment by region with notes on size, location, ownership, and potential use. Some 271,000 ha (see table III.4.5) have been identified by surveys across all the regions.

<table>
<thead>
<tr>
<th>REGION</th>
<th>NUMBER OF HECTARES</th>
<th>REGION</th>
<th>NUMBER OF HECTARES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volta</td>
<td>9,435</td>
<td>Northern</td>
<td>204,999</td>
</tr>
<tr>
<td>Ashanti</td>
<td>801</td>
<td>Upper West</td>
<td>1,986</td>
</tr>
<tr>
<td>Central</td>
<td>4,373</td>
<td>Upper East</td>
<td>-</td>
</tr>
<tr>
<td>Greater Accra</td>
<td>6,831</td>
<td>Brong Ahafo</td>
<td>54,232</td>
</tr>
<tr>
<td>Eastern</td>
<td>28,624</td>
<td>Western</td>
<td>9,045 (+?)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>271,317</strong></td>
<td><strong>TOTAL</strong></td>
<td><strong>271,317</strong></td>
</tr>
</tbody>
</table>

Source: LAP

D.3.4 CONCLUSIONS AND STRATEGY IMPLICATIONS

Many of these problems persist and land acquisition remains at best cumbersome. The situation in Ghana, with both statutory and customary rights, is quite typical of many African countries, and it is tempting to look elsewhere for solutions. However, the similarities are often superficial and the local socio-economic environment, the history, and the pressure on the land, among other factors, can be markedly different. Even at the local level there are variations in how the customary rights are applied and there can be no single solution.

The main effort toward land reform in Ghana is for the most part statutory, with an emphasis on land titling and registration. This will be a long and arduous process and the concern here is to find a process that eases the route for the investor rather than to comment on the overall process of reform. The development of a Land Bank Directory is a welcome and practical step. It needs, however, to go further if investment in agriculture is to be encouraged:

- Larger tracts need to be assembled—an investment in vegetable production will require sufficient acreage for long crop rotations;
- The tracts should be properly surveyed and demarcated, and agronomic information should be more readily available;
- A clear government policy should be formulated within the development plans for the provision of off-farm infrastructure, such as bringing water supply and power to the edge of the farm.

The government should consider a role in intermediation, for example using an agency to lease the land in order to sublet it to an investor. This could protect the investor from spurious claims since the government agency has the head lease, while simultaneously protecting the original lessor from an exploitative investor. The tracts need to be ready for investment, with at the minimum a memorandum of understanding (MOU) existing between the lessor and the government agency responsible for developing agricultural investment in land. An MOU should include not only an understanding of the consideration to be paid for the land but also the obligations of both lessor and sublessee if any arrangement were to be concluded.

In order to facilitate this process we propose the formation of a Horticulture Development Fund which, among other tasks, should seek to identify appropriate lands available for development, set about establishing the title through official boundary surveys and searches, acquire the lease, and provide infrastructure up to the plots. The Fund forms a key part of the strategy outlined in Part II here, to attract investment into export horticulture from Ghana.

6. Aside from the annual rent, the lessee might also be expected to provide social benefits to the community, for example. There may be stipulations on the time in which the land is to be developed.
The issue of governance remains however, and the process of acquisition must be made transparent and available for scrutiny. In terms of the practical process of acquiring and securing land in the present circumstances, scrutiny is probably the single strongest mechanism to support the equitable transfer of rights to use land. The scrutiny needs to involve not only the local community, but also the regional authorities, as well as neighboring land owners.

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D.4 INFRASTRUCTURE

D.4.1 INTRODUCTION
The infrastructure managed by the central government provides a key component of a firm’s ability to compete in the export market. Without adequate infrastructure, the operating and marketing costs rise and profitability suffers. The need for good infrastructure is particularly acute in the export horticulture industry since it consists of perishable products having high demands for good post-harvest handling.

D.4.2 CURRENT SITUATION
Power
Power supplies remain unpredictable. Consequently, diesel fuel for generators continues to be a major expense with serious implications for company profitability. The impact on the competitiveness of processors and farming operations that need pumps, run packhouses, or use refrigeration, is important. The increase in mining and smelting activity in the country is driving demand and it is estimated that Ghana will need an additional electricity generation capacity of 2,000 MW within five years.7

In an effort to deal with this situation, the power sector has been deregulated to create an environment more attractive to private investment. While tariffs for electricity from the grid remain quite low, there remains a disincentive to investment. That said, several independent producers are constructing power plants in the country and there should be additional capacity in the very near future. This is urgently required as the hydro-generating capacity, which accounts for some 60% of Ghanaian output, is now old and subject to frequent breakdowns.

Gas is expected to come ashore later this year at Takoradi from the West Africa Gas Pipeline originating in Nigeria. This will be used for further generating capacity in Takoradi. The imminent arrival of oil from the newly discovered off-shore fields is also hoped to have a positive impact on the generation of electricity in Ghana.

While there is plenty of activity in the electricity generating sector in Ghana, economic growth combined with rural electrification projects will ensure that demand leads supply for some time yet.

Packhouses and Cooling
Three of the seven pre-coolers that have been procured for SPEG are in operation; one has been fully installed and the other two partially installed. The installed capacity is equivalent to an area of 156 m². The installations of the remaining four are at various levels of completion.

Pre-feasibility studies for three public packhouses have been carried out in Akorley in Yilo Krobo District, Mariakrom in Akuapim South Municipal, and Otwekrom in Gomoa District. The building should be put out to tender shortly. The construction is financed by the MIDA program.

EMQAP is designing and constructing two field packhouses, one in Volta Region and the other in Central Region. These are planned for fruit handling and include pre-coolers, cold storage and packing areas.

Irrigation

To date 34 sites with potential for new or rehabilitation of irrigation facilities have been identified by the implementing contractors to MiDA. Of these, six lie in the so-called Southern Horticultural Belt where most export horticulture is concentrated. Feasibility studies are to be carried out over the next year on a number of these sites and overall a budget of $5.8 million has been allocated.

In fact, the extensive water supplies of eastern Ghana are poorly used by agriculture. This situation is probably a consequence of insufficient capital, irregular power supplies, and poor returns on inefficient farms. Golden Exotics has demonstrated with irrigation from a sluice at the Kpong dam for their banana production what may be achieved.

Irrigation projects in the Afram Basin, utilizing Lake Volta, will assist in opening up this under-exploited area.

Roads and Transportation

The main trunk roads provide good access from the main growing areas for export horticulture to the air and sea ports. There are problems with the Nsawam-Accra road which is undergoing refurbishment, and the traffic around Accra and on to Tema can lead to inordinately long journey times.

The roads into the interior remain a major concern. The rural roads are very variable and add to the costs and losses in moving produce. Donor partners such as the EU and the World Bank contribute to the Department of Feeder Roads within the Ministry of Roads & Highways to maintain and expand the network of 42,000 km of feeder roads.

The Department of Feeder Roads works with MoFA to identify commercially important roads that need rehabilitation. Some of the financial support for the rehabilitation provided via a number of projects, such as the Cashew Development Project, EMQAP (involving the improvement and upgrading of 407 km), the Inland Valley Rice Development Project, and the Northern Rural Growth Programme among others.

Seaports

Fresh produce finally entered Shed 9 in the early part of the third quarter of 2009. The long-term operation of the Shed is still not agreed, but the Shed is now open for test running. An agreement was reached between the parties (GPHA, SPEG and Golden Exotics) to run the Shed for one year. Frigo, the original contractors who carried out the refurbishment works, were engaged to manage the technical operations. The Tema Fruit Company (TFC), a joint venture...
between SPEG and Golden Exotics, manage the operations in the Shed and the shore-handling.

The operation of the Shed comes under an oversight committee made up of GPHA, SPEG, Golden Exotics and MOFA. This arrangement ensures transparency and that all parties are satisfied with the operation.

The agreement to test the Shed was reached at the end of 2008, but there were further delays in beginning operations. In particular there was a need to realign the road behind the Shed, and there were further issues with the power supply. Finally, Frigo wanted a start-up payment in order to engage an engineer to manage the facility. It is not clear whether the year to test will run from the date of agreement or the date of first operation. There were expressions of both points of view in our interviews.

The Shed appears to be operating well, though at the time of writing there are still concerns over the electricity supply. These relate to the substantial fluctuations in voltage in the Tema port area which impose a requirement for stabilization to protect the refrigeration electricity equipment from surges. At present, there is some protection from a voltage stabilizer but this is felt to be inadequate. Since the problem of voltage surges is mainly concentrated on the week-end, the refrigeration equipment can be shut down since it is not needed.

Small volumes of fruit passed through the Shed in August since it is the season of lowest production, but volumes will pick-up during September, and the Shed will be more heavily used as more bananas are exported from Golden Exotics. It remains to be seen whether or not other members of SPEG begin to use the Shed as the harvesting picks up again. The principal exporters currently have their own chilling facilities and containerize the exports.

The long delays in opening the Shed and the still unresolved issues over management and consideration (rent, royalties, etc.), raise the question of how the project might have been better handled. This requires further study, but a superficial analysis indicates that:

- The parameters that were entered into the business plan may not have been well defined.
- The eventual management of the refurbished Shed was not clearly defined in advance. In the course of construction, SPEG, who might have managed the Shed, was debilitated by declining membership and revenues as the financial health of the members declined. Differing
interests within the industry contributed further, and the HEII project, which had managed the development, also ended. The commissioning and start-up became the responsibility of a committee rather than a single entity.

- MOFA and GPHA have different needs and expectations from the Shed. The relationship and financial interests might have been negotiated at the start but for the very short time scale that was forced on the project.
- The rehabilitation of Shed 9 was financed by the World Bank-funded AgSSIP program. It seems unlikely that the use of Shed 9 can support the repayment of a loan. The refurbishment should be seen as a government service to help develop the fresh produce industry for the economic benefits that are gained.

The privatized container terminal, now operated by a consortium of Bolloré, APM Terminals, and GPHA under the name Meridien Ports Services (MPS), is achieving impressive efficiencies in container handling. Volumes for 2009 are forecast to exceed 514,000 teu, up from 415,078 in 2008. MPS reports that berth productivity is approaching European levels. MPS currently operates two berths with a combined length of 574 meters. They have not yet been given access to three further berths on the other side of their yard, although this would dramatically increase their capacity. The reason why these additional berths are not part of the privatized terminal is not clear, but hopefully they will be included before long.

**Airports**

The situation at Kotoka International Airport (KIA) remains unchanged. Fresh produce is handled out in the open on the forecourt to the cargo shed. Here, it is common to find vegetables arriving in the evening in bulk in the backs of pick-ups and mini-vans for boxing, weighing, and palletizing.

Limited quantities of pineapples, all papaya exports, and some mangoes leave Ghana through KIA. These arrive at the airport ready boxed and often palletized and there are limited delays in handling. However, although limited cold storage is still available at the airport (albeit outside the Customs area), availability is unreliable and product is generally delivered in a relatively short window just before loading. Any mishaps or traffic on the roads could therefore cause the shipper to miss the flight.

As noted in Part 1 of this study, a refurbishment was planned in 2003, but abandoned as the budget was reallocated in favor of developing Shed 9 at Tema. As of mid-2009, MiDA is preparing a tender to upgrade the facilities and hiring...
consultants. Details of the plans are not known. At this point it seems unlikely that there will be any developments before 2010. The arrangements for ownership and operation of the new facilities are not known.

D.4.3 CONCLUSIONS AND STRATEGY IMPLICATIONS

The infrastructure, particularly that concerning export horticulture, has improved enormously over the past 25 years. In 2009 Accra, it is easy to overlook the progress that has been achieved since the early 1980s when pineapple exports first started. Electricity supply remains a major problem, and there are regular crises, but in terms of development, the generating capacity has nearly doubled since the 1980 and the country is far less dependent on the cyclical flows of the Volta River for power. Roads are much improved over the past 25 years throughout the country, and Tema port now offers a world-class fruit terminal and container handling.

There is still much to do. Electricity demand continues to outstrip supply; road maintenance is under pressure from increasing traffic and the rural roads are often problematic; facilities at the airport for perishable cargo remain poor.

