



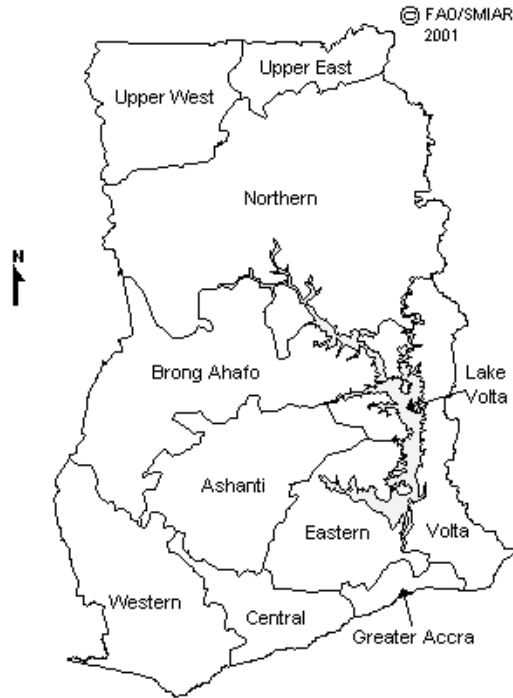
<b>ACRONYMS, ABBREVIATIONS AND CONVERSIONS .....</b>	<b>iv</b>
<b>BACKGROUND.....</b>	<b>1</b>
<b>1. INTRODUCTION .....</b>	<b>2</b>
<b>2. CURRENT SITUATION.....</b>	<b>3</b>
<b>3. KEY MESSAGES FROM SECTION III BACKGROUND PAPERS.....</b>	<b>5</b>
<i>SECTION A OUTGROWERS.....</i>	<i>5</i>
<i>SECTION B BUSINESSES.....</i>	<i>6</i>
<i>SECTION C COMPETITIVENESS AND INNOVATION.....</i>	<i>9</i>
<i>SECTION D POLICY AND INSTITUTIONS.....</i>	<i>10</i>
<i>SECTION E EXTERNAL MARKETS.....</i>	<i>13</i>
<b>4. OPPORTUNITIES .....</b>	<b>19</b>
<b>5. STRATEGY.....</b>	<b>21</b>
<b>6. IMPLEMENTATION .....</b>	<b>30</b>
<b>7. FUNDING.....</b>	<b>34</b>

The following pages represent the findings and conclusions of a small team of contributors: Dr Andrew Sergeant, Dr Andy Graffham, Augustine Adongo, Steve Homer and Dr Peter Jaeger (Team Leader) 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.

The project was funded by the European Union and directed by the World Bank and the Ministry of Food and Agriculture of the Government of Ghana.

Many players in the Ghanaian and the European fruit and vegetable industry gave up their time willingly to the interviews with us. We should like to acknowledge the warm welcome received from all.

**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>

**Map2: Ghana – Relief and Major Towns and Cities**



Source: <http://www.ghanaweb.biz/GHP/img/pics/12307026.gif>

## ACRONYMS, ABBREVIATIONS AND CONVERSIONS

### Organisations:

ACP	Africa, Caribbean, and Pacific (signatory countries of the Lomé Convention)
ADB	Agricultural Development Bank
ADRA	Adventist Development & Relief Agency
AfDB	African Development Bank
AGOA	African Growth and Opportunity Act
AgSSIP	Agricultural Services Sub-Sector Investment Programme
CAADP	Comprehensive Africa Agriculture Development Programme
COLEACP	Comité pour Liaison Europe ACP
EBA	Everything But Arms
EC	European Commission
ECOWAS	Economic Community of West African States
EDIF	Export Development & Investment Fund
EMQAP	Export Marketing and Quality Awareness Project
EPA	Economic Partnership Agreements
EU	European Union
FAGE	Federation of Associations of Ghanaian Exporters
FAO	Food and Agriculture Organisation
FASDEP	Food and Agriculture Sector Development Policy
FBO	Farmer Based Organisation
FOM	Farmer Ownership Model
GAVEX	Ghana Association of Vegetable Exporters
GEPC	Ghana Export Promotion Council
GIPC	Ghana Investment Promotion Centre
GSB	Ghana Standards Board
GSP	Generalized System of Preferences
GTZ	Gesellschaft für Technische Zusammenarbeit – German Government agency for international co-operation

GYEA	Ghana Yam Exporters Association
HAG	Horticultural Association of Ghana
HEII	Horticultural Exports Industry Initiative
IFAD	International Fund for Agricultural Development
JITAP	Joint Integrated Technical Assistance Programme to Selected Least Developed and Other African Countries
KIA	Kotoka International Airport
MCA	Millennium Challenge Account
MCF	Millennium Challenge Fund
MIDA	Millennium Development Authority
MOAP	Market Oriented Agriculture Programme (of GTZ)
MOFA	Ministry of Food and Agriculture
MOTI	Ministry of Trade and Industry
NEPAD	New Partnership for Africa's Development
NRGP	Northern Rural Growth Programme
PIP	Pesticides Initiative Programme
SPEG	Sea-Freight Pineapple Exporters of Ghana
UBA	Union Bananière Africain
USAID	United States Agency for International Development
TIPCEE	Trade and Investment Programme for a Competitive Export Economy
VEPEAG	Vegetable Producers and Exporters Association of Ghana
WTO	World Trade Organisation

***Other Abbreviations:***

CIF	Cost, Insurance & Freight
CY	Container Yard
FOB	Free on Board
Ha	Hectares
Kg	Kilogram
Km	Kilometre
Lb	Pound (unit of mass)

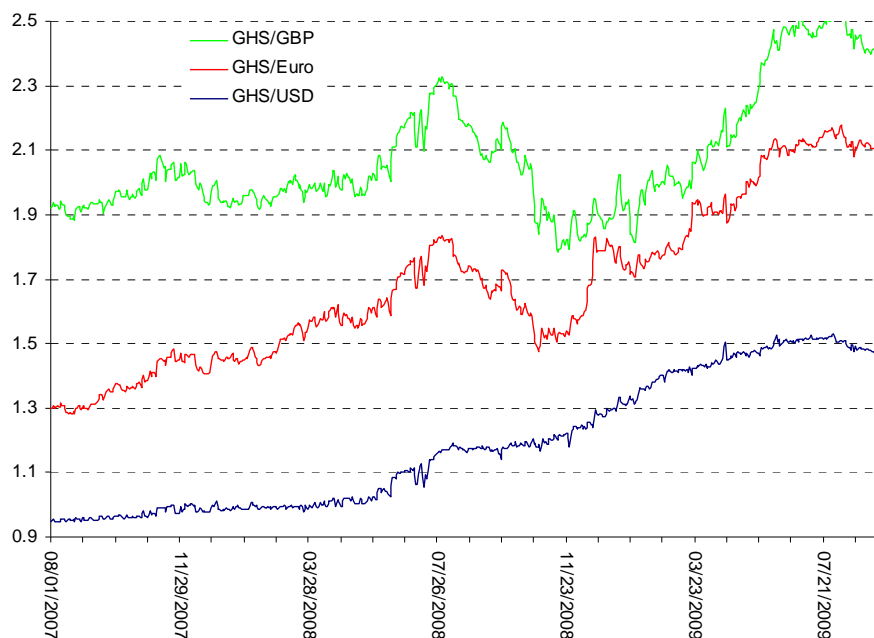
M	Metres
Mn	Million
NGO	Non-Governmental Organisation
NTAE	Non-Traditional Agricultural Exports
SSA	Sub-Saharan Africa
T	Tonnes

### Conversions:

Metric units are used where possible in this report.

1kg	=	2.2046 lb
1lb	=	0.4536 kg
1ha	=	2.471 acres
1acre	=	0.4047ha

### Currency:



The Ghanaian cedi was redenominated in July 2007 with GH¢10,000 re-set to GHS1. 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 GHS1.5/USD and GHS2.1/€ are used.

## BACKGROUND

In the last 20 years Ghana has developed a significant export of fresh produce to Europe. Pineapples, mangoes and papaya lead the fruit exports while yams, chillies and asian vegetables head the vegetables. The European Union imported almost 90,000 tonnes of fresh produce from Ghana in 2007, which earned the horticulture cluster some €80mn C&F.

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. In Ghana, the industry origins lie in the Structural Adjustment Programme and liberalization strategies of the 1980s. Donors and NGOs provided support through the 1990s and the industry has become integrated into agricultural and development policy.

In 1998 the World Bank, in collaboration with the Ministry of Food and Agriculture (MOFA), commissioned a short study of the sector<sup>1</sup> to review the opportunities, identify the constraints and suggest strategies and infra-structural improvements to take fresh produce exports forward. A similar exercise was conducted in 2003<sup>2</sup> 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 the AgSSIP under the title 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 programmes<sup>3</sup> have been able to support these changes and contribute to infrastructural improvements, and the horticultural export industry now looks rather different.

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 programme of support (EMQAP) funded by the African Development Bank; several donors including the World Bank have moved to towards budget support strategies and, most significantly, the US government’s Millennium Challenge Fund has initiated a \$547mn programme 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 was planned<sup>4</sup>: firstly a comprehensive “scoping” study in 2008 appraised the evolution of the horticultural cluster since the HEII was first conceived<sup>5</sup>. Secondly, based on these observations, a strategic study is now presented to take the cluster to the next development phase.

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<sup>1</sup> *The Future for the Ghanaian Horticultural Export Industry* 1998 Dixie and Sergeant, Accord Associates

<sup>2</sup> *Ghana Horticulture Sector Development Study* 2003 Voisard and Jaeger, Accord Associates

<sup>3</sup> Notably, the TIPCEE programme has been at the forefront of supporting change for the industry participants

<sup>4</sup> Planned by the World Bank Sustainable Development Network (WB-SDN) Africa Region, Agriculture and Rural Development (AFTAR) in collaboration with the Republic of Ghana Ministry of Food and Agriculture. The project is funded by European Union All ACP Agricultural Commodities Programme (EU-AAACP)

<sup>5</sup> *Ghana Export Horticulture Cluster Strategic Profile Study Part I - Scoping review* 2008 Jaeger, Accord Associates

# 1. INTRODUCTION

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.

In 2008, we provided an updated overview<sup>6</sup> of the Ghanaian export horticulture sector to examine the performance of the sector since 2003 and to review the constraints. That report was intended to be the first phase in defining a new strategy for horticulture and it set the scene for the present report, which in its turn looks at goals and how they might be achieved.

The 2008 report set out a number of steps to be taken:

- Validation
- What capabilities are required to successfully supply in to 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?
- Sources of Finance?

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<sup>6</sup> Ghana Export Horticulture Cluster Strategic Profile Study - Part I - Scoping review

The culmination of these questions was to be the definition of a strategy for the horticultural export sector and this is presented here over the next chapters. 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 as the basis for the strategy.

## 2. CURRENT SITUATION

The 2008 report covered the developments in a number of individual Ghanaian horticultural crops over the preceding five years. It is perhaps helpful to have updated data to hand.

Table 1 compares the imports to Europe from Ghana in 2008 with the picture seven years earlier. The data show a growth in exports of most products and overall a doubling of the import value.

**Table 1 Imports of Selected Tropical Fruit and Vegetables to Europe 2001 and 2008<sup>7</sup>**

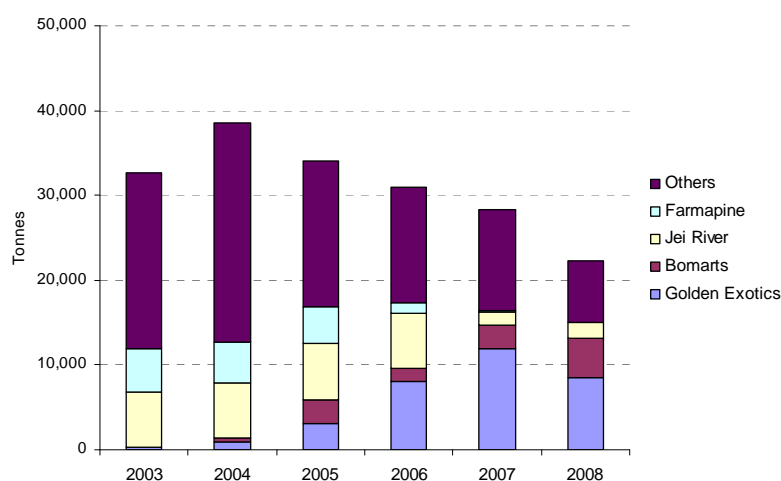
Volume (tonnes)	2001			2008		
	Total EU Imports	Of which from Ghana	Ghana share	Total EU Imports	Of which from Ghana	Ghana share
Pineapples	374,748	33,209	8.9%	922,855	35,601	3.9%
Bananas	3,801,895	3,458	0.1%	4,854,559	45,951	0.9%
Mango	136,830	62	0.0%	228,864	1,098	0.5%
Papaya	18,848	1,937	10.3%	35,940	1,061	3.0%
Ravaya	375	97	25.9%	2,816	375	13.3%
Capsicum(Chilli)	25,486	418	1.6%	38,416	2,737	7.1%
Babycorn	4,965	1	0.0%	6,442	16	0.2%
Yams	16,197	7,756	47.9%	23,273	13,468	57.9%
Cassava	8,525	117	1.4%	23,725	2,561	10.8%
Sweet potatoes	16,031	51	0.3%	57,082	44	0.1%
C&f Value (Euro)	2001		2008			
	Total EU Imports	Of which from Ghana	Total EU Imports	Of which from Ghana		
Pineapples	281,689,207	30,651,756	593,489,228	33,577,747		
Bananas	2,163,548,761	2,897,132	2,909,889,137	29,340,703		
Mango	168,186,973	107,291	267,944,723	2,417,928		
Papaya	34,302,034	2,272,874	53,031,659	1,732,688		
Ravaya	823,854	119,080	6,131,712	692,747		
Capsicum(Chilli)	26,337,146	732,980	51,566,607	4,943,055		
Babycorn	18,771,271	6,955	21,748,818	42,984		
Yams	15,694,609	5,372,009	31,981,551	22,821,413		
Cassava	6,160,566	83,294	17,249,844	1,810,458		
Sweet potatoes	11,952,031	33,962	35,438,008	31,846		
<b>Total</b>	<b>Euro 42,277,333</b>		<b>Euro 97,411,569</b>			

Source: EUROSTAT

<sup>7</sup> Euro values are nominal. The number of EU members rose with the fifth round of accession in 2004 and again in 2007 but for the most part the data are complete back to 2001. Data for Poland and Slovakia are not included in EU 27 totals prior to 2004 so the imports for earlier years are slightly underestimated. For a major product such as bananas this might mean an error of up to 5% but for the minor products (eg mangoes and papaya) the error is tiny. There are many other inaccuracies in reporting trade data that have a more significant impact.

**Pineapples** show a modest increase in volumes 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 (Fig 1)

**Figure 1 Export of Pineapples by SPEG Members**



Source: SPEG data

Not only have volumes dropped away rapidly, but the industry is now heavily dependent on the output of two companies, incidentally, neither of whom 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 18months 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.

As regards **bananas**, the development of Golden Exotics production has been the most significant change to the Ghanaian exports, which had been limited to less than 5,000 tonnes previously.

**Mango** has crossed the 1,000 tonne mark with the increased output from northern plantings and is 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 USA, 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.

### **3. KEY MESSAGES FROM SECTION III BACKGROUND PAPERS**

#### ***SECTION A OUTGROWERS***

##### ***A1: FARMAPINE***

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

**No attempt should be made to rehabilitate FARMAPINE or recreate the experiment<sup>8</sup>**

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.

##### ***A2: Contract farming***

**Potential for contract farming for processing...**

**...especially if there are opportunities to**

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.

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<sup>8</sup> 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.

**implement improved agronomic management.**

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 ITFC<sup>9</sup> with its mango operations shows contract farming for fresh fruit. Contract farming is not seen in the vegetable supply chain.

### ***A3: Local and regional markets for fresh produce***

**Good opportunities...**

**...but we need a better understanding through some focused research into the trade and markets.**

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.

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.

### ***A4: 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.

## ***SECTION B BUSINESSES***

### ***B1: Sources of finance***

**Funds for financing horticultural projects are available...**

**...but existing quality projects with good**

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.

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<sup>9</sup> 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 0.4ha of mangoes. The production is aimed at export.

**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...**

**...there is a need for finance to open up new areas for export horticulture.**

However, if Government wants export horticulture to expand, there is probably 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. 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.

### ***B2: 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 40,000t of pineapples and about 30,000t of citrus each year.

**... reduce raw material production cost**

**...improve processing efficiency**

**...identify new markets**

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.

### ***B3: Potential external investors***

**A number of major fresh produce companies are interested in sourcing from Ghana...**

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.

**...coordinated**

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

**promotional effort focussed on horticulture will encourage investment.**

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.

#### ***B4: 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.

**Small-scale farmers, once the basis of Ghana's horticultural export industry, are struggling in a changed operating environment...**

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?

**...the need for production efficiencies, capital, and market performance has evolved...**

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.

**...an alternative model is urgent if the rural economy is to profit from export horticulture**

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.

## **SECTION C COMPETITIVENESS AND INNOVATION**

### ***C1: Ghana's comparative position***

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

**There are comparative advantages...**

**... but the industry has not converted these into competitive advantage.**

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.

### ***C2: 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.

### ***C3: 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.

#### ***C4, C5 and C6: 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.

**Three success stories in the international fresh produce trade...**

**...different drivers have provided each with momentum...**

**...but all three have Government support for investment through favourable operating environment and enabling infrastructure**

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.

## ***SECTION D POLICY AND INSTITUTIONS***

### ***D1: HAG and SPEG: Who has survived?***

**Among the**

Modern businesses need the agility or ability to respond rapidly

**membership...**

**...only the largest and most well-resourced businesses have survived a decade of change...**

**...and with a depleted membership the viability of the trade associations is doubtful**

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.

## ***D2: Plans policy and institutional support***

**There have been radical changes in the structure of retailing and its supply 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**

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.

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

horticulture exports...

Customs, VAT, tax and so on.

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

- 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.

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

- 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.

### ***D3: Land acquisition***

**In Ghana, land issues are perceived to impede 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

**...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 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.

## ***SECTION E EXTERNAL MARKETS***

### ***E1: 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 tones (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 product form the USA and Israel. The USA now leads the exporters. Despite efforts at introduction in Ghana and expansion of the production, exports remain insignificant.

### *E2: 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**

The process of becoming a supermarket supplier requires proof that a significant long-term contribution can be made to an interdependent web of roles and responsibilities.

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

**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**

potential supplier will be re-directed to these suppliers to manage the eventual supply.

Sustainability continues to be the main CSR<sup>10</sup> 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 and the niche is becoming the norm. Producers and exporters must acquire the capability to sustain the best practices and not simply invest in the label.

### ***E3: 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...**

**...while the organic sector became a casualty of the consumer response...**

**...which in turn provoked discounting and erosion of the ethical premium.**

**Concerns of climate change and food security**

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. 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

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<sup>10</sup> CSR – Corporate Social Responsibility is a business model that requires the deliberate inclusion of public interest into corporate decision-making.

**are forecast to impact the fresh produce import sector...**

**...so, understand the carbon footprint and exploit any comparative advantages...**

**...and promote Ghana as an economy capable of exporting food while supporting its own population**

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.

#### ***E4: 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.

**The EU markets present the major export opportunity.**

**Other markets such as SE Europe, the Middle East and Maghreb, provide supplementary possibilities for profit...**

**...but are not foundations from which to grow an industry**

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.

#### ***E5: Bananas***

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

**...even if it is not able to**

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

**compete with the top-rank producers...**

**...it remains competitive with other origins**

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<sup>11</sup>.

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.

### ***E6: 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.

### ***E7: Fruit juice marketing opportunities***

**To more fully exploit the opportunities and utilise installed capacity we**

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

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<sup>11</sup> 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.

**need to....**

opportunity for fruit juices in Ghana, it is important:

**...research the local market...**

- 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.

**...research the export markets...**

- To identify export opportunities; both in terms of markets and products that they could sell.

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

- To identify potential European-based fruit juice manufacturers who might be interested in establishing strategic partnerships with Ghanaian processors.

**...and encourage inward investment**

- To give assistance to foreign companies that wish to invest expertise and finance in either processing and production in Ghana.

## 4. OPPORTUNITIES

In Table 2 below we update 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 outturn 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 realised by the application of finance, management and technical know-how.

**Table 2 Projected Exports from Ghanaian Horticulture in 2017**

Volume (tonnes)	2008			Projected annual growth in EU Imports	2017 tonnes		
	Total EU Imports	Of which from Ghana	Ghana share		Total EU Imports	Of which from Ghana	Ghana share
Pineapples	922,855	35,601	3.9%	4%	1,300,000	92,000	7%
Bananas	4,854,559	45,951	0.9%	3%	6,300,000	255,000	4%
Mango	228,864	1,098	0.5%	4%	325,000	6,500	2%
Papaya	35,940	1,061	3.0%	1%	39,000	2,000	5%
Ravaya	2,816	375	13.3%	5%	4,300	1,000	25%
Capsicum(Chilli)	38,416	2,737	7.1%	4%	54,600	4,500	8%
Babycorn	6,442	16	0.2%	3%	8,400	2,100	25%
Yams	23,273	13,468	57.9%	4%	33,000	21,500	65%
Cassava	23,725	2,561	10.8%	2%	28,000	3,500	13%
Sweet potatoes	57,082	44	0.1%	8%	114,000	6,000	5%

C&f Value (Euro)	2008		2017 at 2008 values (Euro)		
	Total EU Imports	Of which from Ghana	Total EU Imports	Of which from Ghana	Euro / tonne
Pineapples	593,489,228	33,577,747	838,500,000	59,340,000	645
Bananas	2,909,889,137	29,340,703	3,780,000,000	153,000,000	600
Mango	267,944,723	2,417,928	380,250,000	7,605,000	1,170
Papaya	53,031,659	1,732,688	60,450,000	3,100,000	1,550
Ravaya	6,131,712	692,747	10,320,000	2,400,000	2,400
Capsicum(Chilli)	51,566,607	4,943,055	73,290,000	11,700,000	2,600
Babycorn	21,748,818	42,984	28,350,000	8,097,000	3,856
Yams	31,981,551	22,821,413	55,902,000	36,421,000	1,694
Cassava	17,249,844	1,810,458	19,600,000	2,450,000	700
Sweet potatoes	35,438,008	31,846	85,500,000	4,500,000	750
<b>Total</b>	<b>Euro</b>	<b>97,411,569</b>	<b>Euro 288,613,000</b>		

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 the risk associated with predictions based on new crops.
- The figures do not take into account other markets, though we believe (paper E4) that these opportunities are rather smaller.

The rewards for achieving these levels of output are impressive:

1. Foreign exchange sales of Euro 288mn (c&f) annually
2. We estimate that there would be around 23,000 people employed directly in the production of these crops.
3. At current minimum wages the jobs would contribute \$14mn 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 17,000<sup>12</sup> 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.

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<sup>12</sup> Based on conservative assumptions for yields of the crops listed in Table 2.

## 5. STRATEGY

The export horticulture sector in Ghana is in a serious predicament: if it continues as it is, then it may grow gradually but it will lose market share in the face of evermore 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 Euro 288mn (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, the products are all there already. With the application of finance, expertise, management and collaboration the necessary scale can be achieved to revitalise 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 business under their own management.
- 2) Ensure that Ghanaian investors and producers are able to benefit from the incoming technical and managerial skills, the infra-structure and the marketing links established by the investing companies.

### *Rationale*

The background papers that make up Part III of this strategy report collate our findings from a wide range of researches 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 commodity sold on price alone. This was discussed in the 2008 report that formed Part I of this strategy.

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

Yet there is ample opportunity available with important economic benefits. There are comparative advantages (of water, climate, logistics) that give access to that opportunity (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 (Paper A1 - Farmapine), financing has been offered and accepted, 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 volumes 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 (Papers B4, D2). This was not always so (the Ghanaian pineapple industry was founded on the labours of small-scale farmers) but the European retailing of fresh produce has undergone a dramatic change in the last 25 years, and the small suppliers is being squeezed out as the traditional production and export structures no longer fit the supply chain (Papers E2 and E3).

Table 3 elaborates some of the competitive issues here.

**Table 3 Competitive strengths and weaknesses of different farm types**

	Smallholder Farmers		Small Investor-Farmers	Large-scale Farming
	Non-commercial	Commercial		
<b>Land</b>	✓	✓✓	✓✓	✓✓
<b>Finance/Credit</b>		✓	✓✓	✓✓✓
<b>Inputs: access/purchase</b>	✓	✓	✓✓	✓✓✓
<b>Skilled labour: access</b>		✓	✓✓	✓✓✓
<b>Unskilled labour: motivation/supervision</b>	✓✓✓	✓✓✓	✓✓	✓
<b>Contacts/network</b>	✓	✓✓	✓✓	✓✓✓
<b>Market knowledge</b>	✓	✓✓	✓✓✓	✓✓✓
<b>Technical knowledge</b>	✓	✓✓	✓✓✓	✓✓✓
<b>Product traceability and quality assurance</b>			✓	✓✓✓
<b>Risk management</b>	✓	✓	✓✓	✓✓✓

Source: Leavy and Poulton(2007)<sup>13</sup>

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

<sup>13</sup> Leavy, J. and Poulton C. (2007) *Agricultural Commercialisations – A Level Playing Field for Smallholders?* Future Agricultures Briefing [www.future-agricultures.org](http://www.future-agricultures.org)

Growing fresh produce for exports, 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

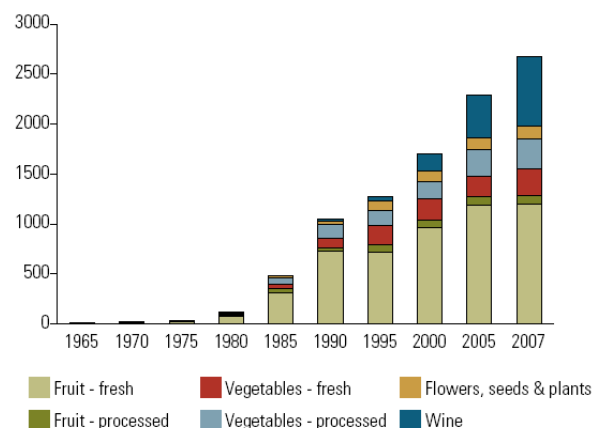
To overcome the competitive failings, the small-scale farmer must be able to operate in collaboration with the large scale enterprises that can participate in the overseas markets. Without these the small-scale farmer is confined to the national and regional markets. These markets, it should be stressed, are substantial (Paper A3) and provide plenty of opportunity for sales. In addition, there are opportunities to add value in the processing sector (Papers A4, B2 and E7) for local and regional markets. Distant market opportunities for processed products are more difficult since the comparative advantages are lost, but if a competitive product can be offered then the opportunities are there.

We need to see 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 (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. In 1980 the Industry exports grew from USD110mn (fob) in 1980 to just short of USD2bn in 2007 (Fig 2).

**Figure 2: Horticultural Exports from New Zealand (NZDmn, fob)**



Source: Fresh Fact, New Zealand Horticulture 2007 HortResearch

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 NZD1mn. 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, USA, UK, 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 labour costs.
- Total on-farm investment at NZD14bn and off-farm at NZD24bn.

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, and if we are to hit the targets of Table 2 and see a substantial contribution of export horticulture to the economy and to the *Millennium Development Goal*, then we need to encourage investment. We need to see more companies following the example of Compagnie Fruitière establishing larger scale operations, bringing in finance as well as 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 present here (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 (Paper B3). Following one interview, a Kenyan vegetable producer and exporter, Vegpro<sup>14</sup>, 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.

Our researches into the sources of finance (Paper B1) indicate that local funds are available for horticulture, but lack suitable sponsors. The financial sector is reluctant to invest in the small-scale farmers to any extent. There are a number of reasons for this:

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<sup>14</sup> Currently farming on 7 farms in Kenya but also buying from 3,500 small-scale suppliers in order to ship to the UK and Europe

- The management of the investment has fixed costs up-front in appraising the opportunity and during the lifetime of the investment in management. There is therefore a minimum size of investment able to bare the 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 fluctuation, transport and so on;
- With tree crops there is a long lead time of negative cash flow before the investment start to generate revenues. Inevitably this increases the risk and the small-scale farmer is not well placed to offset the delay in returns with for example annual 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 programmes

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 focussed 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 which will be developed in the Chapter 6), not only the expertise to attract investors but also co-ordinate the investment efforts with the general development of horticulture in Ghana.

We find equivalent authorities in many other producing countries<sup>15</sup> 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, advice and so on are handled out of one office. The GIPC would of course remain the focal point for Government services to investors, but where its

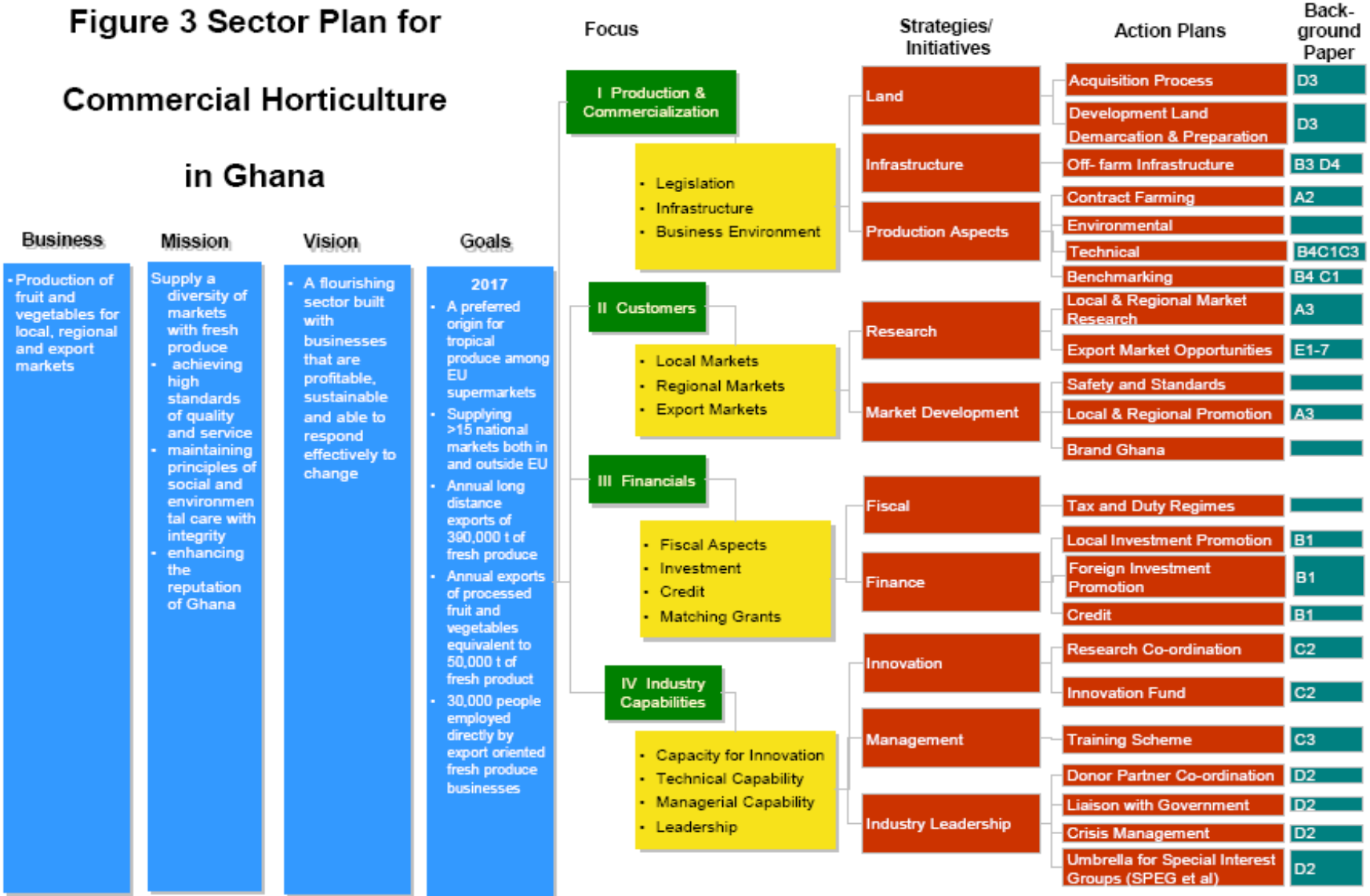
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<sup>15</sup> For example Kenya ([www.hcda.or.ke](http://www.hcda.or.ke)); Ethiopia ([www.ehpea.org](http://www.ehpea.org)); Pakistan ([www.phdeb.org.pk](http://www.phdeb.org.pk)); New Zealand ([www.hea.co.nz](http://www.hea.co.nz))

current mandate covers the range of economic sectors in Ghana we are proposing that specialist 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 Fig 3 overleaf). 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.

