

Reflecting National Circumstances and Development Priorities in National Codes on Good Agricultural Practices That Can be benchmarked to EUREPGAP – The Case Of Ghana

**Draft background note for the FAO-UNCTAD Regional Workshop on
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Note

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List of abbreviations

ACP	Africa, Caribbean and Pacific Group of Countries
CB	Certification Body
COLEACP	Europe-Africa-Caribbean-Pacific Liaison Committee
DFID	Department for International Development, UK
ECOWAS	Economic Community of West African States
EPA	Environmental Protection Agency
EU	European Union
EUREPGAP	Euro-Retailer Produce Working Group Good Agricultural Practice
FAGE	Federation of Associations of Ghanaian Exporters
FAO	Food and Agriculture Organisation of the United Nations, Rome
GAP	Good Agricultural Practice
GDP	Gross Domestic Product
GEPC	Ghana Export Promotion Council
GTZ/MOAP	German Technical Co-operation/Market Oriented Agriculture Programme
HACCP	Hazard Analysis and Control Critical Points
HEII	Horticulture Export Industry Initiative
IB	Inspection Body
ICM	Integrated Crop Management
IMO	Institute of Marketology
IPM	Integrated Pest Management
MoFA	Ministry of Food and Agriculture
MRL	Maximum Residual Limits
MT	Metric Tonnes
NGO	Non Governmental Organisation
NHTF	National Horticulture Task Force
NPPO	National Plant Protection Organization

NTE	Non Traditional Exports
PAMPEAG	Papaya and Mango Producers & Exporters Association of Ghana
PIP	Pesticide Initiative Program
PMO	Produce Marketing Organisation
PPRSD	Plant Protection and Regulatory Services Directorate
PRA	Pest Risk Analysis
SGS	Société General de Surveillance
SPEG	Sea Freight and Pineapple Exporters Association of Ghana
TIPCEE	Trade and Investment Policy for a Competitive Economy
USAID	United States Agency for International Development
UNCTAD	United Nations Conference on Trade and Development
VEPEAG	Vegetable Producers and Exporters Association of Ghana

1. Introduction

- 1.1 Background: This report is the outcome of an examination of the situation in Ghana regarding good agricultural practices in the production of fresh produce for export. It focuses on country awareness of the need for good agricultural practices (GAP) and efforts in place and underway to codify initiatives on good agricultural practices. It also highlights institutional capacity as well as other challenges for developing and enforcing GAP codes of practice.
- 1.2 The examination of the GAP situation in Ghana was carried out as part of an UNCTAD initiative on country case studies reflecting national circumstances and development priorities in national codes on good agricultural practices that can be benchmarked against EUREP GAP.
- 1.3 Good Agricultural Practices: The concept of Good Agricultural Practices (GAP) has evolved in recent years in the context of a rapidly changing and globalizing food economy and as a result of concerns and commitments of a wide range of stakeholders about food production, food security, food safety and the environmental sustainability of agriculture. GAP provides a means to assess and decide on farming practices at each step in the production process.
- 1.4 Although most consumers perceive fresh produce as "good products", quality (taste, freshness and safety) is still a high concern in the fresh fruit and vegetable industry. Quality control is thus not performed any more only at the buyer level on the product characteristics but also at the grower level, on agricultural practices. Indeed, GAP on farms provides the essential elements of best practice for the production of horticultural products and defines the minimum standards acceptable to global market players including in particular leading retail groups in Europe.

2. Short overview of production and trade patterns of horticultural products in Ghana and the role of EUREPGAP

2.1 Ghana is located in West Africa, on the Gulf of Guinea, bordered by the republics of Cote d'Ivoire, Togo and Burkina Faso. It covers a geographic land area of 238,539 square kilometres, and has a population of about 20.5 million growing at a rate of about 2.8%. Nearly 60% of the population lives in rural areas. The country is divided into ten administrative regions which, in turn, are divided into 138 administrative districts.

Map 1 Ghana – Relief and Major Towns and Cities



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

2.2 Agro-ecological zones: Throughout Ghana, the mean annual temperature never falls below 25 degrees Celsius, a consequence of the low altitude of the country and the absence of high altitude areas. The country is divided into four diverse agro-ecological zones, which provide great potential for the development of a wide range of crops, livestock and fisheries activities.

- The **coastal savannah zone** covers about 16,000 square kilometres (7% of the land area), with average rainfall between 600mm and 1,150 mm per annum. The vegetation is mainly constituted of grass and scrub, generally a

characteristic of poor soils. Maize, cassava, fruits and vegetables are the most widely produced crops.

- The **forest zone** covers about 84,000 square kilometres (about 35% of the land area). The average rainfall ranges from 1,150 mm to over 2,000 mm per annum and is the highest in the country. The principal crops are cocoa, cassava, plantain and yam.
- The **forest-savannah transitional zone** lies north of the forest zone and has, on average 1,450 mm of rain per annum. The soils are fairly fertile and support a wide variety of crops such as maize, yam, tobacco, and cassava and, to a lesser extent, plantains.
- The **guinea-savannah zone** covers about 136,000 square kilometres (about 57% of the land area). The zone is characterized by one major rainy season, from May to October and a long, dry season (November – April). The zone is suitable for the largest diversity of crop production activity. Rice is by far the most important cash crop in the zone and is produced in the valley bottoms. Millet, sorghum, yam, maize, groundnuts, vegetables and cotton are also widely produced. Livestock production is also important in this zone, with more than 70% of the country's cattle, sheep and goats.

2.3 The Agriculture sub-sector: Agriculture directly employs 70 percent of the labour force, and accounts for more than 55 percent of foreign exchange earnings. However, the sector's performance has fallen short of targets of 5 -6 percent growth per annum set by government. Instead agriculture output increased by 9.3 in 1999, 2.1 percent in 2000 and showed a recovery of 4% in 2001. Between 2002 – 2005 it has averaged 3.5% per annum. The sector (comprising crops, livestock, forestry and fisheries) contributes about 34% of GDP.

2.4 Traditional exports: Ghana's traditional major export commodities are gold, cocoa and timber. The three commodities contribute more than 80% of foreign exchange. The major cash crops comprise primarily cocoa, timber and coconuts, other palm products, shea-nuts and coffee. These provide about two-thirds of export revenues estimated at US\$3.01 billion in 2004.

2.5 Export trade partners: The major export trade partners of Ghana are the Netherlands (11%), United Kingdom (10.6%), France (7.6%), Germany (6.2%), Japan (5.2%), Italy (4.6%), Nigeria (4.4%) and the United States of America (4.2%).

2.6 Non-traditional exports: In Ghana non-traditional exports (NTEs) comprise all merchandise exports except cocoa beans, logs and lumber and mining products. NTEs are grouped into: (i) agricultural products (horticultural products, fish and seafood and others (ii); processed and semi-processed goods; and (iii) handi-crafts.

2.7 In 2004, overall NTE earnings accounted for 8.8% of GDP. Total NTE earnings were US\$588.88 in 2003, US\$705.43 in 2004, US\$777.59 in 2005 and US\$892.00 in 2006. The European Union (EU) market has been the main market destination of Ghanaian NTEs absorbing on average about 80% of total agricultural exports. In the EU, the United Kingdom is the primary destination, accounting for about 40 percent of total export earnings, followed by Belgium, France, Germany and Italy. Other destinations are ECOWAS countries with about 17%.