On a more specific level, the issue of Shed 9 operation needs to be confirmed soon. Assuming the agreement to test run is allowed to continue to July 2010, plans should be put in place now for the future management. Two consultancies have already been carried out on this, in addition to the original legal advice at the outset. At this stage, a mediator should be appointed and tasked to find a mutually acceptable way forward: further study is unlikely to lead to a solution. It is also important that lessons learned are applied to other planned structures such as the airport and the public packhouses of MiDA. We believe that as further investors realize the potential in Ghana, the Shed will become fully utilized.

With limited resources, and therefore an obligation to prioritize, the development of infrastructure by the central government is inevitably reactive and responds to a perceived need or trend. But there is also a case for being proactive, in particular in order to develop new areas for agriculture. The supply of power, water, and roads into an area where land is known to be suitable for horticulture—as well as available for lease—will act as a strong attractant to investment. The economic benefits of the development should justify the expenditure on these goods by central government. A concept for such development is outlined in Background Paper B1.
E.1  EU IMPORTS OF SELECTED TROPICAL PRODUCTS

Update

The following charts provide an update to the analysis carried out in Part I of this study\(^1\) where there is a more complete discussion of the market for each product through 2007. Brief notes are appended to the charts where appropriate.

**FIGURE III.5.1:** EU Imports of Pineapples from Different Sources, 2001–2008

- Imports of pineapples to the EU grew by a further 11% from 2007 to 2008. The increment was entirely supplied by Costa Rica where exports to the EU increased by 100,000 tonnes. Shipments from other significant origins were stable or down from 2007.

\(^1\) Ghana Export Horticulture Cluster Strategic Profile Study: Part I - Scoping review.
Imports of bananas to the EU grew by 163,000 tonnes (3.5%) from 2007 to 2008. Ecuador, Colombia, and the three West African origins of Cameroon, Ghana, and Côte d’Ivoire all recorded significantly increased sales. Imports from Ghana have increased very dramatically since 2001, albeit from a very low starting point. Output from Costa Rica fell.
**FIGURE III.5.3:** EU Imports of Mangoes, Guava, and Mangosteens from Different Sources, 2001–2008

<table>
<thead>
<tr>
<th>Source</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Others</td>
<td>33,574</td>
<td>34,838</td>
<td>37,908</td>
<td>33,654</td>
<td>31,717</td>
<td>37,429</td>
<td>39,762</td>
<td>38,172</td>
</tr>
<tr>
<td>Peru</td>
<td>7,774</td>
<td>10,848</td>
<td>15,398</td>
<td>20,059</td>
<td>26,402</td>
<td>41,040</td>
<td>36,854</td>
<td>49,702</td>
</tr>
<tr>
<td>Pakistan</td>
<td>8,751</td>
<td>6,263</td>
<td>8,682</td>
<td>10,940</td>
<td>12,307</td>
<td>10,120</td>
<td>13,225</td>
<td>12,942</td>
</tr>
<tr>
<td>Israel</td>
<td>6,638</td>
<td>4,152</td>
<td>8,759</td>
<td>8,286</td>
<td>12,919</td>
<td>11,353</td>
<td>15,006</td>
<td>12,743</td>
</tr>
<tr>
<td>Ecuador</td>
<td>6,255</td>
<td>2,661</td>
<td>5,821</td>
<td>5,590</td>
<td>5,937</td>
<td>5,686</td>
<td>3,718</td>
<td>2,293</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>1,752</td>
<td>1,859</td>
<td>2,652</td>
<td>4,009</td>
<td>6,274</td>
<td>7,549</td>
<td>4,664</td>
<td>5,342</td>
</tr>
<tr>
<td>Brazil</td>
<td>61,127</td>
<td>65,049</td>
<td>92,959</td>
<td>69,931</td>
<td>82,477</td>
<td>85,117</td>
<td>83,025</td>
<td>95,322</td>
</tr>
<tr>
<td>Ghana</td>
<td>62</td>
<td>64</td>
<td>83</td>
<td>179</td>
<td>268</td>
<td>295</td>
<td>983</td>
<td>1,098</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>10,897</td>
<td>11,220</td>
<td>7,194</td>
<td>11,430</td>
<td>9,857</td>
<td>14,433</td>
<td>14,706</td>
<td>11,250</td>
</tr>
</tbody>
</table>

Source: EUROSTAT & Accord Associates.

- Imports of mangoes to the EU are still growing and reached 229,000 tonnes in 2008.
- Shipments from Ghana went above 1,000 tonnes for the first time.
European imports of papaya appear to be stabilizing. Côte d’Ivoire showed a strong jump in exports while Ghanaian output seems steady.
EU imports of chilli capsicums grew to 38,000 tonnes in 2008 up from 36,000 in 2007.

Ghanaian exporters lost market share with slightly reduced volume in 2008. All Ghanaian exports are bulk packed, lower-priced chillies, while growth in exports was seen from Uganda and Kenya where higher value, pre-packed product is exported.
A small market in the EU, but recording strong year-on-year growth.

Exports from Ghana are small, but exports nearly doubled in one year, and the potential to substitute both Kenyan and Thai exports with cheaper air-freight is clear.
This category includes okra and other Asian vegetables, parsley, and pumpkins and squashes.

The UK has shown strong growth in butternut squash imports and this explains much of the growth of imports from southern hemisphere suppliers such as South Africa and Argentina.
Yams are Ghana’s most important fresh vegetable export. The business continues to show good year-on-year growth; exports have almost doubled between 2001 and 2008.
Imports to the EU have levelled off.
Costa Rica dominates the supplies.
Ghana could send more and compete with Costa Rica, but the local market is strong and cassava has particular importance in food security.

**FIGURE III.5.9: EU Imports of Whole Cassava for Human Consumption, 2001–2008**

Source: EUROSTAT & Accord Associates.
E.2 SUPERMARKET AND IMPORTER BUYING PRACTICES

E.2.1 INTRODUCTION
As European retailers continue to build their share of the global consumer market for fresh fruit and vegetables, it is becoming harder to operate without considering them as a prime potential client. Although private technical standards are often cited as gatekeepers to market access, finding the commercial entry point to the supermarket buyer is an equally challenging initial step. The process of becoming a supermarket supplier is not simply based on a telephone appointment and provision of a price list, but on proving that a significant long-term contribution can be made to an interdependent web of roles and responsibilities. These roles will be acted out between suppliers, category leaders, and the supermarket itself, even though the buyer may often change. Although wider issues such as positive corporate social responsibility practices and ethical sub-brands may create potential interest within the wider retailer management structure, the eventual decision to trade still remains with the individual supermarket buyer.

E.2.2 CURRENT SITUATION

Buying Practices
The role of the buyer as a specific sector expert, experienced in procurement and tolerant of the sector supply characteristics,
FIGURE III.5.11: Category Management

A written plan to ensure tactics achieve the category role, strategies and meet the scorecard

Source: Institute of Grocery Distribution

effort, and often finance into the strategic development of the category within the retailer.

The role of Category Captain was often given to the supplier with the largest turnover in the category, who would be expected to have the largest resource capability to commit. However, recently the role has been increasingly given to the supplier with the best private label focus. In order to do the job effectively, the supplier may be either granted access to a greater wealth of data-sharing or will be expected to buy category data from the data marketing companies.

Interviews with Frank Brinkman of Bakker BV, who is the category champion for Albert Heijn (part of the Ahold group), illustrated the depth of commitment expected from category champions. Albert Heijn is committed to BSCI and GLOBALGAP, and, according to Brinkman, as an importer, Bakker spend a lot of money and technical resources supporting the implementation and monitoring compliance with these programs. They have to comply with what the customer wants.4

Recently, some retailers have formed such close alliances with the category captains that they have partially brought the role back in-house, creating joint venture operations. Asda International Produce5 was created in 2005 as a joint venture with Bakkavor6 to streamline sourcing and raise the

<table>
<thead>
<tr>
<th>Category Review</th>
<th>Category Definition</th>
<th>To determine the products that make up the category and its segmentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category Scorecard</td>
<td>Category Strategies</td>
<td>Marketing and instore strategies for the category</td>
</tr>
<tr>
<td>Category Tactics</td>
<td>Plan Implementation</td>
<td>Determining optimal products, placement, promotions, pricing and supply tactics</td>
</tr>
<tr>
<td>Category Assessment</td>
<td>Category Role</td>
<td>The purpose of the category in the retailers portfolio</td>
</tr>
</tbody>
</table>

Source: Institute of Grocery Distribution

4. Interview Frank Brinkman 02/09/09 Ridderkerk Netherlands.
continuity of fresh produce from suppliers around the world to Asda’s UK stores. Tesco announced a similar intention to increase direct sourcing in April 2009. The category champions reduce the cost and complexity of supply chains as seen by the retail buyer. Danielle, the buyer at Migros, made clear that the time cost of a single telephone call to a large supplier like Capespan to procure several containers of fresh product was the same as a call to a smaller niche supplier who would only deliver several pallets of product.

Retailer Types

Within Europe there are three major types of retailer to consider regarding market entry: the mainstream retailer, the discounter, and the cash and carry operator. The convenience sector (or formerly independent corner shop collaborative chains) is the latest battleground for many of the bigger supermarket brands; this moves the sector from purchasing in the wholesale market into the consolidated central buying streams of the retailers.

Many of the large retailer groups in Europe operate several fascia brands that occupy slightly different demographic consumer positioning. Carrefour, Metro, Tesco, and Wal-Mart are widely considered to be the major global grocery retailers with a combined turnover of approximately €525 billion ($700 billion) in 2007. Wal-Mart continues to dominate, reporting sales of nearly $350 billion ($475 billion) for 2006 (fiscal 2007) and $380 billion ($515 billion) for 2007 (fiscal 2008), a sum greater than the combined turnover of the next five global retailers in the league—Carrefour, Tesco, Metro Group, and Kroger (U.S.). Within each country, national players compete with the transnational players, and national preferences for high-end retail proposition or discounter are commonplace. For example, Migros in Switzerland has a highly developed upper end offer for the Swiss consumer, with an emphasis on issues such as social and animal welfare and the environment. In Germany, where four of the five leading European discounters originate, the market is more than double the size of any other discount sector and worth an estimated €50 billion ($67 billion) in sales.

Despite the differentiation of the retail fascias, the purchasing policy generally remains consistent; food safety, certification, and product quality vary little across the retailer groups. However cosmetic appearance, size, and maturity will vary within the recognized regulated classes of fruit and vegetables entering the supply chain. For example, when asked about Ghanaian mangoes Frank Brinkman of Bakker said that mango is becoming an important product, but is now sourced from Côte d’Ivoire and Mali. When asked about Ghanaian mango, he said that five years ago Ghana was a major supplier but due to irregular logistics, poor continuity, and inconsistent quality they had looked for other sources. Poor skin quality and short shelf-life were cited as recurring major problems. He saw no reason to change his current sourcing policy even if Ghana were able to resolve these issues. However, a hard discount retailer may accept a larger percentage of skin blemishes or a smaller size of fruit (Class 2) in order to get a better price, but they would not accept products that are over mature or unsafe. Knowing which criteria above the basic quality and phytosanitary requirements are important to a particular type of retailer is essential to a sustainable business relationship.

Cash and carry operations such as Metro sell the fresh fruit and vegetable product in cases and not just as individual or pack items. Monique Seidler, Quality Assurance department manager at Metro MGB, explained that when quality inspections and laboratory tests for chemical residue testing are carried out by the Metro Group quality assurance teams, they also inspect products for the Real supermarket business owned by Metro Group. Not only is the specification the same, but the intake point and inspection process are consistent. The same buyer will buy a pallet of pineapple for Metro to be sold by the case and a pallet of pineapple for REAL to be sold by individual pieces.

For those wishing to supply the retail sector in Europe there is certainly no specific easy door to choose, but there are choices that better suit the type of supply chain and the volume of product that is available.

Pricing Policy

Pricing policy varies across the retailer types. Traditional retailers rely on a price that will be regularly benchmarked against competitors. Promotional periods will be used within the category management framework to promote sales, but not simply shift buying patterns within the category. Sales of the whole category must rise for a promotion to be successful and own brand products are protected from Category Cannibalization by the promoted product.

8. Interview with John Zublin and Danielle at Migros, Zurich, 10 September 2009.
9. IGD—Retailer factsheets.
10. IGD—Discount retailer factsheets.
Promotions will be scheduled by the buyer with the category captain and often total category margin will be adjusted to cross-promote items. Many individual products appear to be sold at under cost price, but the importer or category captain will be looking at the overall category return and not the specific product margin.

If a supplier is a niche or specialist supplier within a broader category it is often difficult to survive as an economically-independent entity within the category framework.