# Figure 3 Sector Plan for Commercial Horticulture in Ghana



## *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 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 secondly whether the access and the power is close to hand. Without these factors any further exploration is hypothetical.

We know that the business enabling environment and indeed the incentives are already conducive to investment: Ghana is already attracting investment in a number of sectors through the efforts of the Ghana Investment Promotion Centre (GIPC) and an ever improving investment environment. In the World Bank's *Doing Business* rankings<sup>16</sup> Ghana lies in seventh place in sub-Saharan Africa (46 countries), between Zambia and Kenya.

But there remains a question mark over the ease with which an investor may secure, maintain and assign the rights to farm a suitable holding of land. At present, this is handled case by case. Once an investor has identified a suitable area, negotiations begin, title searches are set in motion and the process takes an unpredictable (unbearable?) length of time. If we are 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 recognised and the *Land Administration Project* is taking steps to solve the problem. But the titling and registration of the 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 neighbouring countries for their interest. The availability of land is a key attractant.

We propose in our Paper D3, therefore, to build on the work of the *Land Administration Project*, who have begun a land bank database<sup>17</sup>, by seeking the establishment of a fund 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 either side of the Volta River below the Kpong Dam but 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 (Paper E6), more distant regions might usefully be developed.

We propose that a **Horticultural Development Fund** is 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.

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<sup>16</sup> <http://www.doingbusiness.org/economyrankings/?regionid=7>

<sup>17</sup> [http://www.gipc.org.gh/land\\_bank.aspx](http://www.gipc.org.gh/land_bank.aspx)

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 2 here are small by comparison to oilseed or biofuel investments and have a substantially high labour requirement. 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 whereby it is the agency that holds the head-lease and sub-lets the land to the investor.<sup>18</sup> This topic needs further discussion in the implementation of the strategy. The issues are further discussed in Paper D3.

### ***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 infra-structure is, of course, the responsibility of the investor, but elements might be considered in advance and sold as part of the lease.

### ***Management***

Paper C3 considered 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 good quality Ghanaian managers. We propose 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.

A **Management Training Fund** will be needed for this purpose.

### ***Innovation***

In 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.

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<sup>18</sup> 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.

## 6. IMPLEMENTATION

### THE GHANA COMMERCIAL HORTICULTURE DEVELOPMENT AUTHORITY

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 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 5 based on the opportunities identified in Chapter 4 and using the background papers, summarised in Chapter 3, 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 organisations under one heading. The GCHDA will co-ordinate their activities so that they can maintain their sector interests while deriving strength from collaboration<sup>19</sup>.

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 organisations such as SPEG or HAG, VEPEAG, GAVEX

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<sup>19</sup> 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.

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 co-ordination and collaboration Ghana horticulture will not achieve the scale to compete internationally.

### ***Aim***

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

### ***Timeline***

There are two distinct phases in the GCHDA. In Phase I, GCHDA will lead the turn around 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.

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.

### ***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 prioritise the activities elaborated in Table 4 overleaf. A number of these will be carried out as needed by external contractors or organisations, most likely in response to requests and payment from member organisations. For example, the market or technical research can be commissioned and paid as needed.

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 contribute to the human and social capital.

**Table 4 Potential Roles for the GCHDA**

<b>1. Strategy</b>	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Implementation</li> <li>• Revision</li> </ul>
<b>2. Co-ordination</b>	<ul style="list-style-type: none"> <li>• Allows sector identities to be maintained, while co-ordinating activities</li> <li>• Co-ordinates donor partner support to the sector</li> <li>• Manages funding to the sector</li> <li>• Provides a unified sector response to issues of the day</li> <li>• Provides networking and linkage opportunities</li> </ul>
<b>3. Technical</b>	<ul style="list-style-type: none"> <li>• Innovation in production and processing</li> <li>• Manages/ co-ordinates research</li> <li>• Knowledge management</li> <li>• Technology transfer for production and processing</li> </ul>
<b>4. Economic</b>	<ul style="list-style-type: none"> <li>• Investment Promotion <ul style="list-style-type: none"> <li>○ specialised support to the GIPC</li> <li>○ outreach</li> </ul> </li> <li>• Market development <ul style="list-style-type: none"> <li>○ Market intelligence – not only external but also domestic and regional, fresh and processed</li> <li>○ Industry promotion</li> <li>○ Quality/safety</li> <li>○ Standards</li> <li>○ Reputation</li> </ul> </li> </ul>
<b>5. Social</b>	<ul style="list-style-type: none"> <li>• National development issues</li> <li>• Regional issues</li> <li>• Nutritional issues</li> <li>• Labour issues</li> </ul>
<b>6. Environmental</b>	<ul style="list-style-type: none"> <li>• Pesticides</li> <li>• Water extraction</li> <li>• Water pollution</li> <li>• Carbon footprints / air-freight</li> <li>• Biodiversity</li> </ul>
<b>7. Legal</b>	<ul style="list-style-type: none"> <li>• Linkage to international organisations – eg WTO, EC <ul style="list-style-type: none"> <li>○ Trade barriers</li> </ul> </li> <li>• Contract farming</li> <li>• Mediation service for land, contract farming, trade disputes</li> </ul>
<b>8. Political</b>	<ul style="list-style-type: none"> <li>• Advocacy/lobby</li> <li>• Linking public and private</li> <li>• Business enabling environment</li> </ul>

### Management & Staffing

For the first five years the GCHDA will require external funding (See Section 7 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 mobilise 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 calibre to deal at main 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 programme 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 particular areas 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.

### ***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.

## 7. FUNDING

### 7.1 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 this Phase I is planned to last for five years. If, by that time, commercial industry is not sufficiently strong to support its own trade organisation 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 cess or 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.

Table 5 below shows an indicative budget for the first phase of the GCHDA. This is only draft indication of the potential resource needs of the organisation. Its final definition will be elaborated by the tender process when the roles and expectations of the GCHDA are clearly agreed.

**Table 5 Indicative Budget for Phase I of the GCHDA**

US Dollars Initial Capital Expenditure	Units	Cost	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Establish & Equip an Office			100,000					
Fund Management								
Innovation Fund Set-up			50,000					50,000
Management Training Fund Set-up			50,000					50,000
<b>Sub-Total</b>			<b>100,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100,000</b>
Recurring Costs								
Secretariat								
Staffing			1,300,000	1,430,000	1,573,000	1,730,300	1,903,330	7,936,630
Office			100,000	110,000	121,000	133,100	146,410	610,510
Travel			50,000	55,000	60,500	66,550	73,205	305,255
<b>Sub-Total</b>			<b>1,450,000</b>	<b>1,595,000</b>	<b>1,754,500</b>	<b>1,929,950</b>	<b>2,122,945</b>	<b>8,852,395</b>
Infrastructure Fund								
Business plans	4	50,000	200,000	220,000	242,000	266,200	292,820	322,102
<b>Sub-Total</b>			<b>200,000</b>	<b>220,000</b>	<b>242,000</b>	<b>266,200</b>	<b>292,820</b>	<b>322,102</b>
Investment Promotion Officer								
Flight	20	1,500	30,000	33,000	36,300	0	0	99,300
Per diems	100	250	25,000	27,500	30,250	0	0	82,750
Conference	4	1,500	6,000	6,600	7,260	0	0	19,860
Promotion	1	50,000	50,000	55,000	60,500	0	0	165,500
Local promotion	1	40,000	40,000	44,000	48,400	0	0	132,400
Local travel	1	10,000	10,000	11,000	12,100	0	0	33,100
<b>Sub-Total</b>			<b>100,000</b>	<b>110,000</b>	<b>121,000</b>	<b>0</b>	<b>0</b>	<b>331,000</b>
Investment Development Officer								
Project Inception	4	25,000	100,000	110,000	121,000	133,100	146,410	610,510
	10	10,000	100,000	110,000	121,000	133,100	146,410	610,510
<b>Sub-Total</b>			<b>200,000</b>	<b>220,000</b>	<b>242,000</b>	<b>266,200</b>	<b>292,820</b>	<b>1,221,020</b>
Technical Development								
Market Research / Standards / Processing		150,000	56,000	61,600	67,760	74,536	81,990	341,886
<b>Sub-Total</b>			<b>56,000</b>	<b>61,600</b>	<b>67,760</b>	<b>74,536</b>	<b>81,990</b>	<b>341,886</b>
Others			186,319	186,319	186,319	186,319	186,319	931,597
<b>TOTAL</b>			<b>2,192,319</b>	<b>2,392,919</b>	<b>2,613,579</b>	<b>2,723,205</b>	<b>2,976,894</b>	<b>12,000,000</b>

## **7.2 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 cess or levy on the exports, and that, with a lean secretariat, the financial burden will not be onerous.

## **7.3 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 example from EDIF or perhaps MIDA or 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.



## Ghana Export Horticulture Cluster Strategic Profile Study

### Part III Background Papers



Prepared for

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## **SECTION A - OUTGROWERS**

<b>A1:</b>	<b>FARMAPINE .....</b>	<b>1</b>
<b>A2:</b>	<b>CONTRACT FARMING .....</b>	<b>7</b>
<b>A3:</b>	<b>LOCAL AND REGIONAL MARKETS FOR FRESH PRODUCE .....</b>	<b>13</b>
<b>A4:</b>	<b>EXPORT SUPPLY CHAINS.....</b>	<b>20</b>

## **SECTION B - BUSINESSES**

<b>B1:</b>	<b>SOURCES OF FINANCE.....</b>	<b>1</b>
<b>B2:</b>	<b>FRUIT PROCESSING .....</b>	<b>5</b>
<b>B3:</b>	<b>POTENTIAL EXTERNAL INVESTORS .....</b>	<b>9</b>
<b>B4:</b>	<b>PROFITABILITY OF CROPS AND FARM SIZE.....</b>	<b>20</b>

## **SECTION C - COMPETITIVENESS AND INNOVATION**

<b>C1:</b>	<b>GHANA'S COMPARATIVE POSITION .....</b>	<b>1</b>
<b>C2:</b>	<b>INNOVATION .....</b>	<b>5</b>
<b>C3:</b>	<b>CREATING COMPETITIVE ADVANTAGE.....</b>	<b>9</b>
<b>C4:</b>	<b>COSTA RICA.....</b>	<b>14</b>
	<b>THE DRIVERS FOR SUCCESS IN THE EXPORT MARKET FOR FRESH PINEAPPLE .....</b>	<b>14</b>
<b>C5:</b>	<b>ETHIOPIA.....</b>	<b>20</b>
	<b>THE DRIVERS FOR SUCCESS IN THE EXPORT MARKET FOR CUT FLOWERS .....</b>	<b>20</b>
<b>C6:</b>	<b>THAILAND .....</b>	<b>31</b>
	<b>THE DRIVERS FOR SUCCESS IN THE EXPORT MARKET FOR FRESH PRODUCE .....</b>	<b>31</b>

## **SECTION D - POLICY AND INSTITUTIONS**

<b>D1:</b>	<b>HAG AND SPEG: WHO HAS SURVIVED? .....</b>	<b>1</b>
<b>D2:</b>	<b>PLANS, POLICY AND INSTITUTIONAL SUPPORT .....</b>	<b>5</b>
<b>D3:</b>	<b>LAND ACQUISITION.....</b>	<b>11</b>
<b>D4:</b>	<b>INFRASTRUCTURE .....</b>	<b>16</b>

**SECTION E - EXTERNAL MARKETS**

<b>E1</b>	<b>EU IMPORTS OF SELECTED TROPICAL PRODUCTS.....</b>	<b>1</b>
<b>E2:</b>	<b>SUPERMARKET AND IMPORTER BUYING PRACTICES.....</b>	<b>11</b>
<b>E3:</b>	<b>THE CREDIT CRUNCH AND ITS IMPACT ON CONSUMER PURCHASING, SUPERMARKET OFFERING, ON IMPORTER SUSTAINABILITY AND ETHICAL TRADE AND TRENDS .....</b>	<b>17</b>
<b>E4:</b>	<b>ALTERNATIVE REGIONAL MARKETS.....</b>	<b>26</b>
<b>E5:</b>	<b>BANANAS .....</b>	<b>36</b>
<b>E6:</b>	<b>ALTERNATIVE PRODUCE .....</b>	<b>40</b>
<b>E7:</b>	<b>FRUIT JUICE MARKETING OPPORTUNITIES.....</b>	<b>53</b>

## **SECTION A - OUTGROWERS**

## A1: FARMAPINE

### *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 7,000MT 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 1).

**Table A1: FARMAPINE export volumes of smooth cayenne for 2000-2009**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Tonnes</b>	3,500	5,865	6,162	4,958	4,766	4,235	1,161	27	0	0

*Source: SPEG and GEPC data*

This paper seeks to record the story of FARMAPINE and to highlight any lessons for future interventions of this type.

### *History*

In 1998, the Agricultural Diversification Project (ADP) of World Bank agreed with TECHNOSERVE, AMEX-International and 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 US\$1.4 million repayable over 7-10 years at 7% to establish FARMAPINE and an additional one year's worth of working capital for 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 (Anonymous, 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 & Sander (2007) FPL originally had 178 farmers with 150 hectares (371

acres) of smooth cayenne ready for export in 2000; all growers were sited in the Akwapim range within 30km of FARMAPINE's base at Nsawam 50km north of Accra.

The five cooperatives and two former exporters were contracted to supply all production to FARMAPINE: in return FARMAPINE would provide all inputs on credit, technical assistance for production and planning, and provide 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. Non-exportable fruit would remain the property of the individual farmers (Brown & Sander 2007). The FARMAPINE system had a core team of 80 staff and a management team of seven comprising the Managing Director, Export Manager, 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 of FARMAPINE, representatives 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 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%) and Belgium, Netherlands and Italy. One box of pineapples was selling for US\$3.50 as compared to US\$15 for a box of MD2 making for a very poor return from smooth cayenne 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 60.55ha (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 1.89ha (4.67 acres). Fifteen of the GLOBALGAP farmers were clustered around 1 village the rest were scattered around 10 other villages (Graffham 2004).

During 2003, funds provided under the original IDA loan proved insufficient and a second loan of US\$250,000 at 16% interest and one billion Cedis (equivalent to US\$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. This was followed by restructuring of FARMAPINE 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 of farmer membership to focus on 300 proven growers, negotiations with carton suppliers for a schedule of deferred payments with carton manufacturers. 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 CRIG for production of MD2 plantlets to assist FARMAPINE to convert from smooth cayenne to MD2 (Danielou & Ravry, 2005).

The last MD of FARMAPINE stated that poor fruit quality and high levels of rejections at port of entry were FARMAPINE's major problems in the latter part of 2004. He took steps to improve production and post-harvest management and said that the level of rejections was reduced to a minimal level by January 2005. The new MD of FARMAPINE discovered that the previous management team were very poor at keeping track of outstanding payments. He managed to recover €120,000 of outstanding payments from buyers in the EU but this went directly to Barclays to service the loan procured in June 2003. As part of the re-structuring a

plan was made to convert the Barclays debt to Cedis and repay the loan over a 2-year period starting in May 2005, but repayments could not be made due to changes in the market (MD2 replacing smooth cayenne) that started to impact on FARMAPINE between May and July 2005.

In 2004-2005 FARMAPINE explored Fairtrade Certification as a way out of the financial problem looking for high premia for fruit and an opportunity for high value sales during the May – September low season. In September 2004, FARMAPINE attained FLO certification. 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 made to TESCO via Compagnie Fruitière. Plans were in place to sell 5,000 MT of FLO certified fruit per year (from May 2005) but this failed as TESCO required MD2 which FARMAPINE could not supply.

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 supporting the attempt by farmers to convert from smooth cayenne to MD2. Average costs of production for MD2 were \$2,000 per acre in contrast to \$891 per acre 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 20 acres over one year. Attempts to source MD2 planting material from the Cocoa Research Institute of Ghana were even less successful. FARMAPINE only managed to obtain ~250-600 plantlets over a 6-month period which was far too little for commercial planting.

May to July 2005 was a crunch time for FARMAPINE as EU buyers were completing a switch over to MD2 by procuring most 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 reduced to an unacceptably low level (Table A1). 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 Nov 2006) reported FARMAPINE as being declared “bankrupt”, with creditors going to court, 400 staff (including 150 casuals) laid off and workers claiming no wages paid for seven months. The courts allowed FARMAPINE time until June 2007 to try and find a solution to their problems. It is interesting to note that although several documents refer to FARMAPINE going bankrupt, at the time of writing the last MD denies this, and claims that FARMAPINE is still technically a going concern although no exports have been made since March 2007.

***Problems associated with the FARMAPINE model:***

According to a World Bank report (Anonymous 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 fertilisers were purchased in US\$ advanced as credit, but repayments for inputs were made in Cedis. Inputs purchased in 1999 when the exchange rate was \$1 = 2,647 Cedis were repaid in October 2000 when the Cedi had devalued to \$1 = 5,800 Cedis. As a result farmers repayments covered less

than 50% of the original value of the inputs. This had serious implications as it made purchase of the next round of imported inputs 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 Sanders (2007) as early as August 2000 prices paid to FARMAPINE farmers were 10-25% lower than for other exporters creating opportunities for side-selling. According to Dansson, *et al.* (2003), by late 2002 payments to farmers were delayed by 4-5 months and loans for input purchase had been stopped.

Addo (2003) raised concern 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 MT 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 other major pineapple exporters often had relatively low levels of infrastructure but management were much more focused and showed more drive to develop the business and cope with changing scenarios such as the market demand for MD2.

Fold and Gough (2008) said a major contributing factor for 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 .

### ***Status***

No exports have been made since March 2007 as 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 pineapple 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 US\$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 allowing for 300 acres to be available for harvesting with the rest being in production or fallow. This would not be possible using the original FARMAPINE model 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.

### ***Lessons***

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 this single factor to the company’s demise. However, the question must be asked as to whether

FARMAPINE would have survived in a world without MD2? Unfortunately all the evidence points towards 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 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. In 2004 the author of this paper observed that FARMAPINE felt more like a short-term donor-funded project and contrasted badly with some of the truly commercial exporters in Ghana.

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 normal to find a major commercial exporter supporting the farmers group for sound commercial reasons.

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

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**A2: CONTRACT FARMING*****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 gives the opportunity 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 one common problem begins in default by one party. The real opportunity is **not** about contract enforcement, but the key is in the small-farmer selection process and the establishment of good and transparent working relationships. Well-organised 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<sup>20</sup>, 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 fulfil 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;
- facilitate the introduction of new crops or varieties;
- meet a buyer’s requirement for “traceability”, “due diligence”, or a code of practice; and
- a contracted raw material supply is cheaper than investing in land and own-production;
- an assured supply reduces the risk of investing in new processing techniques and equipment.

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<sup>20</sup> The farmer will not incur some of the traditional marketing costs such as transport, aggregation, taxes, cesses etc.

There are also disadvantages, which may include:

- overhead costs of establishing contracted production can be significant, eg 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; and
- if the training and motivation of market intermediaries or agents or company staff is sub-standard, then their contracted farmers would not lift their quality and yields, thus leading to an unstable supply chain.

There are national benefits for supporting the promotion of contract farming:-

- the development of a cadre of well-organised, trained farmers capable of delivering an ordered supply of appropriate quality produce which is a strong asset for agri-business development;
- if contract farming leads to more efficient agri-businesses, it will lead to increased employment and improve international competitiveness;
- safer pesticide usage and more respect for environmental issues through improved technical distribution; and
- 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, and
- the cropping should not conflict with farmers other obligations, including food security;
- all parties in the chain must stand by the terms of the contract. This is especially important for the agri-business 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; and
- 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, eg.

- **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 agri-business 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 agri-business. 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, eg 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** is 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, ie 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 such 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.

### ***Current status in Ghana***

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 programmes or supply technical advice. There were no pre-arranged buying prices; the trader simply agreed 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 the market requirements (see Table A2). For example, most EU buyers expect the produce to be GlobalGAP certified and the market now demands MD2 instead of smooth cayenne. Both these demands 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 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.

**Table A2 Evolution of the Fresh Pineapple Chain (1960s -2000s)<sup>21</sup>**

	1950s–mid 1980s	Mid 1980s–mid 1990s		Mid 1990s–early 2000s	Early–mid 2000s
Geography of production	Highly concentrated (CI)	Highly concentrated (CI)	Concentrated (CI, CR)	Concentrated (CI, CR)	Concentrated (CI, CR)
Entry barriers (production)	Low	Low	Medium	High	High
Type of actors	Smallholders	Smallholders and large plantations	Smallholders and large plantations	Large and medium sized plantations	Large and medium sized plantations
Variety	<i>Smooth Cayenne</i>	<i>Smooth Cayenne</i>	<i>Champaka</i>	MD-2	MD-2
Types of product	Whole pineapples	Whole pineapples	Whole pineapples	Whole pineapples	Variety of forms (diced, salad, whole), packagings and standards (organic, fair trade, EurepGap, etc)
Entry barriers (trade)	High export quotas and access to freight	High access to freight	High logistics and commercial innovations	High logistics and commercial innovations	High standards and brands
Level of drivenness	Low	Low	Medium	High	High
Pilot	Cooperatives and maritime transporters	OCAB	Large agro-food companies	Transnationals	Transnationals and retailers
Vertical integration	Low	Low	Low-medium	Strong	Strong
Institutional framework	Maritime parastatals and public producer organisations (Ivorisisation)	State withdrawal in CR and CI (SAPs), CBERA I (CR)	CBERA II, <i>Agricultura de Cambio</i> (CR); Organization of the market in Bananas(CI)	Private retailer standards (EurepGap)	Explosion of private standards and other product differentiation strategies

Notes: CI: Côte d'Ivoire; CR: Costa Rica; SAPs: structural adjustment programs.

As noted in the previous paragraph, 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, now it is all from his own-production (from either his own or rented land)<sup>22</sup>. 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 16ha; or a total farm area of at least 54ha. 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

<sup>21</sup> Vagneron, I., *et al.* Is there a pilot in the chain? Identifying the key drivers of change in the fresh pineapple sector. Food

Policy (2009), doi:10.1016/j.foodpol.2009.05.001

<sup>22</sup> In Background Paper B4, it was estimated that in 2003-2004 pineapple production was split between approximately 12 large farms (300-700ha), some 40 medium sized operations (20-150ha) and possibly as many as 10,000 small farms with productive areas ranging from 0.2ha to 10ha.

has seven members, six of whom are GLOBALGAP certified under option 2. These members have 25ha 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, and about 1,400 outgrowers, of which some 25% of the area 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 the mid East (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 production by 2015<sup>23</sup>.

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 demands<sup>24</sup>.

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 neighbouring 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 2ha and poor yields. The company recognises 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 the juice processing industry in Ghana faces 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

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<sup>23</sup> For further review see ITFC: Organic Mangoes Improving Livelihoods for the Poor in the UNDP series *Growing Inclusive Markets* ([www.growinginclusivemarkets.org](http://www.growinginclusivemarkets.org))

<sup>24</sup> As the manager of PeelCo stated “Outgrowers should be of a minimum size to have continuous production of an amount to fill a 1 tonne truck on a regular basis throughout the year”.

scale and lower transport costs. However, support for contract farming might benefit both the small-farmer and processor in the longer-term.

It has been noted elsewhere (Background Paper E7) that Ghana fruit juice has a competitive advantage when it is 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 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 the recent pineapple juice investments have been made by businesses that already grow pineapples or other fruit, eg 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) and these new investments will have to seek export opportunities and may need to utilise small-farmers to get sufficient throughput to spread the processing overheads.

### *Strategic issues*

The main strategic issues that emerge out of this paper 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.

### **A3: LOCAL AND REGIONAL MARKETS FOR FRESH PRODUCE**

#### ***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<sup>25</sup>. 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<sup>26</sup>.

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.

#### ***Market size***

Local (and presumably regional) markets absorb some of the greater volume of fresh produce that is often called "residual" (or export "rejects")<sup>27</sup>. Assuming export yields of 80% of production an export tonnage of 90,000 implies a residual volume of 22,500. 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<sup>28</sup>, with the breakout as shown in Table A3 below. According to trade sources, retail food sales have grown at not less than 10 percent annually since the introduction of trade liberalization policies by the Government of Ghana (GOG) in the early 1990s. Based on 11% share (see consumption of fruits and vegetables as percentage of food budget in Table 2) 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 favourably with earnings from exports which stood at €80 million in 2008<sup>29</sup>. 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<sup>30</sup>. 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.

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<sup>25</sup> See paper on SPEG and HAG

<sup>26</sup> See paper on profitability of crops and farm size

<sup>27</sup> FAGE/USAID-TIPCEE, 2008

<sup>28</sup> <http://www.fas.usda.gov/gainfiles/200710/146292659.pdf>

<sup>29</sup> Jaeger 2008

<sup>30</sup> FAGE/USAID-TIPCEE, 2008

**Table A3: Retail Food Sales in Ghana - 2006**

Type of Food product	%	\$Million
Imported high-value food products (HVP)	32	384
Partly processed and packaged in Ghana	8	96
Totally processed in Ghana	15	180
Locally produced foodstuffs, including fresh fruits and vegetables, meat and fish	45	540
<b>Total</b>	<b>100</b>	<b>1200</b>

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

**Table A4: Summary of fruits and vegetables consumption patterns in sub-Saharan Africa**

	Ethiopia	Burundi	Malawi	Mozambique	Tanzania	Rwanda	Kenya	Uganda	Ghana	Guinea
<b>Fruit &amp; vegetables</b>										
Percentage of households consuming	94	81	96	94	99	94	91	89	99	98
Quantity (kg/person/y)	26.7	34.4	52.8	61.4	57.8	62.8	114.0	64.2	73.7	68.1
Value (US\$/person/y)	3.8	11.5	22.7	18.1	13.2	15.3	27.7	10.6	36.3	22.7
Price (US\$/kg)	0.14	0.34	0.43	0.29	0.23	0.24	0.24	0.17	0.49	0.33
Percentage of food budget	4.5	5.8	14.1	14.7	11.8	15.6	9.8	9.2	11.3	10.6
Percentage of total budget	2.7	4.1	9.3	9.8	8.3	12.6	6.9	5.1	6.9	5.5
Percentage of households consuming < 146 kg/person/year	99	72	92	90	91	90	47	88	87	87
<b>Sample characteristics</b>										
Per capita total expenditure	145.76	261.88	322.28	221.17	175.60	143.10	497.47	265.35	583.78	480.56
Per capita food expenditure	82.29	190.81	161.80	136.19	116.00	98.98	289.88	124.68	328.04	208.32
Food as percentage of total expenditure	56	73	50	62	66	69	58	47	56	43

Source: International Food Policy Research Institute

Table A5 highlights the size of sub-Saharan African agricultural markets. As shown in the table the West African domestic markets for food staples is \$20.1 billion. Assuming a 10% share, this will put the West African domestic market for fruits and vegetables at \$400 million. A lot of this may, however, actually represent domestic trade and consumption. It is more realistic to base the size of the West African market for fruits and vegetable on the total intraregional trade for food staples in West Africa which is also estimated to be \$400 million (Table A5). In principle, therefore, the size of the West African market for fruits and vegetables (assuming a 10% share of the size of intraregional 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 intraregional trade.

**Table A5: Size of sub-Saharan African agricultural markets**

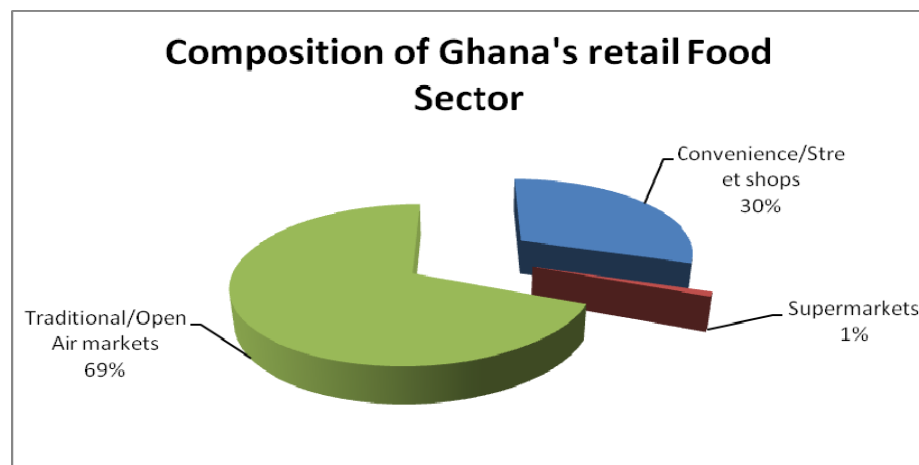
Market	East Africa	Southern Africa	West Africa	Total SSA
	Billion US\$			
Traditional exports to non-Africa	2.2	2.4	4.0	8.6
Nontraditional exports to non-Africa	1.3	2.8	2.0	6.1
Other exports to non-Africa	0.5	0.7	0.7	1.9
Intra-African trade	0.4	1.1	0.4	1.9
Domestic markets for food staples	17.6	12.1	20.1	49.7

Source: International Food Policy Research Institute based on trade figures are from UN COMTRADE, 2002, and; domestic-market figures from FAOSTAT, 2003.

### Market structure and trends

As shown in Figure 1 and Table A6 below, Ghana's retail food sector consists of supermarkets (accounting for one percent of total retail sales), convenience stores/small grocery stores (30 percent) and traditional open air markets (69 percent).

**Figure A1: Composition of Ghana's Retail Food Sector**



Source: USDA Foreign Agricultural Service

The share of supermarkets is particularly low in Ghana compared, for instance, with South Africa (55%) and Kenya (10%)<sup>31</sup>. This has, however, perhaps changed with the recent entry of Shoprite onto the Ghanaian supermarket scene. Some estimates suggest that supermarkets

<sup>31</sup> Technoserve 2004

in Ghana may now have 5% share of retail trade<sup>32</sup>. 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.