Table 1: Export Sector (Summaries)

VALUE IN US DOLLARS

SECTORS/MARKETS	2003 (\$)	% CONTRI- BUTION TO NTE	2004 (\$)	% CONTRI- BUTION TO NTE	2005 (\$)	%CONTRI- BUTION TO NTE
SECTORS						
AGRICULTURAL PRODUCTS	138,137,263	23.46	159,850,767	22.66	151,862,905	19.53
PROCESSED & SEMI-PROCESSED	446,577,083	75.83	540,375,135	76.60	604,847,137	77.79
HANDICRAFTS	4,167,969	0.71	5,202,935	0.74	20,882,577	2.68
TOTAL	588,882,315	100.00%	705,428,837	100.00	777,592,620	100
MARKETS						
ECOWAS COUNTRIES	124,043,830	21.06	115,513,073	16.37	243,953,543	31.37
OTHER AFRICAN COUNTRIES	12,158,716	2.06	26,777,070	3.80	18,746,191	2.41
EUROPEAN UNION	348,367,993	59.16	379,249,481	53.76	368,706,315	47.42
OTHER DEVELOPED COUNTRIES	43,936,741	7.46	118,916,409	16.86	74,024,165	9.52
OTHER COUNTRIES	60,375,035	10.25	64,972,804	9.21	72,162,406	9.28
TOTAL	588,882,315	100.00	705,428,837	100.00	777,592,620	100

Source: Ghana Export Promotion Council (GEPC)

Figure 2: Production of horticultural products in Ghana, 2001
(Source GEPC)

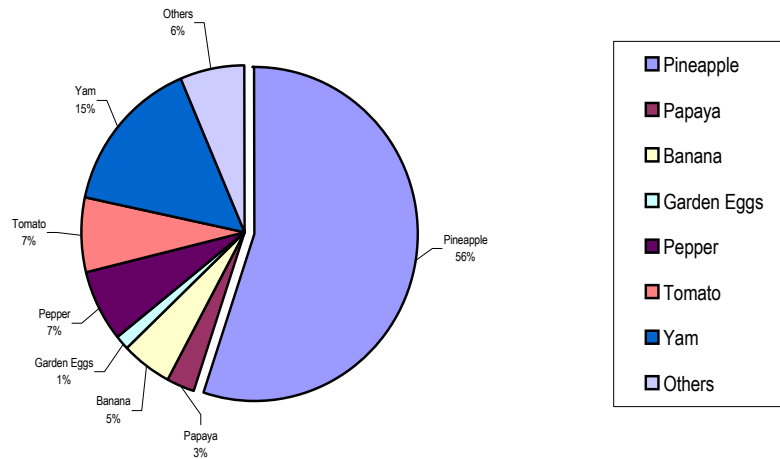


Table 2-1 Summary of the Fruit Export Sector

Crop	Est 2002 Prod (tonnes)	2002 Exports (tonnes)	FoB Value ³ (US\$)	C&F Value (US\$)	No of Exporters	Top 5 Exporters (% share)	Principal Destination	Local Processing	Production Trend and Prospects
Pineapple	80 000	Sea 40 000 Air 6 000 Proc 15 000	13 500 000 2 020 000		56	Jei River Farmapine Koranco Milani Prudent (57%)	Germany Italy BeneLux	Fresh cut Juice Canning	Continued growth anticipated but Costa Rica may take market share
Citrus (oranges/lemon/lime)	330 000	16 500	868 000		5	Winaco J-Spedi (100%)	Togo C. d'Ivoire	Juice	Traditional crop now finding regional markets
Papaya	5 000	1 500	865 000		28	Jei River Denlassey Paradise Winaco Dansak (78%)	Germany Togo UK	Slicing for street sales	Production stagnant and likely to decline. Need Golden varieties to replace existing Solo types.
Banana	10 000	3 230	3 250 000		1	Volta River (100%)	Netherlands UK	No	Production destroyed by storm 2002. To restart as organic. Exports limited by EU banana quota
Mango	4 000	126	70 000		33	Tacks Farms J Lawrence Sefah Mission Dhillon (47%)	Belgium UK South Africa	Fresh cut	Dramatic decline in exports in last 2 years. Possibly sales to Blue Sky? Coastal area not well suited to export quality. Northern areas would be better and currently under trials by Wienco.
Passion Fruit	5	2	2 700		2	Milani (100%)	Switzerland Belgium	Juice	Milani abandoning trials. Other trials with Israeli varieties yet to yield.

Table 2-2 Summary of Vegetable Exports from Ghana

Crop	Est 2002 Prod (tonnes)	2002 Exports (tonnes)	FoB Value (US\$)	C&F Value (US\$)	No of Exporters	Top 5 Exporters (% share)	Main Dest	Production Trend and Prospects
Chillies	270 000	4 700	1 780 000		84	Winaco J-Spedi Indgha Dhillon Besch Ent (72%)	UK Togo	Production largely based on Sri Lankan variety 'MI 2' imported some years ago and Legon 18 grown from saved seed. Yields reportedly declining. Low value chilli for market sales in UK and regionally. Some trials with other varieties.
Eggplants	6 400	1 500	455 000		118	Winaco Gannat Param J-Spedi Dhillon (63%)	UK Togo Netherlands	Includes purple and white aubergines as well as local types 'garden eggs' and baby aubergines 'Ravaya'. Exports mainly garden eggs and ravaya. The latter is present in supermarkets in UK from Ghanaian producer EAL.
Okra	100 000	65	21 200		54	Gannat Param Inbelivor Nyamekye Dhillon (42%)	UK Netherlands Italy	Difficulties with growing suitable varieties for export need to be overcome. The African type is mucilaginous whereas a drier type is preferred by the Asian communities in Europe.
Other Veg (i.e. Asian Veg)	3 000	2 100			40-50	Indgha Dhillon Besch Ent Param Sefah (48%)	UK C d'Ivoire	Covers a range of different vegetables – see above. Production increasing. Few attempts to add value – e.g. better packaging.
Sweet Potato (Ipomea sp)	50	21	22 780		1	Winaco (100%)	Togo	Ongoing trials by VEPEAG may lead to this developing as an export crop
Yams	3 900 000	13 000	8 250 000		130	Indgha Agritility Ayin Ebeser Alfus K Last (28%)	UK USA Netherlands C d'Ivoire	Mostly an occasional uncontrolled trade which leads to quantities arriving simultaneously, overloading the market. Ghana considered a high quality origin. Many yam traders involved in general import-export.

2.8 Horticulture exports: Agricultural non-traditional exports (NTEs) have the potential for increased foreign exchange earnings, rural employment, incomes and growth, thus reducing poverty. During the period 2000 – 2004, horticultural products led by pineapples, have been the biggest contributor to agricultural NTEs, ranging from 36% to 39%. Pineapple accounts for about 36% of the total value of horticulture export earnings. The other major contributors are fresh papayas, mangoes and Asian vegetables (tinda, okra, chillies, etc).

3.0 Producer profile for the main horticulture export products

The producer profile of the fresh produce industry in Ghana is as outlined in the table below.

Table 3: Producer Profile

Product	Main Producer(s)
Pineapple	Large & medium, (60%) smallholders (40%)
Papaya	Large & medium (70), smallholders (30%)
Mango	Medium (30), smallholders (70%)
Banana	Large, medium
Vegetables	Smallholders

4.0 Product Profiles

4.1 Pineapple

4.1.1 The world export market is dominated by Costa Rica (20%) followed by Cote d'Ivoire (17%). With export earnings valued at \$22 million in 2004, Ghana's market share is estimated at 7%. However, Ghana's pineapple exports dipped to \$12.78 million in 2005 largely as a result of the displacement of the smooth cayenne variety which is traditionally exported by Ghana from the market by MD2 the new variety introduced into the market by Costa Rica.

4.1.2 Production Issues

Varieties: The dominant variety planted for quite a long time in Ghana has been smooth cayenne. There are also plantings of the traditional Sugar Loaf. The industry is now, however, in the process of converting to the production of the MD2 variety. Bred in Hawaii and exploited by Del Monte from Costa Rica, the conversion from smooth cayenne to this variety is probably the greatest challenge that Ghanaian pineapple producers have faced in recent years.

Age: Commercial cultivation of pineapple for export is a relatively recent development in Ghana expanding since the early 1980s. Major expansion of production followed the introduction of sea-freighting in the mid-1990s.