Combined, Aldi and Lidl accounted for 58.3% of the sales of the European Top 10 Discounters in 2007 and are becoming more significant players due to the current economic downturn. Discounters are more likely to offer “every day low price” strategies (EDLP) and use one-off spot buy offers, heavily discounted to provide promotional interest for consumers. Seasonal promotions—when volumes permit a lower price—are reflected as medium-term seasonal price reductions and not short-term promotional offers. The IGD defined the ground rules for supplying discounters as “maintaining low cost base and offering low prices, delivering high quality and operating an efficient supply chain.”

**CSR Outreach and Small-Scale Farmers**

Supermarket retailers are under increasing pressure from campaigners, NGOs, and society groups to contribute to the communities that they impact upon. This contribution above the procurement and selling of goods and services applies to the sourcing and selling countries alike. Brand enhancement and protection, affecting share value and relationships with governments and legislators are carefully managed by companies with very large global footprints. According to Johan Zublin, head of social standards and compliance at Migros, the Swiss customer expects them to bring whole sea-freighted pineapple to Switzerland and process it locally on a daily basis. This contrasts sharply with efforts of companies like Blue Skies who support small farmers but process products in Ghana and air-freight them to Europe for sale to other retailers. Comments made by Hanspeter Werder HPW reinforce the view that carbon footprint is important in Switzerland. He confirmed that the Swiss Coop is entering into carbon reduction strategy agreements with suppliers.

Frank Brinkman at Bakker felt that Holland was not so concerned about air freight at this time but GLOBALGAP and BSCI were more important to his customer. Fair trade forms a part of his buying portfolio, but he felt that the customer was finding it tough to pay extra for these products in the economic downturn.

Fair trade and other ethical sub-brands are traded as niche products and the sub-brand component managed by the CSR or technical departments. The purchase of the sub-branded material is dealt with as any other characteristic in the category assortment. Chiquita offering Rainforest Alliance and Del Monte Fair trade pineapples are examples of mainstreaming an ethical sub-brand offer by category captains. When whole categories like banana or tea are passed into a scheme like Fair trade or Rainforest Alliance, the major supplier or category captain may be required to manage the changeover. The category champion will now operate to what was previously a niche sub-brand while the retailer continues to sell the sub-branded product at the same retail price. The supply chain or category captain must generate savings to cover the costs of the premium paid to farmers.

According to Danielle, the buyer, Migros was able to source banana that was both Fairtrade and organic from the same source without paying a double certification premium. Although the Fairtrade price was being paid to the farmer it must be assumed that the category captain was offsetting the additional certification costs of organic production within the conventional product offering. Their major competitor Swiss Coop converted all of its bananas to Fair trade in 2004.

Although small farmers, community projects and topical sub-brands are attractive to the CSR departments of supermarkets it is generally only through a lead supplier format that the model works. For the supermarket buyer the small farmers in the chain are commercially invisible as the products are consolidated and managed by the lead category supplier.

Increasing skepticism of the ability of schemes like Fair trade to be managed within the fierce profit-driven structures of the major euro retailers continues to emerge. In a recent article

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13. IGD—Discount retailer factsheets.
16. Knowles, James. 2006. “Switching to Fair trade will leave the retail price unchanged and create social premiums of £4m” - Sainsbury’s goes bananas for Fair trade food and drink Europe, 14 Dec.
17. Justice in UK supermarket buyer-supplier relationships: an empirical analysis - Fearne, Duffy and Hornibrook found that best practice was most evident in the two supermarket supply chains where supply base rationalization has virtually ceased and the adoption of lead suppliers and sole suppliers has been most evident in recent years.
the Guardian newspaper reported that “there are some trenchant criticisms among economists of the Fair trade model: there are intrinsic problems over how it expands to benefit an entire industry, rather than some farmers at the expense of others.”18

E.2.3 CONCLUSIONS AND STRATEGY IMPLICATIONS

- The highly managed fruit and vegetable category sector of western European retailers is controlled by a few very large companies. Access to a supermarket buyer will be through these companies; or, if direct access to the buyer is achieved, the potential supplier will be re-directed to these suppliers to manage the eventual supply.

- Many of the large category captain importers have interests in particular geographical regions or their own plantation estates and supply chains, and might not be wholly objective when assessing a new entrant.

- Some retailers are reaching through the category managers to locate interesting projects to meet CSR commitments. Asda recently pledged an extra GBP30 million of sourcing from African farmers as part of its millennium development pledge.19 However these small projects can only be regarded as a point of entry into an already highly developed and highly controlled market sector.

- The Metro Group local example, where cash and carry direct sourcing has a much higher local product percentage than traditional retail, could be explored. This local sourcing can bypass the hold of the large multinational category manager teams. Larger supply sizes, as cases rather than packs, and the opening of dynamic but less sophisticated retail destinations, such as Morocco and Egypt are continuing. The first Metro Cash & Carry wholesale store should be opened in Cairo in late 2009. In the medium term, the company sees a market potential of up to 10 stores in Egypt with an investment volume of around €15 million each.20

- Sustainability continues to be the main CSR driver for new opportunities. Credible research and effective advocacy of the findings will enhance the likelihood of a buyer being attracted to Ghanaian products as a substitute product for another. However issues of quality, price, and availability will not be traded for sustainability gains.

- Ethical sub-brands such as Fair trade or Rainforest Alliance represent aspects of supply chain best practices that are attractive. However there is increasing evidence that retailers are embedding these best practices within their own proprietary standards.21 Producers and exporters must acquire the capability to sustain the best practices and not simply invest in the label.

E.3 THE CREDIT CRUNCH AND ITS IMPACT ON CONSUMER PURCHASING, SUPERMARKET OFFERINGS, IMPORTER SUSTAINABILITY, AND ETHICAL TRADE AND TRENDS

E.3.1 INTRODUCTION

The economic downturn has had a far-reaching effect on the food and drinks industry in Europe. The record oil prices of July 2008 and a steep decline in consumer confidence resulted in a combination of food price rises and declining household food budgets. With ever larger percentages of European food sold through the supermarket retail channels, the decisions that were taken by relatively few retailers and manufacturers in response to this chain of events have had significant effects on sourcing across the whole supply chain.

E.3.2 CURRENT SITUATION

Supermarket penetration of markets in Western Europe is high. In Holland, it is as high as 90%, though this falls to a relative low in Italy of around 36%.22 Retailers and brands that can demonstrate empathy with consumers in tough times gain loyalty and retain customers who may be tempted to move to a discounted offer elsewhere. As a consequence of this trust relationship, retailers and brands

20. METRO GROUP website 19.05.2008.
21. Fair partner as an own brand, with influence over a quarter of a million workers worldwide—M&S website.
often try to anticipate consumer concerns or move faster than consumer demand to enhance perceived brand empathy and consequently protect sales. Choice editing—where a retailer makes broad changes to a whole category offer in response to its perception of consumer demand—is a powerful market driver. Many of the actions taken by retailers and manufacturers in the period after July 2008 were types of choice editing actions.

The percentage of own-label products in supermarkets across Europe and the U.S. is growing. For example, own label now makes up nearly GBP 35 billion of grocery sales each year in the UK, and projections from the same source predict that this figure will rise to more than GBP 36 billion by 2011.

Currently own-label food accounts for about 40% of total food and drink spending. But supermarkets have grown their own-label business to such an extent that in some cases it now represents 50% of sales in the store.

It has been reported that 87% of UK households are making food purchasing changes with 57% of the sample saying that they are buying more own-label products now than in the past as a result of the economic situation.

Metro Group’s hypermarket chain Real in Germany introduced its new private label—Quality—in the fall of 2008.

The umbrella brand, “real” with three sub-brands—Quality (standard), Selection (premium) and Bio (organic)—is heavily promoted on TV and supported by a new strapline real-Quality. Die neue Marke für Deutschland (real-Quality. The new brand for Germany).

The combination of a high market share and an increasing own-brand demand from consumers is a powerful dynamic on sourcing activities and increases price pressure on the whole supply chain.

Many of the European retailers began 2009 with a request to suppliers to reduce prices. Sir Terry Leahy, Tesco CEO, stressed the point that consumers were looking for value, by quoting that sales of Tesco’s discount and budget ranges were up 65% on the year and a quarter of customers were now buying something from the ranges.

Mark Price, Waitrose’s Managing Director, said that a fall in commodity prices meant that suppliers’ raw material costs were cheaper and the supermarket saw this as an opportunity to pass on those reductions. At the IGD convention in October 2008, Asda’s Group Marketing Director, Rick Bendel, made it clear that his company was intensely focused on price cutting. It was supermarkets’ duty to reduce costs as ordinary people faced financial hardship in the UK’s slowing economy, he argued. “People are bleeding, and if we don’t do something about it we won’t get the rewards in the future.”

### TABLE III.5.1: Shopper Anticipated Responses to Household Budget Squeeze

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase spend on budget brands</td>
<td>33</td>
</tr>
<tr>
<td>Cut back on treats</td>
<td>26</td>
</tr>
<tr>
<td>Shop around for offers</td>
<td>25</td>
</tr>
<tr>
<td>Cut back on convenience food</td>
<td>22</td>
</tr>
<tr>
<td>Switch from brands to own labels</td>
<td>21</td>
</tr>
<tr>
<td>Change to discount retailer</td>
<td>13</td>
</tr>
<tr>
<td>Cut back on ethical buying</td>
<td>6</td>
</tr>
<tr>
<td>Spend same on food, cut back elsewhere</td>
<td>15</td>
</tr>
</tbody>
</table>


At the same IGD conference some 600 delegates were polled about the current relationship between supermarket buyers and their suppliers’ account managers. The...

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23. The Grocer, April 19, 2008, using data from MINTEL.
largest single group (4 out of 10 delegates) described it as “confrontational,” and the majority (71%) said there had been a move to greater short-termism over the past 12 months.  

The supplier cost reductions achieved through renegotiation by supermarket buyers have been passed on to consumers largely in the form of short-term promotions or multi-buy offers, and strong price discounts on own-label products. Swiss retail giant Migros is offering customers a CHF10 (US$10.20) voucher if they can find a product underselling the rival Swiss Co-operative’s core range of 302 lines.

To be an approved supplier to a supermarket, farmers and food producers are expected to underwrite the cost of any special promotions themselves. The supermarkets claim that this benefits the supplier in the long term—because customers will be tempted to try products they would not normally buy. The funding of price cuts and promotions varies between retailers but it can mean that the producer receives a lower price for a larger volume of product supplied. In fresh perishable produce this is particularly true, where the capacity to produce more for short periods is constrained; more so than in non-perishable products that may be stockpiled. According to industry sources this can mean a significant reduction in margin. Paying the costs of extra labor, products bought in from outside, additional freight, and other items which may fall outside of the contracted volumes and prices with suppliers erodes margin further.

In the last decade, European retailers have been developing own-brand premium lines like Tesco “Finest” based on the quality or authenticity of the products. SPAR Austria urged consumers to revitalize old cooking habits with traditional ingredients under its “Just Like In Old Days” private label. Carrefour France has a private label solely for ethical products Agir Éco Planète range, which comprises products that are certified by schemes like the European Ecolabel, Forestry FSC, MSC or which carry an approved external certification support. The range is marketed in four countries: France, Belgium, Spain, and Greece.

The start of 2009 saw the introduction of budget own-label and simple value offers to consumers. The proposition to consumers was that the quality of these products was the same, but non-essentials such as cosmetic packaging materials were removed. Even premium retailers like Waitrose in the UK introduced value products in line with the trend. Waitrose introduced 1400 products in March 2009 proclaiming “everyday products with the quality you would expect at prices that you would not.” Upmarket Spanish retailer El Corte Inglés launched “Aliada” in October 2008, an own-brand food economy range boasting prices up to 25% cheaper than its current product offer. This line of 400 items was designed to compete with Mercadona’s Hacendado and the discounters. Aliada is sold at El Corte Inglés’ food halls, Hipercor and Supercor stores.

Fresh produce developed through the 1990s as an important own-brand statement. Fresh produce became a destination category for which shoppers will switch stores. The produce department moved from the back to the front of the store and was given high priority for constant availability, freshness, and value, with shelf area doubled. This emphasis continued through the price rationalization of 2009, with fresh produce becoming some of the most visible and prolific products in store offers. “Fresh produce is the main focus of promotions as retailers battle it out to offer customers the best possible value,” said BRC Food Policy Director Andrew Opie.