**Table A6: Structure of Retail Food Outlets in Ghana**

Retail Outlet Type	Average Size (sq.m)	Number	Market Size served	Average Annual Turnover	Location	Stock Level	Service Method
Supermarkets	10-200	10	1%	\$3.5 million	Urban	Full line	Self-serve
Convenience stores/small groceries	<10	Approximately 200,000	30%	\$50,000	90% Urban 10% rural	Limited line	10%Self-serve 90% assisted
Traditional markets	10-1,000	>3,000 locations	69%	\$4 million (Aggregate figure for all retailers in a given market)	60%urban 40% rural	Very limited	100% assisted

*Source: USDA Foreign Agricultural Service*

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<sup>33</sup>. The smaller scale farmer, generally also, has increasing 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 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<sup>34</sup>. This growth is driven largely by a number of factors including:

- i. A growing population
- ii. Rising income levels due to an expanding private sector
- iii. An expanding middle class where both parents work outside the home
- iv. A relatively large and growing expatriate community

<sup>32</sup> USDA Foreign Agricultural Service, 2007

<sup>33</sup> Technoserve 2004

<sup>34</sup> IFPRI 2004

- v. A trend towards more eating outside the home, especially during lunch hours and weekends
- vi. A rapidly growing tourism sector (including a greater number of hotels and fast food restaurants)
- vii. Increased rural to urban migration

***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 including in particular 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:

- i. Investments to improve traditional wholesale markets, e.g. the Agboghloshie 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 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 (through a PPP -public private partnership arrangement) 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 the radio dissemination.
- ii. The investment to improve the traditional wholesale markets should be accompanied by similar investments in traditional retail markets to improve cleanliness and logistical efficiency.
- iii. 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.

- iv. 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 the third 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.

Other interventions that can help to turn the domestic market size (current and prospective) into real trading opportunities and alternative and/or complementary markets include infrastructure development including market access infrastructure (road and communication networks linking farms to major centres of consumption). Transportation is one challenge that requires particular attention. According to IFPRI it is not uncommon for African farmers to receive only 10 to 20 percent of the market value of the products they sell, with the remaining 80 to 90 percent 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, processing fruit and vegetables into forms that can be easily stored; better trucking and haulage services etc 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 programmes to 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 abundant fruit and vegetable consumption.

The recommended interventions apply generally also to the fresh produce trade in the West Africa region. It has been noted, for instance, that poor infrastructure and institutional barriers are among the major constraints preventing African countries from exploiting their comparative advantages better<sup>35</sup>. 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.

### ***Conclusion***

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.

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<sup>35</sup> IFPRI 2004

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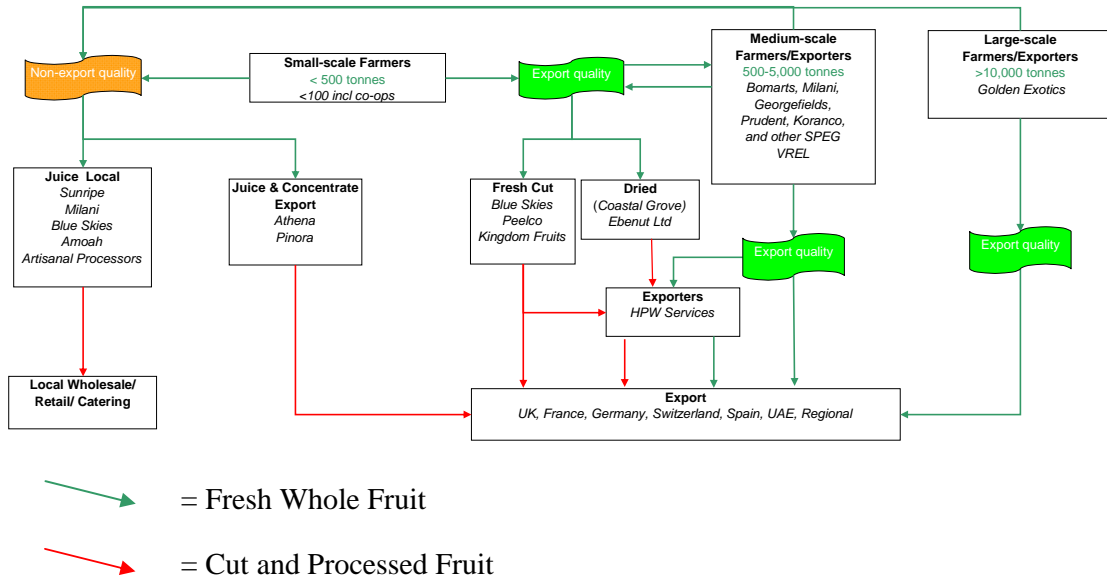
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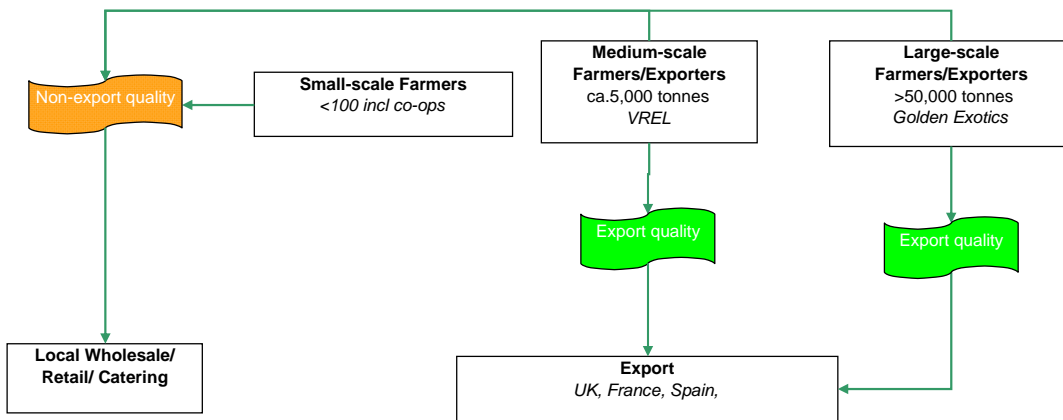
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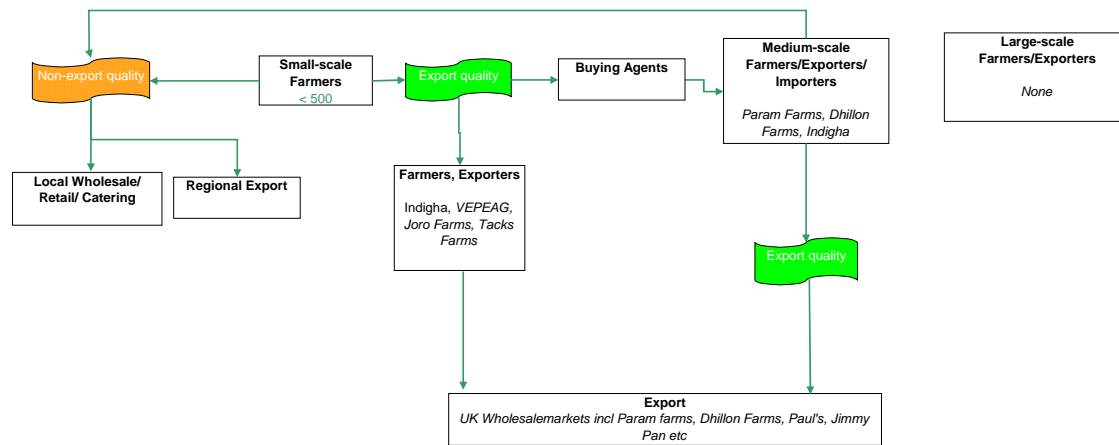
**A4: EXPORT SUPPLY CHAINS**

**Figure A2: Pineapple Supply Map**



**Figure A3: Banana Supply Map**



**Figure A4: Vegetable Supply Map**

- 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 but also the volume and value of product. We have made estimates where possible but these need to be confirmed.
- That said, it is apparent to us that small scale farmers currently make 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.

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## **SECTION B - BUSINESSES**

**B1: SOURCES OF FINANCE*****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*”<sup>36</sup>. Other farmers interviewed also made similar comments about needing more loan finance – and preferably with a 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 loans. 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.

***Main findings***

**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<sup>37</sup>. These organisations specialise in lending medium to longer-term finance – often about five to seven years and generally are looking for large investment – ideally they are seeking minimum investment opportunities at least USD5 million (Proparco) to USD10 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

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<sup>36</sup> Eurofruit Magazine, (August 2009), page54. 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.

<sup>37</sup> Proparco – or to give it its full name the Société de Promotion et de Participation pour la Coopération Economique. It is a development finance bank, whose main shareholder is Agence Française de Développement (AFD), the French government-owned institution as part of the country’s foreign aid and contributes to economic and social progress in many developing and emerging market countries including Africa.

often find that they are too small. They are trying to address these problems. For example, Proparco manages another AFD fund, FISEA<sup>38</sup>, which is aimed at smaller projects. FISEA and also 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.

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 organisations want to promote agricultural investments, which includes horticultural exports but face a number of difficulties. Both organisations lack the specific expertise to appraise horticultural export investments; they are more comfortable with traditional farming activities. However, the ADB have 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 on-lent to KPF to secure pineapples from 700ha. 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 then supplied to commercial banks at 12.5% interest who on-lend to their clients for specific investments for 27 to 30%. Much of the money has been lent to newly-created groups of farmers who have often failed to repay the loan. These groups often requested loans to cover equipment such as tractors. However, EDIF has 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 recognise 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 expect to have a strategy to exit the investment within five to six years. They

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<sup>38</sup> 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 euro 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.

will invest up to a maximum of USD3 million in a project; but may join a consortium up to a maximum of USD10 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, eg KPF, Jei River and 2K Farms as reported above. Some development banks, eg DEG, also provide technical assistance to help businesses they financed to address any problems they encounter. Obviously, the donors have also been vital in assisting with development of infra-structure. 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 USD35mn 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, providing seasonal credit to Farmer Based Organisations (FBOs) through commercial and rural banks, as well as through non-traditional channels such as input suppliers and medium-term credit through banks to finance capital goods such as irrigation and post-harvest processing and storage facilities. To date some USD13mn 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 manufactures, suppliers of telecommunication services and soft drinks companies. Some of the companies in these industries might be prepared to invest some their retained earnings in export horticulture as both a way of diversification and to gain added publicity for supporting another industry, which is labour intensive. The issue for attracting them to invest is that they need to find 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.

### ***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 with finding good investments with the quality of management needed to ensure that the business plan targets are met. Interest rates that most finance institutions reflect LIBOR and the risks associated with export horticulture industry.
- However, perhaps the main strategic conclusion is that if Government wants export horticulture to expand, there is probably 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 considerations need 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, Government would provide the off-farm infrastructure. This would not only stimulate the short-term investment by new horticultural enterprises and plantations, it 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 with the key objective of initially attracting new investment, probably 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 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.

**B2: FRUIT PROCESSING*****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. 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 compared to total production.

The intervention that made Ghana internationally recognised 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 is predicated on the all-year-round processing of pineapples, but also use mangoes, papaya, passion fruit and coconuts 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 to process 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. In addition to Athena Foods, Coastal Groves initially processed and exported dried citrus peel 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 20,000t 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. These include Milani, Blue Skies (who did export fruit juices to Marks & Spencer), Jei River, 2K Farms (who expect 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 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, eg organics and fair trade, but have found it much more difficult to compete in the much larger “non-differentiated” segment of the market.

### *Competitive position*

As with any businesses, 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. The competition for the Ghanaian industry comes from factories in Europe who use imported sea-freighted fruit. The competitive basis 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 USD1.30/kg), whereas the whole fruit can be sea-freighted (at about USD0.30/kg), the savings associated with not transporting waste material and the cheaper cost of labour for processing makes it competitive. However, the Ghanaian factories are facing considerable competition from European-based companies that buy sea-freighted fruit with the crowns removed at source (which improves packing rate per box) and using mechanical peelers can compete reasonably effectively. One advantage that the Ghanaian fresh-cut factories have is that they are supplying fresh fruit whereas the fruit for the European-prepared product will be 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. To date, some exporters have been able to supply high-priced niche markets such as organics and/or fair trade. However, 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 be either 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 and juices. The WATH project is trying to help market dried fruit in the USA but report that Ghanaian product is not competitive; exporters claim they need an FOB price which 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.

### *Current status*

It is estimated that there is current capacity in Ghana to process at 40,000t of pineapples and about 30,000t of citrus each year (Table B1). National processing capacity will increase

considerably when the proposed investments by Forewin (Ghana) and Spanish drinks company Don Simon take place and this 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 second 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 were 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 market-place. In order to do this, it will be imperative to have a reliable supply of cheap raw material as well as economies of scale and efficient processing facilities.

**Table B1: Current capacity and status of fruit processing in Ghana, 2009**

Company	Main products	Processing capacity (t/yr)	Fresh produce equivalent (t/yr)	Other Comments
Blue Skies	Fresh cut fruit & juice - Pineapples - other fruit	5,000t	15,000	Juice for local market Export Export
Pinora	Fruit juice (Single strength) - Oranges - Pineapples		28,000	Line not yet installed
Sunripe	Fruit juice (Single strength) - Pineapples	10,000	20,000	Not yet operational
Athena	Fruit juice, organic & Fair Trade - Pineapples	300	1,000	
Jei River	Fruit juice (Single strength)			For local market
PeelCo	Fresh cut fruit - Pineapples - Other fruit		1,000	Export Export
Coastal Grove	Dried peel and juice - Oranges			Managed by Pinora
Amoah	Fruit juice (Single strength) - Pineapples		500	Trades as 5S Fruta juice
Kingdom Fruits	Fresh cut fruit & aseptic juice - pineapples			Based in Volta region
Milani	Juice - pineapples			Local market

### *Strategic issues*

There are a number of important strategic issues that might 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 will be imperative to investigate ways of reducing production costs; for example, keeping the plants in the ground for a second year which means establishment costs will be spread further and, although the average fruit size will decline, this will not impact too

dramatically on the fruit juicing process. Other alternatives could be growing varieties specifically for processing that have higher juice contents, etc.

- Efforts will be needed to enable farmers to make profits at low raw material prices, but also it might be necessary to encourage some larger scale plantations which will facilitate the spreading of overheads.
- Investigate regional markets to look for markets where Ghana might have more of a competitive advantage. The European and the USA markets are large but also very competitive; therefore it is important that other markets that might give Ghanaian processors opportunity are explored.

### ***Conclusions and recommendations***

Ghana has made good progress in attracting investment in processing. 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. The biggest investments are being made in the juice sector but it is likely that there will have to be a re-structuring 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.

The recommendations include:

- Encourage innovation and improvements in processing efficiency and quality and reductions in costs; probably through the provision of TA and the establishment of a matching grant facility.
- Stimulate innovation and research into reducing production costs. This could be achieved by sponsoring 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.

### **B3: POTENTIAL EXTERNAL INVESTORS**

#### *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 organisations to invest money and expertise and the incentives they might require in order to help convert Ghana's natural comparative advantages into increased exports. We have interviewed a range of companies with different attributes (Table B3). What these companies have in common is that they could all provide business management and major technical expertise in either production and/or marketing; and most have the capability of providing some equity, but would not necessarily become the main investor.

**Table B3: Characteristics of potential external investors in Ghana**

<b>Company</b>	<b>Characteristics</b>	<b>Products</b>	<b>Level of interest</b>
<b>Fyffes</b>	Very major global fruit traders	Bananas, pineapples and other tropical fruit	Reconsidering their procurement and investment strategy. Interest in Ghana is high
<b>VegPro</b>	Biggest Kenyan vegetable exporter to EU	Babycorn, sweet potatoes, squash and other vegetables	High – possible investment in Ghana as a step towards becoming a global player. Want to visit Ghana
<b>Chiquita</b>	In the top 3 global players of bananas	Bananas and pineapples	Medium/high – visited Ghana many times but failed to find a local partner
<b>Total Produce</b>	De-merged from Fyffes	Vegetables and temperate fruit	Low – prefers to either market produce, but only buys production; does not set up green-field operations
<b>Camellia PLC</b>	A large multinational company with farms in Kenya, Malawi, RSA and India	Wide range of crops including pineapples and avocados	Ghana not currently on “their radar” but would like more information and to be updated on future developments/incentives.
<b>Bakkovor</b>	Very large fresh fruit processing business	Mainly fresh fruit, some vegetables	Would like to procure Ghanaian pineapples, but have quality and hygiene concerns.
<b>Duerbeck</b>	A family-owned importer based in Germany	Concentrates mainly on fruit	Even though the company has made investments in South America, they do not have the resources to work in Africa.
<b>Univeg DFM</b>	A German subsidiary of a large multinational	Wide range of fruit and vegetables	Used to trade with Ghana but now concentrate on other countries. Would like to be updated on future

			developments/incentives
<b>Kolla</b>	Major German horticultural trader	Interested in tropical fruit from Ghana	Disappointed with Ghanaian quality and reliability of sea-freighted fruit. Wish to be informed.
<b>Sworld</b>	Importer based in France and the UK	Narrow range of products; includes pineapples	Been trading with Ghana for almost 10 years with disappointing results. Recognises the potential but needs to find the right partner.
<b>Eurobanan</b>	Importer based in Spain; does not get involved with production	Wide range	Has a strong history with Fyffes and Total Produce. Is not interested in investing outside Spain.
<b>Rima</b>	An expanding importer based in Paris	Imports half its produce from Africa, mainly RSA	Already imports from West Africa, but not Ghana. Wants to start sourcing from Ghana and plans to establish an office in West Africa
<b>Katope Univeg</b>	A French subsidiary of a very large multinational	Concentrates mainly on fruits and has plantations in RSA	Interested in establishing large plantations for pineapples bananas; Ghana is in their focus.
<b>Canavese</b>	Based in Marseilles, it already invests in WREL	Imports mainly tropical fruit	Supplies technical expertise from Côte d'Ivoire to WREL. Is considering further investment
<b>South African Producers</b>	A number of the larger producers are looking to diversify	Wide range, but limited by climate	There is considerable interest to diversify risk and climate and Ghana would be an option.

### *Main findings*

**Fyffes** is a major trader of tropical fruit having de-merged from Total Produce about three years ago<sup>39</sup>. 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.

Their preference is for Ghana because it is nearer to Europe which should give shorter and cheaper freight costs; as well as having a smaller carbon footprint. One problem is that they are interested but “do not know where to start”. They explained that they needed information on incentives, how to establish a company as well as help with collecting climate and soil data, site selection and basic cost data. Their requirement would be for a minimum of 1,000ha to grow bananas, but they would prefer between a 2,000 and 3,000ha site so they had 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 organisation that had a good knowledge of horticulture and an understanding of the business/investment environment in Ghana. Fyffes believe that bananas grown in Ghana tend to be smaller than the market in North Europe prefers, but think that this

<sup>39</sup> For more information about Fyffes plc, go to [www.fyffes](http://www.fyffes)

issue can be mitigated by either a better fertiliser regime or marketing mainly in Southern Europe. Until a site has been selected and a business plan has been produced, Fyffes do not know what would be the financing requirement, but would hope that 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, they would organise their own freight logistics which lead to another boat service and route being added which other, smaller, exporters could benefit from. Their plan would be to export a minimum of 75,000t/year and probably a lot more; this would create around 2,000 on-farm jobs and would significantly add 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 provide information to develop a business plan and feasibility study. It would also be important that they understand all the relevant incentives available through the GIPC.

**VegPro** is the biggest vegetable grower in Kenya as well as being one of the major fruit and flower exporters<sup>40</sup>. VegPro is seriously interested in investing in Ghana for a number of reasons. The climate gives the opportunity to diversify their 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 have the technical competence to grow a range of sub-tropical and tropical vegetables for export by air. In addition, it would develop sea freight of more durable root crops.

The company would be looking for about 250 to 350ha of cultivatable land with irrigation (centre pivots) as a minimum to start and the capacity to at least double or treble that when the first plantings have been successful. It is likely that such an investment would create 750 to 1,500 on-farm jobs; it would increase the average value of the air freight exports<sup>41</sup> 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 in the future 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 the 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<sup>42</sup>. VegPro

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<sup>40</sup> For more information, go to [www.vegpro-group.com](http://www.vegpro-group.com)

<sup>41</sup> Which because air freight is currently dominated by pineapples, the average value is low.

<sup>42</sup> VegPro have considered investing in Ethiopia and noted that there was the Ethiopia Investment Agency which made potential new investors very welcome, assisted with a wide range of issues from organising visas through to site selection. The EIA also had a very good understanding of the business issues associated with horticulture and floriculture.

noted that Ethiopia is working hard trying to attract foreign companies to invest and the Government ensures that in the areas it has designated for development, it ensures that a good road infrastructure and electricity are provided.

**Chiquita** is one of the top three corporate companies involved with the production and global trade of bananas<sup>43</sup>. They are the biggest and most important supplier to Europe. Chiquita management have stated that they want to increase their output from Africa by growing an extra 8,000ha<sup>44</sup>. They have visited Ghana a number of times and were impressed by the incentives offered to investors; as well as the infrastructure, ie the roads and the perishable cargo handling facility at Tema and the climate. However, Chiquita's issue is that their business model is that it provides all the technical and marketing expertise but expects a local partner to provide all the finance. Despite a number of visits, they have not been able to find a local partner and consequently they are now investing their technical resources in Mozambique and Angola<sup>45</sup>, even though neither of them 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 not as attractive to Ghana as it would be as an investor.

Chiquita obviously appreciates that Ghana is an attractive place to invest and lessons need to be learnt from their failure to find a suitable business partner. If there had been an Agency which 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<sup>46</sup>. 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 a considerable effort to identify possible business partners. In the past Chiquita met farmers as possible business partners; unfortunately they did not have the financial resources and neither did they have the technical and managerial capability. Most of the farms were also too small.

**Total Produce**<sup>47</sup> separated from the parent company Fyffes to deal mainly with vegetables and temperate fruit whilst Fyffes itself 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 have 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.

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<sup>43</sup> For more information, go to [www.chiquita.com](http://www.chiquita.com)

<sup>44</sup> Reported in Ghana Export Horticulture Cluster Strategic Profile Study; Part 1 – Scoping Review (2008) by Peter Jaeger, Accord Associates LLP.

<sup>45</sup> Chiquita have recently withdrawn from their Angolan initiative.

<sup>46</sup> Reported in Ghana Export Horticulture Cluster Strategic Profile Study; Part 1 – Scoping Review (2008) by Peter Jaeger, Accord Associates LLP.

<sup>47</sup> For more information go to [www.totalproduce.com](http://www.totalproduce.com)

**Camellia PLC** is a well-established group of companies<sup>48</sup> 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, ie Kenya, Malawi and RSA. Given that Camellia have 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 appraised of any developments and opportunities. In particular, they would be interested in understanding more about the economic incentives, eg about free trade zones. They commented that incentives are particularly important to make investments in tree crops attractive. The issue of land tenure is something where they 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 in addition to their current suppliers in Costa Rica. They have visited Ghana and met some of the growers and were disappointed by the quality standards, in particular the efforts put in to maintain the hygiene standards required to supply the British multiple retailers. They are significant buyers of pineapples (18 to 20 containers per week) and have agreed to procure trial shipments from one Ghanaian grower and 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 in 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<sup>49</sup>. It used to import from Ghana but has now stopped and concentrates on South America and RSA where the quality is more consistent and the suppliers are more reliable. However, it notes that all respectable fruit importers have to invest in their supply chains to be able to secure reliable supplies.

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<sup>48</sup> For more information, go to [www.camellia.plc.uk](http://www.camellia.plc.uk)

<sup>49</sup> [www.univeg.de](http://www.univeg.de)

The Managing Director of Univeg DFM is not currently interested in Ghana but suggests that communications are 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 in to one of Germany's leading fruit and vegetables traders. Its head office is in Hamburg but has offices in Switzerland and Spain<sup>50</sup>. Its main lines are grapes, pineapples and mangoes most of which are procured from South and Central America. It does successfully import air-freighted 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 further understand the opportunities. Unfortunately the outcome of this visit was not positive. They concluded that the growing areas for mangoes were too humid, even though they did not visit the area around Tamale and they imported about 10 containers of pineapples by sea. The quality of the sea freighted pineapples was "rubbish"; the majority of the fruit were spoilt by internal browning.

**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 recognises Ghana's potential but has been constantly disappointed by the erratic quality, unreliable supply base and now have no desire to continue trading. Sworld has happily pre-financed inputs for Ghanaian exporters but their capital and resource base is too small for them to make larger investments. Their aim is to develop long-term partnerships with their suppliers; a sort of strategic alliance, but the suppliers must be professional and serious.

**Eurobanan**<sup>51</sup> 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**<sup>52</sup> is a rapidly expanding importer based in the Rungis market in Paris. It is specialising in importing produce from Africa, although as yet it does not 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 Bukina 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 are considering Accra as a potential base for their West African operations, especially if they can identify some producers who would enter 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 years of high tobacco prices in the mid to late 1980s, 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

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<sup>50</sup> [www.koella-online.de](http://www.koella-online.de)

<sup>51</sup> [www.eurobanan.com](http://www.eurobanan.com)

<sup>52</sup> [www.rimafrance.com](http://www.rimafrance.com)

marketing. These Dutch importers were so successful that quickly 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 USD60 million/year with a substantial workforce.

In South Africa, Rima have entered 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 manager is next in West Africa, they should meet some Ghanaian producers and see for themselves the country's potential. To help them with this, they have been given contacts with the MIDA and TIPCEE projects.

**Katope Univeg**<sup>53</sup> 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 but since the political troubles in the country, they now source from Costa Rica. They also have plantations in South Africa and also have a history of sourcing from Ghana. In Ghana, they have been disappointed by the quality of the suppliers. They recognise that the group is over-reliant on Costa Rica and would like to have another reliable supplier of good quality fruit, preferably closer to Europe. The 8 to 10 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, Ghana is particularly attractive to the Univeg group and in the right circumstances they would invest in a plantation.

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, ie the climate, short shipping times, 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 2,000ha, but with the potential to reach 5,000ha as the investment 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 need 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 the 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 Government and would need a specific entity to interact with who would assist in sorting out issues and problems as they arose.

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<sup>53</sup> [www.univeg.com](http://www.univeg.com)

**Canavese**<sup>54</sup> are based in Marseille and have been trading with Ghana for almost 10 years importing both bananas and pineapples. Currently they have work closely with Volta River Estates Ltd (VREL) and also have a plantation in Côte d'Ivoire. Canavese recognise that there is considerable benefit for 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, eg establish a new plantation or invest in an existing unit. Canavese would appreciate being kept abreast of any new developments and incentives that could influence their decision of whether to further invest and become more active in Ghana.

**South African producers** could be another source of potential investors in Ghana. The interview and follow-ups with the Kenyan company VegPro demonstrated that there was considerable interest by African producers to diversify 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 in developing significant trade in tropical produce because of the largely sub-tropical and even temperate climate in RSA which imposes seasonality and or quality limitations. South Africa also has limited water for irrigation (in fact 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<sup>55</sup>. 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 round, 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; and 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<sup>56</sup> for Mozambique).
- Another company, Colours, has gone so far as to start 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 banana growers in South Africa have successfully invested in Mozambique for selling back into South Africa as well as mango farmers who invest in

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<sup>54</sup> [www.canavese.fr](http://www.canavese.fr)

<sup>55</sup> 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.

<sup>56</sup> <http://www.doingbusiness.org/>

Central Mozambique to take advantage of a seasonality advantage for selling to Johannesburg fresh fruit processors who 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 the 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<sup>57</sup>, Ghana ranks 92 in the ease of doing business; it ranks even lower for categories such as "starting a business" obtaining construction permits and employing workers. However, it does do 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 RSA has considerable expertise in processing and marketing. Ceres, a major fruit juice company has already considered joint ventures in Ghana and Shoprite have established a large supermarket with plans to open more.

### ***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 recognise 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. The first is where 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 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<sup>58</sup>. Many importers interviewed commented that there was a lack of professionalism amongst

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<sup>57</sup> See <http://www.doingbusiness.org/EconomyRankings/>

<sup>58</sup> There are some exceptions; for instance, Bomarts have developed good relations with HPW which probably helped them increase exports. Because of the ownership structure of Golden Exotics (ie, part of Compagnie Fruitière), it has the advantage of excellent relations with the market and technical support.

the Ghanaian producers and exporters which inhibited establishing strategic partnerships.

2. The second entry point is where companies recognise 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 buy out an existing farm. It has been noted elsewhere that there is 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 strategic reasons why external companies are interested in investing in production in Ghana. The first is that fresh produce want to diversify their product range by identifying a different climate, eg those already producing in East and Southern Africa. The second being companies that want to reduce their reliance on their current production base, eg companies that want to reduce their reliance on Central America and Côte d’Ivoire or gain some specific comparative advantage, eg reducing their carbon footprint by growing nearer the European market.

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 learnt 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 agri-climatic and soil conditions are suitable. It is recognised 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 find sites and help deal with any land tenure issues.

**B4: PROFITABILITY OF CROPS AND FARM SIZE*****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 banana, 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 characterised by very limited access to resources and typically have farm sizes of less than 2ha. 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?

***Development of export pineapple production***

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 centred on large numbers of small-farmers most having less than 2ha 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 (300-700ha), some 40 medium-sized operations (20-150ha) and possibly as many as 10,000 small farms with productive areas ranging from 0.2ha to 10ha. 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 here) a World Bank-funded farmer ownership model where some 300 small-scale growers (32 were GLOBALGAP certified in 2003-2004) had been organised 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 labour, 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 when compared to large farms
- Low labour cost due to reliance on family labour (do not need skilled labour)
- No requirement for large initial investment to start production
- Cheap readily available planting material available locally
- Only require 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 ability 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 mechanisation 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 B4) shows that an acre of smooth cayenne would cost approximately US\$1,228 and yield profits of US\$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.

### ***Current status***

In September 2001, tragic events in the US 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 traded 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 US\$1.5 million of MD2 plantlets from Costa Rica in 2002 at a cost of US\$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 is different from the traditional varieties.

Table B4 shows cost of production data collected from various sources.

**Table B4: 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**

	Smooth Cayenne	MD2 -1	MD2-2	MD2-3
<b>Plant population</b>	20,000	20,000	20,000	30,000
<b>Exportable yield kg per acre</b>	9,023	26,047	28,500	36,503
<b>Labour cost \$</b>	466	649	1,208	735
<b>Input cost \$</b>	531	2,595	1,976	2,168
<b>Fixed costs \$</b>	231	115	Not given	141
<b>Total cost \$</b>	1,228	3359	3,184	3,044
<b>Cost \$/Kg</b>	0.14	0.13	0.11	0.08

Source: Smooth cayenne data (Graffham, 2004), MD2 - 1 and 3 (TIPCEE) and MD2 - 2 (Prudent Farms)

These data show the higher yield of MD2 based on production costs that might be ~3 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 cooling within 1-3 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 US\$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. In addition the smaller farms had no resources for investment in new varieties. Farmers had purchased smooth cayenne suckers for the equivalent of US\$0.01-0.06, so the investment in MD2 plantlets costing US\$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 when compared to production of traditional varieties (Table B4). Production of MD2 requires the use of plastic mulch adding between US\$300-US\$400 to the cost of production for one acre just for purchase of the plastic. Additional labour costs are incurred for manual clearing of the remains of old plastic mulch and laying new sheets. Fertiliser input and pesticide costs are dramatically increased

for MD2 (tables B5 & B6) 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 US\$13,000 and US\$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<sup>59</sup>. That said, calculations made with outgrowers linked to one of the larger exporters indicated a less favourable profitability (Table B4).