Production areas: Pineapples cultivation is mostly located to the west and north- west of Accra, within 75km of the capital. It is gradually expanding eastwards and currently covers an area described as the Southern Horticulture Belt comprising districts in the Central, Eastern, Greater Accra and Volta Regions.

Key Players: There are 56 regular exporters of pineapples in Ghana of whom 10 export over 1 000 tonnes per annum.

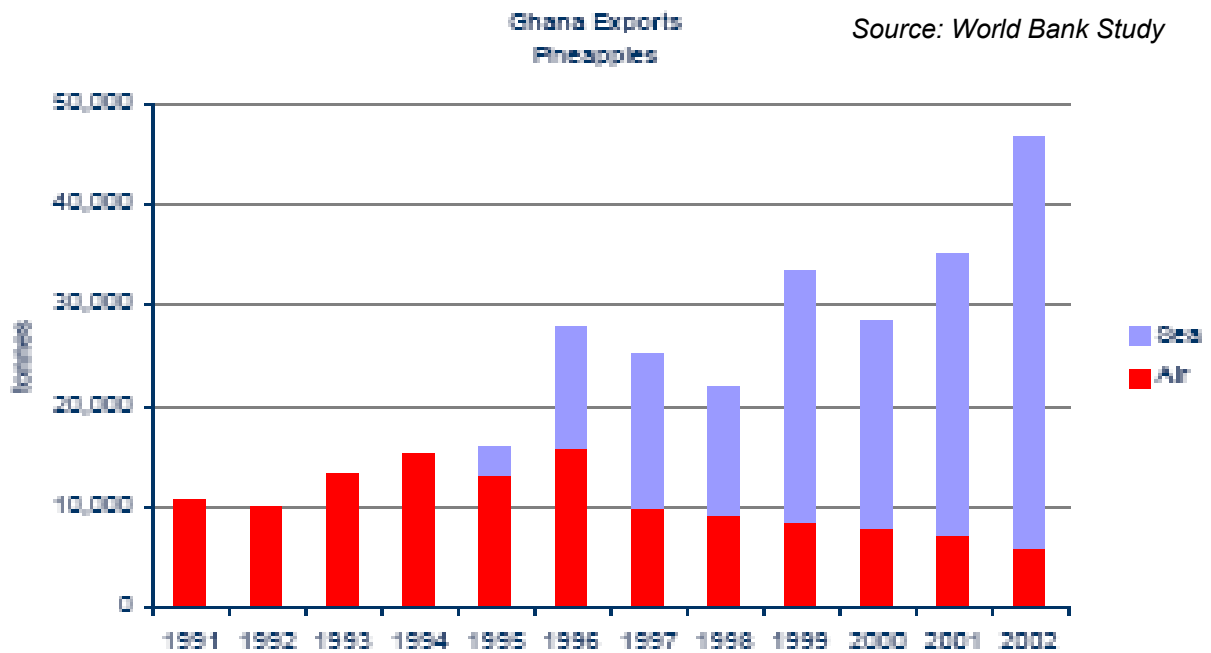
Seasonal Production: Pineapples are harvested throughout the year, but the mid year rainy season is a poor time for fruit quality and planned production is usually lowered at this time with a slackening of exports from June to September.

Post-Harvest & Export Logistics: Pre-cooling and cold storage facilities are available, but these are largely unused as there is no integrated cold chain.

Mostly the pineapples are held at ambient temperatures for both air and sea-freight. Those fruits exported by sea cool in the hold of the reefer vessel or container once loaded. An export shed at Tema port, namely Shed 9, is now being refurbished with cooling facilities to help complete the cold chain.

4.1.3 Marketing

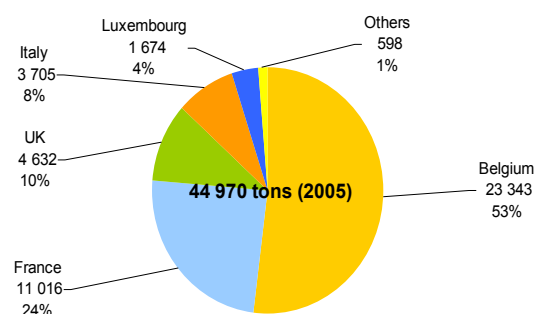
Exports of pineapples have grown well since the late 1990s with Germany, Italy, and Belgium/Netherlands as the principal destinations. The expansion in exports was due mainly to the introduction of sea freighting which allowed exports to grow beyond the limited air cargo capacity and freed air cargo for higher value products.



For sometime now, however, Ghanaian pineapple (mostly smooth cayenne) exports have been under sustained threat from MD2 which has gained considerable market share in the EU. Discussions with importers indicate that it is increasingly difficult to sell Smooth Cayenne. The position of Ghanaian smooth cayenne pineapple exports, therefore, looks increasingly fragile in this market, barely surviving in an equally reducing niche. MD2 exports which have started are expected to increase as more producers complete the conversion from smooth cayenne.

Table 4: Ghana Pineapple Exports by Destination

Destinations	Tons	Share
Belgium	23 343	52%
France	11 016	24%
UK	4 632	10%
Italy	3 705	8%
Luxembourg	1 674	4%
Others	598	1%
Total	44 970	100%



Source: EUROSTATS 2005

4.2 Papaya

4.2.1 The world export market is led by Mexico (29%) followed by Brazil (18%), Malaysia (16%). Ghana is the 9th exporter with a market share of 2%. In Ghana papaya exports grew strongly during the late 1990s enabling Ghana to reach a second place in the ranks of EU suppliers. However, while the EU imports have continued to grow, Ghanaian exports reached a plateau in 1999 at around 1,800 tonnes.

Varieties: Local varieties have been cultivated for a long time in Ghana. The Hawaiian solo types were introduced in the early 1990s and the export crop is built on this type. More recently, the golden variety developed in Brazil has become popular in the EU market, not least because it is more resilient to post-harvest handling and can tolerate sea-freighting. Ghanaian production is gradually switching to this type.

Production Areas: The export crop is cultivated in the south eastern corner of Ghana in Central, Eastern, Greater Accra and Volta Regions.

Key Players: There are few major papaya producers. Six exporters send over 100 tonnes per year.

Seasonal Production: Papaya can be harvested throughout the year.

Post-Harvest Handling & Transport: Papaya exported from Ghana is sent exclusively by air. The fruit is fragile and easily damaged and does not have a long shelf life, particularly the solo types. The Brazilian product is sea-freighted at much lower cost and this logistical development has helped the market expand by providing reasonably priced fruits. In some sectors of the market there is a niche for tree ripened fruit shipped by air but this is a comparatively small sector. The ability to sea-freight will require first class handling of the fruit, with an uninterrupted cold chain from the packhouse onwards. This infrastructure is now being developed in Ghana with the support of the World Bank and the Millennium Challenge Account of the United States.

4.3 Mangoes

4.3.1 Mango development in Ghana has lagged far behind the opportunities. EU imports have grown to 135,000 tonnes from below 70,000 tonnes in 1996. In 2002, Côte d'Ivoire supplied over 11,000 tonnes to the EU while Ghana exported 125 tonnes.

Varieties: The principal varieties cultivated in Ghana are Haden, Keitt, Kent and Palmer. All are well suited to export to the European markets.

Age: Most of the plantings are less than 12 years old. Productive capacity is therefore rising.

Production areas: A 1996 census⁴ showed that mango production was concentrated in Eastern Region and the Greater Accra area. Further plantations were located in Central and Volta Regions. New plantings have been made further east in the drier climates of Volta Region (Tonggu Farms) and in the north above Tamale where a joint Ghanaian Dutch company, Integrated Tamale Fruit Company has developed an extensive acreage of irrigated organic mango cultivation partly based on out-grower production.

Key Players: At the time of the 1996 census there were some 30 farms identified as cultivating mangoes, of which only eight had more than 3,000 trees. There has been significant further planting but the number of farms has not increased substantially.

