



USAID
FROM THE AMERICAN PEOPLE



PRODUCT DEVELOPMENT PLAN: PINEAPPLES

**FINAL REPORT
GUINEA AGRICULTURAL MARKET LINKAGES ACTIVITY**

November 2006

This publication was produced for review by the United States Agency for International Development. It was prepared by Chemonics International Inc.

PRODUCT DEVELOPMENT PLAN: PINEAPPLES

**FINAL REPORT
GUINEA AGRICULTURAL MARKET LINKAGES ACTIVITY**

**Contract No. PCE-I-00-99-00003-00
Task Order No. 29
Prepared for USAID/Guinea, NRM SO**

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

CONTENTS

ACRONYMS AND ABBREVIATIONS	i	
EXECUTIVE SUMMARY	ii	
SECTION 1	BACKGROUND	1
	1.1 CURRENT SITUATION	1
	1.1.1. Exports	1
	1.1.2. Export Transport	2
	1.1.3 Structure of the Production Base	3
	1.1.4 Production	3
	1.1.5 Post Harvest	4
	1.1.6 Processing	5
	1.1.7 Documentation and Certification	5
	1.1.8 Finance and Credit	5
	1.2 THE VALUE CHAIN	6
	1.2.1 Local Market	6
	1.2.2 Regional Market — Senegal	6
	1.2.3 Airfreight Exports to Europe	7
	1.2.4 Seafreight Exports to Europe	7
	1.2.5 Processed Products	8
	1.3 CURRENT DEVELOPMENT PROJECTS	8
	1.3.1 Specific Development Projects	8
	1.3.2 Accessible Donor Programs	9
SECTION 2	ANALYSIS	10
	2.1 OPPORTUNITIES	10
	2.2 COMPETITIVE ADVANTAGE	11
	2.3 CONSTRAINTS	11
	2.3.1 Structure and Capability of the Sector	11
	2.3.2 Production	12
	2.3.3 Marketing	12
	2.3.4 Processing	13
SECTION 3	PRODUCT DEVELOPMENT PLAN	15
	3.1 OBJECTIVES	15
	3.2 SPECIFIC FOCUS	15
	3.2.1 Target Regions	15
	3.2.2 Target Groups	15
	3.2.3 Market Opportunities	16
	3.2.4 Value Chains	16
	3.2.5 Economic Potential	16
	3.2.6 Key Beneficiaries	17
	3.3 STRATEGY AND ACTIONS	17
	3.3.1 Structure and Professionalization of the Sector	17
	3.3.2 Introduction of MD-22 Variety	19
	3.3.3 Development of Production	19
	3.3.4 Market Access and Promotion	21
	3.3.5 Processing Technology	24
SECTION 4	GENDER ISSUES	25
	4.1 BACKGROUND	25
	4.2 GENDER ISSUES IN THE DEVELOPMENT PLAN	27
	4.3 IMPACT ON EMPLOYMENT AND TRAINING	27
	4.3.1 Increase in Employment	28
	4.3.2 Training	29
ANNEX 1	Scope of Work	1-1
ANNEX 2	List of Documents Reviewed	2-1
ANNEX 3	List of Contacts Met	3-1
ANNEX 4	Summary of Current and Recent Past Donor Programs	4-1

ACRONYMS AND ABBREVIATIONS

ADF	African Development Foundation
BADEA	Banque Arabe de Développement Agricole
CAFEX	Centre d'Appui aux Formalités d'Exportations
CDE	Centre for the Development of Enterprise
CRAF	Centre Recherche Agronomique de Foulaya
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FOB	Free on Board
FOPBG	Fédération des Organisations Paysannes de Basse Guinée
FPPD	Fédération des Paysans du Fouta Djallon
HACCP	Hazard Analysis and Critical Control Points
ITC	International Trade Center
NST	Nouvelle Société Tropical
UGPAM	Union des Groupements des Planteurs d'Ananas de Maférinyah
UPFBG	Union des Planteurs de Fruits de Basse Guinée
UPFF	Union des Planteurs de Fruits de Fuiguiagbé
UPFGM	Union des Producteurs de Fruits de la Guinée Maritime