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 1-3 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 into a group and manage a collective production area. One such group is the Gomoa Okyereko Pineapple Growers Association (GOPGA). GOPGA has 7 members, 6 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 supply 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 fertiliser inputs by US\$175 per acre by replacing chemical fertilisers in the basal dressing with organic fertiliser 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.

### ***Future prospects***

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

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<sup>59</sup> R.N. Attatsi of Winfield Farms Ltd

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 mechanisation. 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.

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## **SECTION C - COMPETITIVENESS AND INNOVATION**

**C1: GHANA'S COMPARATIVE POSITION*****Introduction***

Ghana has considerable comparative advantages for establishing an export horticultural industry. This Background Paper summarises the advantages and then considers the country's recent performance. The Paper identifies 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 recognised 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 this 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. At this time air freight charges were about USD0.70/kg compared with USD1.50 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 USD1.00 to 1.20/kg. This is still cheaper than many other countries supplying Europe from, for example, East and Southern Africa, Thailand. This should be giving Ghana a competitive edge, however, the Dominican Republic has significantly cheaper freight rates (USD0.65 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.

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 reduces the unit costs and to ensure the frequency of arrivals needed to keep the European markets supplied constantly with fresh product. It is also important that eventually there is 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 does give the opportunity for 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 in the areas that they want, ie with sufficient infrastructure or near enough to the airport or port. Therefore, it might be necessary to encourage new investment by putting in the road and electricity infrastructure to some new areas (see the off-farm investment in paper B1). Issues of land availability are discussed in more detail in Background Paper D4. 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, eg the Volta River and Lake. 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 to be able to compete with other countries. In fact, it is claimed by Compagnie Fruitière 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. Obviously there are a number of reasons for this including climate, soils and good management.

### *SPEG members export*

Ghana should have sufficient comparative advantages to compete effectively in the European market. However, many exporters have found it extremely difficult to remain competitive in the EU market. For example, most SPEG members have experienced significant declines between 2003 and 2008 (Table C1). 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 32,294t in 2003 to 9,069t – which indicates that despite Ghana's comparative advantages, the majority of pineapple exporters have failed to remain competitive. Part of the decline is due to the problems with Farmapine (Background Paper A1), but also the exports of every other SPEG member listed in Table C1 showed declines between 2004 and 2008. Much of this decline is often attributed to the slow switch from Smooth Cayenne to the super-sweet varieties, but it does indicate that many of the SPEG members have not been able to build on the comparative advantages; in other words, they have not remained competitive.

**Table C1: Pineapple exports by SPEG members 2003 to 2008 (tonnes)**

	2003	2004	2005	2006	2007	2008
Jei 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	1,296	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
<b>Total</b>	<b>32,622</b>	<b>38,493</b>	<b>33,999</b>	<b>30,993</b>	<b>28,396</b>	<b>22,296</b>

Source – Accord Associates based on data supplied by SPEG

Ghana's vegetable exports have also been erratic over the last few years (Figs E5-E10 here). 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 has failed to create a substantive industry adding-value to farmer's crops cheaper freight rates. This is due to a number of reasons, first the climate in Ghana does not permit the range of vegetables demanded by the indigenous population in the Europe (eg, fine vegetables and legumes) and it also requires exceptional management to establishing competitive advantage. The markets for Asian and more tropical vegetables that Ghanaian exporters focused on is smaller and generally lower value than the niches targeted by Kenyan exporters. Indications are that the market opportunity for the vegetables that can be grown in Ghana may be taking off and this represents an opportunity the establishment of a larger and more professional industry that adds value to the vegetables.

### *Conclusions*

This 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 also middle management and supervisors; but the main problem is in the 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 covers the introduction of new products and processes, but it also includes the determination to continually try to improve yields and quality of existing crops as well as trying to look at 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, cost control 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 shortage of superior management, it was reported at the same meeting that the middle management, supervisors and workforce were not as experienced as some of the neighbouring countries. This was explained by the fact that Ghana has a much shorter history of export horticulture than say Ivory Coast and Cameroon.

Besides management, other reasons reported for Ghana's failure to make best use of its comparative position is lack of finance to invest. The issue of finance is discussed in more detail elsewhere (Background Paper B1). However, 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 can 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 the case of 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 Government 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 have occurred. 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 very 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<sup>60</sup>. 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.

### ***Strategy implications***

The review of comparative advantages and discussion of why Ghana has not succeeded in establishing a much larger horticulture export industry include:-

- There is a shortage of excellent managers
- There are 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
- There is a need to benchmark the performance of Ghana's exporters against its competition.

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<sup>60</sup> 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 be used as a reference point. Now it is applied more widely to measure the performance of a company's (or 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.

## C2: INNOVATION

### *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 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*”<sup>61</sup>. This Background Paper discusses how innovation can be encouraged in Ghana to enable the export horticultural company to better compete on international markets.

The World Bank has undertaken a review of Ghana’s Science Innovation and Technology Policy<sup>62</sup>. 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 capability; in other words it assumes 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 not adequate, but it should also be recognised 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.

### *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*”<sup>63</sup>. 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, eg new crops;
- New processes and techniques, eg new methods of production to improve yields and/or quality

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<sup>61</sup> Michael Porter: *The Competitive Advantage of Nations* (1990).

<sup>62</sup> Ghana: *Science, Technology, and Innovation Policy Review*, World Bank, UNCTAD and CSIR-STEPRI (April 2009).

<sup>63</sup> P Drucker – *Harvard Business Review* Nov – Dec 1998, pp149

- Innovations in the supply-chain, eg reduce the number of times a crop is handled, improve the cold chain;
- Enhancing the service provided to the customer, eg, more timely deliveries, more consistent quality;
- Innovations for adding-value, eg peeling, slicing product etc
- New approaches to rewarding and empowering employees (human resource innovation), eg creating a culture to encourage employees to suggest with innovative ideas;
- 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 improvements in the process are vitally important in helping agribusinesses improve their competitiveness. Note also that all these activities are driven or initiated by the private sector and that the public sector has a role to play in creating the environment or the incentives to encourage companies to innovate.

### ***The role of the public sector***

As noted in the review of Ghana's SCT policy<sup>64</sup>, the public sector has an important role which can include the provision of tax incentives and matching grants for innovation and even the training of companies 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. Whilst these recommendations will help in the longer-term, the other recommendations which are 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 the investments in improving physical infrastructure.

### ***Stimulating the private sector***

The private sector recommendations of the SCT policy review including:

- Building the skills and promotion of an entrepreneurial culture;
- Sharpening economic targets and the country's technology focus, for example, through technology assessment exercises and technology foresight exercises;

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<sup>64</sup> Ghana: Science, Technology, and Innovation Policy Review, World Bank, UNCTAD and CSIR-STEPRI (April 2009).

- 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

### *How to stimulate innovation within private sector companies*

Trying to encourage an innovative culture within a company is difficult. It is simply not a matter of making incentives available, it 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. Whilst not all the ideas might apply to agri-businesses in Ghana, some certainly do. For example<sup>65</sup>:

- 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.

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<sup>65</sup> Based on Puhlmann and Gouy in *Pharmaceutical Executive*, June 1999, Vol 19, Issue 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 but by getting better yields, producing better quality at cheaper prices in addition to producing goods which are not yet on the market. In order to achieve this target, Ghana can begin by copying other countries as a starting point. But it must be recognised that by copying others, it is unlikely to be very profitable as the competitors will already have a few years start on the learning curve. If it is to overtake these other countries, it must innovate.

Whilst 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, eg Zambia, and consideration should be given to establishing such a scheme in Ghana.
- Provision of enhanced tax-relief for private sector R&D.
- Introducing 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.
- Promotion of the 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 agri-businesses.

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<sup>66</sup> is extremely useful for companies to set internal targets for them to improve their performance.

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<sup>66</sup> For a definition and description of benchmarking, see Background Paper C1.

### **C3: CREATING COMPETITIVE ADVANTAGE**

#### ***Introduction***

In the Background Paper C1, it was shown that despite having considerable comparative advantages for export horticulture, Ghana has failed to convert it into competitive advantage. The previous Paper discusses the importance of innovation in creating the competitive edge. This background highlights some other areas that can be important in creating competitive advantage.

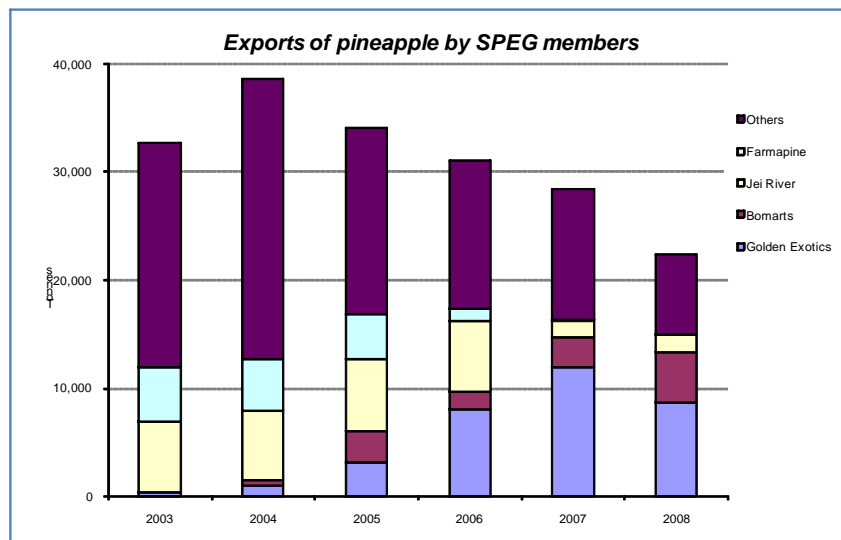
The prime way to create a competitive company out of comparative advantage is through the way a business is managed, in other words, through people. It can be supported by all employees of a company, and the public sector, including donors, can also facilitate or accelerate the advent of competitive advantage. However, care must be taken to ensure that Government or donor actions do not mask comparative disadvantages, eg through subsidies. Alternative public sector support should not slow down the attainment of competitive advantage, eg by excessive support to an industry which then becomes “lazy” and therefore loses the motivation to strive for continual improvement.

#### ***Management***

The management is vital for creating and maintaining competitive advantage. Any business can start trying to exploit comparative advantages, but it is the management that does this efficiently. It is also management that sets 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 at ways for reducing costs and innovating 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 (Fig 1). Most SPEG members claim that the reduction was due to the competition from Costa Rica which introduced the super-sweet varieties, but also had more comprehensive logistics and serviced the market better. However, even though the SPEG members now export almost entirely super-sweet varieties, exports are still declining apart from Golden Exotics and Bomarts. It could be argued that if the management capability of the SPEG managers was better, they might either have seen the advent of the super-sweet varieties sooner or produced better quality Smooth Cayenne and the decline in the pineapple industry would have been less dramatic. It is so 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 also have a very clear marketing strategy. In the case of 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 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.

**Fig C1 Pineapple exports by SPEG members (tonnes), 2003 to 2008**

*Source – Accord Associates LLP based on SPEG data*

### ***Professionalism***

Running a very professional business is really a variant of good management. However, it has been separated out because it is so important. For many companies, the attraction of targeting the exports 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 optimised and great care is required to ensure that there is no wastage. 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, but specially trained people are required to monitor quality and ensure the standards demanded by the European buyers are attained; it is necessary to have an agronomist who both closely monitors the crops but is also undertaking some trials to improve it. An accountant is needed to understand the profitability of the business as well as to project and continually update projected cash flows; specialist financial advice might be needed to ensure that best sources of finance are utilised and it is often important to employ specialised 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 managing an export horticultural business, all staff must adhere to the underlying drive to achieve better yields, improve quality and to reduce costs. Also, they all must contribute towards the innovation needed to create a world-class business as well as responding to the customers' requirements whilst respecting all employees and the environment.

### ***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 programmes. 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; however, 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 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 is that it makes a commitment to respond quickly to the private sector's requests for help; ie it should have a culture which is committed to supporting export horticulture.

### ***Training***

Having a well-educated management and trained staff is vitally important to establishing successful export horticultural agribusinesses. In the Review of Ghana's Science, Technology and Innovation Policy (see Background Paper C2), specific recommendations have been 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 recognised that it will take a few years for the benefits to percolate down to the horticultural industry to improve its competitiveness, ie at best it 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<sup>67</sup> 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 institute provided 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 added 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 and therefore perhaps there were not the on-farm job opportunities that had been anticipated.

In addition to running three-year diploma courses, the NZTT also undertook considerable on-farm training for the introduction of the certification demanded by the EU retailers, eg

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<sup>67</sup> National Resources Development College/Zambia Export Growers Association Training Trust.

GLOBALGAP and other private standards. The NZTT management claim that the on-farm training to middle-management 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 the business quickly, ie, it should produce benefits 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 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 developed in the UK called Management Development Services Ltd (MDS Ltd)<sup>68</sup>. MDS was established about 25 years ago by a group of about 25 companies who recognised that they had to attract more good graduates if they were going to remain competitive. Therefore, MDS was set up as a non-profit making organisation to attract graduates with management potential who wanted to work in the fresh food and produce industry. MDS provides the graduates with an accelerated management training programme which consists of four placements in their members' companies; each placement lasts six months. These placements are real and practical management jobs and the members commit to give the student one-to-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 programme, 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. Whilst being trained, the students get paid a salary. MDS is funded by the members paying a joining fee, an annual subscription and a daily charge whilst students are on secondment working in their business. The strength of this scheme comes from members working in partnership with 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.

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 is established throughout West Africa. At the start, if 10 to 15 horticultural-based businesses could be identified as interested in providing placements and then potentially employing graduates and were willing to partly finance the scheme, then graduates would be recruited from each country that was participating in the scheme; 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 in the order of USD300,000 to 400,000/year. It is recommended that the horticultural council recommended as part of the strategy, evaluates the interest from major horticultural export companies in Ghana and other countries in West Africa. The

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<sup>68</sup> <http://www.mds-ltd.co.uk>

management of MDS have already expressed interest in assisting in adapting their concept for West Africa<sup>69</sup>.

### ***Conclusions***

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.

### ***Strategy implications***

- 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 programme described above

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<sup>69</sup> 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.

**C4: COSTA RICA****THE DRIVERS FOR SUCCESS IN THE EXPORT MARKET FOR FRESH PINEAPPLE***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 per cent 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 this still occupies just under 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 USA (Table C2) and European markets (Table C3).

**Table C2: Volume (tonnes) of imports of fresh pineapple to the USA for the period 2003 to 2008.**

	2004	2005	2006	2007	2008
Costa Rica	392,323	438,954	522,520	574,954	583,916
Honduras	24,728	34,419	32,988	12,685	22,620
Ecuador	33,608	37,199	35,830	33,411	28,331
Guatemala	2,918	17,563	32,491	33,086	25,790
Mexico	14,974	27,033	27,339	22,073	38,730
Thailand	4,191	3,996	4,548	3,488	4,096

*Source: Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics*

**Table C3: Volume (tonnes) of imports of fresh pineapple to Europe for the period 2003 to 2008.**

	2004	2005	2006	2007	2008
Costa Rica	250,425	363,169	500,131	570,034	669,751
Côte d'Ivoire	136,009	99,685	94,409	59,253	58,902
Ghana	51,421	44,984	40,120	35,166	35,583
Ecuador	27,521	32,598	36,553	49,037	48,128
Panama	9,627	12,111	31,394	37,624	38,847
Brazil	10,233	12,675	16,382	26,367	24,688
Honduras	17,571	25,275	26,581	26,336	23,109

Source Ivanovic (2009): prepared from Eurostat data

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 favourable institutional setting. In exploring the reasons behind this dominance, the following drivers have been identified:

- Technological innovation;
- Governance structure and the role transnational companies;
- Enabling environment.

### ***Key drivers for success***

**Investment in technical innovation** - The first key driver in Costa Rica's rapid ascendancy has been successful innovations in cultivar development and production technology. In 1978, a research programme into the development of fresh pineapples for export was initiated by Fresh Del Monte Produce 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 programme 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) for further development to its plantations in Costa Rica. The climatic and soil conditions in Costa Rica were found to be ideally suited to realizing the productive potential of these hybrids. This crucial factor, combined with favourable fruit characteristics<sup>70</sup>, meant that MD2 (commercialized as Del Monte Extra Sweet

<sup>70</sup> 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

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 Fresh Del Monte Produce launched in 2006 a new cultivar, Del Monte Honey Gold<sup>TM71</sup>, 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 turning this into a significant market advantage has been the early and continuing dominance of one company, Fresh Del Monte Produce, in being able to exploit this innovation (Fold and Gough, 2008).

This exploitation was possible because Fresh Del Monte Produce:

- obtained ownership of two hybrids of pineapple that it could exclusively exploit for a number years, which included a 10-year patent in the USA 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 realise the productivity potential and exploit Costa Rica's favourable climatic conditions to produce the flavour characteristics of the hybrids and yields required for commercial exploitation;
- had existing extensive 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);
- has 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;
- fully integrate production, handling, transport and marketing systems;
- has 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 percent over the Smooth Cayenne price).

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<sup>71</sup> Also known as MA2 (Patent Pending), it has a smooth, distinctive bright yellow exterior; a slightly sweet flavour; and an intense aroma, and offers consumers a particularly long shelf life at room temperature.

In this way, Fresh Del Monte Produce was able to develop, consolidate and expand its pineapple business in Costa Rica and begin to penetrate the marketplace, beginning in the USA 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 have to compete against the established market presence and reputation of Fresh Del Monte Produce and its ability to continually innovate and develop market differentiation with new cultivars and product attributes eg. 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 Fresh Del Monte Produce 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 favourable institutional environment as part of the structural adjustment programmes that provided incentives (eg. 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 USA adopted trade preference programmes under the Caribbean Basin Initiatives to support and stabilise countries such as Costa Rica. Under these agreements both bananas and pineapples can be exported to the USA free of any duty (Mora, 2007). Also, WTO most favoured nation status allows Costa Rica duty-free exports of pineapple.

Under the adjustment programmes 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 favoured transnational corporations, particularly local subsidiaries of Del Monte Fresh Produce, 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 totalling USD29.9 million in 2006 (Stads, 2008). In Costa Rica,

government research bodies focus on smallholder issues whilst 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.

### **Conclusions**

In assessing the factors that have propelled Costa Rica to a dominant position in the global market for fresh pineapple 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. Del Monte Fresh Produce was able to exploit this fully through an economy of scale that allowed it to dominate the market in the US, followed by ascendancy in European markets. This was possible with the management and infrastructure systems that had been developed through its long-standing and major position in the global banana markets.

The fact that Costa Rica has favourable climatic and soil conditions to realise 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.

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**C5:****ETHIOPIA****THE DRIVERS FOR SUCCESS IN THE EXPORT MARKET FOR CUT FLOWERS***Introduction*

The export of fruit, vegetables and cut-flowers from Ethiopia has a chequered history. Private sector-led trade in the early 1970s was superseded by state-run farms and export companies following the revolution of 1974 and the introduction of the policies of the Derg. Horticultural exports fell drastically and it was only after the collapse of the Derg and the Mengistu Government in 1991 that new private sector operations began to emerge and the sectors began to grow. However, there has been a divergence of the fruit and vegetable sector and the cut-flower sector in taking advantage of the improved climate for agricultural development.

*The fruit and vegetable sector*

In the fruit and vegetable sector, exports are dominated by the two state farm operations, namely Upper Awash Agro-Industry Enterprise (650 ha) and Horticulture Development Enterprise (200 ha), both established in 1979/80 and which mostly cultivate green beans with expected export volumes of around 15,000 to 20,000 tonnes. Two private exporters cultivate around 50 ha of green beans (mainly bobby beans) each and have outgrowing arrangements with a limited number of farmers in their vicinity, an arrangement that is supported by the donor-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 export to the EU (Joosten, 2007) and Ethiopia performs comparatively badly compared to other sub-Saharan countries (Table C4).

**Table C4: Sub-Saharan African Vegetable Exports to the EU, 2003**

Country	Volume (tonnes)	Share of total (%)
Kenya	48,183	41.8
South Africa	22,112	19.2
Senegal	8,551	7.4
Zimbabwe	7,810	6.8
Ghana	7,719	6.7
Zambia	7,132	6.2
Uganda	3,189	2.8
Ethiopia	2,840	2.5
Burkina Faso	1,375	1.2
Madagascar	1,179	1.0
Gambia	1,074	0.9
Ivory Coast	1,014	0.9
Tanzania	842	0.7
Others	2,146	1.9
Total	115,166	100

Source: Temu and Temu (2005).

Investment levels in the fruit and vegetable sub-sectors for the 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. For a new vegetable exporter to enter the market in a significant way, there will be need for a major investment in “high-care” facilities as well as being able to grow a wide range of produce to make the multi-packs demanded by the main EU supermarket chains. There is less interest in the vegetable sector to the extent that The Horticulture Development Enterprise has reduced its produce range significantly over the past years and large areas of its land have been leased out for floriculture. Further disinterest is shown by the fact that Upper Awash Agro-Industry Enterprise has been for sale for several years without a buyer coming forward. It is expected that the new investments in fruit and vegetables will be targeted for selling on the local market. Government is planning to open up new areas of land for horticulture and it is expected that much of this will be for the local market.

A strategic review of the sector by Joostens (2007) provides a bleak picture of:

- limited availability of the right fruit and vegetable varieties for exports – directly or as processed product;
- lack of adequately developed technical know-how and experience with advanced fruit and vegetable cultivation;
- high cost of importing, under a special licence specific inputs eg. pesticides required to meet the necessary standards in high value export markets;
- minimal local advice and assistance with 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.

### ***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 1) and the increased volume of exports (Figure 2). Over a short period of time, Ethiopia has become the second largest flower exporting country in Africa, after Kenya, with 70% exported to Netherlands and 10-20% to Germany.

This growth continued into 2008 with exports reaching USD118 million<sup>72</sup> from 1,200 ha with 80 growers employing 90,000 people<sup>73</sup> (full and part-time, with about 70% of the employment total being women). This compares to export earnings in Kenya of USD504 million<sup>74</sup> in a sector which employs 100,000 directly and nearly two million, indirectly.

Most of the farms are growing roses in greenhouses, but there are five producing cuttings as well as some carnation, lily and some open-field summer flower production.

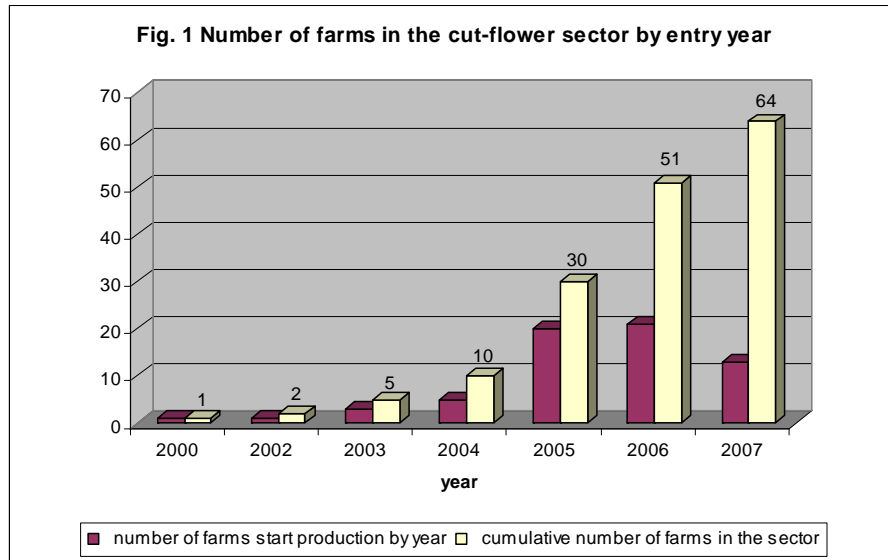
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<sup>72</sup> Compared to exports of US\$ 20 million for fruit and vegetables - [www.guardian.co.uk/business/feedarticle](http://www.guardian.co.uk/business/feedarticle)

<sup>73</sup> Africa News 15 December 2008

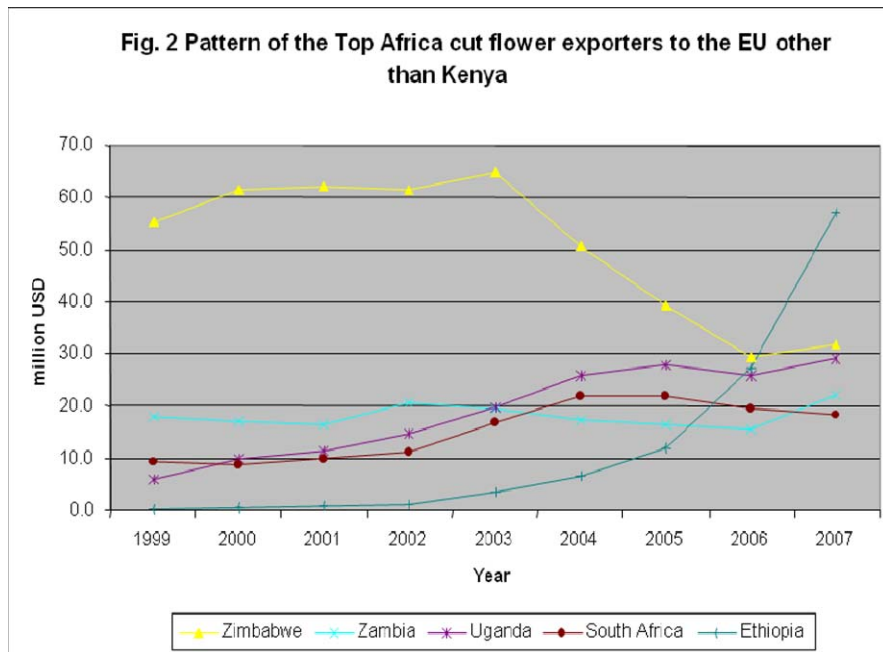
<sup>74</sup> [http://www.javno.com/en-economy/kenya-flower-sector-blooms-amid-crises\\_230887](http://www.javno.com/en-economy/kenya-flower-sector-blooms-amid-crises_230887)

**Figure C2: Number of Farms in the Ethiopian Cut-Flower Sector**



Source: Gebreeyesus (2008)

**Figure C3: Pattern of African Flower Exporters to the EU (Other than Kenya)**



Source: Gebreeyesus (2008)

The success of the sector has been attributed to the following drivers for change (Belwal and Chala, 2008):

- enabling environment provided by the government;
- private sector driven, with strong foreign direct investment, and
- supporting organisations.

Besides these drivers, it should be recognised that the industry also benefited from

- 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
- subsidised 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 government. Land is not only cheaply available but also secure for an average 27.5 years but extending up to 90 years to some. Most of the flower farms are located in a radius of 50 kms from Addis Ababa<sup>75</sup> and clustered in few areas - on average it takes one hour and 40 minutes for loaded trucks to reach the airport. The land already has roads and electricity provided, and the Government will continue to invest in improving the road infrastructure;
- establishment of the Ethiopian Investment Agency<sup>76</sup> within the Ministry of Trade, which acts as one-stop shop<sup>77</sup>, and provides a package of incentives to investors (both domestic and foreign) engaged in either new enterprises or expansion which comprises 100 percent exemption in Customs duties on floriculture-related imports, transfer of such imports to another investor enjoying similar privileges, income tax holidays of five years are given, 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)<sup>78</sup>;

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<sup>75</sup> At altitudes of around 2,400 to 2,600 metres, the Ethiopian Highlands around Addis Ababa are characterised 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 metres (Rift Valley, Upper Awash and Ziway) are suitable for the production of small- to medium-sized rose varieties (sweethearts and intermediates) and other flowers like summer flowers and cuttings.

<sup>76</sup> <http://www.ethiomarket.com/eic/>

<sup>77</sup> It is a very effective one-stop shop which assists potential new investors sort out any problems quickly.

<sup>78</sup> 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.

- ensuring that work permits are readily available for managers and other technical specialists who work on the farms and other associated agribusinesses. Expatriate farm managers can be employed tax-free for the first two years of a new project/investment;
- provision of finance at cheaper interest rate and with easing collateral requirement<sup>79</sup> – The Development Bank of Ethiopia (DBE) is the first major external source of finance;
- the Government-owned Ethiopian Airlines provides sufficient cargo space for transporting produce to Europe although some companies are looking at alternative carriers (see below);
- the government with the support of the Dutch government is upgrading Jimma University to offer a special degree in floriculture. Currently about 412 college or university graduates are working as supervisors or managers in the flower farms of which 38% and 27% graduated from Jimma University and Ambo College respectively.

### ***Private sector***

Growth has been driven by private sector initiatives, attracted to 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 early as nine years ago has grown in leaps and bounds to a total of 100 companies (of which 83 are member of EHPEA) out of which 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 compared to 23 (35.5%) fully domestic owned farms, with some joint ventures also present (Gebreeyesus, 2008). Holland, India and Israel takes 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 favourable Government support to invest in the sector. The industry is characterised 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 and 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. However, it has since sold the farm in Kenya in 2007 and totally moved to 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, installation of machines) to other private investors and provides training and market access (Gebreeyesus, 2008). There are currently about six companies - two local and four Dutch foreign - that grow roses and vegetables on the farms leased from Sher Ethiopia. Sher's strategy for its fruit and vegetables business will be an outgrowers scheme, where the company provides local farmers with seeds and teaches them the farming

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<sup>79</sup> However, the Government has stopped giving favourable loans to flower projects (FlowerTech, 2008)

techniques, and the latter supply their produce, which Sher plans to export to international markets.

This business model developed by Sher Ethiopia<sup>80</sup> allows other companies to start immediately on a large scale, without having to take big financial and technological risks themselves; a reason why the average size of flower covered land in this cluster is relatively higher than others. 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 organisations***

One of the key enabling factors in the export drive has been the formation of the Ethiopian Horticulture Producers and Exporters Association (EHPEA).

The EHPEA was established in September 2002 as a not-for-profit organisation to represent the whole horticulture sector (ie. 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;
- 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 Government through the national Airline has resulted in Ethiopian exporters being able to achieve freight rates less than their main competitors, eg. Kenya. Sher Ethiopia and Trade Path International have recently established Flower Port Cargo Plc so as to rent three Boeing 747-200s and a half-load capacity of one MD-11 aircraft for one

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<sup>80</sup> In addition to this business approach, Sher has an ambitious social responsibility programme which includes building a school, hospital and sports stadium for the local town (Africa News, 2008).

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 \$1.9 per kg to \$2.6 per kg forcing companies out of business or relocating to Ethiopia (Shuti, 2008)<sup>81</sup>. The Ethiopian Government is committed to an open skies policy, though this has yet to be implemented, and it will probably not be until the leases on the Ethiopian Airlines freighters have expired.

Another area of enhancing the competitiveness and market access of Ethiopian flowers has been the code of practice developed by EHPEA containing standards for the sector in relation to 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 Association 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 Federal Government 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 organisations/bodies include:

- **Ethiopian Export Promotion Agency (EEPA)** – a government body in the Department of Trade and Industry that provides a number of services aiming 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, analysing and disseminating trade-related information; encouraging co-ordinated 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;

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<sup>81</sup> Many farmers tend to overbook the airfreight space they need, but do not pay for dead space. This has sometimes made it difficult for the airlines to always fill the planes. It is anticipated that the cheap freight rates and dead space cannot continue.