Seasonal Production: Ghana has the potential to harvest mangoes almost throughout the year. The main season lies in the period April through June. With the double rainy/dry season pattern of the south a second crop is also possible in November. The season can thus be extended by choice of variety, some of which mature earlier than others. The season in the north, for example, is forecast to run from February through July.

Post-Harvest and Export Logistics: Ghanaian mangoes are mostly exported by air to Europe. Sea freighting capability is now being developed, with pre-cooled mangoes loaded into refrigerated containers. A few trial shipments have taken place already. Inland transport costs are much lower than in

neighbouring Côte d'Ivoire where mangoes are grown in the far north, but the coastal climate tends to lead to fungal problems with anthracnose.

4.4 Vegetables

4.4.1 Ghanaian exports of vegetables have been based primarily on yams. However, beginning in the 1990s a growing production and trade has developed in the Asian vegetable sector. The Asian vegetables include:

- Chillies
- Eggplants and ravaiya
- Okra
- Tinda
- Guar
- Yard long beans
- Gourds and marrows

4.4.2 The Asian vegetables are all produced either to the west and north-west of Accra, within 50 km of the city, or to the east of Accra, towards the Togo border and in the vicinity of the Akosombo dam and the Volta River. The key players in the Asian vegetable sector are mainly entrepreneurs with an Asian background. The trade is for the most part aimed at the ethnic markets of the UK. Quality considerations are restricted, both in the produce and the packaging, by the need to service a cost conscious sector of the market. Margins here are tight and volume is increasingly important. That said, there is at least one operation (EAL) that is successfully exporting ravaiya to a UK supermarket.

4.4.3 The Asian vegetables are exported by air and most export arrangements leave much to be desired. The products are often repackaged on arrival at the airport, out of doors and open to the weather.

5.0 Awareness concerning and application of each of the key food safety and quality requirements in the main export markets and the role of the main private sector quality-assurance systems

5.1 Ghana's fresh produce export industry has responded to the challenge posed by the recent implementation of Good Agriculture Practice frameworks through several initiatives, at various stages of implementation by various institutions and or-

ganizations in the industry. Currently, the focus of industry's response is on compliance with EUREP GAP. Various bodies are engaged in taking this to the field in Ghana. These include government departments such as the Plant Protection and Regulatory Services Department (PPRSD) of the Ministry of Food and Agriculture (MOFA), non governmental organizations such as GTZ, the German technical assistance agency, TIPCEE and private companies including SGS Ghana. The table below shows the state of EUREP GAP compliance in Ghana as of 2006.

Table 4: EUREP GAP Certified Farms

Options	Number of companies/group	Eurepgap Compliant	Crops
1	25	19	Pineapple Banana (2) Papaya (2) Vegetables (2)*
2	5	3	Pineapples

5.2 The crops for which certification is obtained include pineapple, banana, papaya and vegetables. Mangoes are yet to be included. As the table shows about a third of regular pineapple exporters have obtained EUREP GAP certification. Most of these companies and the other exporters obtained the certification individually (Option 1). There are a few who have, however, gone under Option 2.

5.3 Efforts are now being focused on the consolidation of existing and planned initiatives, and aimed at the design of a GhanaGAP framework, capable of achieving EUREPGAP equivalency status in the near future. Such an exercise would supply the industry with an internationally recognized tool, fostering the autonomy of Ghanaian enterprises working with smallholders, in terms of achieving and maintaining compliance to industry norms. Initial contacts have been made with EurepGAP management who are willing to participate actively in the development of the GhanaGAP framework, along the lines of what it is currently doing in Kenya.

6.0 Main points of overlap and differences between EUREPGAP requirements and requirements for food safety/quality in other export markets

6.1 There is very little difference between EUREP GAP requirements and the requirements for food safety/quality in other exports markets for Ghana's fresh produce. This is partly because of similarities in the general principles that underpin food safety and quality management systems in general including the protection of human and animal health and safety as well as environmental friendliness and sustainability. The overlaps and differences are also not so apparent nor indeed important for the Ghanaian fresh produce industry because most of its output is exported mainly to the European Union. Very little exports go to other markets, e.g. North America and Japan, with comparable standards.

7.0 Importance of the EUREPGAP standard in the main export markets

7.1 The importance of and compliance with EUREP GAP standards is paramount for the Ghanaian fresh produce industry. This is because of a number of developments on the production and marketing sides which have tended to increase the importance of the European Union as Ghana's key export market and particular players in the market as key stakeholders.

7.2 The developments include shifts in key export markets with regard to product requirements. For instance, exporters of pineapples are migrating from the production of the smooth cayenne variety which previously was the dominant Ghanaian export variety to MD2 which has gained a lot of market share in global markets and in the EU, in particular, Ghana's main market for pineapple. Ghanaian exporters of papaya are in a similar situation regarding a shift from the solo variety which previously dominated Ghanaian exports to the golden variety developed by Caliman in Brazil.

7.3 The introduction of the new varieties has for most producers, particularly the medium size ones, necessitated an increase in farm size in order to take advantage of economies of scale and other benefits of industrial production. This has accentuated the dependence on the EU as an export market because of a need for larger export orders to absorb the increased volumes of production which can only be obtained in larger export markets such as the EU where EUREP GAP holds sway.

7.4 In addition to the varietal shifts, the Ghanaian industry is also repositioning itself in response to other changes that have occurred in the global horticulture market particularly as a result of the introduction of stringent public and private food safety and quality standards. These stringent public and private food safety and quality standards are profoundly affecting the coordination of global supply chains, levels of investments required to participate in these supply chains, public-private partnerships, and participation of smallholders.

7.5 The response of the Ghanaian fresh produce industry to these changes has been to develop enough capacity and systems to be able to link up effectively with and to serve the supermarkets who have become the key players in the market. This represents a fundamental shift in position for the Ghanaian fresh produce industry which hitherto dealt mainly with independent buyers and wholesalers. At the same time the repositioning has reinforced the importance of EUREP GAP which is the dominant requirement by the supermarkets in the EU.

8.0 Implications of EurepGAP for exports of Ghanaian fruits and vegetables

8.1 In general, food safety and quality measures based on stringent international standards are highly expensive to implement, while their benefits can take a long time to materialize (Jaffee and Van den Meer, 2005). Participation in the global supply chain now requires high-level investments in infrastructure and logistics, new production practices, handling processes, and supporting services--such as certification, record-keeping, and food safety monitoring.

8.2 Because consumers in importing countries increasingly pay attention to the produce's origin, exporters that manage to comply with industrialized private quality standards cannot expect to sustain their operations if food safety monitoring in their countries of origin is perceived as lacking. Exporting countries must comply with the public regulations of importing countries and encourage their exporters to comply with the private food quality standards. Thus, both the public and private sectors of exporting countries need to upgrade their operations to

gain and maintain access to world markets.² Therefore a combination of public and private actions and investments is needed to improve food safety and quality, particularly in export markets.