One of the major food casualties of the economic downturn was organic fresh produce. Research from IGD showed that organic sales were the only ethical food sector to fall in 2008. According to its survey of 1000 consumers, the percentage buying organic dropped from 24% to 19%. Jonathan Banks, Business Insight Director with Nielsen, said that organic sales had slowed from an annual growth of 16% to an annual growth of 2% up to November 2008. He said, “Organic producers must show their products taste better, are more nutritious, and better for the environment. If they tick all those boxes they can sustain a (price) premium.”

At the beginning of October 2008, it emerged that sales of Tesco’s Finest and Organics ranges had stopped growing as shoppers cut their spending. Chief Executive Sir Terry Leahy said that “while customers still want to buy the products, they don’t feel they can with the economic pressures.”

38. UK shoppers want ethical food without paying more, Reuters Online, July 7, 2008.
It is interesting to note that by July 2009, Tesco reported that its Finest, Organics and Fairtrade ranges are all returning to growth. However, Tesco conceded that it has reviewed its range of organic and Fairtrade foods in order to develop “better offers” and increase sales.\(^{40}\) Discounting and promotional activity more common in the mainstream lines had been applied to the previously ethical premium-priced brands where the consumer would normally be aware that they were paying more as an ethical or lifestyle choice purchase.

The premium juice and smoothies sector was hard hit by the downturn. Innocent Smoothies, one of the companies at the vanguard of the eco-social revolution, suffered a 20.2% drop in sales in 2008.\(^{41}\) In April 2008, Nestlé, the food and drinks giant, announced it was set to enter the fruit smoothie market after forging a partnership with Australian brand Boost Juice, but four months later the products were withdrawn. Nestlé boss Jon Walsh said consumers were now choosing cheaper options, such as chilled juices. In November 2008, Pepsi abandoned its PJ Smoothies venture, while Unilever withdrew its health drink Adez from the UK just months after its release.\(^{42}\)

One sector that has benefited from the credit crunch has been chocolate. Demand for private label products has provided a boost to brand owners who also choose to produce retailer brands. In Spain, for example, chocolate manufacturer Natra reported elevated profits in the first nine months of 2008 to €5.1 million. The company cited growing demand for private-label products as the primary driver behind the 46.7% growth.

Natra said its business of supplying retailer brand products, success in passing through rising raw material costs, plus the defensive nature of the chocolate sector, which traditionally sees sales rise in a downturn, had all boosted its cocoa and chocolate division. On a group-wide basis, Natra said consolidated sales were up 25.1% to €336.1 million. Confectionery giant Cadbury reported a 30% increase in its 2008 annual profits. According to Cadbury CEO Todd Stitzer, consumers are choosing to stay at home more and consume more confectionery products. Upmarket UK chocolate retailer Thorntons announced profits have risen nearly 20% in 2008, confirming the upward trend.

**FIGURE III.5.13**

**E.3.3 ETHICAL TRADE AND LABEL TRENDS**

Until the global financial crisis emerged, retailers and manufacturers had undergone a decade of ethical trade sub-branding. Although the depth of relationships between suppliers, retailers and manufacturers are different in each case the trend of ethical or provenance sub-brand effect has been consistent. Since 1990, food safety has been high on the agenda of brands and retailers, and a number of private standards and coalition standards have evolved to address the issue of post and pre-farm gate food safety. GLOBALGAP being the largest pre-farm gate standard and GFSI (The Global Food Safety Initiative) being one of the largest retail food safety coalitions. This precompetitive chain-wide collaboration for food safety has brought with it whole chain traceability and increased source transparency.

The labor rights agenda which emerged around 2001 was based around the core ILO conventions and largely a business-to-business activity as supply chains became global and moved into developing economies. Several initiatives like The Ethical Trade Initiative\(^{43}\) and Social Accountability International SA8000\(^{44}\) emerged as tripartite or multi-stakeholder initiatives. By 2002 Fair trade became the business-to-consumer message that translated the main points of the labor rights agenda to consumers and, although it was not the primary stated purpose of the Fair trade movement, the message of fairness resonated with consumers.

Many retailers moved whole categories into Fair trade, effectively “choice editing” for their customers. UK supermarket chain Sainsbury’s launched a GBP1 million fund to enable farmers in developing countries to join the Fair trade initiative. The Sainsbury’s Fair Development Fund, managed by Comic Relief, was designed to help farmers—especially in...
Africa—find new routes to market. Organizations including the Fairtrade Foundation, Traidcraft, and Oxfam were encouraged to help the firm connect with farmers. In the same year, according to IGD, almost one in five—18%—of consumers were buying Fairtrade products each month, up from 11% on 2005.45

Sales of so-called ethical products were rising 7.5% a year, against 4.2% for grocery products as a whole. A recent report by the Institute of Grocery Distribution showed that more than half of British shoppers care about the green credentials of what they buy, creating a £25 billion-a-year market for ‘ethical consumerism’.46 Ethical trade, and in particular fair trade, had become a powerful differentiator for the retailers to empathize with the public and achieve brand enhancement through an ethical sub-brand and yet in a survey by IGD in 200747 only 10% of respondents said that they would pay more for ethically produced food and only 9% said that they would pay more for environmentally friendly products.

It is clear that consumers enjoy the values brought to them by retailers through choice editing, but evidence from IGD says that they do not feel that they should be asked to pay more for them.

Some major manufacturers have chosen Rainforest Alliance as the ethical sub-brand. Possibly seen as having more global reach and with a more pragmatic entry point, manufacturers are able to use the Rainforest Alliance Frog logo with less than 100% of content certified. Also Rainforest Alliance48 did not have price premiums or price guarantees, making the transactional arrangements easier to manage in complicated supply chains that may include brokers or auctions.

Unilever through the Lipton’s tea brand, Kraft coffee, and Nestlé premium brand Nespresso coffee are some of the big manufacturer brand names who saw sustainability as a resonating message for consumers, and have adopted Rainforest Alliance sustainability logo as a sub-brand.

It is interesting to note that two major chocolate brands in Europe have taken different routes. Cadbury announced in 2009 that it would take its signature brand “Dairy Milk” into fair trade. The UK’s best-selling chocolate bar is set to become Fairtrade certified, increasing the amount of Fairtrade cocoa sourced from West Africa. Cadbury’s Dairy Milk will make the move—tripling the amount of Fair trade cocoa sourced from Ghana to about 15,000 tonnes a year—in the summer of 2009.49 Mars announced that it aims to buy enough certified cocoa so that the Galaxy chocolate bar can bear the Rainforest Alliance Certified logo by early 2010. The company also has committed to getting its entire 100,000 tons of cocoa supply certified as sustainably produced by 2020.50

47. Table IGD Ethical Shopping, Are UK Shoppers Turning Green?, March 26, 2008.
50. The Rainforest Alliance and Mars Team Up to Make Sustainable Chocolate, RA website, April 9, 2009.
This seamless labeling evolution from labor rights to fair trade and onto sustainability and climate change has continued into carbon labelling. Tesco, the UK’s biggest retailer, promised in 2007 to put carbon labels on every one of its 70,000 products. Walkers cheese and onion crisps had a label warning buyers that their carbon footprint is 75g a packet. However, individual product labelling has since proved to be too difficult or too costly and the pledges made in 2007 have largely disappeared during the difficult trading times.

The only labels that have remained are the black airplane labels designating air-freighted products. These labels, which caused complaints from developing countries exporting fresh produce when launched, in the end made no appreciable difference in the volume of product sold, according to the importers.

During 2007 the Soil Association, the UK’s largest organic movement, began an open consultation on air-freighted food and appeared to consider a ban on air-freighted products. Watched by other EU organic groups, the Soil Association proposed mixing social and development criteria with organic certification to mitigate air-freighting organic food. The environmental charity’s Policy Director, Lord Peter Melchett, estimated that only about a quarter of all exporters of organic food met high enough ethical standards to keep their all-important organic label at that time. “Farmers must start investing in local communities, allow their workers to form unions and fund education schemes by 2009 if they want to keep their status. Some will find it impossible I suspect,” he commented.51

In the same newspaper article Ghanaian pineapple company, Blue Skies, said that it would be impossible to continue supplying Waitrose and Sainsbury’s if it could no longer air-freight. “To cut a pineapple or mango, take it down to the port and expect consumers to eat it five weeks later is impossible,” said Blue Skies Director Anthony Pile. His company would comply with the Soil Association’s ethical standards and said it would keep its status under the proposals.

A green paper was produced52 outlining the concept and suggested solutions and is evidence of the mixing of standards criteria. Single issue standards and schemes are trying to evolve with consumer demand and are being driven by both media and campaigners while trying to remain relevant with the supermarket and manufacturer agendas.

This mixing of what were previously single issues by the Soil Association has continued with retailers launching consolidated standards like Tesco Nurture, M&S Plan ‘A’ and ‘Carrefour Filiere’ where food safety is included with social, environmental, ethical, and community outreach values.

### E.3.4 Conclusions and Strategy Implications

Analysts at mySupermarket.co.uk, which tracks food prices, say the three biggest UK supermarkets—Tesco, Asda and Sainsbury’s—increased their average price for a basket of goods by 12% last year, adding up to £750 to the average UK family’s annual bill.53 Steep food price inflation propelled the value of the European grocery market to €901.5 billion in 2008.54 It is interesting to note that these rises are occurring against the backdrop of price cut promotions, budget food range launches, and advertising campaigns pointing to falling prices.

In a note to EU Farm Ministers meeting in Brussels on 25 May 2009, Poland complained of increasing disparity between producer and consumer food prices, as well as “supermarket clout” forcing suppliers to cut their prices, thus reducing farmers’ incomes. “The observed decline in the prices of agricultural products, which is not offset by the reduction of production costs, leads to the deterioration of farmers’ financial situation.”55

After a decade of producer investment in standards and ethical sub-brand labels to meet the evolving EU supermarket needs, it is apparent that ethical niche labels are not protected from the pressure to reduce prices. Similarly, production systems that do not yield effective commercial volumes or margins cannot rely on a price premium that recognizes better stewardship or practices.

The evolution of the consumer agenda is moving faster than producers can adapt. In only ten years a producer who may previously have been asked for a labor standards audit may now be asked to produce a carbon lifecycle assessment, or both. Driven by the media, campaigners and the new social connective sites like Facebook and Twitter, food sourcing and the brands that provide food are facing strong public scrutiny that evolves as an issues trend with an increasingly short lifecycle.

The evolution of not just private label food but private label consolidated standards like Tesco Nurture, M&S ‘Plan A,’ and ‘Carrefour Filiere’ are moving the previously business-to-business food safety standard into the business-to-consumer arena. There is a move toward retailer differentiation using provenance values in the standards marketplace after a decade of harmonization around food safety.

For producers in emerging markets, the moving target of standards set against falling prices and rising costs is tough. However, opportunities to exploit any advantage of low carbon production methods or prove that products are good for development will all be attractive to manufacturers and retailers keen to gain brand enhancement case studies.

Climate change may dominate the sub-brand message in the coming years but, as concerns about food security rise, importers and exporters will be increasingly forced to justify why they are trading food in countries that cannot feed their own population. Waitrose were targeted by campaigners in January 2008. Wilf Mbanga, Editor of The Zimbabwean, a UK-based newspaper, said he was shocked that food from Zimbabwe is being sold in Europe. “How can Zimbabwe be exporting food when people are starving? Food is not available to a large section of the population. When it is, the price is beyond the reach of many,” he said.56

Developing countries, and particularly those countries in Africa who wish to export, may also need to provide better information on livelihoods and populations to be attractive to food sourcing companies worried about stock market brand value damage from campaigners.

E.3.5 RECOMMENDATIONS

- Exploit any natural advantage from low carbon production. Commission LCA studies of carbon footprint compared to competitor nations. Use international institutions and expertise that will demonstrate credibility with European markets and customers. Kenya has developed “grown under the sun”57 to counter the air freight claims and to promote livelihood development through export agriculture. Consider national or regional West African initiatives like this.
- Niche market certification premiums have been eroded and may not return after the global financial crisis. Standards and market requirements are rapidly evolving and appear to be differentiating at retail and brand level. Consider which programs meet basic market needs before embarking on capacity building and training programs based on certification.
- Promote a country profile and awareness that Ghana is capable of sustaining its people and maintaining a professional and vibrant export market. Many of the South American countries have export promotion agents in the EU58 who are lobbying retailers and facilitating trade through awareness of the country potential.