- Approves and issues investment permits to foreign investors;
  - Provides trade registration services to foreign investors;
  - Issues operating licences 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 being provided for the office and full-time Executive Director, consultancy support, workshops and provision of market information, 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 Programme 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 – have provided assistance for worker welfare and training in the safe use of pesticides

- CBI – have provided assistance for improving post-harvest handling and market recognisance.
- Swedish Chamber of Commerce – training.
- DAG PSD TWG (Development Assistance Group Private Sector Development Technical Working Group), which is chaired by the 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) programme 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 Euro800,000 can be awarded a contribution of up to 60 percent of the financial requirements. From 2003 to 2006 13 Dutch-Ethiopian companies have been awarded PSOM grants of 6.2 million Euros as part of an overall investment programme of 10 million Euro by the companies (a further five grants were awarded in 2006).

### *Conclusions*

There are many valuable lessons to be learnt 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 financial incentives as well as easy access to large fertile tracts of land in favourable 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 organisations 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 sort out problems.
- Provision of areas of land with good soils, infrastructure and services. Any land disputes over ownerships are sorted out by Government.
- Attractive loan finance provided by 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 provided considerable support for training supervisors, middle management and workers.

- Donor support has also been available for undertaking feasibility studies, operations of the EHPEA and innovation.
- The national airline co-ordinated and organised airfreight for the exporters and charged a rate less than neighbouring 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 recognised 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.

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**C6:****THAILAND****THE DRIVERS FOR SUCCESS IN THE EXPORT MARKET FOR FRESH PRODUCE*****Introduction***

The Thai economy is export dependent, with exports accounting for 60 percent 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<sup>82</sup> standard of living.

In 2007, Thailand was ranked 7<sup>th</sup> in the world for exports of agricultural and food produce<sup>83</sup> with a value of USD24,681 million or 2.52 % of world export (Wannamolee, 2008).

Horticulture is a relatively small agricultural sub-sector, but South-East Asia, in particular Thailand, Indonesia, Malaysia, and Vietnam, more than doubled their horticulture exports, keeping pace with Central America to be a major exporter, and producing a line of products similar to those of Central America 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 (FDI), such as Dole (Reardon and Flores, 2006).

In Thailand, approximately four million ha are dedicated to fruit-bearing and perennial trees, while vegetables are cultivated on 210,000 ha, resulting in 24 million tons of fresh produce and processed products valued at USD289 million for fresh fruit, USD199 million for vegetables and USD1.1 billion in processed<sup>84</sup> fruits and vegetables in 2005 (Hoffman, 2007).

***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 (Appendix 1).

Fresh fruit is exported to wide range of markets, particularly in the region (Table C5).

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<sup>82</sup> Thailand's farming community accounts for approximately 38% of the country's population of 65 million.

<sup>83</sup> Thailand is the largest exporter of rice, rubber, tapioca, pineapple products, canned tuna and shrimp products.

<sup>84</sup> Thailand is the fourth largest developing-country exporter of processed fruit and vegetables after China, Turkey and Brazil

**Table C5: Exports of fresh fruit to principal markets**

	Total	ASEAN	China	Japan	Hong Kong, etc*	Other Asia	EU-15	USA and Canada
Value USDmillion	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

Source: COMTRADE as presented by Hoffman (2007)

\* Hong Kong, Taiwan and Republic of Korea

### **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 increasing the EU is taking fresh vegetables such as babycorn (Table C6).

**Table C6: Exports of fresh vegetables to principal markets**

	Total	ASEAN	China	Japan	Hong Kong, etc*	Other Asia	EU-15	USA and Canada
Value USDmillion	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	9.6	2.9	24.0	5.8

Source: COMTRADE as presented by Hoffman (2007)

\* Hong Kong, Taiwan and Republic of Korea

The EU has become an important destination for babycorn, and asparagus exports are directed largely to Japan and South-East Asia, and mango exports mainly to South-East Asia and Japan. (Hoffman, 2007). These commodities are mostly produced by smallholders<sup>85</sup> who link

<sup>85</sup> 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 (Hoffman, 2007)

to the exporters through packhouses and exporters under contract farming arrangements, sometimes involving intermediary traders.

### ***Critical issues and drivers for change***

It has been suggested that Thailand, in common with other Asian countries, has developed economically by implementing “shared growth strategies” consisting of two components: encouraging high savings and long term investments, and upgraded organization, technology and management (Page, 2005). Growth was at the centre of the public policy agenda and highly visible wealth-sharing mechanisms – such as universal primary education, land reform, and free basic health care -- 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.

### ***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<sup>86</sup> 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 covering palm oil, rubber, rice and sugar including non-tariff instruments permitting a high degree of discretion on the part of government officials (Warr, 2008). The 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 five mentioned above and also onions, garlic, potatoes, pepper, tea, raw silk, maize, coconut products and coffee. Apart from support to soybean, sugar palm oil and dairy, Thailand’s interventions have seldom taken the form of intervening directly 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, and 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 Thailand devotes a relatively high level of 10-15% of its budget on agriculture and 10% of the research budget (Akroyd and Smith, 2007). Government supports a number of research institutes eg. Chiang Mai University and Chanthaburi Horticultural Research Centre.

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<sup>86</sup> Except for price support and input subsidy schemes for soybean and sugar.

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 deed to land in Thailand ranging from the top level where the registered holder of the title deeds 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 recognise ownership.

Leases up to 30 years term 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.

The following approach is used by the Thailand government in establishing agricultural agreements<sup>87</sup>:

- consultations between the public and representatives of the private sector, relevant government agencies and academics, the following negotiating strategies have been established;
- Emphasise Thai agricultural products with high competitiveness such as rice, tropical fruits, rubber and processed food;
- Allow appropriate timeframe for adjustment for sensitive agricultural products;
- Cover market access problems arising from SPS 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.

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<sup>87</sup> [http://www.thaifta.com/english/index\\_eng.html](http://www.thaifta.com/english/index_eng.html)

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 US government to amend federal fruit and vegetable regulations to allow importation into the United States 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 relationship between exporters, producers, government agencies, service providers and other stakeholders by working together;
- provide knowledge on food safety and quality assurance system for members and the general public through training and seminar;
- develop a centre for members to share market information, knowledge and other important issues;
- provide linkage to other stakeholders such as farmers' group, cooperatives and others thereby strengthening the Thai produce industry.

### ***Food safety***

Addressing food safety concerns (particularly levels of pesticide residues) has become more prominent in trying to access or maintain certain markets. The Government has been highly supportive in addressing food safety in the agricultural sector. The Ministry of Agriculture and Cooperatives (MOAC) through its Department of Agriculture (DOA) has set up a national good agriculture practice (Q-GAP) scheme for agricultural production and is responsible for control and inspection (Wannamolee, 2008). In support of the GAP scheme, the National Bureau of Agricultural Commodity and Food Standards (ACFS) was established in 2002 to develop national standards of agricultural commodity and food product. Since 2003, ACFS has set up a number of National GAP Standards on crops, livestock and fisheries, developed largely in accordance with the requirement of FAO/WHO. The Department of Agricultural Extension (DoAE) is mandated to promote 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 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 are 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) and for vegetables - babycorn (1,382 farms/736 ha) and asparagus (1,608 farms/533 ha). In addition to certifying farmers, 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.

Whilst the national programme for food safety has undoubtedly raised standards, the level of certification is not sufficient to guarantee entry into high-value EU markets. However, with support from the private sector and donors eg. GTZ, a programme 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 C7). Of particular note is the high numbers for smallholder certification (Option 2).

**Table C7: Number of GLOBALGAP-certified producers in 2007**

	Number of certified producers			TOTAL
	Option 1	Option 2	PMOs	
Thailand	25	701	7	726
Vietnam	0	11	1	12
China	75	191	19	266
Chile	956	209	4	1165
India	411	616	13	1027
Kenya	31	575	27	606

*Source: FoodPlus, in Hoffman (2007).*

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 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 (Anon., 2005) illustrated these linkages through the example of smallholder potato growers co-operative whose members developed a sustainable rice-potato production system on holdings of about one ha per farmer. Local government officials worked with the co-operative to establish links and contracts with potato-processing firms to establish a sustainable value chain. The farmers ensured an assured 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 US\$31 billion in 2004, with growth at 35% in the previous four years (Anon, 2006). Thailand's retail sector has diversified and expanded to include hypermarkets (all foreign-owned), shopping centres, 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<sup>88</sup>. Many global food companies use Thailand as a low-cost centre for further processing and for the re-export of food products to markets across the Asian region.

<sup>88</sup> The Thai government abolished the legal requirement of majority Thai shareholding in response to the economic crisis in 1997.

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<sup>89</sup> 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 initiative in the sector was the Thai Fresh project initiated in 1999 when Golden Exotics Holland and KLM Cargo established a distribution and packing centre 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 centre was built in 2003 in the production region of Ratchaburi Province. The post-harvest centre 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 competences 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 Q certification system had limited financial means and lack of capacity restrained it from taking a more prominent role.

Other examples of private sector-driven growth include the provision of training, necessary inputs including credit and sprinkle irrigation, and assuring output prices for the introduction of asparagus in the Kamphaengsaen district of Thailand (AVRDC 1998).

### ***Conclusions***

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 neighbouring countries in the region providing the main export markets. Government policies to support the sector have centred on indirect intervention providing support infrastructure and training, with particular emphasis on food safety certification recognising 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 organisations;
- government lead in developing good agricultural practices and food hygiene certification systems;

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<sup>89</sup> Royal Ahold is no longer involved in retailing in Thailand

- development of trade agreements in key market destination;
- increase national and foreign private sector investment in food manufacturing and the retail sector which has impacted on smallholders opportunities in accessing markets;
- the private sector, with support from donors and government, has been able to establish a large number of GLOBALGAP-certified smallholder supply chains.

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**Appendix 1. World export value of fruits from Thailand, 2003–2006 (million dollars).**

Commodity	Value: USD Million			
	2003	2004	2005	2006
<b>Fresh, Frozen, and Dried Fruits</b>				
<b>Fresh Fruits</b>	<b>117.30</b>	<b>150.59</b>	<b>181.20</b>	<b>219.73</b>
Longan	41.38	54.15	53.37	57.19
Durian	33.09	40.75	54.66	73.70
Mango	4.72	4.41	4.56	8.59
Lychee	3.66	4.44	6.35	7.62
Banana	1.84	3.70	4.00	5.24
Citrus	3.52	4.49	6.25	13.14
Rambutan	1.83	0.78	0.77	0.47
Mangosteen	7.38	10.98	17.49	7.10
Pineapple	1.32	1.26	1.27	2.17
Others	18.57	25.63	32.49	44.52
<b>Frozen Fruits</b>	<b>25.46</b>	<b>28.52</b>	<b>28.55</b>	<b>32.16</b>
Pineapple	2.43	2.54	4.31	3.85
Durian	16.86	14.77	11.48	12.55
Longan	0.52	0.68	0.83	0.58
Others	5.65	10.53	11.92	15.19
<b>Dried Fruits</b>	<b>77.71</b>	<b>57.19</b>	<b>75.47</b>	<b>66.59</b>
Longan	62.82	38.36	56.95	43.42
Others	14.90	18.83	18.52	23.16
Other Fruits	6.84	8.50	10.17	11.28
<b>Total Fresh, Frozen, and Dried Fruits</b>	<b>227.31</b>	<b>244.79</b>	<b>295.39</b>	<b>329.76</b>

Commodity	Value: USD Million			
	2003	2004	2005	2006
<b>Canned and Processed Fruits and Juices</b>				
<b>Canned Fruits</b>	<b>394.86</b>	<b>420.25</b>	<b>457.55</b>	<b>530.77</b>
Pineapple	268.80	279.14	301.05	361.33
Rambutan	8.93	9.47	9.32	8.04
Lychee	11.49	10.30	9.84	11.21
Longan	12.39	10.08	11.06	10.81
Mango	7.20	8.62	9.15	11.69
<b>Mixed Fruits</b>	<b>60.59</b>	<b>71.73</b>	<b>80.44</b>	<b>86.00</b>
Others	25.47	30.91	36.69	41.68
<b>Juices</b>	<b>201.25</b>	<b>178.61</b>	<b>186.72</b>	<b>235.90</b>
Pineapple	136.32	114.57	112.92	141.94
Orange	3.39	2.59	2.69	3.19
<b>Mixed Juices</b>	<b>1.89</b>	<b>3.18</b>	<b>2.67</b>	<b>2.86</b>
Others	59.65	58.26	68.44	87.91
<b>Processed Fruits</b>	<b>141.94</b>	<b>185.43</b>	<b>218.92</b>	<b>259.51</b>
Pineapple	22.63	25.37	30.53	36.84
Orange	14.13	23.07	28.84	33.66
Others	105.18	136.99	159.55	189.02
<b>Total Canned and Processed Fruits and Juices</b>	<b>738.04</b>	<b>784.28</b>	<b>863.18</b>	<b>1,026.18</b>
<b>Total Fresh and processed fruits</b>	<b>965.35</b>	<b>1,029.07</b>	<b>1,158.57</b>	<b>1,355.94</b>

*Source: Ministry of Commerce, Thailand.*

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## **SECTION D - POLICY AND INSTITUTIONS**

## D1: HAG AND SPEG: WHO HAS SURVIVED?

### *Introduction*

In developing a strategy for Ghanaian export horticulture it would be desirable 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 Horticulturalists 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.

### *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 MT of fruit per week. The exporters ranged in size from 1MT per week to 250MT per week but 60% were quite small with capacities of <25MT per week (Table D1). In the course of the year 21 SPEG members accounted for exports of 38,494 MT of fruit (Table D2). Some 50% of exporters had GLOBALGAP (formerly known as EurepGAP), FLO or organic certification. However, certification to private standards was confined to companies with capacities of >15MT per week.

**Table D1: Summary of HAG and SPEG members export capacity**

Export capacity MT/week	Member of HAG	Member of SPEG	Private standard certified	Exporting in 2004	Exporting in 2009
100 to 250	2	8	8	8	7
60	2	4	4	4	2
30 to 40	6	7	7	10	1
20	5	2	4	7	1
15	9	2	4	10	0
10	7	3	0	10	0
1 to 5	5	0	0	5	0
<b>Total</b>	<b>36</b>	<b>26</b>	<b>27</b>	<b>54</b>	<b>11</b>

Source: Data supplied by HAG and SPEG, membership and capacity data are also available at [www.ghanafreshproduce.org](http://www.ghanafreshproduce.org)

**Table D2 Comparison of SPEG members exports in 2004 and 2008**

	2004	2008
<b>Export volume MT</b>	38,494	21,883
<b>No of exporters</b>	21	11

Source: Derived from data supplied by SPEG

In 2008, the position had changed dramatically: of the 21 SPEG members active in 2004 only 11 had survived and exports had reduced to just 21,883MT (Table D2). Of the 11 exporters active in 2008 one has since dropped out leaving just 10 survivors from the list of exporters

active in 2004. Although the number of active exporters has dramatically reduced from 54 to just 11 companies, the drop in theoretical export capacity is much less with 60% of capacity being retained. This is because the majority of larger businesses have survived whilst the smaller companies have dropped out of the export pineapple business (Table D1).

In fact data from HAG and SPEG indicates that with a few exceptions only businesses with a capacity of 60MT per week have survived. The survivors among the smaller businesses have become FLO (Fairtrade) 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 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 success is illustrated by the fact that in 2004 their exports accounted for just 4% of the total whereas today they account for 60% of the total exports. The other companies have fared badly experiencing falls in export volumes ranging from 45 to 88% when compared to 2008 levels. Of these nine businesses only five of the companies 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 mechanisation, 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 members were larger exporters (Table D1) and had the best chance of coping. Most of the HAG membership were smaller exporters (Table D1) and hence had the least capacity to cope with a change requiring high levels of resources for a rapid and efficient response.

The larger SPEG members suffered badly in most cases as they were ill-prepared for the change to MD2. With a few exceptions most were not proactive in investing for change several years before the crunch in mid 2005. Even those that did invest in planting material and mechanisation 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 the failures lost their working capital 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 >40MT per week and hence lacked the necessary resources to cope with the change to MD2. Many of these businesses had no proper packing facilities and very little mechanisation on farm. Compliance with private voluntary standards such as GLOBALGAP was the exception rather than the norm. The low level of resources of these farms is illustrated by the observation from a visit made in 2004 (Graffham 2004) to one of the smaller exporters who had 110 acres of land planted with smooth cayenne. The farm had almost no infrastructure and the owner complained that putting in place farm infrastructure to meet the requirements for GLOBALGAP would cost USD37,000 a sum which he was unable to afford. 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 have not survived 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.

### ***Impact on the Trade Associations***

In the current state, it is difficult to see how the trade associations can contribute to the export horticulture sector. Certainly, the foregoing indicates a membership that 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, with a membership that is largely financially insecure, this last objective can only be achieved with external funding.

The trade associations are no longer in a position, through no fault of the secretariat, to drive the sector forwards. There have been times, for example with SPEG co-ordinating vessel chartering, when the associations did indeed provide some leadership, but associations grow out of active expanding 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 in 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 organisations and of the funding, in particular, needs to be appraised against commercial return: can trade show attendance and/or exhibiting be justified in sales, for example?

### ***Conclusions***

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 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) made a study of the comparative levels of agility between the Ghanaian and Costa Rican pineapple industries. They identified factors that could impact adversely on a firms' ability to respond to change in a timely and cost effective manner which they called agility gaps. According to Dawson and Aguiar (2007) 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. In contrast most production in Ghana came from small farms and even the largest farms only had 1,500 to 2,000 acres which is small in comparison to Costa Rica. It is interesting to note that

Ghana's two success stories represent 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 survivor's 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.

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## **D2: PLANS, POLICY AND INSTITUTIONAL SUPPORT**

### ***Introduction***

We do not intend to review again the government policy and the support of donors and NGOs directed at export horticulture. We summarised this in our 2008 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 as s/he was 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...”*

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-<sup>90</sup>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.

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. The numbers who are actively involved in growing for export however are quite small now. There were times when large numbers contributed to the pineapple sales overseas for example but the difficulty of MD2 cultivation and the stringencies of GLOBALGAP production have forced them out of the sector. Small scale producers only predominate in the less regulated export products where there is no need for GLOBALGAP but equally the production is low margin and high risk.

### ***Rationale***

The difference between export horticulture and other crops and markets lies in the relative ability of categories of farmer to compete. Table D3 summarises the apparent strengths and

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<sup>90</sup> 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 managerial capability and capitalisation.

weaknesses of different categories of producer. The table seeks to identify the challenges where 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 labour than the large-scale farmer, who must manage a workforce. But where finance 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 of the challenges. Once weaknesses are identified, say as technical constraints, these can be addressed through extension or project assistance.

**Table D3 Competitive strengths and weaknesses of different farm types**

	Smallholder Farmers		Small Investor-Farmers	Large-scale Farming
	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	✓	✓	✓✓	✓✓✓

✓ = poorly positioned

✓✓✓ = well positioned

*Source: Leavy and Poulton (2007)*

Growing fresh produce for exports, 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 too recognise 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 D4 below.

**Table D4 Predicting competitiveness of farm types in different crops and markets**

		Smallholder Farmers		Small Investor-Farmers	Large-scale Farming
		Non-commercial	Commercial		
Local, National and Regional Markets	Food Staples	Yes	Yes		Doubtful
	High Value Crops		Yes	Yes	Doubtful
Remote Export Markets	Low Value Export Commodities (cassava, soya, grain)				Doubtful
	Traditional Export Commodities		Coffee, cotton, cocoa, tea, groundnuts	Yes	Sugar, tea, tobacco
	Horticultural Products		Doubtful	Doubtful	Yes

*Source: Leavy and Poulton (2007)*

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 (ie 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, and we particularly note the increasing needs of the processing sector.

We could divide the table up further by horticultural crop and market type, for example chillies to EU wholesale markets against chillies to EU supermarkets, or yam exports vs MD2 pineapples, and this might show how each scale of enterprise can fit a particular crop or market, but it overlooks the opportunity in mutual support and symbiosis. For example, the large scale farmer can benefit from the low-cost supply of motivated family labour of the

small-scale farmer<sup>91</sup>, 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.

In Ghana, we lack the community of large-scale farmers in horticulture.

This deficiency hinders the participation of the 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, not only economically but also politically. But we would argue that, latterly, the absence of a large-scale farming sector will have counteracted much achievement in bringing the small-scale farmers forward. Thus, for example, GLOBALGAP training may help with farming practice but not with penetrating a market of fickle consumers.

It is time now to build a more collaborative structure, which recognises the strengths and capabilities of the different types of farm and provides appropriate support to areas of weakness<sup>92</sup>. Without a strong business-like large-scale farming sector the long-distance export of horticultural products will be confined to the undifferentiated commodity wholesale markets with consequent low returns. These may still offer a reasonable outlet, but they will become inexorably more competitive.

By building a strong business-like sector we believe we can best provide an environment in which the small scale farmer can develop. He may choose to sell his skill directly as an employee or indirectly as a contract farmer, but the presence of the larger-scale intermediary does much to mitigate risk and provide support. The counter-argument that the small-scale farmer risks substitution by the larger investment ignores the current reality of a uncompetitive sector which will not be sustained.

### ***Conclusions***

To develop the potential in export horticulture we need to build a strong, large-scale commercial sector capable of leading the industry forwards and combining profitably with the small-scale farmers. 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 years<sup>93</sup> and it is clear that Ghana is attracting

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<sup>91</sup> Babycorn in Thailand for example

<sup>92</sup> 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.”

<sup>93</sup> Eg World Economic Forum Global Competitiveness Report

<http://www.weforum.org/documents/GCR09/index.html>; World Bank Ease of Doing Business

<http://www.doingbusiness.org/economyrankings/>; Heritage Foundation Index of Economic Freedom

<http://www.heritage.org/Index/Ranking.aspx>; AT Kearney FDI Confidence Index; IMD World Competitiveness Yearbook [http://www.imd.ch/research/publications/wcy/upload/Overall\\_ranking\\_5\\_years.pdf](http://www.imd.ch/research/publications/wcy/upload/Overall_ranking_5_years.pdf)

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. (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 – 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.
3. 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
4. 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.

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**D3: LAND ACQUISITION*****Introduction***

To the potential investor in agriculture the availability of land is one of the first questions to be answered by the pre-investment enquiries. If land is scarce it will be expensive; if land acquisition is difficult there will not only be expense but time lost; if the 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 the 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 of course depends on the extent of land required and the location. Unfortunately for the Ghana 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.

There is not space here to provide a comprehensive review of the research and writings on land tenure through Africa, nor are there any generic solutions to the multitude of difficulties that these systems of tenure impose. The following notes give an overview of the current situation in Ghana and the Government efforts to move forward on the questions of land tenure.

***The current situation***

There are two major classes of land tenure in Ghana: 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, while 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 (ie 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 in consequence the customary systems may vary across Ghana. Note also that some 80% of rural land in Ghana is under 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. And so 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, while in more populous areas the issues multiply with diverse rights-holders claiming deeds and titles.

### ***The problems***

Problems with the land sector in Ghana include:

1. Indiscipline in the land market – encroachment, multiple sales of the same plot, unapproved development, spurious claims to title/deeds and so on
2. Costly and time-consuming legal support services – land acquisition can be onerous and defending the tenure uncertain
3. The customary authority may gain personally from a lease without benefit to the constituents who may not be consulted
4. Land administration services that are confronted by a huge organisational task
5. An increasingly landless population, which inevitably politicises the acquisition of land

### ***The issues***

Underlying issues behind these problems include:

1. Uncertain boundaries – with no cadastre for reference and deeds and /or titles determined a long time back, the demarcation of a tract of land is inevitably open to dispute
2. Compulsory state acquisition of land that may not have been used or compensated or may have left the autochthonous communities landless.
3. The rules of customary tenure are not fully codified, but are complex, extensive and may vary between local authorities
4. Lack of transparency and accountability at the level of the customary authorities

Further issues are evolving, including:

1. Increasing population pressure – not only through demographic growth, which in turn leads to land holdings becoming subdivided, but also the movement and urbanisation of populations
2. The diaspora of extended family members – it is difficult to get agreement throughout the family (important where there are multiple interests in a larger plot) and a remote relative may return to claim earlier rights.
3. A concentration of land-holding as property gains in value.

### ***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, 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)<sup>94</sup> that was 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 harmonisation 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 provides for a new institutional arrangement for the land sector by the establishment of 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 D3) have been identified by surveys across all the regions.

**Table D3: Summary of areas available in the Regions.**

REGION	NUMBER OF HECTARES	REGION	NUMBER OF HECTARES
Volta	9,435	Northern	204,999
Ashanti	801	Upper West	1,986
Central	4,373	Upper East	-
Greater Accra	6,631	Brong Ahafo	54,232
Eastern	28,624	Western	9,045 (+?)
<b>TOTAL 271,317</b>			

Source: LAP

<sup>94</sup> <http://www.ghanalap.gov.gh>

### *Conclusions*

1. Many of the problems noted above persist and land acquisition remains at best cumbersome. 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.

2. 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 2009 onwards 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 is to be induced in agriculture:

- Larger tracts need to be assembled – an investment in vegetable production for example will require sufficient acreage for long crop rotations.
- 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.

3. The Government should consider a role in intermediation, for example using an agency to lease the land in order to sub-let it to an investor. This could protect the investor from spurious claims since the Government has the head lease, while simultaneously protecting the 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 “owner” 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<sup>95</sup> of both lessor and lessee if any arrangement were to be achieved.

4. 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 Section 2 here, to attract investment into export horticulture from Ghana.

4. 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

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<sup>95</sup> 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

involve not only the local community, but also the regional authorities as well as neighbouring land owners.

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**D4: INFRASTRUCTURE*****Introduction***

The infrastructure managed by 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 with a perishable product having high demands for good post-harvest handling.

***Power***

Power supplies remain unpredictable. In consequence, diesel for generators continues to contribute a major expense with serious implications for company profitability. The impact on the competitiveness, not only of processors but also of farming operations that need pumps, run pack-houses or use refrigeration, is important. The increase in mining and smelting activity in the country is leading demand and it is estimated that Ghana will need an additional electricity generation capacity of 2,000MW within five years<sup>96</sup>.

In an effort to deal with this situation, the power sector has been deregulated to create an environment that can attract private investment. While tariffs for electricity from the grid remain quite low, there is however a disincentive to investment. That said, several independent producers are constructing power plants in the country and there should be additional capacity in the short-term 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 breakdown.

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 an impact on the generation of electricity in Ghana.

While there is plenty of activity in the electricity generating sector in Ghana, the economic growth combined with the rural electrification projects will ensure that demand leads supply for some time yet.

***Pack-houses 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 m<sup>2</sup>. The installations of the remaining four are at various levels of completion.

Pre-feasibility studies for three public pack-houses 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 programme.

EMQAP is designing and constructing two field packhouses with 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.

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<sup>96</sup> Frost & Sullivan Strategic Analysis of the Ghanaian Electricity Industry

### ***Irrigation***

To date 34 sites with potential for new or rehabilitation of irrigation facilities have been identified by the implementing contractors to the MiDA programme. 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 USD5.8mn 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 have demonstrated with their banana production what may be achieved, based on irrigation from a sluice at the Kpong dam.

Irrigation projects in the Afram Basin, utilising the Volta Lake, 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 port. 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 interacts with MoFA via a number of projects such as the Cashew Development Project, EMQAP (involving the improvement and upgrading of 407km), the Inland Valley Rice Development Project, and the Northern Rural Growth Programme among others.

The MiDA Programme has a substantial transportation component which is divided between feeder roads, trunk roads including the N1 around Accra and improved ferry services on Lake Volta, linking the Afram Plains to Nkawkaw.

### ***Sea-ports***

Fresh produce finally entered Shed 9 in the early part of Quarter 3 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.

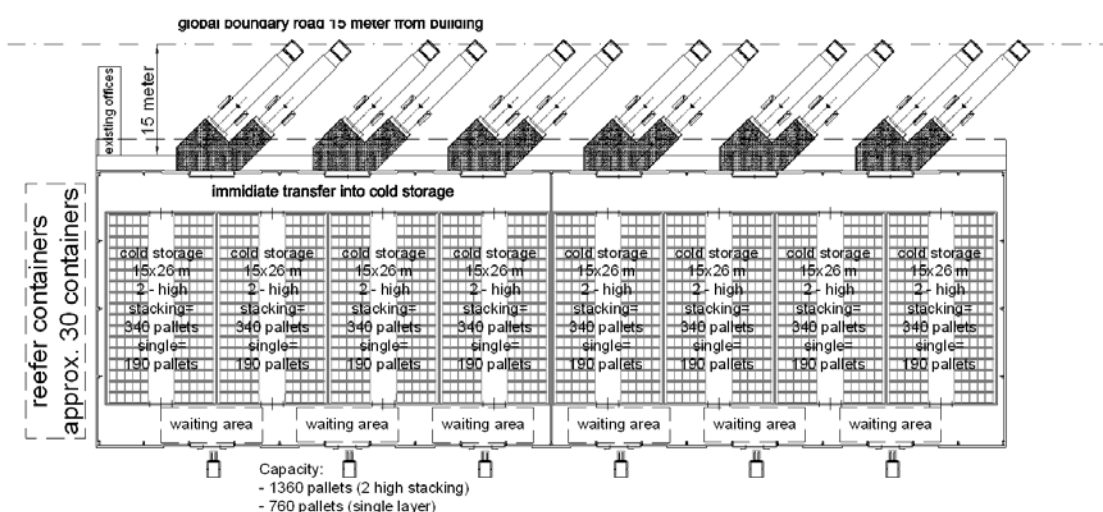


The operation of the Shed comes under an oversight committee made up of GPHA, SPEG, Golden Exotics and MOFA. This arrangement ensures transparency and that all parties are satisfied with the operation.

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. We heard expectations 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 stabilisation to protect the refrigeration electricity equipment from surges. At present, there is some protection from a stabiliser 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 at this period as it is not needed.

Small volumes of fruit passed through the Shed in August as this is the season of lowest production, volumes will pick-up during September and the Shed will be more heavily used as more bananas are exported from Golden Exotics. We wait to see 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 containerise 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 is a separate study in itself and our enquiries into the background were superficial, but there are some points for consideration:

1. The parameters that were entered into the business plan may not have been well defined.
2. 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.
3. 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.
4. The rehabilitation of Shed 9 was financed by the World Bank-funded AgSSIP programme. 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 privatised 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 report that berth productivity is approaching European levels. MPS currently operate two berths with a combined length of 574 m. 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 situation is not clear as to why these additional berths are not part of the privatised terminal, 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 before loading can take place. Any mishaps or traffic on the roads is therefore penalised by missing the flight.



As noted in Part 1 of this study, a refurbishment was planned in 2003 but abandoned as the budget was moved in favour of developing Shed 9 at Tema. At the time of writing, in mid 2009, MiDA is preparing a tender to upgrade the facilities and hiring consultancy. Detail of the plans is 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.

### *Conclusions*

1. 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 world-class fruit terminal and container handling.
2. 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.
3. 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. We would suggest that, at this stage, a mediator 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 pack-houses of MiDA. We believe that as further investors realise the potential in Ghana the Shed will become fully utilised.
4. With limited resources, and therefore an obligation to prioritize, the development of infrastructure by central government is inevitably reactive and responds to a perceived need or trend. But there is also case for being proactive, in particular in order to develop a new area 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 B1.