8.3 In a recent study on costs and benefits of small-holders' compliance with the EUREPGAP - protocol in Ghana (a before and after scenario), it was shown that:

- The incremental benefits in income and profits were both not significant between the periods under investigation because yields would have to be monitored over a longer period of time to determine the influence of EUREPGAP on the activities pertaining to the quality and quantity of fruits produced and sold.
- However, incremental costs incurred due to investments in new and/or additional infrastructure, (e.g. toilet and crop protection stores) in line with EUREP GAP compliance requirements were significant. There were other costs such as training, analysis (soil, water and blood) and certification audits which increased the overall cost of compliance especially to the small-growers.
- The study revealed that the Produce Marketing Organisation (PMO) scheme appears to offer smallgrowers a less costly option to achieve the EUREPGAP compliance status despite the large differences among them. Despite its apparent advantages over Option 1 particularly in terms of the cost of compliance, only five groups in Ghana have as at December 2006 been able to obtain the Option 2 (PMO) certification.
- On the flip side the smallholders who have been able to achieve the Option 2 certification have been quite pleased with it because of the perceived benefits including, e.g. guaranteed markets with Blue Skies (a fresh cut fruit processing company in Ghana), training in and the use of agrochemicals (savings) for health and safety, environment and occupational safety

² Jaffee and van den Meer (2004) provide estimates of cost of compliance from private and

and security of the workers. Another perceived benefit to the small growers is the pride of accomplishment. They take pride in the fact that they belong to a group which has been able to become EUREPGAP compliant, a feat noted to be quite arduous to achieve. As a grower summed it up:

I feel really proud about this achievement (EUREPGAP), knowing that it is internationally recognized. I feel am now a real farmer and I hope to concentrate and do better things. With records keeping I know what I am doing now. The sky is my limit ... just like Blue Skies!

9.0 Certification Costs (indicative)

9.1 On average it cost between US\$1,500 to US\$2,000 to obtain the EUREP GAP certification in Ghana. This does not however include the cost of investment in infrastructure and the development of record keeping and management systems. Work is currently on-going to establish these certification related costs in order to have at a more comprehensive assessment of the cost of the certification process.

10. Certification bodies

10.1 The table below shows the institutions and organisations involved in the certification process in Ghana. As can be seen they are a mixture of public, private and NGO institutions and organisations.

Table 4: Who is doing what in the certification process in Ghana

Name of organisation	Support Service	Type of Institution	Target
PPRSD	Training in ICPM, pesticide usage	Government	All growers
FDB	HACCP	Government	All growers
HAG	Platform	Association	Members
SPEG	Internal audit	Private (Growers, exports, association)	Members only (21)
PIP	GAP	EU funded	Target growers

public sector investments, reinforcing the need for a public-private partnership.

GTZ	GAP	German Development co-operation	Target growers
SGS	Certification (audits)	Private	All
TIPCEE	Laboratory analysis, Certifications,	NGO (USAID)	Pilots
WAFF	Training in Organic and Fair-trade, Certifications with targeted producers, etc	EU, NGO	All
FAGE	Platform & Linkages	Associations (private)	All
Soil Research	Laboratory analysis	Government	All
Technoserve	GAP (Marketing)	NGO	Targets
AgroEco	Organic consultants	Private	All
HEII (crop services)	Training (Group)	Government	Targets

11. Objective need for the development of a national GAP scheme and potential benefits

11.1 For any given agricultural production systems, a sound comprehensive management strategy must be in place providing for the capability for tactical adjustments in response to changes in circumstance. Implementing such a management strategy requires knowing, understanding, planning, measuring, monitoring and record keeping with the aim of achieving production, safety, and sustainability goals. In Ghana, as may be the case in many other developing countries, there is an objective need for a national GAP as part of the requirements of the sound and comprehensive management strategy for the agricultural production system.

11.2 Technically GAP is a means of incorporating Integrated Pest Management (IPM) and Integrated Crop Management (ICM) practices within the framework of commercial agricultural production. Among other things, GAP is essential in demonstrating commitment to;

- a) maintaining consumer confidence in food quality and safety,
- b) Minimizing detrimental impact on the environment, whilst conserving nature and wildlife;
- c) reducing the use of agrochemicals;

- d) improving the efficiency of natural resource use and
- e) ensuring a responsible attitude towards worker health safety.

11.3 Ghana's food and agribusiness industry, especially the export driven sector, is growing rapidly and stands to benefit tremendously from the introduction of GAP that would enable it measure up to the five factors listed above. Compliance with strict market food safety and quality standards in line with GAP may indeed serve as a further boost to the growth of the industry by providing a stimulus for investments in supply chain modernisation through the adoption of better safety and quality control practices. Such compliance may also result in new forms of competitive advantage for the Ghanaian fresh produce industry and contribute to more sustainable and profitable agribusiness ventures.

11.4 However, as has already been pointed out, the cost of compliance with international food safety and quality standards such as EUREP GAP can be quite prohibitive especially for small growers. In Ghana only a minority of medium and relatively large producers and exporters can comply with such standards. For most smallholders, however, the cost and administrative burden of compliance with the international standards may lead to further marginalization and undermine national efforts at using agribusiness and smallholder production in particular as key strategies for poverty reduction especially in rural areas. This partly informs the need for a national GAP in Ghana.

13.5 A national GAP will be expected to be developed in such a way that while not compromising the key principles and requirements of a good GAP will nonetheless be flexible enough to

- cater for the needs of smallholders in terms of cost and administrative burden;
- harness the developmental benefits focusing primarily on smallholder concerns;
- and facilitate a gradual process of improvement of quality and production conditions.

12. National GAP schemes and stakeholders involved

12.1 Current efforts at developing a national GAP in Ghana are focused on the consolidation of existing initiatives on food safety, grades, norms and standards, pesticide management and general quality management as well as planned initiatives into a framework that can form the basis for the development of a GhanaGAP. While the consolidation exercise is underway initial contacts have been made, for instance, with EurepGAP management who are willing to participate actively in the development of the GhanaGAP framework with the view of laying the foundation for benchmarking a future GhanaGAP against major market based internationally recognized GAPs.

12.2 The process of developing a GhanaGAP will be determined partly by the results of the ongoing consolidation of food safety and quality standards initiatives. In the meantime a technical working group has been created under the auspices of a National Horticultural Task Force (NHTF) to oversee both the consolidation exercise and the development of GhanaGAP. Members of the working group come from organizations and institutions that have been involved in one way or the other in EurepGAP and general food safety and quality standards activities in Ghana. These include PPRSD (MOFA), Ghana Standards Board (GSB), Sea Freight Pineapple Exporters Association of Ghana (SPEG), Horticultural Association of Ghana (HAG), Food and Drugs Board (FDB), GTZ, Crop Services Directorate CSD-MOFA), Environmental Protection Agency (EPA), etc.

12.3 The Federation of Associations of Ghanaian Exporters (FAGE) is the coordinating body for the industry, with responsibility to provide market information and linkage to training services. FAGE hosts the National Horticultural Task Force, in which all trade associations are represented. The Task Force, which was formed in 2003, provides a forum for public-private partnerships in the development of standards, industry norms and decision-making on common actions. One such action is to put together quality standards to regulate horticultural exports and mainstreaming best practices in Ghanaian horticulture.

13. Impact of the national GAP schemes on market access and national agricultural development

13.1 It is too early to assess the impact of a national GAP scheme in Ghana on market access and national agricultural development. It is expected, however, that it will serve as a further impetus to the development of a globally competitive agribusiness industry in Ghana. It is expected, in particular, that it will enable smallholders to continue to participate in agribusiness value chains in general and fresh produce export value chains in particular without undermining industry competitiveness.

14. Specific impediments to implementation of national GAP schemes

14.1 Impediments to the implementation of a national GAP scheme in Ghana may stem from industry related challenges. Six challenges in particular, if not adequately addressed, have a huge potential to undermine efforts aimed at developing and implementing a national GAP.

14.2 Middle management

14.2.1 The availability of operational managers with strong hands-on experience is a critical issue for the fresh produce industry and agribusiness in general in Ghana since it forms the basis of an industry's capacity to grow and thrive as a business. In countries such as Côte d'Ivoire, the lack of such capacity is gradually being closed by a younger generation with few options in the government services. However, many exporting concerns bridge the middle management gap by hiring young European nationals at key operational management posts. In Costa Rica and in Latin America as a whole, the more structured multinationals have been able to train a sufficient number of experts.

14.2.2 In Ghana there is the need to build up national capacity not only through training but mostly through hands on experience acquired alongside seasoned professional managers. It will thus be important to foster partnering with entities that are willing to transfer such know-how as part of the strategy to build a strong competitive position.