E.4 ALTERNATIVE REGIONAL MARKETS

E.4.1 INTRODUCTION

This paper reviews the opportunities that might be available in markets other than the European Union. Specifically the markets of the Middle East, North Africa and Lebanon, and South East Europe are evaluated statistically.

There is potential for sales to all three areas. There is good growth in some product opportunities, for example, topical fruit to South East Europe; but there are also apparent opportunities, for example mangoes to the Middle East, that are much more limited than at first sight because of the supply from significantly closer neighbors such as India and Pakistan.


None of the markets here are particularly demanding in standards or SPS requirements,59 though some have quite high import tariffs. It is important to remember, however, that the importance of the multiple retailers is increasing in all these markets too, and that a number of European supermarkets are developing a presence here as well. They in turn will bring in their own private standards.

The opportunity in all the markets needs to be seen in its proper perspective: there is neither the scope nor the depth found in the EU, and these markets will not form the foundation from which to grow a flourishing export industry. They are, however, important in two aspects. First, the opportunistic trade, less
demanding in standards, can benefit the medium size exporters of Ghana. Second, the markets provide the well established supplier with an opportunity to extend its reach beyond Europe and no profitable opportunity should be ignored.

E.4.2 MIDDLE EAST

Overview and Market Structure

The UAE Market: Of the 4.04 million population, it is estimated that some 75% are expatriates. It is reported that 40% of the population are from Pakistan, India, Bangladesh, Sri Lanka, and Iran. With a significant population of Far Eastern migrants (Filipino and Malay), the number of higher spending Western consumers is relatively small. For the most part the local consumers and the lower paid expatriate workers from Asia are unlikely to pay for high priced imported goods. Thus, the retail market for such imports is relatively small.

The food market of UAE is well supplied by importers from all over the World. It is a highly competitive market and, at the top end, at least as sophisticated as northern Europe. Retailers, which include supermarket chains such as the French Carrefour, Géant and Auchan, are gaining ground in retailing. A particular sector of note however is provided by the hotels as tourism grows from strength to strength. Del Monte established a fresh-cut facility in 2007 to prepare fruit for these higher priced markets as well as to neighboring countries.

With a substantial population from the tropical climates there is clearly a big demand for tropical fruit and vegetables. The supermarkets, stores, and wholesale markets carry an extensive range, and give prominent shelf space to Asian vegetables (mooli, dudhi, tinda, ravaya, etc.) and fruits (rambutan, mangoes, papaya, etc.) which cannot be grown locally but are available from India and Pakistan with a short shipping time and low cost.

The Gulf Market: Dubai has for a long time served as a distribution point for products from all over the world into markets throughout the Gulf Region. Thus the population served by the Dubai trade is in excess of 30 million spread throughout the Gulf. Indeed, the extensive air links give the opportunity of accessing many other markets too. Recently, other Gulf States have started direct imports rather than rely on Dubai. This inevitably increases the complexity of trading with the region.

The Saudi Arabia Market: Saudi Arabia’s population is about 27 million people, of whom about 70% are below the age of 30. Of the total population some 7 million are expatriate residents. The high per capita income ensures that the retail market continues to expand and the supermarket sector in particular is growing. This is, however, a market that is very sensitive to pricing, and without the substantial numbers of western consumers and tourists, as seen in Dubai for example, the opportunities for “exotic” produce are rather more limited.

The potential for agriculture in the country is severely limited by the scarcity of arable land and water supplies, and food imports are correspondingly high. Even so, the government has set itself the ambitious target of becoming self-sufficient in food production, though the practicality of this proposition is certainly ambitious. In a more recent development, the Kingdom has sought to acquire land in Ethiopia as a means of reducing its dependence on the world food markets. A recently announced initiative is investing $300 million in banana production in the Philippines. There is already limited production of bananas within Saudi Arabia of about 10,000 tonnes from the Red Sea area at Jizan.

Imports

FIGURE III.5.15: Imports of Selected Fruit to the UAE 2005 and 2008

- Strong growth in banana and pineapple trade.
  Pineapples growing from a low base.

FIGURE III.5.16: Imports of Selected Fruit to Saudi Arabia 2005 and 2007

Source: UN Comtrade.
Limited prospect for tropical fruit other than bananas.

Suppliers

**FIGURE III.5.17:** Origin of Tropical Fruit Imports to the UAE

- Philippines industrial scale production dominates the market in bananas and pineapples.
- The enormous nearby production of mangoes in Pakistan and India lead in these markets.
- Note that the substantial expatriate community from South Asia determines varietal preferences.

**FIGURE III.5.18:** Origin of Tropical Fruit Imports to Saudi Arabia

Opportunity for Ghanaian Suppliers

- There are opportunities here for exports from Ghana, particularly in pineapples to Dubai.
- Alternatively, bananas to Saudi Arabia may be competitive against imports from Ecuador. No doubt, the Chiquita investment in Mozambique is also aiming at this opportunity.
- These opportunities however are not great and are unlikely to grow substantially.
- It is difficult for Ghanaian produce to compete against the supplies from Pakistan and India, and opportunities will only arise out of the main production season there.

E.4.3 MAGHREB AND THE MEDITERRANEAN

Overview and Market Structure

North Africa is a major producer of tropical and sub-tropical fruit and so the opportunities for imports here are quite restricted. Only bananas may have some possibilities, although Egypt has a substantial production of its own. Ecuador is an important supplier of bananas to North Africa.

Lebanon is not able to produce tropical fruit and so imports when necessary. The opportunities are occasional, and, with a population of only 4 million, they are not great.

Imports

**TABLE III.5.3:** Imports of Selected Fruits into the Maghreb and Eastern Mediterranean (tonnes)

<table>
<thead>
<tr>
<th></th>
<th>TUNISIA</th>
<th>ALGERIA</th>
<th>EGYPT</th>
<th>LEBANON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bananas and plantains, fresh or dried</td>
<td>2005 20,798</td>
<td>2008 33,513</td>
<td>2008 157,082</td>
<td>2008 2,844</td>
</tr>
<tr>
<td>Pineapples, fresh or dried</td>
<td>2005 77</td>
<td>2008 60</td>
<td>2008 162,630</td>
<td>2008 93,732</td>
</tr>
<tr>
<td>Papayas</td>
<td>2005 0</td>
<td>2008 52</td>
<td>2008 37</td>
<td>2008 5</td>
</tr>
</tbody>
</table>

Source: UN Comtrade.

**Caution:** Data for Egypt 2008 suspect

- No data available for Libya.
Suppliers
Banana imports to North Africa are dominated by exports from Ecuador.

**TABLE III.5.4: Origin of Selected Fruit Imports to Lebanon (tonnes)**

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bananas and plantains, fresh or dried</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>224</td>
</tr>
<tr>
<td>Ecuador</td>
<td>233</td>
<td>41</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Oman</td>
<td>313</td>
<td>99</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>0</td>
<td>148</td>
<td>193</td>
<td>183</td>
</tr>
<tr>
<td>Yemen</td>
<td>160</td>
<td>33</td>
<td>265</td>
<td>85</td>
</tr>
<tr>
<td>Others</td>
<td>54</td>
<td>118</td>
<td>1</td>
<td>46</td>
</tr>
<tr>
<td>Total</td>
<td>760</td>
<td>439</td>
<td>479</td>
<td>538</td>
</tr>
<tr>
<td>Pineapples, fresh or dried</td>
<td>2005</td>
<td>2006</td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Ghana</td>
<td>297</td>
<td>253</td>
<td>97</td>
<td>137</td>
</tr>
<tr>
<td>Philippines</td>
<td>6</td>
<td>19</td>
<td>172</td>
<td>141</td>
</tr>
<tr>
<td>Others</td>
<td>69</td>
<td>15</td>
<td>42</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>372</td>
<td>287</td>
<td>311</td>
<td>296</td>
</tr>
<tr>
<td>Guavas, mangoes, and mangosteens</td>
<td>2005</td>
<td>2006</td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Australia</td>
<td>101</td>
<td>75</td>
<td>76</td>
<td>127</td>
</tr>
<tr>
<td>Brazil</td>
<td>129</td>
<td>85</td>
<td>66</td>
<td>77</td>
</tr>
<tr>
<td>Egypt</td>
<td>0</td>
<td>0</td>
<td>181</td>
<td>199</td>
</tr>
<tr>
<td>Ghana</td>
<td>64</td>
<td>140</td>
<td>158</td>
<td>128</td>
</tr>
<tr>
<td>Sudan</td>
<td>449</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Yemen</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>144</td>
</tr>
<tr>
<td>Others</td>
<td>186</td>
<td>87</td>
<td>87</td>
<td>46</td>
</tr>
<tr>
<td>Total</td>
<td>929</td>
<td>387</td>
<td>568</td>
<td>721</td>
</tr>
</tbody>
</table>

Source: UN Comtrade.

Customs Duties

**TABLE III.5.5: Ad Valorem Duties and Taxes on Import**

<table>
<thead>
<tr>
<th></th>
<th>BANANAS</th>
<th>PINEAPPLES</th>
<th>MANGOES</th>
<th>PAPAYA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tunisia</td>
<td>150</td>
<td>200</td>
<td>200</td>
<td>150</td>
</tr>
<tr>
<td>Algeria</td>
<td>67</td>
<td>77</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Libya</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egypt</td>
<td>60</td>
<td>40</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td>Lebanon</td>
<td>70</td>
<td>35</td>
<td>35</td>
<td>70</td>
</tr>
</tbody>
</table>


Opportunity for Ghanaian Suppliers

- Very limited opportunities for growth here.
- Ghana already has a good position in imports to Lebanon.
- Bananas to North Africa seem to be the principle opportunity, to substitute for supplies from Ecuador.

E.4.4 SOUTH EAST EUROPE

Overview and Market Structure

Within this one geographical area is a diversity of small markets with different cultural backgrounds and widely varying economies. Romania, for example, has a population of 21 million with a per capita GDP of $1,700; while the Albanian
population is fewer than 4 million with a per capita GDP below $7000. Bulgaria, Slovenia, and Romania are all members of the European Union. A number of the other countries included are at various stages of application and accession.

The economies of all the countries here are growing and the retailing sector becoming more westernized, with the appearance of the transnational supermarket chains as well as developing local multiple stores. The increasing wealth is reflected in greater demand for exotic fruit—though there is some indication that this is at the expense of banana consumption. Tropical vegetables are not in demand: there is no significant immigrant population to introduce the cuisine and there is a strong culture of consuming locally grown vegetables.

**Imports**

**FIGURE III.5.19: Imports of Bananas & Plantains, Fresh or Dried into South East Europe**

Source: UN Comtrade.

- Total imports of bananas exceed 350,000 tonnes but there is little growth in this market.

**FIGURE III.5.20: Imports of Pineapples, Fresh or Dried into South East Europe**

Source: UN Comtrade.

**FIGURE III.5.21: Imports of Guavas, Mangoes, and Mangosteens into South East Europe**

Source: UN Comtrade.
Very small volumes imported, but the market is expanding.

**Suppliers**

**FIGURE III.5.22:** Imports of Papayas into South East Europe

Source: UN Comtrade.

**FIGURE III.5.23:** Imports of Bananas to South East Europe

Recorded from Non-EU Origins

Source: UN Comtrade.

**FIGURE III.5.24:** Imports of Pineapples to South East Europe Recorded from Non-EU Origins

Source: UN Comtrade.

**Opportunity for Ghanaian Suppliers**

The current opportunities are small. However, with a total population in excess of 54 million and growing economies the demand for higher value produce is likely to grow.
E.5 BANANAS

E.5.1 INTRODUCTION

World trade in bananas is highly distorted. The production and marketing of bananas is concentrated in a very limited number of multinational companies (five). Production and trading patterns do not always align with economic efficiency, but often relate to historical relationships between trading partners that date back to colonial times. Labor conditions in the banana estate sectors are often below internationally accepted norms. Following the failure of the “Doha Round” of World Trade Organization (WTO) negotiations to reach a conclusion, numerous bi-lateral and regional trade agreements have been developed, some of which have particular relevance for trade in bananas. The ongoing dispute at the WTO on bananas between the European Union (EU) and others remains the single most important factor likely to impact upon banana production looking forward. This paper discusses these issues in greater detail and draws some policy highlights.