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## **SECTION E - EXTERNAL MARKETS**

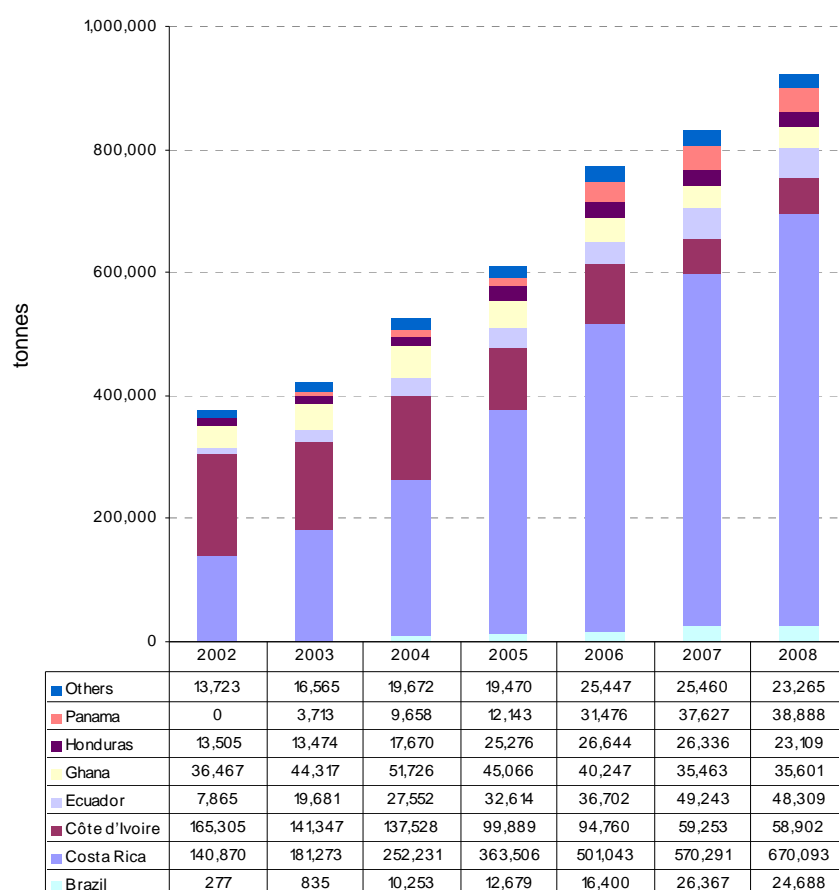
## E1 EU IMPORTS OF SELECTED TROPICAL PRODUCTS

### UPDATE

#### Introduction

The following charts provide an update of the analysis carried out in Part 1 of this study<sup>97</sup> where there is a more complete discussion of the market for each product. Brief notes are appended to the charts where appropriate.

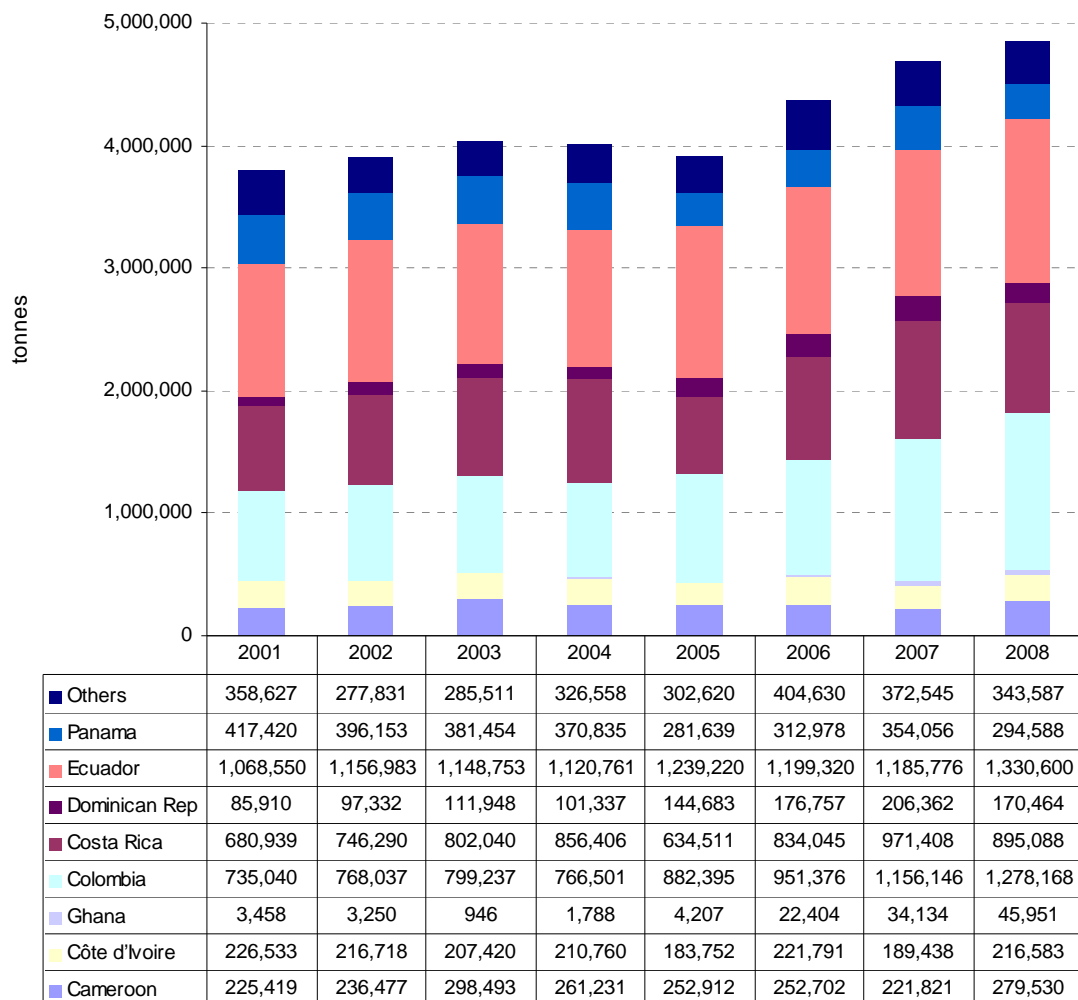
**Figure E1: EU imports of pineapples from different sources, 2001/08**



Source: EUROSTAT & Accord Associates

- 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.

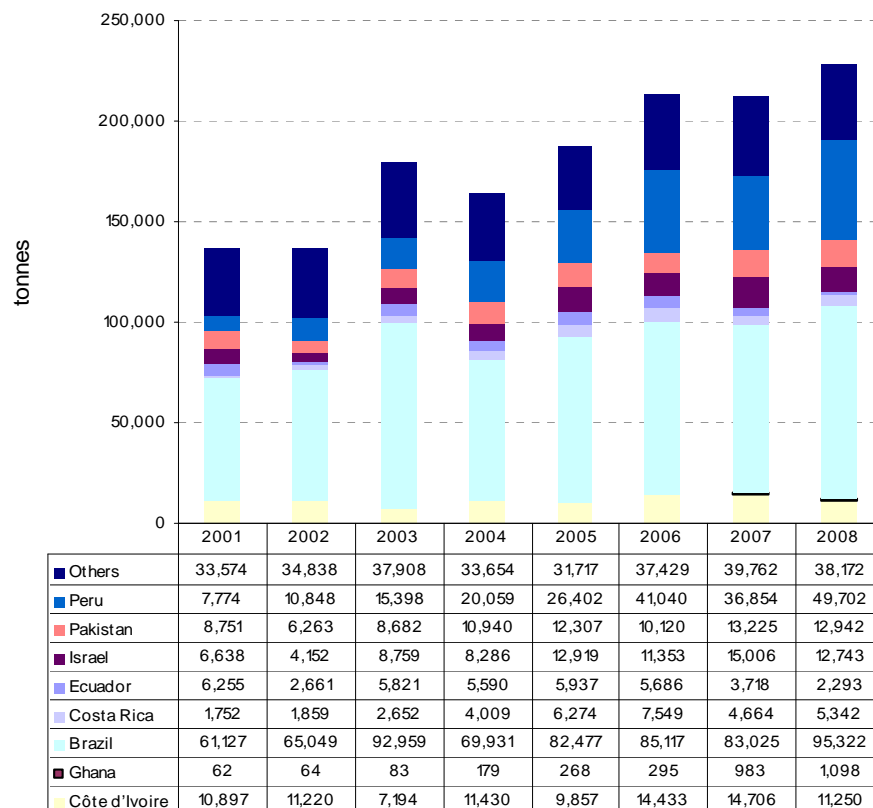
<sup>97</sup> Ghana Export Horticulture Cluster Strategic Profile Study - Part I - Scoping review

**Figure E2: EU imports of bananas from different sources, 2001/08**

Source: EUROSTAT &amp; Accord Associates

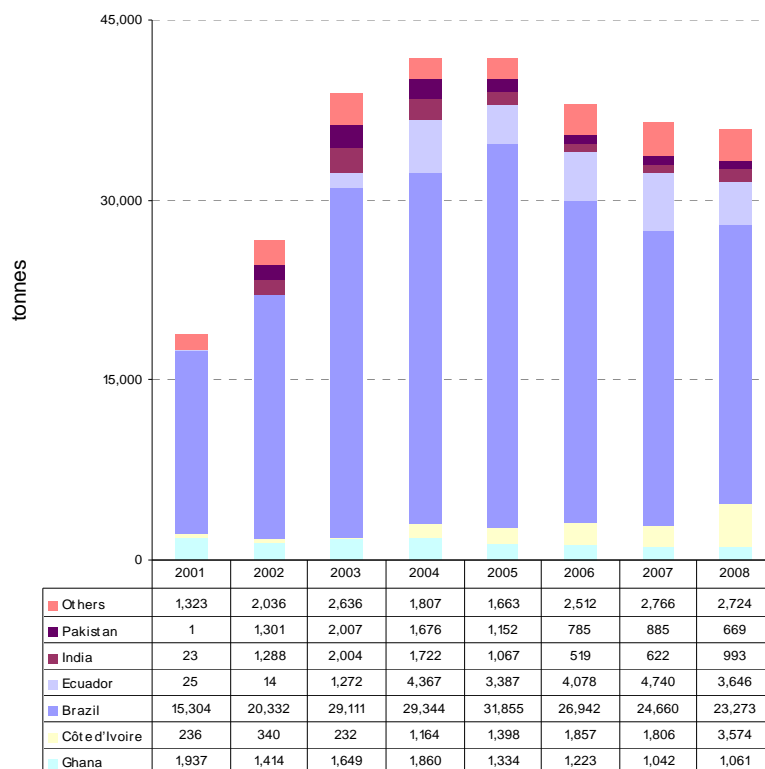
- Imports of bananas to the EU grew by 163,000 tones (3.5%) from 2007 to 2008. Ecuador, Colombia and the three West African origins of Cameroon, Ghana and Côte d'Ivoire all recorded significantly increased sales. Output from Costa Rica fell.

**Figure E3: EU imports of mangoes, guava and mangosteens from different sources, 2001/08**



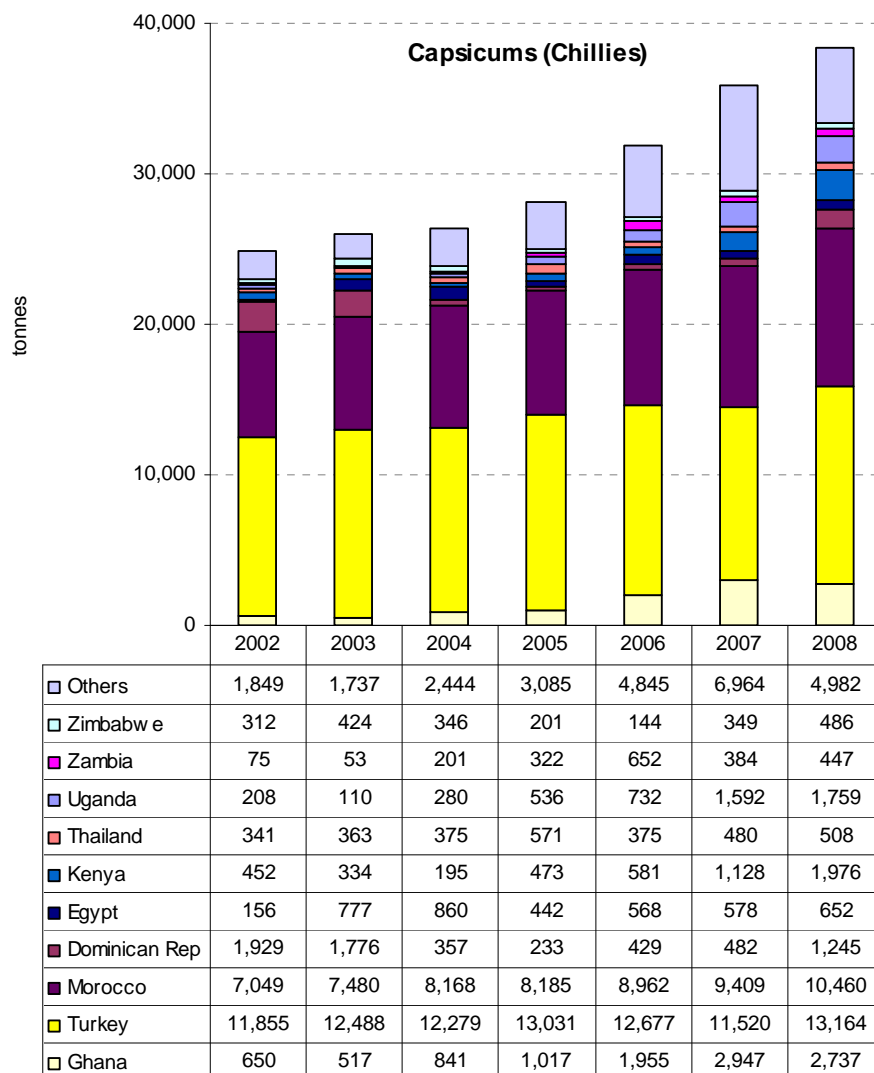
Source: EUROSTAT & Accord Associates

- 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.

**Figure: E4 EU imports of papaya from different sources, 2001/08**

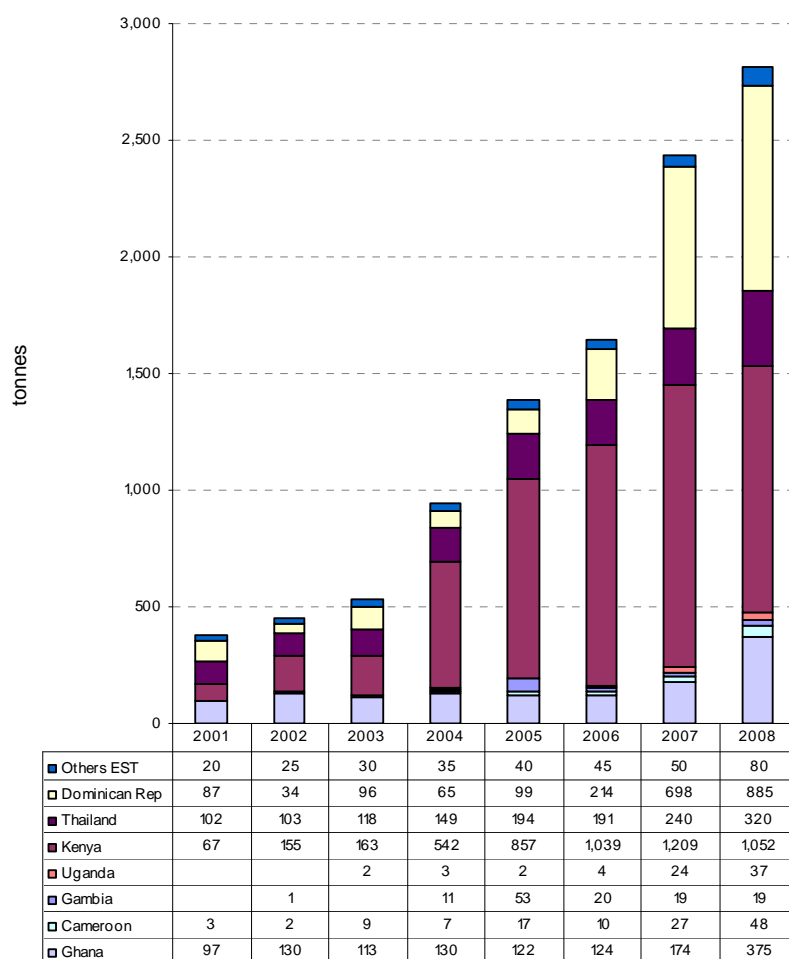
Source: EUROSTAT &amp; Accord Associates

- European imports of papaya appear to be stabilising.
- Côte d'Ivoire showed a strong jump in exports while Ghanaian output seems steady.

**Figure E5: EU imports of capsicums from different sources, 2001/08**

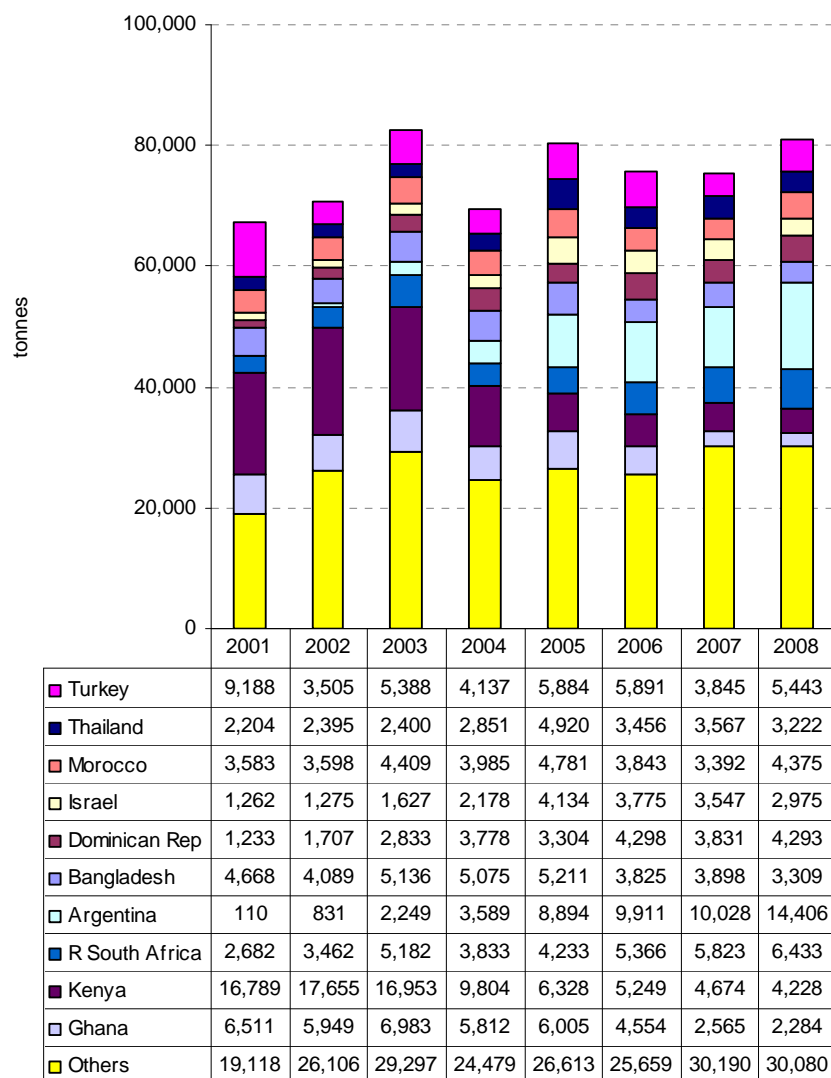
Source: EUROSTAT & Accord Associates

- 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. All Ghanaian exports are bulk packed, lower-priced chillies, while growth in exports were seen from Uganda and Kenya where higher value, pre-packed product is exported.

**Figure E6: EU imports of ravaya from different sources, 2001/08**

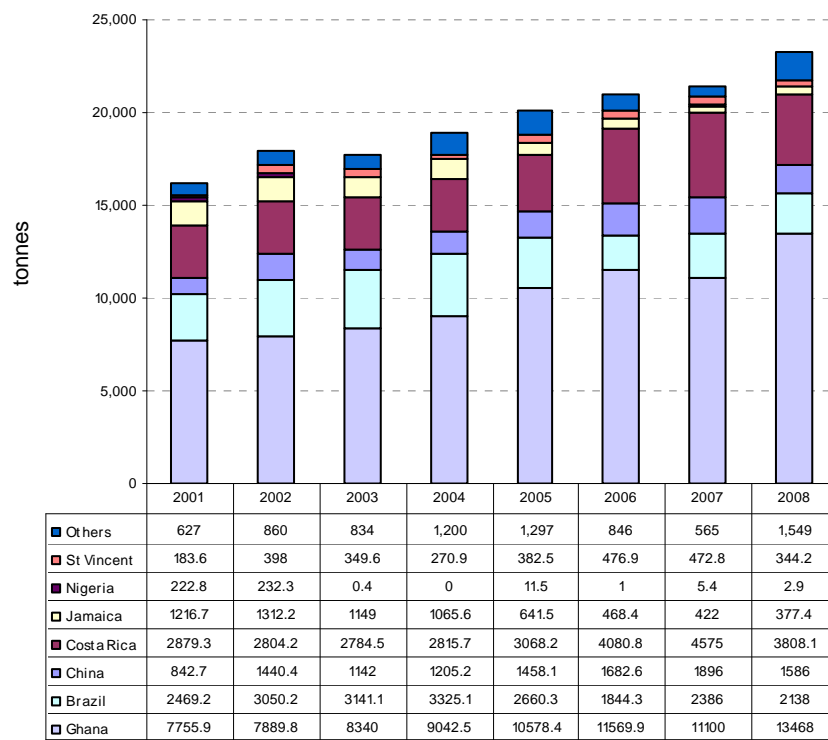
Source: EUROSTAT &amp; Accord Associates

- 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.

**Figure E7: EU imports of “other vegetables” from different sources, 2001/07**

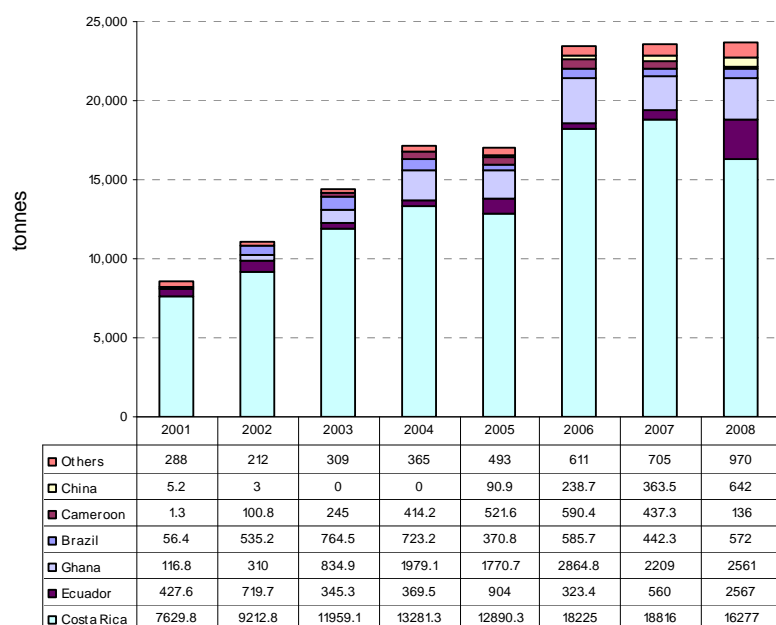
Source: EUROSTAT &amp; Accord Associates

- 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.

**Figure E8: EU Imports of Yams**

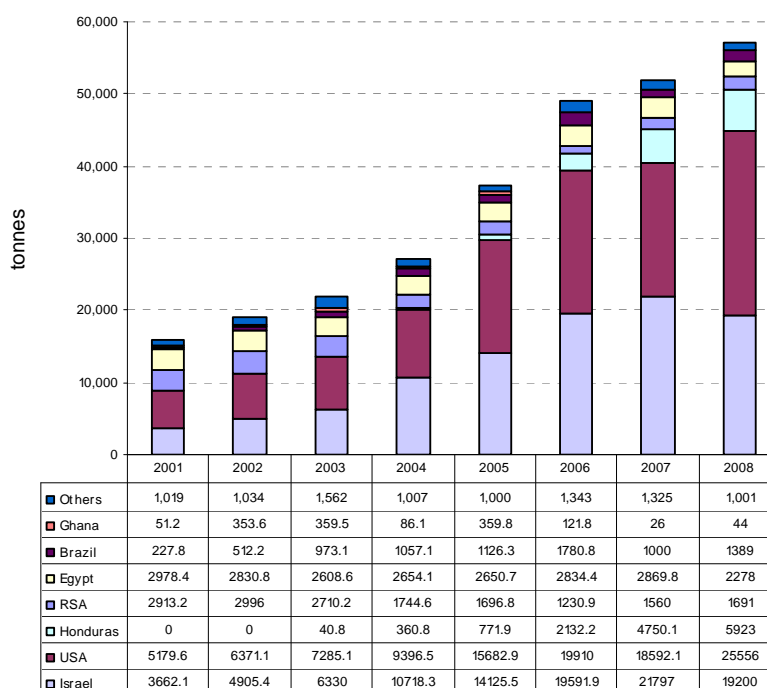
Source: EUROSTAT &amp; Accord Associates

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

**Figure E9: EU Imports of Whole Cassava for Human Consumption**

Source: EUROSTAT &amp; Accord Associates

- 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 E10: EU Imports of Sweet Potatoes**

Source: EUROSTAT & Accord Associates

- EU imports 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 product form the USA and Israel. The USA now leads the exporters.
- Despite efforts at introduction in Ghana and expansion of the production, exports remain insignificant.

## **E2: SUPERMARKET AND IMPORTER BUYING PRACTICES**

### ***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 to negotiate. 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.

### ***Buying practices***

The role of the buyer as one who is a specific sector expert, experienced in procurement and tolerant of its sector supply characteristics has almost passed. Some of the smaller national players still value continuity and expertise, but the trans-national retailers frequently change the buyer roles. Buyers are highly skilled and motivated negotiators who are using the leverage that the company scale offers to present opportunities to potential suppliers who can operate at the lowest or most efficient costs. A supermarket buyer may only occupy a particular buying desk for 18 months before achieving a tightly defined set of personal targets in order to be promoted often to a non-related product area. This short cycle of tenure for buyers prevents personal relationship building with suppliers and reduces the chance that complacency and emotion will replace ambition and logical economics. The daily actions of the buyer are now tactical within a strategic collaborative framework and the autonomy that the buyer has to make emotive or intuitive decisions has all but been removed. The Chartered Institute of Purchasing<sup>98</sup> says that 'By altering how goods are categorized and supplied it helps shift sourcing from being an error-prone transaction to creating value for the business'. To work within the collaborative framework an understanding of the fundamentals of category management is an essential skill for any potential supplier.

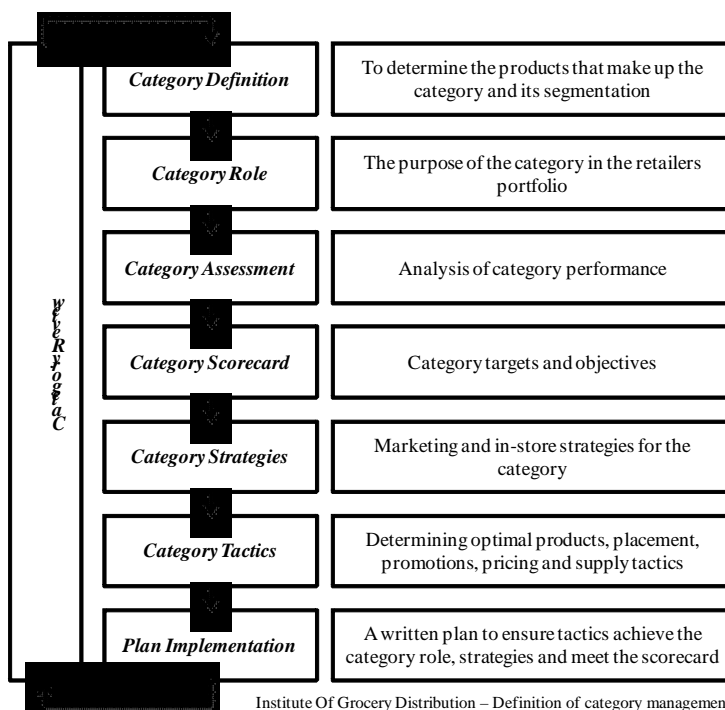
Category Management is a retailing concept that began in North America in the 1980s, and, a decade later, when AC Nielsen<sup>99</sup> began publishing supermarket sales information to the suppliers, the Category Management process began to gain momentum across the UK, Europe and Canada. Category Management describes the process in which the total range of products sold by a retailer is broken down into discrete groups of similar or related products; these groups are known as product categories. Examples of fresh produce categories may be: stone fruit, leafy salads, root vegetables.

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<sup>98</sup> <http://www.cips.org> - Jonathan O'Brien Category Management, Purchasing ISBN: 9780749452575

<sup>99</sup> <http://www.nielsen.com/>

Each category is managed as a business unit, with its own set of financial targets and marketing strategies. The focus of the category buyer is the turnover of the total category, not just the sales of the individual products in the category. Suppliers are expected, and in many cases mandated, to only develop new product introductions or drive promotional activity if it is expected to have a beneficial effect on the turnover or profit of the total category and be beneficial to the shoppers of that category – not just those that drive sales of their own product in that category.



The retailer will appoint a lead supplier, or ‘Category Captain’, as a collaboration partner who will often act as intermediary between the buyer and suppliers to the category becoming the supplier representative within the category. The Category Captain will be expected to have the closest and most regular contact with the retailer and will also be expected to invest time, 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 are the category champions for Albert Heijn (part of the Ahold group), illustrated the depth of commitment expected from category champions. Albert Heijn are 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 he says.<sup>100</sup>

Recently some retailers have formed such close alliances with the category captains that they have partially taken the role back in-house creating joint venture operations. Asda International Produce<sup>101</sup> was created in 2005 as a joint venture with Bakkavör<sup>102</sup> to streamline sourcing and raise the 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<sup>103</sup>.

<sup>100</sup> Interview Frank Brinkman 02/09/09 Ridderkerk Netherlands

<sup>101</sup> <http://www.internationalproduce.co.uk>

<sup>102</sup> Bakkavör Group is a leading international food manufacturing company specialising in fresh prepared foods and produce with a turnover of £1.6 billion in 2008. [www.bakkavor.com](http://www.bakkavor.com)

<sup>103</sup> Fruitnet.com – Chris White 16<sup>th</sup> April 2009

The category champions reduce the cost and complexity of supply chains as seen by the retail buyer. Danielle the buyer at Migros,<sup>104</sup> made clear that the time cost of a single telephone call to a large supplier like Capespan to deliver 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 supermarkets 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 €25 billion in 2007. Wal-Mart continues to dominate, reporting sales of nearly \$350 billion for 2006 (Fiscal 2007) and \$380 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 (US)<sup>105</sup>. Within each country national players compete with the trans-national players and national preferences for higher 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 from, the market is more than double the size of any other discount sector and worth an estimated €50bn in sales<sup>106</sup>.

Despite the differentiation of the retail fascias within the retail groups the purchasing policy generally remains constant across the whole estate. Food safety, certification and product quality vary little across the retailer groups. However cosmetic appearance, size and maturity will vary within the recognised regulated classes of fruit and vegetables entering the supply chain. For example, when asked about Ghanaian mangos 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 poor keeping qualities were cited as reoccurring major problems. He saw no reason to change his current sourcing policy even if Ghana were able to resolve these issues. However in contrast a hard discount retailer may accept a larger percentage of skin blemishes or a smaller size of fruit<sup>107</sup> (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.