14.3 Quality management capacity

14.3.1 Quality management in the horticultural industry has evolved into a distinct set of skills that determine the capacity of an industry to link up with the dominant distribution channels. It is an important market requirement on which there is no room for compromise by industry players. Overall, the situation of quality assurance in Ghanaian horticulture can be summarized at the enterprise and institutional levels. At the firm level, one can observe enterprises that are addressing the issues and others that are not:

- i. The larger exporting concerns, involved mainly in fresh pineapple exports (whole or pre-cut) and bananas, have engaged independently on their own programs for the implementation of quality assurance systems, mainly aiming for the EurepGAP certification. These initiatives are driven by the will to develop strong market linkages with the major European distribution networks, and the efforts are benefiting from donor funded programs of technical assistance and support to certification costs.
- ii. The larger enterprises are better able to tackle quality assurance issues by virtue of their:
 - managerial capacity (established systems documenting field, post-harvest and shipping operation, inventory management, human resources etc);
 - financial capacity;
 - integrated operations centered on a limited number of well-delimited field locations or on a group of clearly identified smallholders with specific extension employees.
- iii. The smaller scale exporters have been informed of quality assurance and food safety requirements through various donor-funded seminars and training events, as well as through some of their clients. However, they have been slow in implementing recommendations in day to day operations: the wholesale and ethnic markets, on which most of this production is marketed, are not as demanding nor yet controlled as strictly as the mainstream supermarket channels. Further, smaller exporters operate in a less struc-

tured fashion, and, for them, the implementation of strict documentation requirements is perceived as a burden, as well as providing excessive transparency on actual operations.

14.3.2 Overall, however, Ghana still trails countries such as Costa Rica and Kenya in the implementation of the EurepGAP and other quality frameworks such as the ISO 9000 and 14000 norms, BRC and HACCP. Even though a number of individual firms have obtained EurepGAP certification (see Table 3 in section 5), industry wide efforts so far have tended to focus on the pesticide issue and have yet to develop a traceability system that permits field-to-fork product tracing and the importance of the certification process.

14.4 R &D and technological transfer capacity

14.4.1 A very strong knowledge base underpinned by R & D is critically lacking in Ghana. All leading countries count on a form of efficient institutional and private R&D and technological transfer. In Ghana, some research and technology transfer is achieved by a small number of private companies, but an efficient funding system, integration of public and private research, and a strong capacity for managing innovation are lacking and need to be developed. There is also a dire need for good analytical capacity in areas such as soil analysis, tissue culture, residue testing as well as quality control. Such services are becoming increasingly important market requirements and for the development of GAP.

14.5 Infrastructure

14.5.1 The Cold Chain: Horticultural crops being highly perishable, go through rapid natural process of degradation immediately after harvest. There is the need to establish the cold chain to help maintain quality and extend the shelf life of fresh produce. The cold chain implies a continuous control of temperature to which produce is subjected from the time it is harvest up to the time it is sold to consumers. This requires investments in post-harvest infrastructure starting temperature controlled vehicles to carry the produce from the fields to temperature controlled facilities for cleaning, grading and packaging (commonly

referred to as packhouses) and from the packhouses to temperature controlled room facilities at the ports of exit and on ships.

14.5.2 With the exception of two or three exporting companies, the entire export horticulture business in Ghana is being performed without the use of controlled temperature devices during packing, transport and prior to shipping, limiting the shelf life of the products. This is partly because of the cost of and inadequate availability of credit for investing in cold chain facilities.

14.6 Cluster development

14.6.1 Ghana has a diversified group of export trade associations (SPEG, HAG, VEPEAG, PAMPEAG, etc) as well as a federating body (FAGE). These structures interact more or less with state organizations involved in export promotion (GEPC), crop research and extension services as well as the Ghana Standards board. However, these links are still tenuous and need to be further strengthened in order to ensure that the development and implementation of a national GAP has all the necessary stakeholder involvement and buy in.

14.7 Institutional Capacity

14.7.1 In addition to the industry related challenges weak institutional capacity in both the public and private sector may become an impediment to the development and implementation of a national GAP.

15. Factors to be reflected in a national protocol on Good Agricultural Practice

15.1 The development of a national protocol on Good Agricultural Practices in Ghana must be informed by the industry related challenges highlighted in the preceding section. In addition such efforts must also be informed by the fact that agriculture in Ghana is dominated by smallholder production. The protocol and the implementation systems must therefore be designed in such a way as not to be administratively burdensome to the key players in agriculture.

16. Specific concerns and requirements of smallholders

16.1 In Ghana three types of suppliers have successfully responded to the new market standards: (i). large-scale specialized producers supported by an adequate infrastructure, e.g. Golden Exotics (Compagnie Fruitiere); (ii) medium-scale specialized producers supported by a jointly developed infrastructure (e.g. as represented by SPEG); and (iii) integrated supply chains that are developed at producer level and able to directly supply international retail chains, e.g. Blue Skies.

16.2 Smallholders, who produce about 40% of fresh produce exports in the country, are clearly at a disadvantage. Compliance to high quality standards affects the entire cost structure of production (high-value inputs) and handling/processing (packaging and cooling). While there are long-term benefits for smallholders from compliance (Jaffee, 2004), the up-front investment cost is prohibitive, especially where they lack access to agricultural credit. The low-volume-producing, asset-poor, and low-skilled family-farms cannot support the prohibitively high cost of compliance to food safety and private quality standards. Under these conditions, smallholders in Ghana are losing considerable ground, similar to the situation reported in Kenya where smallholders' share for Kenya exports went from 45% in 1990 to 25% in 2006 (Jaffee, 2006).

16.3 To help address the challenges faced by smallholders the following are some specific concerns and requirements for smallholder participation in the development and implementation of GAP in Ghana:

- i. Adequate representation in the multi-stakeholder National Horticulture Taskforce to enable them have a strong voice in the development of the Code.
- ii. Development of a special smallholder outreach program including in particular not only sensitization and promotional activities but also train-

ing and advice on IPM suitable for particular crops. The special outreach program should also include well structured planning and the deployment of extensive numbers of field scouts in order to coordinate activities in relation to compliance, audits and follow up activities. This is to cater for the fact that the smallholder production areas are scattered and small.

- iii. Improvement of local systems for registering new pesticides to encourage smallholder growers to use newer, safer pesticides. This should include developing record keeping systems appropriate for smallholders.
- iv. Advocating for special incentive schemes for smallholders by the government to cover the costs incurred and investments made to meet the code requirements. This is to mitigate the fact that the smallholders receive no guarantees at all that their produces will be bought or earn higher prices when they invest in ensuring compliance with the code.
- v. Financial intermediation to facilitate and ease access to credit and funding in general for the required investment since smallholders tend to have inadequate access to bank credit and other forms of institutional financing.
- vi. Encouragement and support for group formation, strengthening, organizational development and group management in general.

17. Extension services for meeting the requirements of high-precision agriculture

17.1 Several industry led activities aimed at improving the industry's quality assurance framework have been supported by various development initiatives and today represent an important knowledge capital for the industry:

- The industry has benefited from several training and capacity-building programs. Skills development has been through training, (cold chain and logistics, food safety, standards and regulation, EurepGAP etc.) attendance at trade

shows and study tours. These have been provided by international and national experts as well as the National Extension service to industry members, through programs such as the Pesticide Initiative Program (PIP - EU), several initiatives funded by the Trade and Investment Reform Program (USAID), MOAP/GTZ, etc. The end result has been strong industry awareness on GAP issues and the achievement of EurepGAP certification by several pineapple exporters as well as certain vegetable exporters.