Key issues:

- Ghana currently has a substantial trade preference for bananas over major international competitors of €176/tonne. Any future investment needs to consider how the erosion of this preference and exposure to international competition might be addressed.
- Niche markets such as fair trade and organic bananas are currently oversupplied and in any case will only delay the impact of any fundamental absence of competitiveness in banana production.
- Continued preferential market access to the EU is crucial to the continued success of Ghana’s banana sector.
- Continued preferential market access to the EU is not guaranteed and could be lost during future Doha Round WTO negotiations.
- Ghana’s cost structures probably put it into the middle level of competitiveness in banana production behind Latin America and the Philippines, but above the Caribbean.

E.5.2 CURRENT SITUATION

Production

In 2006 world trade in bananas was 16.7 million tonnes of which 72% came from five key exporting countries that each top the 1 million tonnes a year of exports (see figure III.5.25).

Six countries form a second tier of banana exporters with more than 100,000 tonnes. These include Ivory Coast, Cameroon, Honduras, Brazil, the Dominican Republic, and Panama.

Ghana is a member of a third group of small- to medium-size banana exporters, contributing less than 100,000 tonnes per annum to world trade. Important producers in this group include Belize, Bolivia, Jamaica, Lebanon, Malaysia, Mexico, Nicaragua, St. Vincent, St. Lucia, Suriname, Vietnam, and Yemen.

Ghana’s current share of the total world banana market (assuming exports of 45,000 tonnes in 2007–08) is less than 1%.

There is some evidence in recent years of a strategy of supply diversification by major producing companies to ameliorate risk and to benefit from EU country quotas. Ghana seems to be a beneficiary of this.

Consumption

In 2003, the world consumed 57.3 million tonnes of bananas of which just 15 million tonnes were traded. Four countries or areas represented 86% of consumption in 2006: the EU, the U.S., Japan, and the Russian Federation. The EU alone consumes 50% of the world’s traded bananas and is, therefore, the price ‘maker’ on the world market. Within the EU, Germany is by far the largest single consuming country closely followed by the UK.

Figure III.5.26 shows that the key driver of growth in world banana consumption is the EU. Growth in banana consumption in other markets, such as the Middle East and China, has, disappointingly, not matched economic growth in these areas.
Prices and Terms of Trade for Bananas

Bananas prices are largely set at the retail level by large supermarket chains. There is some evidence that bananas—now considered a critical item in the Western “shopping basket”—are consistently sold as a loss-leader to encourage consumers to purchase other items. Nevertheless, bananas are the highest single item income earner for supermarket chains in Europe (Vorely 2009:3).

There has been a long and fairly unsuccessful history of struggle to improve the conditions of banana plantation workers and small-scale producers by means of fair trade. The net result has not been encouraging, with the average price received for bananas in key markets such as the US and the EU having declined in real terms since 1961 (UNCTAD 2008). The reality is that bananas are a bulk crop which benefits from significant economies of scale, the wholesale price strongly reflects domestic labor costs and international transport costs.

The world’s five largest producers and exporters of bananas, Dole, Del Monte, Chiquita, Fyffes, and Noboa account for 80% of all trade (Shah 2009). Margins on banana sales have consistently narrowed in recent years and Vorley (undated) estimates that the average value retained by farmers of the total retail value of bananas is at best 12%.

Ghana is probably among the middle level of efficient banana-producing countries with Jamaica and St Lucia being typical higher cost producers and Ecuador, Columbia, and the Philippines as typical low cost producers. Ivory Coast is, like Ghana, a middle level cost producer. In contrast Costa Rica, despite its high wage rates, expensive land and infrastructure is actually a low cost producer due to the high yields and the economies of scale associated with the large scale plantations (UNCTAD 2008).

Trade, Trade Negotiation, and Bananas

The distortions in the world banana market have led to a long running dispute between the two key consumption regions, the US and the EU, and those producing countries that would either lose out from a level playing field (e.g., no tariff barriers or subsidies) in banana trade, such as the relatively inefficient Caribbean producers, and those that might gain, such as the low cost Central American producers. The unfairness of the tariffs and quotas applied to bananas imported into the EU from members of the African, Caribbean, and Pacific (ACP) group of former EU colonies has been disputed at the WTO and its Disputes Panel has accepted the arguments that the measures are not compliant with key binding articles of the General Agreement on Tariffs and Trade (GATT). Notwithstanding this finding, the EU continues to dispute and has not implemented any new, “fairer” system.

As it currently stands the EU banana regime consists of four elements:

a. Free access for ACP members and countries that have signed Free Trade Agreements with the EU;
b. A single ad valorem tariff of €176/tonne for non members;
c. A tariff quota of 2.2 million tonnes;
d. In quota, or so-called Minimum Market Access tariff rate quotas, for ACP suppliers at a lower rate of tariff.

In order to try to settle the dispute the EU has begun to offer lower tariffs to non-ACP members, starting with an offer of €148/tonne and then €114/tonne. This is likely to fall further before the dispute is finally settled.

In the meantime, the EU has been negotiating WTO-compatible Free Trade Agreements with groups of ACP countries to replace the non-WTO-compatible Lomé Convention. These Economic Partnership Agreements (EPAs) are at an

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60. Consumers in supermarkets commonly purchase a whole weeks food during one shopping expedition. Supermarkets compete to make ‘offers’ that encourage them to shop at a particular store, even going so far as to sell items at below their cost of production because they know that if they lose money on one item, they will make it up on the whole shopping basket.

61. For a summary of the dispute and the findings of the Appellate Body see http://www.wto.org.
advanced stage. Ghana has already signed an interim EPA which gives duty-free access to the EU banana market.

Clearly, since the tariff rate quota into the EU is shared among ACP countries, companies that spread their production over several countries will benefit from a higher number of chances to obtain quotas.

Recently, the position of the EU has been to link resolution of the banana disputes with progress in the WTO Doha Round. This linking has two implications: first, it means that while the Doha Round is stalled, there will be no movement in the current regime, and second, that if the Doha Round suddenly re-opens, then changes in the banana regime may be the negotiating cost of progress elsewhere. This means that there is an inherent risk for Ghana that the EU could drop its banana regime to make more important gains elsewhere and Ghana might be unable to prevent this. The EU have already for some time realized that this might happen and have put some effort into considering how they might address the consequences.62

E.5.3 CONCLUSIONS AND STRATEGY IMPLICATIONS

The world banana market is fragmented, relatively static, and highly distorted. The single most important and dynamic market is the EU. Growth in new markets has been rather disappointing. The world’s banana market is very concentrated in a few large companies and through very powerful supermarket chains.

Ghana has preferential access to the EU which makes banana production attractive in the short-run. If the latest round of WTO negotiations re-starts and is concluded, it is highly likely that this margin of preference would be severely eroded. Ghana is better placed to produce bananas efficiently than many traditional producers, such as the Caribbean countries, but would struggle to compete with the very large-scale and low labor-cost profiles of Latin America.

REFERENCES


E.6 ALTERNATIVE PRODUCE

E.6.1 INTRODUCTION

The following notes and charts assess the potential opportunity for European imports of a variety of products. We have selected the products on the basis of known potential as well as agronomic suitability. All will require a high degree of management for export but the greater proportion would be suitable for small scale cultivation: for example, much of the Kenya export of avocados is based on small-scale farmer output, while the Thai babycom industry is heavily dependent on small-scale growers.

All the following crops could be cultivated in Ghana, and some have been for many years, but have not developed far as export crops. Trials to establish the profitability of each will be needed if the opportunity is to be developed; this raises the question of who should be responsible for such research and introduction. At present, the private sector has very limited resources to carry out such research on a systematic basis. This underlines the need for a capacity to innovate as is discussed in Background Paper C2 of this report.

Babycorn, lychee, and asparagus would exploit the comparative advantage of Ghana’s air-freight rates to Europe; butternut squash, avocado, and sweet potatoes are sea freighted and can gain advantage from shorter shipping times than competing origins. The butternut and sweet potatoes are more durable than other fresh produce and could be grown further afield than the usual two to three hours travelling time from a port that most produce requires.

The list of crops here is only intended to be indicative: it is neither comprehensive nor are the opportunities for profitability assured. We believe that given the right business conditions the portfolio of produce exported from Ghana could be broadened beyond the few fruits and vegetables that currently constitute the export offering and the few products here show some of the possibilities.

E.6.2 ASPARAGUS

Background—Traditionally, asparagus is a perennial crop that, when established, produces asparagus spears for harvesting

62. See for example Gillson et al., 2004.
each spring. It has been grown in Europe and Asia for over 2,000 years where it is regarded as a high-value item. However, more recently it has been introduced into tropical areas such as East Africa. The production techniques have been adapted to alter the seasonality so as to time production to coincide with high prices. The new technique is often referred to as “mother-fern” production. Outside of the European spring, much of the asparagus is imported from countries such as Peru or Mexico. Asparagus should grow well in Ghana and the cheaper air freight rates market should make it competitive.

**Agronomic considerations**—Asparagus is grown from seeds in seed beds and the plants (crowns) are transplanted after about a year. After transplanting, the ground would need to be mulched. Prior to the successful introduction of the mother fern technology, it was regarded that the optimum growing conditions were temperatures between 16 to 24°C and it required a cold winter when the crop was dormant. This has now been disproved and asparagus will grow well in tropical climates. It requires irrigation and high levels of management to get the competitive yields and top quality. The harvesting season normally lasts for 6 to 12 weeks, after which the spears are allowed to grow and develop into ferns which build up the food reserves in the crowns to provide the energy for the next crop. It is a labor intensive crop especially during harvest when spears would need to be cut twice a day. There could be potential fungal problems caused by rust, but there is genetic resistance in some varieties.

The post-harvest handling of asparagus is vitally important. After harvest, the spears should be hydro-cooled to bring the core temperature down to 1 to 3°C and, if exported, would need to be air freighted on almost a daily basis.

**Market**—The imports of asparagus into the EU are growing quickly having increased three-fold over the last eight years to over 32,000 tonnes in 2008 (figure III.5.27). Imports into the EU are dominated by Peru (over 25,000 tonnes/year); much smaller amounts came from Thailand, Mexico and Morocco (figure III.5.28). Three countries in Europe account for the vast majority of the imports: Spain, the UK and the Netherlands.

**FIGURE III.5.27:** Imports of Fresh Asparagus into the EU

![Graph showing imports of asparagus into the EU from 2001 to 2008](source: Accord based on data from EUROSTAT COMEXT.)

There is a very big difference in the import values between different sources: Thailand is almost €7/kg while other countries are about €3/kg. Thailand concentrates on producing a smaller thinner spear which is more expensive.

**Competitive opportunity for Ghanaian production**—The consistent temperatures throughout the year would mean that Ghana could position itself as an “all-year-round” producer or target specific high priced windows. The low air-freight rate compared with many other countries would give it very significant comparative advantage and the low cost of labor would also contribute.

**FIGURE III.5.28:** Top 4 Exporters of Asparagus to the EU, 2008

![Bar chart showing top 4 exporters of asparagus to the EU in 2008](source: Accord based on data from EUROSTAT COMEXT.)

**FIGURE III.5.29:** Top Four Importers of Asparagus into the EU 2008

![Bar chart showing top four importers of asparagus into the EU in 2008](source: Accord based on data from EUROSTAT COMEXT.)

**FIGURE III.5.30:** Unit Import Value of Asparagus

![Bar chart showing unit import value of asparagus](source: Accord based on data from EUROSTAT COMEXT.)
E.6.3 BABYCORN

Background—The main supplier of babycorn to the UK market is Thailand though some African countries have become secondary suppliers, e.g., Zambia, Zimbabwe, and Kenya. In spite of its higher air freight rates, Thailand out-competes the African producers because it grows varieties that produce 3 to 4 cobs per stem, whereas the African varieties rarely produce more than one cob per stem. In addition, the varieties grown in Thailand (often called Pacific varieties) only take up to 90 days from planting to harvest, which reduces growing costs considerably. The problem Zambia and Zimbabwe found when they tried to introduce Pacific varieties is that their winter temperatures were too cold. However, the temperatures in Ghana should be ideal to grow them and 3 to 4 crops per year could be grown on the same area.

Agronomic considerations—Maize grows well in Ghana and babycorn is simply immature maize cobs. The plant population is high to boost yields and it is sometimes regarded that there are two on-farm factors that contribute significantly to gaining comparative advantage. These are having the temperatures to be able to grow the higher yielding and quicker growing Pacific varieties and a good use for the crop residues.