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<sup>104</sup> Interview with John Zublin and Danielle at Migros Zurich 10 September 2009

<sup>105</sup> IGD – Retailer factsheets

<sup>106</sup> IGD – Discount retailer factsheets

<sup>107</sup> Regulation (EC) 1234/2007, amended by Regulation (EC) 361/2008 & Regulation (EC) 2200/96

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<sup>108</sup> 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 with the 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 Cannibalisation by the promoted product.

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'<sup>109</sup>.

### ***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

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<sup>108</sup> Interview Jan Kranghand, Monique Seidler quality assurance Metro MGB Dusseldorf 20 Sept 09

<sup>109</sup> IGD – Discount retailer factsheets

Europe for sale to other retailers. Comments made by Hanspeter Werder HPW backup the view that carbon footprint is important in Switzerland and he confirmed that the Swiss Coop are entering into carbon reduction strategies with suppliers<sup>110</sup>. There is clearly a distinction to be made between livelihoods and carbon footprint but this is not consistent across retail customers and as a consequence appears difficult to use as a marketing advantage.

Frank Brinkman at Bakker felt that Holland was not so concerned about air freight at this time but GLOBALGAP and BSCI<sup>111</sup> 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<sup>112</sup> 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 were able to source Banana that was both Fair trade and organic from the same source without paying a double certification premium. Although the Fair trade 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 banana 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<sup>113</sup>. 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 scepticism 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 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'<sup>114</sup>.

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<sup>110</sup> Interview with HPW Zurich 9<sup>th</sup> Sept 2009

<sup>111</sup> Business Social Compliance Initiative - <http://www.bsci-eu.org/>

<sup>112</sup> 'Switching to Fair trade will leave the retail price unchanged and create social premiums of £4m' - Sainsbury's goes bananas for Fair trade - James Knowles, food and drink Europe 14 Dec 2006

<sup>113</sup> 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 rationalisation has virtually ceased and the adoption of lead suppliers and sole suppliers has been most evident in recent years.

<sup>114</sup> Capitalism chews over Fair trade - Alex Renton - Guardian.co.uk, Sept 16 2009

***Opportunities to penetrate new markets***

- 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 GBP30million of sourcing from African farmers as part of its millennium development pledge<sup>115</sup>. However these small projects can only be regarded as a point of entry into an already highly development 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.<sup>116</sup>
- 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 practice that are attractive. However there is increasing evidence that retailers are embedding these best practices within their own proprietary standards<sup>117</sup>. Producers and exporters must acquire the capability to sustain the best practices and not simply invest in the label.

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<sup>115</sup> Retail Week 6 May, 2008 By James Thompson

<sup>116</sup> METRO GROUP website 19.05.2008

<sup>117</sup> Fair partner as an own brand, with influence over a quarter of a million workers worldwide – M&S Website

## E3: THE CREDIT CRUNCH AND ITS IMPACT ON CONSUMER PURCHASING, SUPERMARKET OFFERING, ON IMPORTER SUSTAINABILITY AND ETHICAL TRADE AND TRENDS

### *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.

### *Consumer purchasing*

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%<sup>118</sup>. 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. ‘Choice editing’ where a retailer makes broad changes to a whole category offer in response to how it perceives 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 own-label products in supermarkets across Europe and the US is growing. For example, own label now makes up nearly GBP35bn of grocery sales each year in the UK<sup>119</sup>, and projections from the same source predict that this figure will rise to more than GBP36bn by 2011.



<sup>118</sup> Growth, Concentration and Regulation in European Food Retailing, R. Poole, G. P. Clarke and D. B. Clarke European Urban and Regional Studies 2002

<sup>119</sup> The Grocer, 19<sup>th</sup> April, 2008 using data from MINTEL

Currently own-label food accounts for about 40% of total food and drink spend. 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.<sup>120</sup>

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<sup>121</sup>.

Metro Group's hypermarket chain Real in Germany introduced its new private label range real, - Quality in Autumn 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)<sup>122</sup>.

The combination of a high market share and an increasing own-brand demand from consumers is a powerful dynamic on sourcing activities and the 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<sup>124</sup>. 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<sup>125</sup>. 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."<sup>126</sup>

<sup>123</sup> Shopper Anticipated Responses to Household Budget Squeeze	
Response	%
Increase spend on budget brands	33
Cut back on treats	26
Shop around for offers	25
Cut back on convenience food	22
Switch from brands to own labels	21
Change to discount retailer	13
Cut back on ethical buying	6
Spend same on food, cut back elsewhere	15

<sup>120</sup> Issues, trends and challenges facing the food and drink industry, H Lewis, Just-Food, March 2009

<sup>121</sup> Shoppercentric research 'Grocery shoppers alter habits in response to recession', Talking Retail, 2<sup>nd</sup> March 2009

<sup>122</sup> Private Label Trends Update 2009, Planet Retail, January 2009

<sup>123</sup> Institute of grocery distribution, September 2008

<sup>124</sup> International Supermarket News, 30<sup>th</sup> January, 2009

<sup>125</sup> Fresh info news, 12<sup>th</sup> March, 2009

<sup>126</sup> Talking Retail, 15<sup>th</sup> October 2008

However at the same IGD conference some 600 delegates were polled about the current relationship between supermarket buyers and their suppliers' account managers. The 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<sup>127</sup>.

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.<sup>128</sup>

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<sup>129</sup>. 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 able to stockpile or increase production capacity. According to industry sources this can mean a significant reduction in margin after supplying more products for less money. Paying the costs of extra labour, 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 revitalise 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<sup>130</sup> 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.<sup>131</sup>

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<sup>127</sup> Talking Retail, 15<sup>th</sup> October, 2008

<sup>128</sup> Migros pays shoppers to police rivals' prices Just-Food 14<sup>th</sup> July 2008 Source: Peter Crosskey

<sup>129</sup> Sly tricks of the supermarkets Joanna Blythman, Daily Mail 8<sup>th</sup> March 2007

<sup>130</sup> FSC - Forestry Stewardship Council. MSC- Marine Stewardship Council

<sup>131</sup> Private Label Trends Update 2009 - Planet Retail, January 2009

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.<sup>132</sup> This emphasis continued through the price rationalisation of 2009, with fresh produce being some of the most visible and prolific 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<sup>133</sup>.

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 their survey of 1000 consumers, the percentage buying organic dropped from 24% to 19%.<sup>134</sup> 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."<sup>135</sup>

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."<sup>136</sup>

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 Fair trade foods in order to develop "better offers" and increase sales<sup>137</sup>. 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 from a 20.2% drop in sales in 2008<sup>138</sup>. 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.<sup>139</sup>

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<sup>132</sup> From commodity marketing to category management: insights from the Waitrose category leadership program in fresh produce. MO'Keeffe, A Fearne - Supply Chain Management Journal, 2002

<sup>133</sup> Fresh Produce Journal / Fresh Info, 16<sup>th</sup> March, 2009

<sup>134</sup> Reported by naturalchoices.co.uk "end of the organic dream? 12<sup>th</sup> February, 2009

<sup>135</sup> UK shoppers want ethical food without paying more, Reuters Online 7<sup>th</sup> July, 2009

<sup>136</sup> Ethics: Who cares? Retail Week, 4<sup>th</sup> December, 2008

<sup>137</sup> Premium and ethical food ranges growing, says Tesco, Talking Retail 10<sup>th</sup> July, 2009

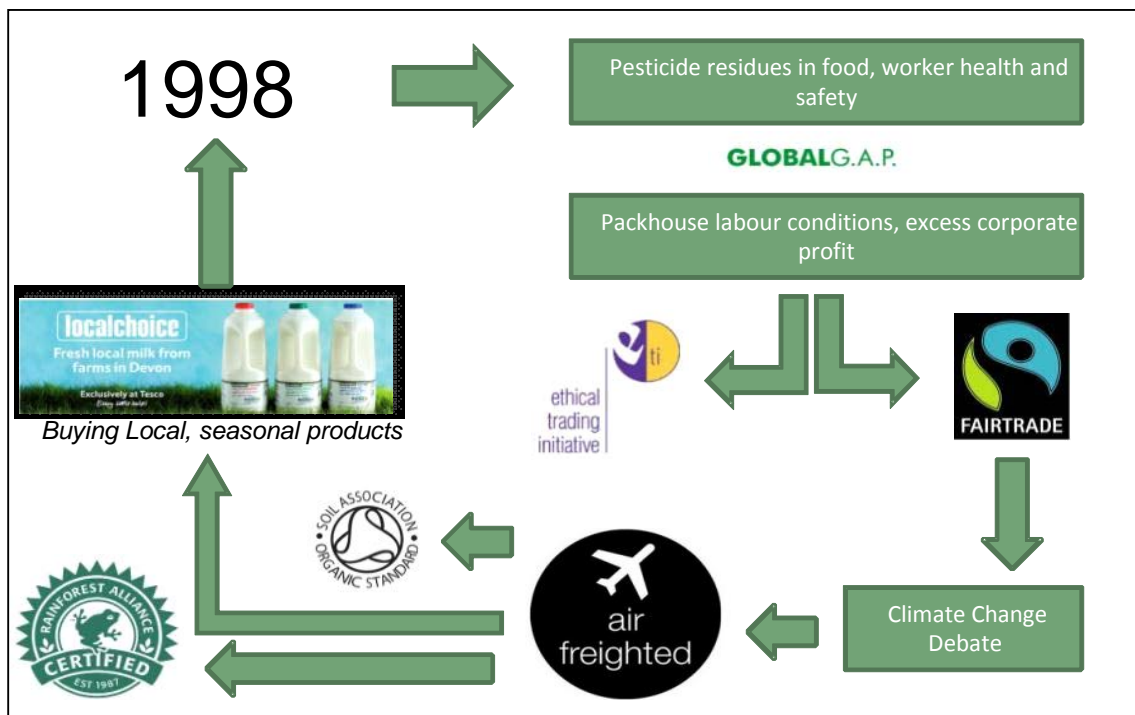
<sup>138</sup> Innocent sells stake to Coca-Cola, Just-food 6<sup>th</sup> April, 2009

<sup>139</sup> Danone drops beauty yoghurt, James Ball, thegrocer.co.uk 3<sup>rd</sup> February, 2009

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 EUR5.1mn. 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 EUR336.1mn. 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

### *Ethical Trade and Label Trends*

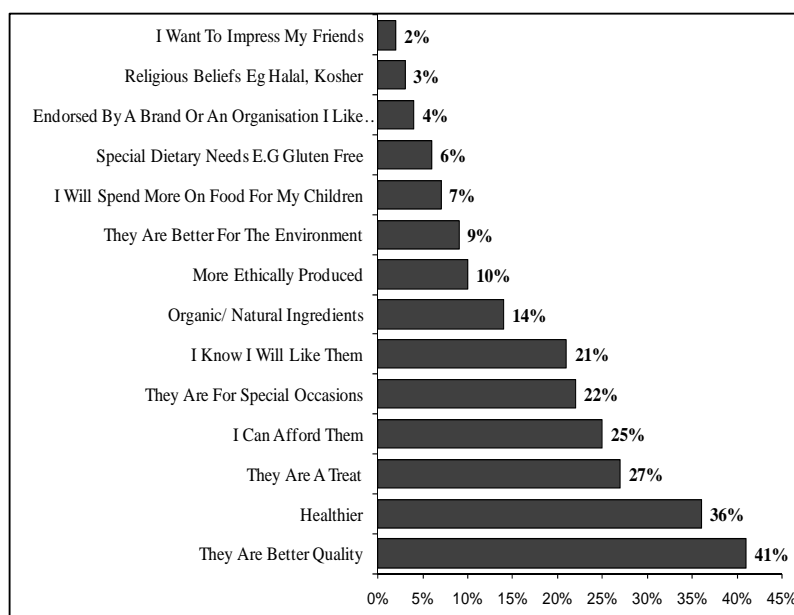


Until the global financial crisis emerged, retailers and manufacturers had undergone a decade of ethical trade sub-branding. Although the depth of relationships between suppliers, retailers and manufacturers are different in each case the trend of ethical or provenance sub-brand effect has been consistent. 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 labour 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<sup>140</sup> and Social Accountability International SA8000<sup>141</sup> emerged as tripartite or multi-stakeholder initiatives. By 2002 Fair trade became the business-to-consumer message that translated the main points of the labour 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 GBP1mn 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. Organisations 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<sup>142</sup>.

Sales of so-called ‘ethical product’ 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 £25bn-a-year market for ‘ethical consumerism’.<sup>143</sup> Ethical trade, and in particular fair trade, had become a powerful differentiator for the retailers to empathise with



the public and achieve brand enhancement through an ethical sub-brand and yet in a survey by IGD in 2007<sup>144</sup> 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.

<sup>140</sup> <http://www.ethicaltrade.org/>

<sup>141</sup> <http://www.sa-intl.org/>

<sup>142</sup> The Co-operative Bank’s Ethical Consumerism Report 2007

<sup>143</sup> Corporate UK plays the green card, H Stewart & D Hesse The Observer, 23rd July 2006

<sup>144</sup> Table IGD Ethical Shopping, Are UK Shoppers Turning Green? 26<sup>th</sup> March 2008

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 Alliance<sup>145</sup> 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 Liptons tea brand, Kraft coffee and Nestlé premium brand Nespresso coffee were 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 Fair trade 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<sup>146</sup>. 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<sup>147</sup>.

This seamless labelling evolution from labour 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 aeroplane 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.

Through 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<sup>148</sup>.

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<sup>145</sup> <http://www.rainforest-alliance.org>

<sup>146</sup> Cadbury choc to go Fairtrade to help Ghana growers Reuters 3<sup>rd</sup> March, 2009

<sup>147</sup> The Rainforest Alliance and Mars Team Up to Make Sustainable Chocolate – RA website 9th April, 2009

<sup>148</sup> Daily Telegraph 24<sup>th</sup> October 2007

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 its 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 produced<sup>149</sup> 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.

### ***Summary - Supplier Sustainability***

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 per cent last year, adding up to £750 to the average UK family's annual bill<sup>150</sup>. Steep food price inflation propelled the value of the European grocery market to Euro901.5bn in 2008.<sup>151</sup> 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, 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"<sup>152</sup>.

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 labour 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.

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<sup>149</sup> SOIL ASSOCIATION STANDARDS CONSULTATION – Air Freight Green Paper 2007

<sup>150</sup> Daily Telegraph 15<sup>th</sup> January, 2008

<sup>151</sup> European Grocery Retailing 2009, Verdict Research Group Limited

<sup>152</sup> Reuters FLEX news, 26th May, 2009

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<sup>153</sup>

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.

### ***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 have developed "grown under the sun"<sup>154</sup> 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 EU<sup>155</sup> who are lobbying retailers and facilitating trade through awareness of the country potential.

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<sup>153</sup> We're eating Zimbabwe's food as its people starve S Poulter & I Drury Daily Mail Online 25th June 2008

<sup>154</sup> <http://grownunderthesun.com/>

<sup>155</sup> PRO-EXPORT Colombia – Conduit Street London

**E4: ALTERNATIVE REGIONAL MARKETS*****Introduction & Discussion***

The following pages 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 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 neighbours such as India and Pakistan.

None of the markets here are particularly demanding in standards or SPS requirements<sup>156</sup>, 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. 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.

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<sup>156</sup> Note however that Bulgaria, Romania and Slovenia are members of the EU.

## ***Middle East***

### **Overview and Market Structure**

*The UAE Market* - Of the 4.04mn 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 and to neighbouring countries.

On the fresh produce, 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.

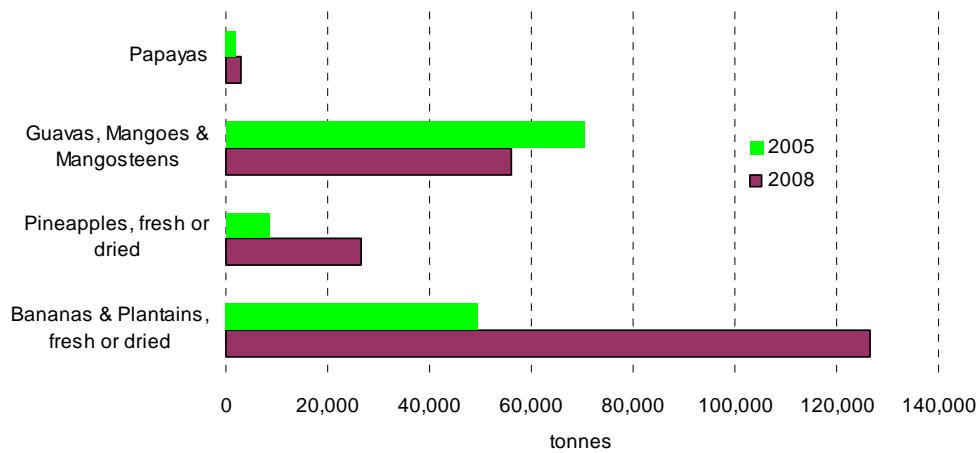
*The Gulf Market* - Dubai has for a long time served as a distribution point for products from all over the world into markets throughout the Gulf Region. Thus the population served by the Dubai trade is in excess of 30mn spread throughout the Gulf. Indeed, the extensive air links give the opportunity 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 mn people of whom about 70% are below the age of 30. Of the total population some 7mn 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, 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. That said 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 \$300mn 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.

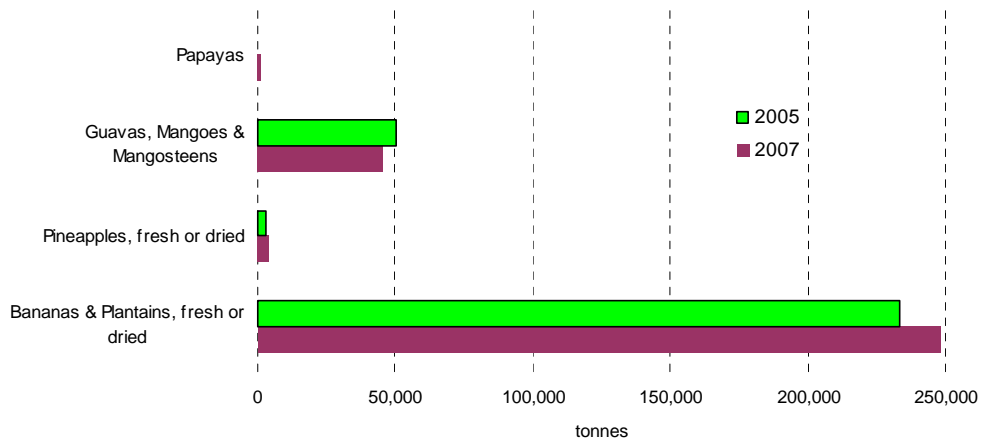
## Imports

**Figure E11: Imports of Selected Fruit to the UAE 2005 and 2008**



- Strong growth in banana and pineapple trade. Pineapples growing from a low base.

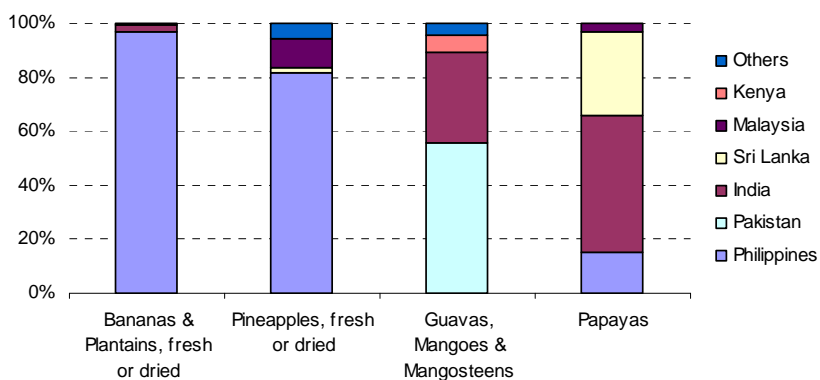
**Figure E12: Imports of Selected Fruit to Saudi Arabia 2005 and 2007**



- Limited prospect for tropical fruit other than bananas

**Suppliers**

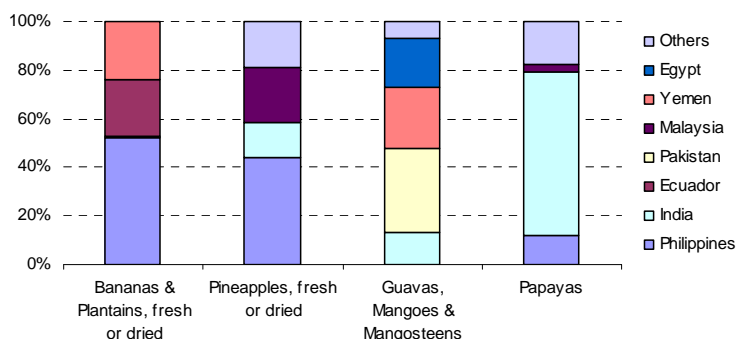
**Figure E13: Origin of Tropical Fruit Imports to the UAE**



- 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 E14: Origin of Tropical Fruit Imports to Saudi Arabia**



**Customs Duties**

**Table E1: Ad Valorem Duties and Taxes on Import**

	Bananas	Pineapples	Mangoes	Papaya
Saudi Arabia	Free	Free	Free	Free
UAE	5	5	5	5

**Opportunity for Ghanaian Suppliers**

- There are opportunities here for exports from Ghana particularly in pineapples to Dubai.
- Alternatively, in bananas to Saudi Arabia substituting for 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.

## *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 to North Africa of bananas.

The Lebanon is not able to produce tropical fruit and so imports when necessary. The opportunities are occasional, and, with a population of 4mn, they are not great.

### Imports

**Table E2: Imports of Selected Fruits into the Maghreb and Eastern Mediterranean (tonnes)**

		Tunisia	Algeria	Egypt	Lebanon
Bananas & Plantains, fresh or	2005	20,798	157,082	2,844	761
	2008	33,513	162,630	93,732	478
Pineapples, fresh or dried	2005	77	75	127	373
	2008	60	197	69,270	317
Guavas, Mangoes & Mangosteens	2005	0	37	5	930
	2008	0	52		559
Papayas	2005			0	9
	2008			15,600	2

*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 E3: Origin of Selected fruit Imports to the Lebanon (tonnes)**

		2005	2006	2007	2008
<b>Bananas &amp; Plantains, fresh or dried</b>	Philippines	0	0	0	224
	Ecuador	233	41	0	0
	Oman	313	99	20	0
	Saudi Arab	0	148	193	183
	Yemen	160	33	265	85
	Others	54	118	1	46
	<b>Total</b>	<b>760</b>	<b>439</b>	<b>479</b>	<b>538</b>

		2005	2006	2007	2008
<b>Pineapples, fresh or dried</b>	<b>Ghana</b>	<b>297</b>	<b>253</b>	<b>97</b>	<b>137</b>
	Philippines	6	19	172	141
	Others	69	15	42	18
	<b>Total</b>	<b>372</b>	<b>287</b>	<b>311</b>	<b>296</b>

		2005	2006	2007	2008
<b>Guavas, Mangoes &amp; Mangosteens</b>	Australia	101	75	76	127
	Brazil	129	85	66	77
	Egypt	0	0	181	199
	<b>Ghana</b>	<b>64</b>	<b>140</b>	<b>158</b>	<b>128</b>
	Sudan	449	0	0	0
	Yemen	0	0	0	144
	Others	186	87	87	46
	<b>Total</b>	<b>929</b>	<b>387</b>	<b>568</b>	<b>721</b>

## Customs Duties

**Table E4: Ad Valorem Duties and Taxes on Import**

	Bananas	Pineapples	Mangoes	Papaya
Tunisia	150	200	200	150
Algeria	67	77	47	47
Libya				
Egypt	60	40	45	60
Lebanon	70	35	35	70

Sources:

<http://www.douanes.dz/cnis/tarif/positionent.asp>[http://www.wto.org/english/thewto\\_e/countries\\_e/tunisia\\_e.htm](http://www.wto.org/english/thewto_e/countries_e/tunisia_e.htm)[http://www.wto.org/english/thewto\\_e/countries\\_e/egypt\\_e.htm](http://www.wto.org/english/thewto_e/countries_e/egypt_e.htm)<http://www.customs.gov.lb/customs/tariffs/national/tariff1.asp>

## Opportunity for Ghanaian Suppliers

- Very limited opportunities for growth here
- Ghana already has a good position in imports to the Lebanon.
- Bananas to North Africa seem to be the principle opportunity, to substitute supplies from Ecuador.

## South East Europe

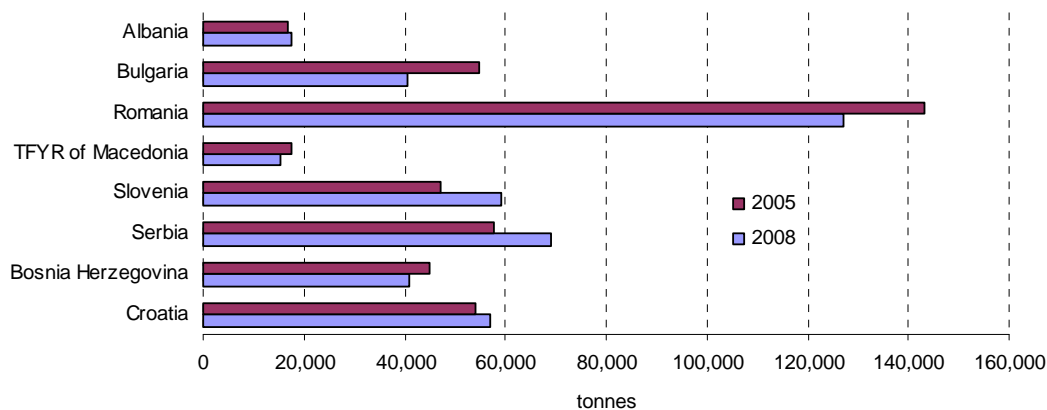
### Overview and Market Structure

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 21mn with a per capita GDP of \$1,700 while the Albanian population is under 4mn with a per capita GDP below \$7,000. 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.

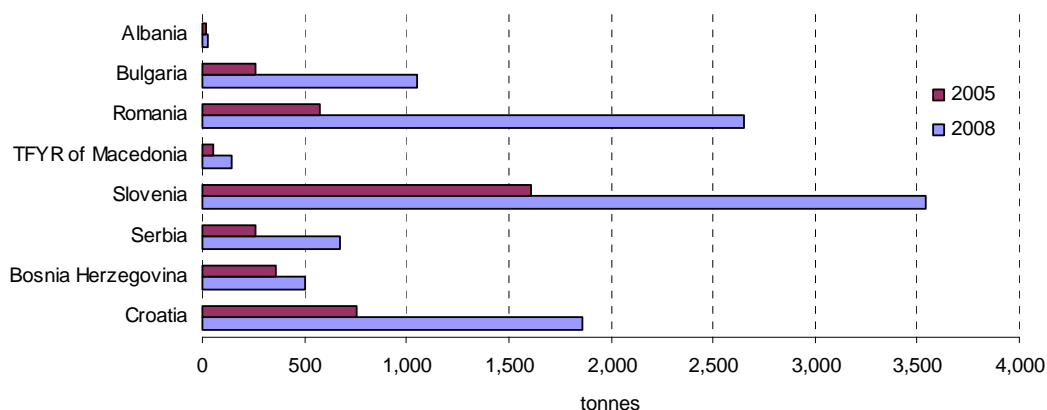
### Imports

**Figure E15: Imports of Bananas & Plantains, fresh or dried into South East Europe**

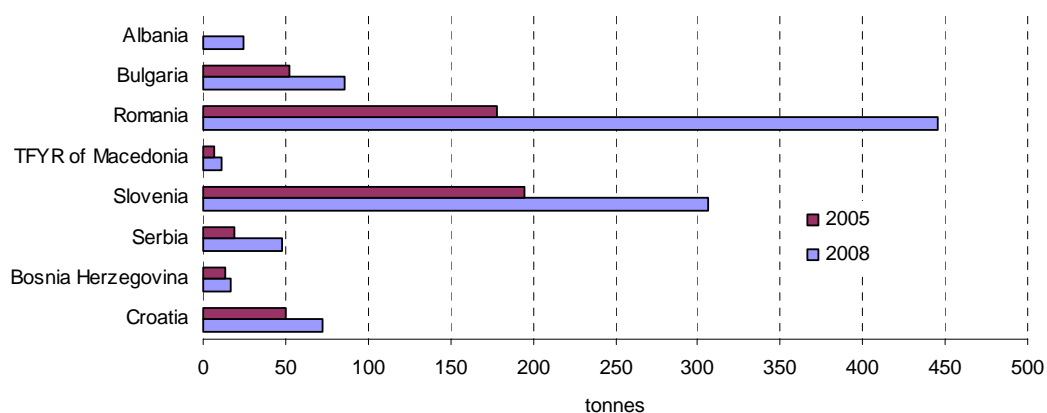


Source: UN Comtrade

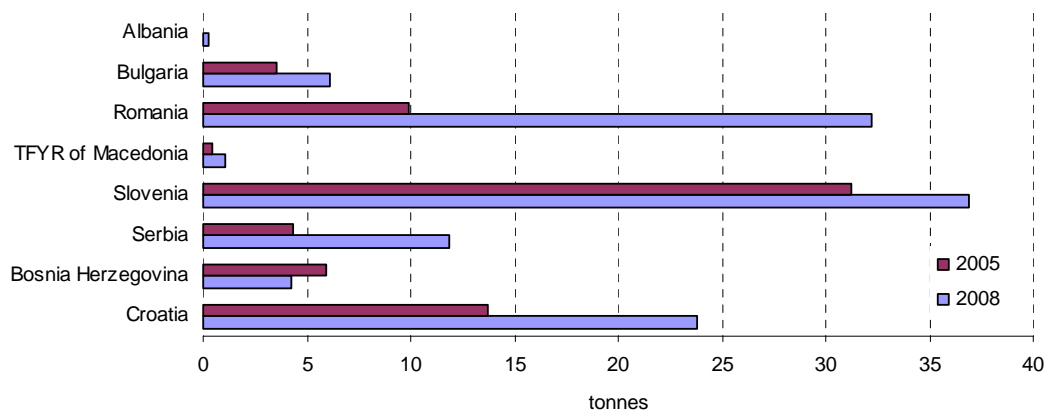
- Total imports of bananas exceed 350,000 tonnes but there is little growth in this market.

**Figure E16: Imports of Pineapples, fresh or dried into South East Europe**

Source: UN Comtrade

**Figure E17: Imports of Guavas, Mangoes & Mangosteens into South East Europe**

Source: UN Comtrade

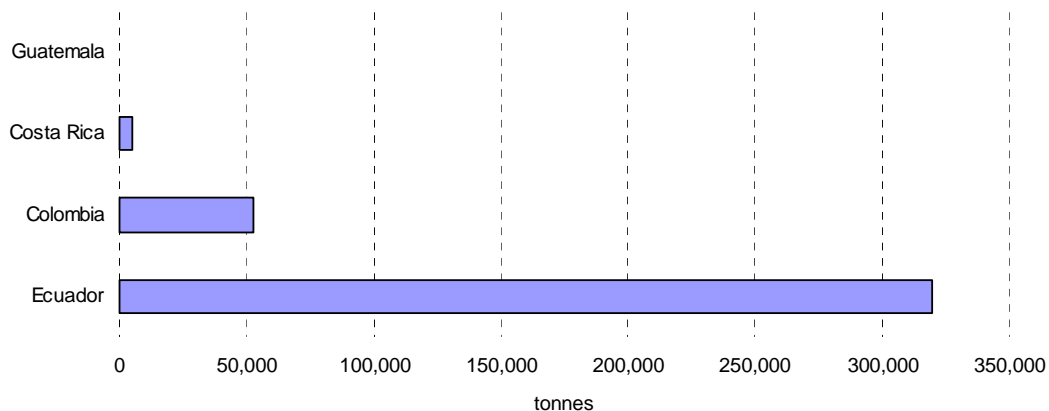
**Figure E18: Imports of Papayas into South East Europe**

Source: UN Comtrade

- Very small volumes imported, but the market is expanding.