- The development by Ghana's Plant Protection and Regulatory Services with GTZ support of a series of Integrated Crop Management guidebooks aiming at introducing Integrated Pest Management practices and the dissemination of safe pesticide use throughout the industry.
- The development of a horticultural industry code of practice by a Ghana Working Committee on Ethical Trade with support from the Natural Resources Institute of the U.K. The rationale for the code is to ensure that horticultural exports from Ghana meet the food safety and social and environmental requirements of the major trading partners.
- The development of grades and standards for eight horticultural products. This activity which was carried out through a public-private partnership led by the Ghana Standards Board and funded through the Ghana Private-Public Partnership Food Industry Development Program with financial support of USAID.
- The formation of a national horticultural task force, a broad-based private sector-led group with representation from produce and marketing organizations, public sector institutions and the donor community. Housed by the Federation of Associations of Ghanaian Exporters (FAGE), the task force is a forum for dialogue, sharing of challenges and the taking of joint actions to address these challenges. In addition the NHTF acts as a lobbying force for the sector and identifies needs for capacity building. Since its inception in 2003, it has been instrumental in initiating discussions on a "National Quality Assurance Scheme" for horticultural products. This activity has led to the initiation of the GhanaGAP program to address issues on quality, safety and traceability.

17.2 Other Ongoing and Planned Initiatives

17.2.1 Due to its demonstrated strong growth potential, the Ghanaian horticulture sector is today attracting more support and several programs are currently in their initial stages. The situation in Ghana echoes that of many countries where an extensive effort and allocation of resources has been witnessed in the past years, in the area of food safety and quality assurance practices. Important knowledge assets have been made available in the process and need to be adapted and fully institutionalized. This effort is presently carried out through several initiatives, funded either by the private sector or by Government and its development partners.

17.2.2 The preoccupation of the Ghanaian Government and its partners will be to provide effective support to the various levels of the supply chain, involving small farmers, nucleus farms, exporting companies, in integrating GAPs and quality management practices in their day to day practices. More specifically a key role for government may be:

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

17.2.3 To be effective, this support must:

- capitalize knowledge developed by several past and present initiatives at various levels of the supply chain;
- be fully coordinated with existing initiatives so as to avoid overlap and confusion;

- be carried out through industry led public/private forums such as the National Horticulture Task Force, whilst improving such organization's visibility and out-reach;
- encourage the emergence of a diversified service provider base, composed of private professionals, the crop extension services and internal field personnel of exporting firms;
- ensure that the certification process associated with the various quality assurance schemes guarantees high professional standards, acceptable to the end markets;
- ensure that the solutions provided are practical, tested and of a complexity level compatible with the end-user's capacity.

17.3 Ministry of Food and Agriculture programs

17.3.1 The Ministry of Food and Agriculture (MOFA) is currently implementing two significant programs: the World Bank funded Horticulture Export Industry Initiative (HEII) and a just launched African Development Bank funded, Export Marketing and Quality Awareness Project (EMQAP).

17.3.2 Both projects include substantial support to the implementation of Good Agricultural Practices in the form of field training and the development of outreach tools which will permit the dissemination of GAP, and particularly IPM in pineapple and other export crops such as mango, papaya and vegetables, and documentation practices, to the country's extensive smallholder population. Special attention is to be paid to improving the seed stock certification practices and improving the skills and traceability capacity of local nurseries.

17.3.3 These capacity building activities will be complemented by significant investments in associated infrastructure as well as in the improvement and diversification of the planting material base, to increase the country's ability to deliver consistent quality. The country's recently developed tissue culture capacity, comprising several private labs, will be called upon to provide first generation seedlings in new pineapple cultivars as well as other crops.

17.3.4 Under HEII and the EMQAP there is a strong commitment to improve infrastructure, such as port handling, storage and logistics. These include improvements to the current facility at the Tema port (Shed 9) including installation of cold storage facilities; the construction of a full service perishable cargo at the airport and the construction of field packing sheds to provide services (packing, warehousing and cold storage) to small-holder farmers. These improved infrastructures will provide a clean and structured environment to process the country's horticulture exports and should greatly improve the capacity to control health hazards and monitor conformity of shipments.

17.4 USAID-TIPCEE

17.4.1 The goal of USAID's 5-year Trade and Investment Program for a Competitive Export Economy which began in 2005 year, is to increase the competitiveness of Ghana's private sector in world markets through an improved enabling environment and a strengthened capacity of the private sector to respond to market demands.

17.4.2 In the TIPCEE program, quality management is a cross-cutting issue which covers aspects linked to the physical and commercial characteristics of the products, as well as the implementation of management systems and production practices which aim to guarantee food safety and ensure consistency and reliability of supply. TIPCEE is currently addressing quality management concerns, and ultimately the EurepGAP certification issues, through several program activities. EurepGAP compliance, is not the immediate concern of several of these activities, however it acts as the backdrop to most activities: each of which addresses key skills and processes which will contribute to industry compliance to the EurepGAP and other HACCP inspired standards.

17.4.3 TIPCEE's program activities cover, among other things, the following: Industry product norms and standards; small holder GPS traceability; bar code pallet tracking and tracing; GhanaGAP; etc.

18. Institutional capacities for accreditation and certification

18.1 Government services

18.1.1 The government of Ghana understands the importance of the horticulture sector to its economic growth plans and has set a target to increase export earnings from horticultural exports to more than 50 percent of its non-traditional export earnings by 2010. With this objective in mind, the government has been proactive in trying to attract funds and technical assistance from international agencies to contribute to the development and export-market competitiveness of the sector.

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

18.1.3 The Ghana Standards Board (GSB) has begun to offer a crop protection residue service but the service is limited and the laboratory is not yet accredited to ISO17025. The Plant Protection Resources Services Directorate of MoFA carries out phytosanitary checks on produce for export and also monitors crop protection products to ensure that only authorized compounds of good quality are available in Ghana. The Soil Research Institute (SRI) and the Water Research Institute of (WRI) of the Council for Scientific and Industrial Research (CSIR) provide soil and water testing services for export horticulture industry that have proved invaluable for getting EurepGAP certification although neither institution has internationally accredited laboratories.

18.2 Exporter Associations

18.2.1 The major players include:

- (a) The Sea-Freight Pineapple Exporters Association of Ghana (SPEG), the largest exporter association. SPEG's major role is that of a freight consolidator but the association also collects and disseminates market information and actively links members to providers of training services, particularly regarding EurepGAP certification. SPEG now requires members to have EurepGAP certification to qualify as an exporter.

- (b) The Horticulturalist Association of Ghana (HAG), whose primary role is to represent pineapple exporters shipping via air-freight, serves on the National Horticultural Advisory Board and therefore has a link to government. The association also attempts to provide members with reliable information on international requirements, and good agricultural practices, and to link members to training services particularly with EurepGAP certification.
- (c) The Vegetable Producers Exporters Association of Ghana (VEPEAG) is the smallest of the three associations and its primary responsibility is to represent the interests of about 320 exporters of vegetables (particularly Asian vegetables). The association depends heavily on the financial support of CARE International and USAID.
- (d) The Papaya and Mango Producers and Exporters Association of Ghana (PAMPEAG) and the Ghana Association of Vegetable Exporters (GAVEX) are new producers associations.

18.3 *Private companies*

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

18.3.2 Larger exporters, engaged primarily in pineapple and banana exports, depend on their own programs for implementing quality assurance systems, with a particular emphasis on attaining EurepGAP certification. The smaller-scale exporters have been informed of quality assurance and food safety requirements through various donor-funded seminars and training events and through their clients. But they have been slow in implementing recommendations in day to day operations. Smaller exporters operate in a less structured fashion and perceive the implementation of strict documentation requirements as a burden and a breach in their private operations. These perceptions are compounded by the practical difficulties of controlling actual field practices and record-keeping needed for traceability.³

18.3.3 Until recently, international agribusiness corporations did not participate in Ghana's horticulture sector. In 2003, the multinational Compagnie Frutière⁴, locally registered as Golden Exotics, began operations in Ghana. The participation of Compagnie Frutière in Ghana's horticulture industry should be beneficial as it brings with it needed resources and expertise, particularly in the area of international standards compliance. Also recently, Coca Cola Nigeria contracted with a Ghanaian exporter to provide concentrated pineapple juice for use in its fruit drinks. The contract calls for the exporter to supply 500 Mt of juice, representing the equivalent of 6,000 tons of pineapples supplied by smallholders (TIPCEE, 2005).