The crop has to be irrigated, requires good management, and is reasonably labor intensive, especially at harvest and during post-harvest handling.

The post-harvest handling of babycorn is reasonably conventional. The field heat needs to be removed quickly using forced air ventilation and the preparation of pre-packs would be determined in conjunction with the EU-based importers.

Market—The major consumer market for babycorn is the UK, importing over 90% of volumes coming into the EU. The European market as a whole is not large (at over 6,500t per annum). The major supplier is Thailand, with around 75% of the market in 2008 (figure III.5.32). Zambia and Kenya also exported significant volumes (although at least one major Zambian producer has recently stopped growing babycorn).

Thai produce has a reputation for being reliable and high quality. Despite this, distributors and retailers are keen to diversify supplies away from reliance on one market and have tried to encourage production in East and Southern Africa, but with very limited success as these countries find it exceedingly difficult to compete with Thailand. Currently, most EU importers are buying Thai produce at about

![Figure III.5.31: Imports of Babycorn into the EU](source: Accord based on data from EUROSTAT COMEXT)

![Figure III.5.32: Top Five Exporters of Babycorn to the EU 2008](source: Accord based on data from EUROSTAT COMEXT)

![Figure III.5.33: Top Four Importers of Babycorn into the EU 2008](source: Accord based on data from EUROSTAT COMEXT)
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E.6: ALTERNATIVE PRODUCE

£3.45/kg; they estimate that this current price is typical average for the year. There is some Indian babycorn on the market at about £3.00/kg.

Competitive opportunity for Ghanaian production—Air freight rates from eastern and southern Africa are fairly similar to each other ($1.60 to 1.80/kg), while those from Thailand are marginally higher ($2.00/kg). If Ghanaian exporters are able to negotiate rates of about $1.00/kg, it gives them a major competitive edge. The consistent temperatures throughout the year would mean that Ghana could grow the Pacific varieties which would give it the competitive edge over East and Southern Africa.

E.6.4 BUTTERNUT

Background—Butternut squash is a relatively new product to the EU market; it is a type of winter squash which has a sweet, nutty taste similar to pumpkin. It has yellow skin and orange fleshy pulp and when ripe, it turns increasingly deep orange, and becomes sweeter and richer. It grows on a vine. The demand is almost exclusively from the UK; the market on mainland Europe has yet to be developed. The import statistics for butternut are not separated out and therefore the market data were obtained from interviews with importers. The main message was that this is a product which might have a small market at the moment, but there is considerable potential for growth and a serious interest in replacing the current supplier. The climate in Ghana is suitable for squashes and they can be transported by sea in refrigerated containers.

Agronomic considerations—Like all squashes, it will succeed in a wide range of soils, provided there is irrigation. It requires fairly high temperatures, above 25 to 27°C during the growing season. A good fertilizer program helps with improving yields. The plants should be about 90 to 120 cm apart and allow them to spread on the ground. Irrigation is important but care is needed not to over-water and cause the fruit to rot. It can be possible to get 10 to 12 fruit per plant. Given the uniform temperatures in Ghana, it should be possible to establish “all-year-round” production. In order to get the best quality, it will be important to watch for pest and diseases and apply remedial treatments before the skin is damaged. The best varieties to grow would be Ponca, Puritan, Waltham, Harris Butternut, or Zenith.

The shelf life of this fruit can be up to 4 or 5 months, if it is stored in a cool dry room. The fruit are susceptible to mildew, so good ventilation is required.

Market—Because of the lack of data it is exceedingly difficult to know the market size. One importer interviewed stated that they imported 100 to 150 tonnes/week. Another imported 20 to 40 tonnes/week to supply a company manufacturing ready meals. The main UK supermarkets estimate that they could sell about 450 tonnes/week of butternut squash. Therefore, it could be concluded that the current UK demand is in the order of 2,000 to 3,000 tonnes/annum.

The main sources of supply are Argentina (February to June), with smaller amounts coming from Greece, Egypt, RSA, Italy (out of store), Brazil, and Senegal. A marketing strategy could be to start producing to market on the shoulders either side of Argentina and then expanding.

Competitive opportunity for Ghanaian production—There is an excellent opportunity for Ghana to become a leading supplier of all-year-round butternut to the EU. It has the advantage over Argentina in that it can supply throughout the year and has a potentially shorter shipping time. Once the agronomy of this crop has been perfected and a steady market identified, it could be a crop that might be exploited by small farmers.

E.6.5 SWEET POTATO

Background—The original range of the sweet potato lies in Central America and the northern parts of South America, but it is now cultivated throughout the tropics and sub-tropics. Botanically, the genus *Ipomoea* belongs to a different family to the traditional ‘Irish’ potato, *Solanum*, and in the US the sweet potato is referred to as yam although *Ipomoea* is not related to the common yam, *Dioscorea*, either. The sweet potato has become an important staple not only for human consumption but also for animal feed. China is now the largest...
producer in the World. Until recently sweet potatoes have only featured in ethnic cuisine in Europe and imports have not been large, but in the last 10 years the orange fleshed varieties have gained popularity for their color, flavor, texture and above all, nutritional content.

The sweet potato is particularly suitable crop for vulnerable farming areas in the tropics with a very high nutritional yield per hectare in a relatively short time; the foliage is dense and therefore shades out weeds allowing the farmer more time for other crops and the foliage itself can be consumed. The tubers have a high vitamin component which is being used to combat particularly Vitamin A deficiencies. The Gates Foundation has recently approved a $21 million project to produce high-yielding, stress-tolerant varieties of sweet potato for Sub-Saharan Africa.

**Agronomic considerations** – Sweet potatoes are grown in well-drained light textured soils, and are harvested 100–130 days after transplanting depending on variety and tuber size. The harvest can be mechanized. The skin of the freshly harvested tuber is quite delicate and requires careful handling and protection from the sun. Potatoes for storage are then cured to toughen the skin, being held in a high humidity for up to seven days at temperatures up to 32°C. A storage life of six to ten months is possible in cool, well-ventilated conditions.

There are hundreds of varieties of sweet potatoes. In the U.S., Covington, Beauregard, and Evangeline are among the most popular. Any approach to the EU markets would need to investigate preferred varieties in advance.

**Market** – The EU demand for sweet potato has grown strongly recently with imports quadrupling in seven years. Sweet potatoes have made the crossover from ethnic to mainstream cuisine, and, in the UK, they are widely found in the supermarkets. Sweet potatoes have a long storage life and can be transported by refrigerated sea container at 13°C. Ventilation is needed to prevent O₂ levels falling which might cause internal root fermentation and decay.
Competitive opportunity for Ghanaian production—There is a good opportunity for Ghana to develop a strong sweet potato business and this is a crop that might do well in the northern regions where opportunities for commercial agriculture are limited. Here the crop will require irrigation, but the plants will benefit from the higher sunshine levels. However, the competition with Israel and the U.S. will be intense, and shipping costs need to be brought down by volume if there is to be the chance of success.

E.6.6 AVOCADO

Background—The avocado is well-known in the forest belt of West Africa but has its origins in Central America, from where it has spread out across the tropics and warm temperate zones. The main producing countries are Mexico, Chile, Indonesia and the USA. Three distinct ecological races are recognized: the Mexican type is quite cold tolerant and the fruit is soft-skinned, small with a large seed; the Guatemalan race is large-fruited, with a thick skin of rough texture and although originating in the highlands it is not tolerant of the cold; the West Indian race, not native to the West Indies but to the lowlands of Central America, is a race of hot, humid conditions with a large fruit on which the skin is smooth and leathery.

The two most popular cultivars of international trade are the Hass, a Guatemalan type, and the Fuerte, which is a Mexican X Guatemalan hybrid.

Agronomic considerations—Avocados can be cultivated on a wide range of soil types, but the trees are susceptible to water-logging and good drainage is essential; a high-water table is undesirable. The planting density varies with type but a density up to 200 trees per hectare is typical. Productive life is around 25–30 years, with the first harvest appearing around years four or five. The expected yield of Hass at maximum bearing after year 12 could be up to 20 tonnes/ha but is likely to be much less.

FIGURE III.5.39: Imports of Avocado into the EU

Hass is the most widely planted commercial cultivar now, taking over from Fuerte. Other popular varieties include Pinkerton, Ryan, and Ettinger. In Florida, the selected cultivars tend to be West Indian type or West Indian X Guatemalan crosses with different cultivars planted to extend the season.

FIGURE III.5.40: Top Five Exporters of Avocado to the EU 2008

Source: Accord based on data from EUROSTAT COMEXT.

FIGURE III.5.41: Top Four Importers of Avocado into the EU 2008

Source: Accord based on data from EUROSTAT COMEXT.

FIGURE III.5.42: Unit Import Value of Avocado

Source: Accord based on data from EUROSTAT COMEXT.
Thus Pollock, Simmonds, and Nadir are early types while Collinson and Hall are later and Lula and Monroe latest. Market preference in the EU however leans strongly towards the Hass and Fuerte.

**Market**—Avocado has long been enjoyed in Europe as a component of salads and the crop is cultivated around the Mediterranean. Spain is ranked ninth in world production with some 120,000 tonnes. EU production however is insufficient and avocados are imported to the EU all year round. Peak imports arrive in the summer months from May to September. Imports from Ghana, as well as those from South Africa, would enjoy a duty preference of 1.6% as compared to 5.1% levied on imports from Israel, Peru, and Chile.

Imports have grown quite strongly over the past five years and now stand at 175,000 tonnes per year.

**Competitive opportunity for Ghanaian production**—The advantage for Ghanaian production here lies in proximity to Europe and the shorter shipping distance than other origins. However, the ability to compete will depend on the exact timing of the crop: the Ghanaian output is unlikely to be competing against the southern hemisphere producers of Peru, Chile, and South Africa. Nevertheless, on a similar latitude, Kenya ships some 11,000–12,000 tonnes per year to the EU.

**E.6.7 LYCHEES / LITCHI**

**Background**—Lychees are evergreen sub-tropical trees valued for the small red fruits that are eaten fresh or processed to a variety of juices, purees, canned goods, and condiments. The species is indigenous to south China and has a long history of cultivation that has given rise to many cultivars suited to a range of climatic and seasonal conditions. In the past 150 years commercial cultivation has spread widely: China remains by far the largest producer, but significant production is also found in India, Thailand, Madagascar and the neighboring islands, South Africa, and Florida in the U.S.

**Agronomic considerations**—Cultivar selection is important not only to match performance requirements to local conditions, but also for fruit quality and harvesting period. Many of the cultivars are specifically adapted to sub-tropical climates and may not be suitable for Ghana. The cultivar Da zao (synonym TaiSo) is grown widely in Madagascar, Reunion, Mauritius, and South Africa. It is an early variety that crops regularly in the tropics and has large bright red fruits.

Lychees require a moist environment with up to 2,000 mm per year of rainfall. The tree cannot tolerate water shortage but a short dry season helps to induce flowering.

Lychees will not ripen off the tree and must be harvested at full maturity, which is usually between 100 and 110 days after pollination. At ambient temperatures, lychee quality deteriorates rapidly: within a day or two the skin turns brown, and the flesh become watery. Skin browning can be prevented with SO₂ treatment, though there are import issues over residue, and cooling to 2°C; and PVC packing, preferably in modified atmosphere, allows storage up to one month.

Yields of around 5 tonnes per hectare can be expected, though significantly higher yields are not unusual in optimal conditions.

**Market**—Lychees are available all year in Europe but the peak opportunity is for supplies in the lead up to Christmas. The red fruit color has seasonal associations and it is therefore important to select varieties with good coloring. The use of sulphur dioxide maintains the coloring. The marketing is heavily controlled by a few French importers working in association with the Madagascan exporters. The supply into EU would enjoy a duty preference of 1.6% as compared to 5.1% levied on imports from Israel, Peru, and Chile.

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the market is therefore well managed but not all importer/distributors approve of this arrangement.

**Competitive opportunity for Ghanaian production**—The market in Europe is not showing strong growth but the fruit remains seasonally popular. Ghana offers a short shipping time for sea-freighted litchi and low air-freight cost for unsulphured products. If fruit are available the cheap air-freight in weeks 48–52 will confer a major advantage.