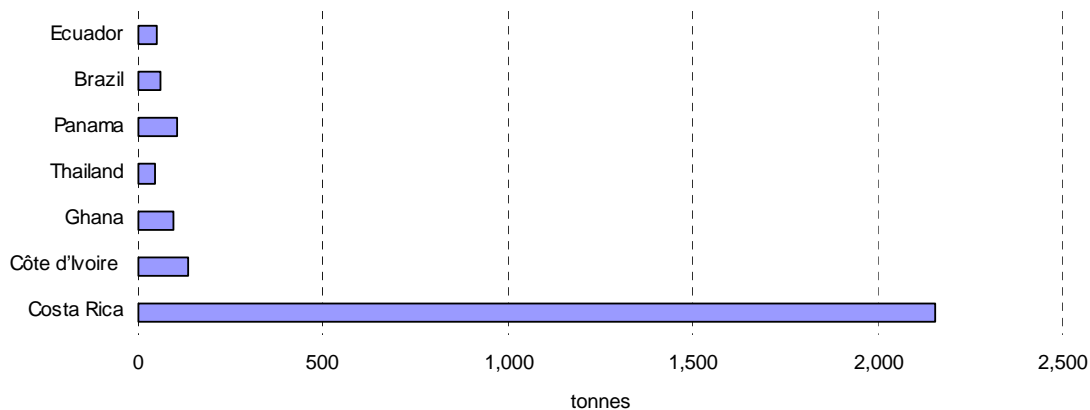
### Suppliers

**Figure E19: Imports of Bananas to South East Europe recorded from Non-EU Origins**



Source: UN Comtrade

**Figure E20: 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 54mn and growing economies the demand for higher value produce is likely to grow.

**E5: BANANAS*****Introduction***

World trade in bananas is highly distorted. The production 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. Labour conditions in the banana estate sectors are often below internationally accepted norms. Following the failure of the “Doha Round” of World Trade Organisation (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:**

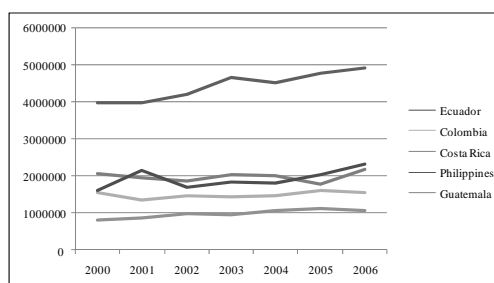
- Ghana currently has a substantial trade preference for bananas over major international competitors of Euro176/mt. Any future investment needs to consider how the erosion of this preference and exposure to international competition might be addressed.
- Niche markets such as fair trade and organic 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 key 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.

***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 one million tonnes a year of exports (see Figure E21).

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.

**Figure E21: The top five banana exporter, 2000 – 2006 (tonnes/year)**

Source: FAOSTAT

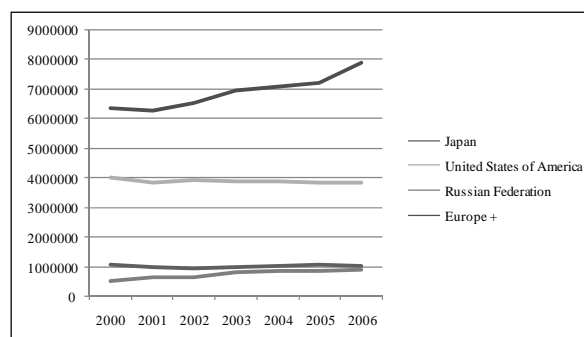
Ghana's current share of the total world banana market (assuming exports of 45,000mt in 2007/8) is less than 1%.

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 mn tonnes of bananas of which just 15 mn tonnes were traded. Four countries or areas represented 86% of consumption in 2006: the EU, the USA, Japan and the Russian Federation. The EU alone consumes 50% of the world 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 E22 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.

**Figure E22: Top four banana consuming countries/territories 2000 – 2006 (tonnes/year)**

Source: FAOSTAT

### Prices and terms of trade for bananas

Bananas prices are largely set at the retail level by large supermarket chains and 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<sup>157</sup>. Notwithstanding, 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 USA and 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 of which strongly reflects domestic labour 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 a middle level cost producer, higher than Costa Rica even though their factor costs are higher (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 USA and EU, and those production 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 whose 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)<sup>158</sup>. 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 Euro176/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.

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<sup>157</sup> 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.

<sup>158</sup> For a summary of the dispute and the findings of the Appellate Body see <http://www.wto.org>.

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 Euro148/tonne and then Euro114/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 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: firstly, it means that whilst the Doha Round is stalled, there will be no movement in the current regime, and secondly, 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 realised that this might happen and have put some effort into considering how they might address the consequences<sup>159</sup>.

### **Conclusion**

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 labour-cost profiles of Latin America.

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<sup>159</sup> See for example Gillson et al, 2005

**E6: ALTERNATIVE PRODUCE*****Introduction***

The following notes and charts 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 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 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 such as is discussed in Paper C2 of the present report.

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. The butternut and sweet potatoes are more durable than other fresh produce and could be grown further a field 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 widened beyond the few fruit and vegetables that currently constitute the export offering and the few products here show some of the possibilities.

### *Asparagus*

**Background** – Traditionally, asparagus is a perennial crop that, when established, produces asparagus spears for harvesting 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 and more recently whereby 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 than many of the other countries supplying the market should make it competitive.

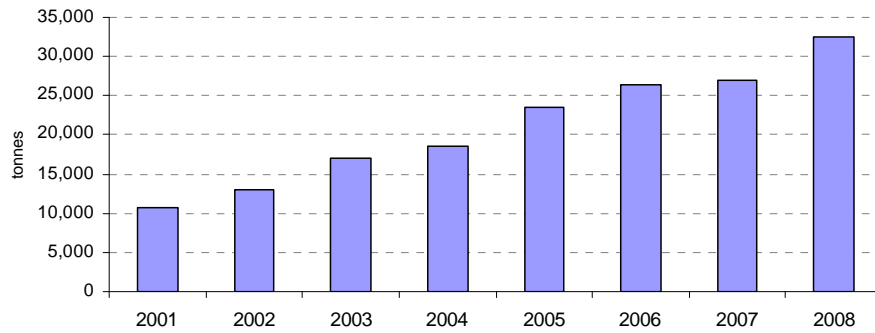
**Agronomic considerations** – Asparagus is grown from seeds in seed beds and the plants (crowns) are transplanted after about a year. After transplanting, the ground would need to be mulched. Prior to the successful introduction of the mother fern technology, it was regarded that the optimum growing conditions were temperatures of 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 photosynthesis and build up the food reserves in the crowns to provide the energy for the next crop. It is a labour 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, it would need to be air freighted on almost a daily basis.

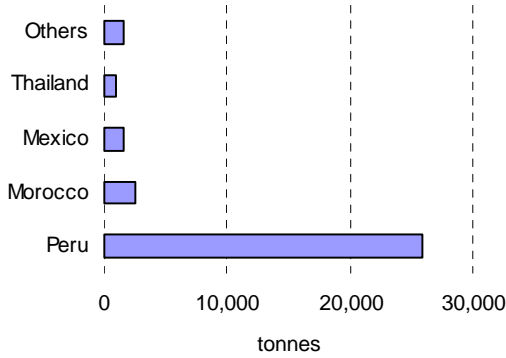
**Market** – The imports of asparagus into the EU are growing quickly having increased three-fold over the last eight years was over 32,000t in 2008 (Fig E23). Imports into the EU are dominated by Peru (over 25,000t/year), much smaller amounts came from Thailand, Mexico and Morocco (Fig E24). Three countries in Europe account for the vast majority of the imports; Spain, the UK and the Netherlands. There is a very big difference in the import values between different sources; Thailand is almost €/kg whilst 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 labour would also contribute.

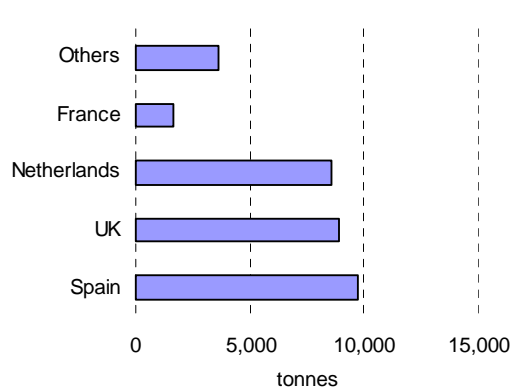
**Figure E23: Imports of Fresh Asparagus into the EU**



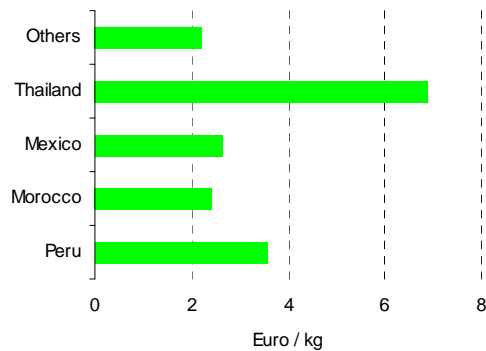
**Figure E24: Top 4 Exporters of Asparagus to the EU, 2008**



**Figure E25: Top Four Importers of Asparagus into the EU, 2008**



**Figure E26: Unit Import Value of Asparagus**



Source: All data from EUROSTAT COMEXT interpreted by Accord

**Babycorn**

**Background** – The main supplier of babycorn to the UK market is Thailand though some African countries have become secondary suppliers, eg Zambia, Zimbabwe and Kenya. Despite its higher air freight rates, the reason Thailand out competes the African producers is that 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.

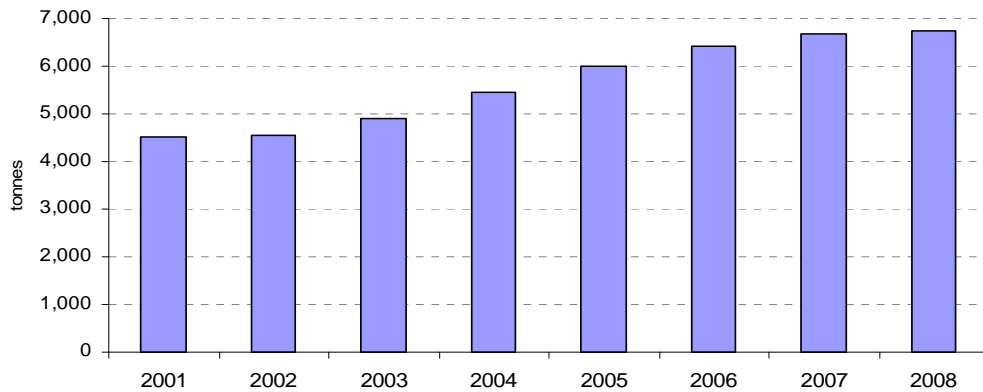
**Agronomic considerations** – maize grows well in Ghana and babycorn is simply immature maize cobs. The plant population is high to boost yields and it is sometimes regarded that there are two on-farm factors that contribute significantly to gaining comparative advantage. These are having the temperatures 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 labour intensive, especially at harvest and 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.

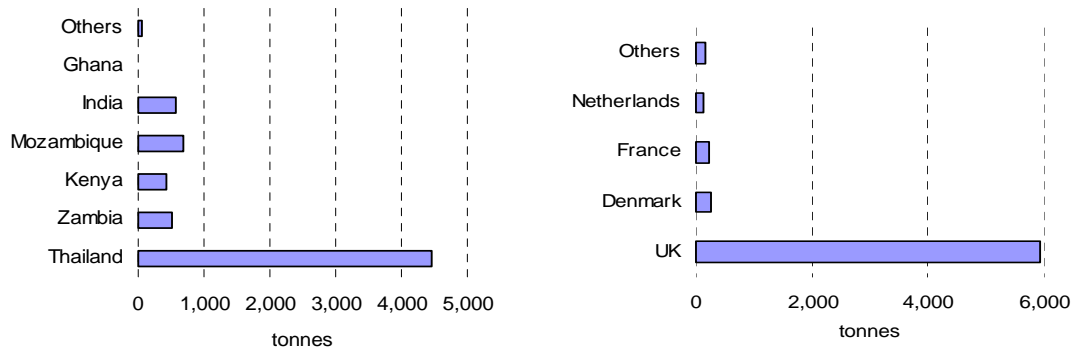
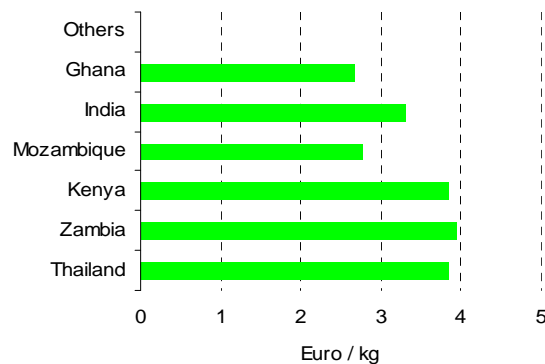
**Market** - The major consumer market for baby corn is the UK, importing over 90 percent of volumes coming into the EU. The European market as a whole is not large (at over 6,500t per annum). The major supplier is Thailand, with around 75% of the market in 2008 (Fig E28). Zambia and Kenya also exported significant volumes (although at least one major Zambian producer has recently stopped growing baby corn).

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 £3.45/Kg; they estimate that this current price is typical average for the year. There is some Indian baby corn 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 (USD1.60 to 1.80/kg), while those from Thailand are marginally higher (USD2.00/kg). If Ghanaian exporters are able to negotiate rates of about USD1.00/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.

**Figure E27: Imports of Babycorn into the EU**

**Figure E28: Top Five Exporters of Babycorn to the EU 2008**      **Figure E29: Top Four Importers of Babycorn into the EU 2008**

**Figure E30: Unit Import Value of Babycorn 2008**

*Source: All data from EUROSTAT COMEXT interpreted by Accord*

***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 fertiliser programme 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 watchful for pest and diseases and apply remedial treatments before the skin is damaged. The best varieties to grow would be Ponca, Puritan, Waltham, Harris Betternut 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 150t/week. Another imported 20 to 40y/week to supply a company manufacturing ready meals. The main UK supermarkets estimate that they could sell about 450t/week of butter squash. Therefore, it could be concluded that the current UK demand is in the order of 2,000 to 3,000t/annum.

The main sources of supply are Argentina (Feb to June), with smaller amounts coming from Greece, Egypt, RSA, Italian (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.

### ***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 colour, flavour, 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 \$21mn project to produce high-yielding, stress-tolerant varieties of sweet potato for Sub-Saharan Africa.

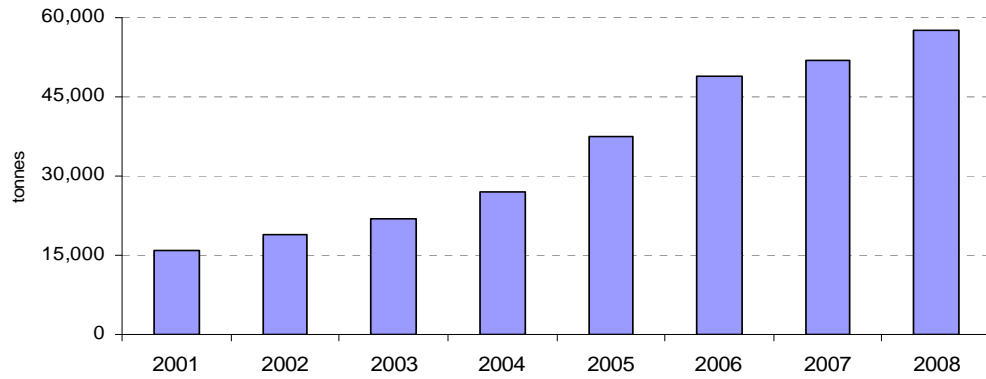
**Agronomic considerations** –Sweet potatoes are grown in well-drained light textured soils, and are harvested 100-130 days after transplanting depending on variety and tuber size. The harvest can be mechanized. The skin of the freshly harvested tuber is quite delicate and requires careful handling and 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 32C. 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 USA, Covington, Beauregard and Evangeline are among the most popular. Any approach to the EU markets would need to investigate preferred varieties in advance.

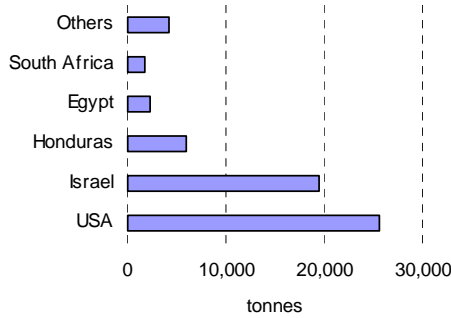
**Market** – The EU demand for sweet potato has grown strongly recently with imports quadrupling in seven years. Sweet potatoes have made the crossover from ethnic to mainstream cuisine, and, in the UK, they are widely found in the supermarkets. Sweet potatoes have long storage life and can be transported by refrigerated sea container at 13C. Ventilation is needed to prevent O<sub>2</sub> 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. The competition with Israel and the USA however will be intense and shipping costs need to be brought down by volume if there is to be the chance of success.

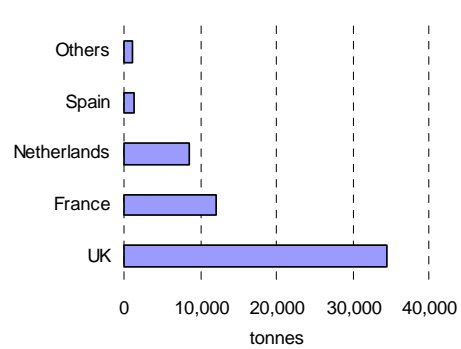
**Figure E31: Imports of Sweet Potato into the EU**



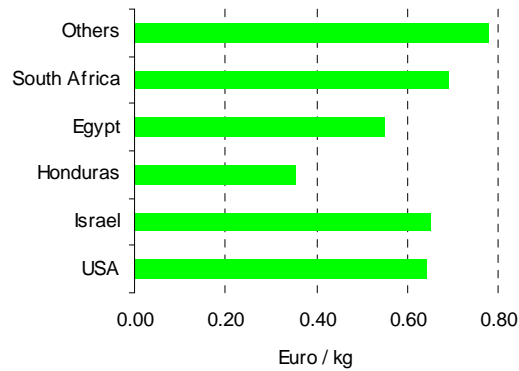
**Figure E32: Top Five Exporters of Sweet Potato to the EU 2008**



**Figure E33: Top Four Importers of Sweet Potato into the EU 2008**



**Figure E34: Unit Import Value of Sweet Potato**



Source: All data from EUROSTAT COMEXT interpreted by Accord

### **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 types 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 and a high-water table undesirable. The planting density varies with type but a density up to 200 trees per ha 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 20t/ha but is likely to be much less.

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. 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<sup>160</sup>. 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 in common with 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.

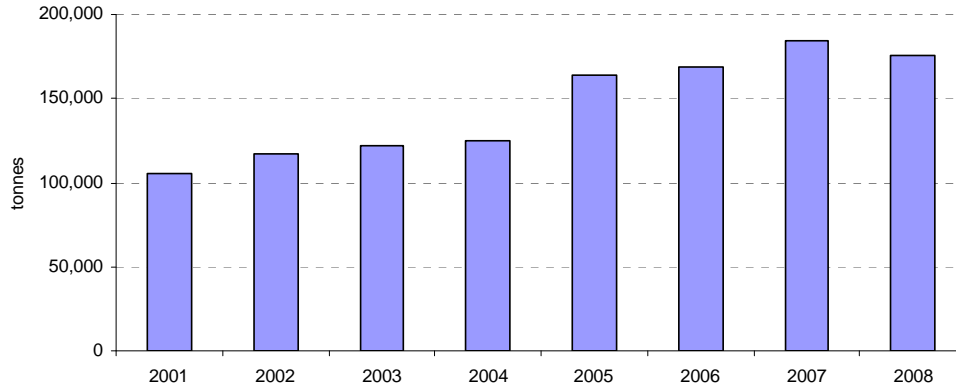
Imports have grown quite strongly over the past five years and now stand at 175,000 tonnes per year.

**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.

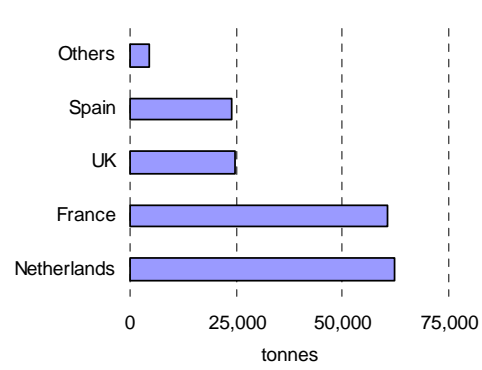
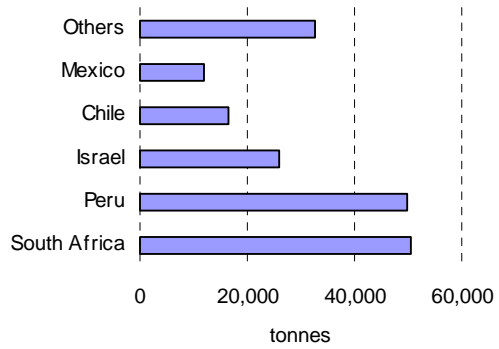
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<sup>160</sup> <http://faostat.fao.org>

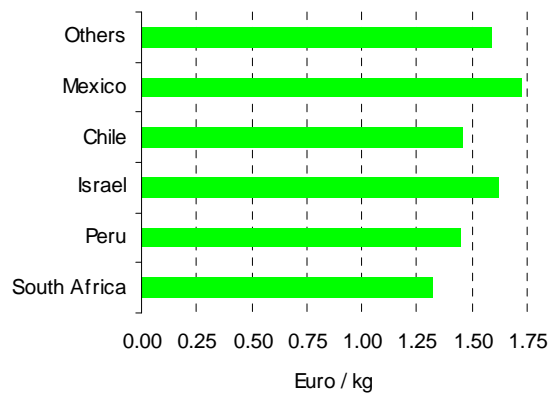
**Figure E35: Imports of Avocado into the EU**



**Figure E36: Top Five Exporters of Avocado to the EU 2008**      **Figure E37: Top Four Importers of Avocado into the EU 2008**



**Figure E38: Unit Import Value of Avocado**



Source: All data from EUROSTAT COMEXT interpreted by Accord



***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 neighbouring islands, South Africa and Florida in the USA.

**Agonomic 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 2000mm per year of rainfall. The tree cannot tolerate water shortage but a short dry season helps to induce flowering.

The 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, lychees quality deteriorates rapidly: within a day or two the skin turns brown, and the flesh become watery. Skin browning can be prevented with SO<sub>2</sub> 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.

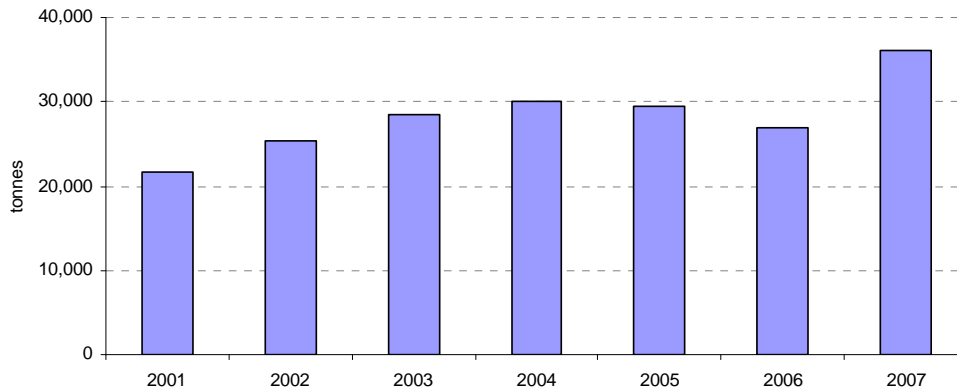
Yields around 5 tonnes per hectare can be expected, though significantly higher not unusual in optimal conditions.

**Market** – Lychees are available all year in Europe but the peak opportunity is for supplies in the lead up to Christmas. The red fruit colour has seasonal associations and it is therefore important to select varieties with good colouring. The use of sulphur dioxide maintains the colouring. The marketing is heavily controlled by a few French importers working in association with the Madagascan exporters. The supply into the market is therefore well managed but not all importer /distributors approve of this arrangement.

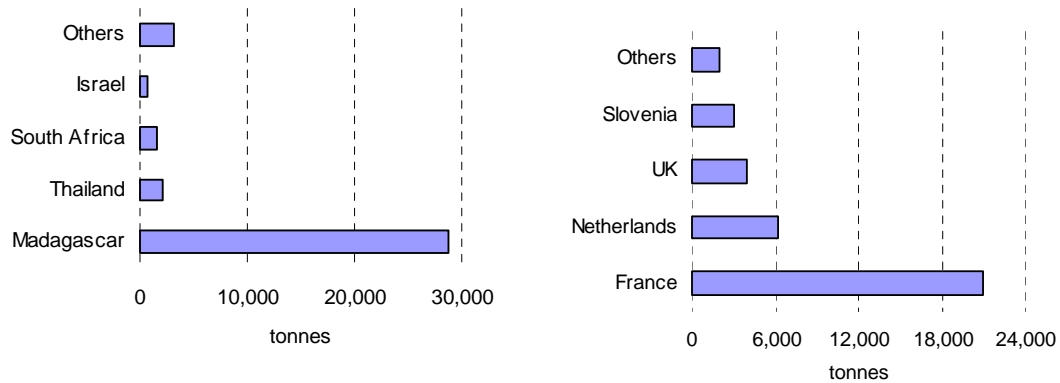
**Competitive opportunity for Ghanaian production** – The market in Europe is not showing strong growth but the fruit remains seasonally popular. Ghana offers a short shipping time for sea-freighted litchi and low air-freight cost for unsulphured products. If fruit are available the cheap air-freight in week 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.

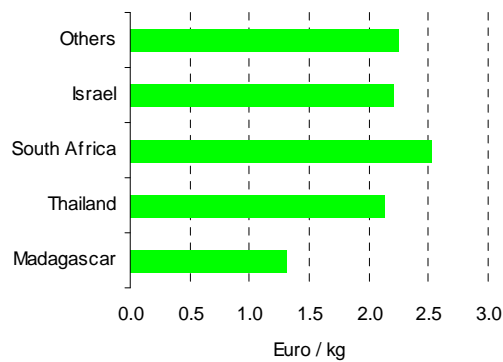
**Figure E39: Imports of Lychees into the EU**



**Figure E40: Top Four Exporters of Lychees to the EU 2007**      **Figure E41: Top Four Importers of Lychees into the EU 2007**



**Figure E42: Unit Import Value of Lychees**



Source: All data from EUROSTAT COMEXT interpreted by Accord

## E7: FRUIT JUICE MARKETING OPPORTUNITIES

### *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; ie 100% fruit juice (from concentrate), 100% fruit juice (not from concentrate), Nectar (30-99% juice), Fruit drink (0-29% juice) and Vegetable juice.

### *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 (ie about 20 to 30 million litres). 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.

Ghana is a small exporter of fruit juices, just over a 1,000t each of orange and pineapple juices in 2008 (Table E5). 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 finalised. The decline in pineapple exports is not well understood. It is interesting to note that the average export price is about 1,000 USD/t; 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.

**Table E5 Value and volume of fruit juice exports from Ghana, 2003 to 2008**

Product	2003		2007		2008		
	t	\$ m	t	\$ m	t	\$ m	Unit value \$/t
<b>Orange juice</b>	0.2		1,835	3.35	1,100	1.22	1,100
<b>Pineapple juice</b>	574	0.14	2,035	2.64	1,040	1.12	1,080

*Source – Accord Associates based on GEPC data*

### *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 centres.

Import data of fruit juice suggest that over 21,000t of fruit juice (both single strength and concentrate) is imported (Table E6). Much of this will be concentrate which will be diluted

and sold in small retail packs. Coca-Cola, who have recently launched their own brand of fruit juice, estimate that the local retail market is 42 million litre (ie 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 E6 Value and volume of fruit juice imports into Ghana, 2003 to 2008**

Product	2003		2007		2008		
	t	\$ m	t	\$ m	t	\$ m	Unit value \$/t
<b>Total all juices</b>	5,500	2,786	21,599	10,488	21,443	11,693	1.10

*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 utilised 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.

#### *Export market opportunities*

In 2008, the retail value of the global fruit juice market was worth almost USD 67 billion and is expected to reach USD 80 billion by 2013, an annual growth rate of almost 4%. In volume terms, consumption in 2008 was 44 billion litres which is predicted to rise to 53 billion litres 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 E7). The EU is the biggest market that was surveyed accounting for 45% of the global juice market (Table E8); 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%<sup>161</sup>.

**Table E7 Global retail value of fruit juice sales by category, 2008**

Category	Value (USD billions)	%
<b>Fruit drink</b>	18.8	28.2
<b>100% fruit juice (from concentrate)</b>	16.3	24.4
<b>100% fruit juice (not from concentrate)</b>	15.8	23.7
<b>Nectar</b>	10.9	16.4
<b>Vegetable juice</b>	4.9	7.3
<b>Total</b>	66.7	100

*Source – Accord Associates LLP based on Datamonitor data*

<sup>161</sup> Data in this paragraph from Datamonitor (2009) *The Global Fruit Juice Market; an Industry Profile*.

**Table E8 Global retail value of fruit juice sales by category, 2008**

Geographical region	Value (USD billions)	%
Europe	30.2	45.3
Americas	25.3	37.9
Asia Pacific	11.2	16.8
<b>Total</b>	<b>66.7</b>	<b>100</b>

*Source – Accord Associates LLP based on Datamonitor data*

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 litres, a slight decline from 2006. Even though there was an overall slight decline in consumption between 2006 and 2007, this was more marked in Northern Europe whereas 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%)<sup>162</sup>. 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 most popular. In these countries, not all consumers are aware of the difference between juices and nectars<sup>163</sup>. Germany is the biggest consumer of fruit juice (2.9 billion litres) followed by France (1.6 billion litres), the UK (1.5 billion litres) and Spain (1.3 billion litres).

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 colours 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 nectar 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.

<sup>162</sup> Source CBI Market Information Database

<sup>163</sup> Source CBI Market Information Database

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 they offer lower costs of production facilities and because of the 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 state that the average price they pay for oranges is much higher than 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.

### ***Conclusions***

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 manufactures 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<sup>164</sup> 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 going through problems and its cost base is rising. The plan is to acquire up to 20,000ha 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.

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<sup>164</sup> Which according to Athena Foods can be as much as 30%.

***Strategy implications***

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 do 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, 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.