18.3.4 The Federation of Associations of Ghanaian Exporters (FAGE) is the coordinating body for the industry, with responsibility to provide market information and linkage to training services. FAGE hosts the National Horticultural Task Force, in which all trade associations are represented. FAGE, however, is highly dependent on donor funding, with member levies and fees covering only 10 percent of its costs. The Task Force is similarly dependent on donor funding and meets irregu-

³Ghana Horticulture Sector Development Study in Agricultural Sub-Sector Investment Program Restructuring 2003

⁴ Compagnie Frutière, a Dole partner, has similar operations in Cameroon, Cote d'Ivoire, Mauritania, and Senegal. It is vertically integrated, with production, shipping, and retail operations (in France).

larly. With a lack of a single body to represent the horticulture industry, there is duplication of efforts and dilution of resources.

18.4 *Donor-supported initiatives*

18.4.1 The major donors in Ghana currently include:

- (a) The World Bank, through its Horticulture Export Industry Initiative (HEII) under the Agricultural Sector Support Investment Project (AgSSIP)
- (b) USAID, through the Trade and Investment Reform Program and the Trade and Investment Program for Competitive Export Economy (TIPCEE).
- (c) EU, through its Pesticide Initiative Programme (PIP).
- (d) GTZ, which is working on developing an integrated crop protection system.
- (e) DFID, who supports food safety training and accreditation systems.
- (f) ADB, which has in the pipeline the Export Marketing and Quality Awareness Project.
- (g) AHOLD Africa Sustainable Assistance Project

19. Group certification (EurepGAP Option 2) as an option for small-scale producers

19.1 As Table 4 in section 5 shows, there are currently a number of exporters/producers who have obtained EUREP GAP Option 2 certifications in Ghana. These include companies such as Blue Skies Foods Ltd, ITFC, and Farmapine.

19.2 GTZ, HEII and TIPCEE are all currently active in furthering the EurepGAP Option 2 smallholder framework in Ghana's horticultural export sector:

- i. GTZ has funded a collaboration with EUREP's secretariat Foodplus GmbH to produce a Smallholder manual for the building up of an internal control system for certification to EurepGAP option 2 in the Horticultural sector. A draft version of the guide has been completed and is to serve as the basis of a series of pilots which will be conducted worldwide with the objective of testing the application of its content in the field. A pilot is under way in Kenya. Ghana has also been identified as a pilot country.

- ii. HEII is currently managing a program destined to provide small pineapple farmers with planting material of the MD2 cultivar. Farmer groups are being identified and provided with tissue culture plantlets, which are then set up as a collective nursery, and will in time provide field suckers to members. Participating individual farms and group nurseries are being geo-referenced using GPS and GIS technology, setting the basis of an industry traceability system. HEII equally has resources to provide training to these farmer groups in IPM and Good Agricultural Practices, the content of which will be oriented towards EurepGAP compliance. In total, it is expected that 120 groups (approximately 1200 farms) will be formed throughout the Southern part of the country.
- iii. TIPCEE is collaborating directly with the HEII MD2 program by providing technical and logistical support to the MOFA staff in charge of the farm mapping and group formation process. Continuous support to the farmer groups will be provided through field training and the monitoring of field activities. TIPCEE activities will intensify as the groups develop marketable MD2 production and will focus on ensuring the tie-in with downstream nucleus farmers and export companies, possibly entailing Option 2 type certification. TIPCEE is concurrently working with individual exporters and their immediate outgrowers, providing them technical assistance for the implementation of the internal control system required by Option 2 EurepGAP and fair-trade certification.

19.2 The objective of the proposed joint pilot project is to build up and transfer to selected farmer groups, currently involved in the HEII-MD2 pineapple program, the skills and capacities necessary for the effective implementation of internal control systems which would comply with the EurepGAP Option 2 requirements.

19.3 The base framework for implementation would be the Smallholder Manual developed by GTZ and Foodplus GmbH. The pilot would focus on translating the requirements into recommended practices, adapted to the context of the Ghanaian pineapple farmer group. These recommended practices would be con-

solidated into practical implementation tools and trainer's guides which would serve as the basis for further dissemination by MOFA extension agents, business development service (BDS) providers and private exporters' field teams.

19.4 The pilot aims to develop an implementation framework that would be fully acceptable to EurepGAP. Thus, ongoing technical monitoring by Foodplus GmbH would ensure the coherence of the ensuing application package with the EurepGAP standard. This would give a head start to Ghana's horticulture sector if it envisages engaging subsequently in a formal benchmarking process. It is however understood that the pilot program cannot be deemed a substitute for the EurepGAP benchmarking process.

19.5 The project is centering on selected farmer groups currently participating in the HEII MD2 program. These farmer groups have been selected amongst the first participants in the program. Successful implementation approaches, once validated by Foodplus GmbH, would subsequently be mainstreamed to other participating farmer groups which were not part of the pilot.

19.6 The pilot project will not limit itself to the MD2 production and will include the group's current smooth cayenne production. This will enable the pilot project to test the full array of controls composing the proposed system earlier than would have been feasible if the pilot program were to await production of MD2 which is expected for the forth quarter of 2007 at the earliest.

20. Governmental role in national GAP development and implementation

Plant Protection and Regulatory Services

20.1 The Plant Protection and Regulatory Services Directorate (PPRSD) of the Ministry of Food and Agriculture (MOFA) is identified as the National Plant Protection Organization (NPPO) and has the mandate and capacity to organize, regulate, implement and coordinate the plant protection services in support of sustainable growth of agriculture in Ghana. The legislative framework of the NPPO comprises a number of international conventions and agreements, as well as national legislation. These include the Prevention and Control of Pests and Diseases of Plants Act 307, an act of Parliament, established in 1965. The national

plant protection policy is detailed in the Integrated Pest Management, (IPM) Act. In 1972, the act was amended by NRCD 100, 1972, to include Seed Inspection and Certification. Again in 1996, an amendment (Act 528) was added to The Pesticide Control and Management Act. However, in 1998, Parliament conducted a major review of the entire act bringing it up to date with international standards of the IPPC. A draft law was prepared and submitted to the Attorney General (AG) for comments. However, following an exercise by the USAID funded West Africa Trade Hub (WATH) on Phyto-sanitary Capacity Evaluation (PCE) requirements it was noticed that certain legal areas still fall short of the IPPC standards, hence a decision was taken to withdraw the present draft law from the AG for further review.

20.2 Additional issues to be incorporated are:

20.2.1 As already flagged above, a pro-active government role may fall into the following clusters:

- policy analysis: enhancing the developmental contribution of GAP, including addressing smallholder concerns;
- investment: hard and soft infra-structure and directing donor funding
- flanking/supportive policies: extension services and financial support

20.2.2 In addition there may be the need for

- the act to have precedence over decentralized local government entities, such as the District Assemblies in phyto-sanitary issues involving international trade.
- the NPPO to be responsible for determining details of import requirements, protocols, including the auditing phyto-sanitary functions performed by trading partners.
- for the act to place responsibility for ensuring that phyto-sanitary security of consignments after certification regarding composition, substitution and re-infestation prior to export with the NPPO

20.3 The PPRS Directorate intends to send the reviewed draft document to the IPPC Legal Department for their scrutiny before submission to the AG and Parliament.

21. Supportive role of international organizations, in particular UNCTAD and FAO

21.1 The role of international organisations such as UNCTAD and FAO is not yet prominent in Ghana. It is expected, however, that as the country develops a more and more competitive agribusiness sector and engages more in the development of GhanaGap as outlined in this report it will be able to turn to these organisations for technical assistance and support.

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