Finding areas of sufficient rainfall will not be a problem in western Ghana, but the requirement for a short dry season and the need of many cultivars for a cooler resting period could be a challenge. The production in Madagascar is not based on high elevation production and the cultivars grown there might usefully be tested in Ghana.

### E.7 FRUIT JUICE MARKETING OPPORTUNITIES

#### E.7.1 INTRODUCTION

In the 1990s and early 2000s, Ghanaian horticultural exporters made good progress in exploiting export market opportunities, and naturally looked to add value to some of the non-export quality fruit through processing. Athena Foods initially started processing for the local and regional markets and a number of other companies have since followed (see Background Paper B2). This Background Paper considers the market opportunities and constraints for further expansion of the fruit juice industry in Ghana.

The juice market can be divided into a number of different products: 100% fruit juice (from concentrate), 100% fruit juice (not from concentrate), nectar (30–99% juice), fruit drinks (0–29% juice), and vegetable juice.

#### E.7.2 CURRENT PRODUCTION IN GHANA

There are a number of small fruit-processing factories in Ghana (see Background Paper B2). It is estimated that the processing capacity is possibly in the order of 20,000 to 30,000t of finished product (i.e., about 20 to 30 million liters). However, it is very likely that the actual production is much less than the potential capacity. The TIPCEE is attempting to quantify the potential and estimate the actual processing. The factories claim that they do not reach their potential because of a shortage of raw material, but of course, this may be confused with their inability to pay a sufficiently attractive price to encourage farmers to grow for them.

### TABLE III.5.6: Value and Volume of Fruit Juice Exports from Ghana, 2003 to 2008

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>2003</th>
<th>2007</th>
<th>2008</th>
<th>UNIT VALUE $/T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange juice</td>
<td>0.2</td>
<td>1,835</td>
<td>1,100</td>
<td>1,100</td>
</tr>
<tr>
<td>Pineapple juice</td>
<td>574</td>
<td>1,040</td>
<td>1,080</td>
<td></td>
</tr>
</tbody>
</table>

Source: Accord Associates based on GEPC data.

Ghana is a small exporter of fruit juices, just over a 1,000 tonnes each of orange and pineapple juices in 2008 (table III.5.6). This was about half what was achieved in the previous year. The main orange producer, Pinora, was undertaking factory modifications in 2008 which would explain the decline, but they expect output to increase when the improvements are finalized. The decline in pineapple exports is not well understood.
It is interesting to note that the average export price is about $1,000/tonne; which is very similar to the value of fruit juice imports. Even though most of Ghana’s fruit juice exports are organic and/or Fair trade, which carry a price premium, much of the exports are single strength while the imports are dominated by concentrates.

### E.7.3 LOCAL MARKET AND IMPORTS

The local retail market for fruit juices is dominated by imported concentrated product, which is repackaged in Ghana. There are some retail packs from South African and Southern Europe sold in the major shopping centers.

Import data of fruit juice suggest that over 21,000t of fruit juice (both single strength and concentrate) is imported (table III.5.7). Much of this will be concentrate which will be diluted and sold in small retail packs. Coca-Cola, who has recently launched their own brand of fruit juice, estimates that the local retail market is 42 million liter (i.e., about 42,000t) and that one company has about 40% of the market selling under the Calypso and Aquafresh brands. If most of the imported juice is concentrated and diluted two or three times, then the estimate of local market size does agree with the import data. This could imply that there is significant potential for Ghanaian fruit to be processed and sold on the local market and given the increase in imports between 2003 and 2008, it also suggests that the market is showing significant signs of growth. However, it must be appreciated that some of the varieties of juices imported cannot be grown in Ghana.

**TABLE III.5.7: Value and Volume of Fruit Juice Imports into Ghana, 2003 to 2008**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>2003</th>
<th>2007</th>
<th>2008</th>
<th>UNIT VALUE $/T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total all juices</td>
<td>5,500</td>
<td>21,599</td>
<td>21,443</td>
<td>1.10</td>
</tr>
</tbody>
</table>

Source: Accord Associates based on GEPC data.

Considerably more work is required to fully understand the local market potential for Ghanaian-grown fruit to supply the local fruit juice market, but it is hoped that much of the existing capacity can be utilized by substituting imported concentrate. However, to achieve this, it might be necessary to help the factories meet the hygiene and safety standards demanded by the fruit juice manufacturers. It must also be a target for the Ghanaian horticultural strategy for processors to more seriously target exports so as to create market demand for farmers’ production.

### E.7.4 EXPORT MARKET OPPORTUNITIES

In 2008, the retail value of the global fruit juice market was worth almost $67 billion and is expected to reach $80 billion by 2013, an annual growth rate of almost 4%. In volume terms, consumption in 2008 was 44 billion liters which is predicted to rise to 53 billion liters by 2013. Fruit drinks (0 to 29% juice) account for most of the revenues at 28% of the market; however, if both the 100% fruit juice categories are combined, this is the most important category (table III.5.8). The EU is the biggest market that was surveyed, accounting for 45% of the global juice market (table III.5.9); it is therefore assumed that the consumption within Africa is very small compared to the world’s main trading blocks. Most of the retail trade is through supermarkets and hypermarkets (55%). Pepsi-Cola and Coca-Cola are the biggest retailers of fruit juice accounting for 23% of the trade between them; the next biggest company is Procter and Gamble which accounts for less than 4%.

**TABLE III.5.8: Global Retail Value of Fruit Juice Sales by Category, 2008**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>VALUE (USD BILLIONS)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit drink</td>
<td>18.8</td>
<td>28.2</td>
</tr>
<tr>
<td>100% fruit juice (from concentrate)</td>
<td>16.3</td>
<td>24.4</td>
</tr>
<tr>
<td>100% fruit juice (not from concentrate)</td>
<td>15.8</td>
<td>23.7</td>
</tr>
<tr>
<td>Nectar</td>
<td>10.9</td>
<td>16.4</td>
</tr>
<tr>
<td>Vegetable juice</td>
<td>4.9</td>
<td>7.3</td>
</tr>
<tr>
<td>Total</td>
<td>66.7</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Accord Associates LLP based on Datamonitor data.

**TABLE III.5.9: Global Retail Value of Fruit Juice Sales by Region, 2008**

<table>
<thead>
<tr>
<th>GEOGRAPHICAL REGION</th>
<th>VALUE (USD BILLIONS)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>30.2</td>
<td>45.3</td>
</tr>
<tr>
<td>Americas</td>
<td>25.3</td>
<td>37.9</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>11.2</td>
<td>16.8</td>
</tr>
<tr>
<td>Total</td>
<td>66.7</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Accord Associates LLP based on Datamonitor data.

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Ghana is a small player in terms of the international trade of fruit juices, but it is good that most of its exports are targeted at the EU. Data from the European Fruit Juice Association show that the total EU consumption of fruit juices and nectars in 2007 was 11.2 billion liters, a slight decline from 2006. Even though there was an overall slight decline in consumption between 2006 and 2007, it was more marked in Northern Europe and sales were more impressive in Southern and Eastern Europe. This consumption was mainly orange juice (38%) followed by multifruit juice (18%), apple (14%) and peach (4%). Pineapple only accounted for 3% of the market. However, the good news for Ghanaian exports is that, compared with 2001, the consumption of pineapple juice, along with multifruit and peach, increased at the expense of apple juice. New product development has been most notable in niche areas, such as smoothies, dairy-juice blends, chilled juice, and functional juice-based drinks containing added vitamins, minerals, and other ingredients. These sub-categories of the European fruit juice/nectars market remain small, but have certainly evolved rapidly from a small base.

There are some interesting variations in the sales of the different categories in Europe. Fruit juice, with 100% juice content, remains most popular across Western Europe, with an EU market share of 64% in 2007. In the UK, Ireland, and the Scandinavian countries, this share is the highest (80–99%). On the other hand, in most of the Mediterranean and East European member countries, nectars, with 25–99% juice content, are the most popular. In these countries, not all consumers are aware of the difference between juices and nectars. Germany is the biggest consumer of fruit juice (2.9 billion liters), followed by France (1.6 billion liters), the UK (1.5 billion liters), and Spain (1.3 billion liters).

There have been a number of trends identified in the EU market which impact on fruit juice consumption that could impact on the opportunities for Ghana. As noted above, the market for the traditional fruits such as orange and apple is declining, while innovative fruit combinations and colors gain market share. Modern consumers are becoming more open to exotic, tropical varieties which they have discovered through holidays abroad. Also, functional drinks, like juices and nectars with added vitamins, calcium, soy or omega-3, are becoming more popular. More recently, one of the main drivers behind the development of functional juices has been the addition of super fruits such as pomegranate, açai, mangosteen and acerola, which are perceived (and heavily promoted) as containing high levels of anti-oxidants. Furthermore, fruit juices are appreciated for their naturalness and their wide range of vitamins. Finally, consumers are switching to healthier drinks such as juices, which they regard as a more natural and sensible option than soft drinks such as colas, and juices are regarded as a more convenient way of achieving recommended intakes of fruit because there is no hassle associated with peeling and preparation.

The European fruit juice industry consists of a few large (multinational) companies (many based in the UK) and many smaller niche players (often based in Germany or Eastern Europe). According to the Association of the German Fruit Juice Industry, there are 411 fruit juice producers in Germany. Several fruit juice producers are also located in the United Kingdom, including Tropicana—which has almost 50% market share and is a fast-growing grocery brand. It is also interesting to note that fruit juice processing increasingly takes place in East European countries because their facilities offer lower costs of production and because of growing local demand.

It is often said that comparative advantage for processed horticultural produce is created by having access to cheap raw material and processing economies of scale to spread overheads. Competitively priced transport to the market is also an important factor. At present, it is doubtful that Ghanaian factories are able to get cheap raw material; for instance, Pinora reports that the average price for oranges is much higher than in Brazil, the world’s leading supplier of orange juice. Similarly, the main pineapple juice producing countries, Thailand and the Philippines, have very cheap raw material as it is often regarded as a by-product from other, more lucrative, activities.

E.7.5 CONCLUSIONS AND STRATEGY IMPLICATIONS

The Ghanaian fruit juice sector is at an interesting point in its development. There have recently been a number of investments in juice factories, most of which are operating at well below full capacity. Most of these factories are targeting the local market, where they should have a significant comparative advantage conferred by much cheaper transport costs. However, until further research is done, the real scale of the opportunity cannot be evaluated. Also, it has been reported that some of the factories are not able to obtain sufficient fruit; the TIPCEE project is attempting to understand the
scale of this shortfall. However, caution is needed because the shortage might be related to the price that the factory is offering and, in fact, it might be necessary for research to be undertaken into reducing the unit cost of fruit or finding more appropriate varieties.

Some Ghanaian factories have made an interesting, if small, start in developing export market opportunities. These have been developed by both trying to supply organic and/or Fair traded product and by identifying small fruit juice manufacturers in Europe who are able to import directly and package for specific retail outlets. These are neat marketing strategies as the first ensures access to higher-priced market outlets and the second reduces the number of transactions and therefore has lower marketing costs. The disadvantages of these strategies are that the organic and fair trade markets are small and declining, and carry an inherent risk as they rely on a single manufacturer.

A Spanish fruit juice manufacturer is interested in establishing a processing factory and production unit in Ghana in order to secure a supply of pineapple juice; probably in response to supply difficulties that have been experienced in Thailand, where it is reported the pineapple industry has been encountering problems and its cost base is rising. The plan is to acquire up to 20,000 ha for a pineapple plantation and processing plant. This would make Ghana a significant player in the international trade of fruit juice and may well create opportunities for other, smaller investors to take advantage of the logistical connections.

In order to fully exploit the opportunity for fruit juices in Ghana, it is important:

- That the local market is fully researched to understand the demands and estimate the scale of the opportunity for local processors, and to estimate when it is likely to be satisfied.
- To identify export opportunities—both in terms of the markets that Ghana is best-placed to exploit and the products that they could sell. In particular, it is important to evaluate whether targeting the more rapidly expanding markets in South East Europe really does represent a better opportunity for Ghana than the larger markets in Germany, UK, Spain, etc.
- To identify potential European-based fruit juice manufacturers who might be interested in establishing strategic partnerships with Ghanaian processors. In particular, to identify the countries that will present Ghanaian exporters with the best opportunities.
- To give assistance to foreign companies that wish to invest expertise and finance in either processing and production in Ghana. This is vitally important to establish a significant fruit processing sector.

67. Which according to Athena Foods can be as much as 30%.