EXECUTIVE SUMMARY

The pineapple production sector in Guinea remains small — between 5,000 to 10,000 tons/year — and is centered on the region between Kindia and Forécariah. Exports fluctuate by as much as 1,000 tons/year, divided among neighboring countries — primarily Senegal — and airfreight supplies to Europe. Production is organized by groupings of small producers, and a few small commercial production operations. Despite Guinea's proximity to the major European market and strong neighboring and North African markets, as well as good environmental production conditions, it has not managed to establish the production and export of the hundreds of thousands of tons that its competitors achieve.

Despite a well established supply of pineapple from dominant competitive origins to major markets, there are still a range of opportunities that would allow and support substantial growth in production and exports. The neighboring and regional markets remain under supplied. There is scope for increasing airfreight shipments to Europe, and introduction of the MD-2 variety could open the prospect for entering the large volume seafreight market in Europe. Unit costs of production and productivity can be improved through better supply and management of necessary inputs, and there are opportunities for the development of a processing sector.

A range of constraints limit development of the sector. The sector has no overall coordination and structure. Exporters act in isolation, preventing synergies and coordinated action on problems and the ability of the sector to control the extent of its development. Small farmer producers are organized under a range of organizations, which are essential to their participation in production and export through provision of services. However, these organizations lack technical, business and marketing skills, as well as experience and financial resources. Production is constrained through severe cost and availability problems for inputs, and lack of access to credit. The lack of a processing sector has limited product diversification and value addition in the local market.

This development plan addresses the constraints of the pineapple sector, with the objectives of delivering consistent and substantial export growth, improving returns to growers, maintaining the mixed base of the production sector, and initiating development of a processing sector. It builds on the market opportunities of both the regional and European markets, and addresses the opening of the seafreight export channel. The key strategies and activities of the development plan focus on programs that support structure and professionalization of the sector; introduction of the MD-2 variety; development of production; market access, and promotion; and introduction and uptake of appropriate processing technology.

Current exports are estimated to have an FOB value of around US\$500,000/year. Short-term objectives are to increase this value to US\$1.2 million within three years, increasing to US\$1.8 to US\$3 million in the medium term (within five years). Successful development of a seafreight export sector to the European market would open potential for export revenues in excess of US\$10 million in the long term.

1. BACKGROUND

The history of commercial development of the pineapple sector in Guinea is well documented (see Annex 2). In summary, the export production sector was developed by French planters in the mid-twentieth century in the region between Kindia and Forécariah. At the time, Guinea was the center of production in West Africa. Exports peaked at 12,000 tons in 1972, after which volumes declined rapidly to the 1,000 tons range — where they remain today.

A processing factory (COPROA) was established in 1950 for the production of juice and sliced product — with a capacity of 3,000 ton input and 1,500 ton output. This was first nationalized and given land resources to address supply constraints, and in 1980 was incorporated into a Libyan/Guinean joint venture (SALGUIDA) and rehabilitated and modernized, but again failed to prosper. The factory has an input capacity of 5 tons/hr, with processing lines for pineapples and oranges for production of juices, concentrates, and nectars. It has 2,100 hectares (ha) of land and extensive cold storage and other facilities. In 2001, the assets were put into a new company, Nouvelle Société Tropical (NST) as a 50 percent equity contribution, with a private entrepreneur holding the other 50 percent, but because this latter equity has not been paid up, the company is not active. Minimal production occurred from 2001 to 2005, and the factory has not operated in 2006.

1.1 CURRENT SITUATION

1.1.1 Exports

Current export levels are estimated at around 1,000 tons, divided roughly equally between airfreight exports to Europe (primarily France) and overland exports to the neighboring markets (primarily Senegal). No seafreight exports are made to either European or regional markets. The main production and export season is October to April/May. European market demand is severely reduced during its summer season, and the Guinean rainy season (May to October) creates production and transport difficulties. Only those companies with established bases in Europe (SOBRAGUI, Coopérative Bourquiah, CMRA/DAFCO) make exports to Europe.

Small volume exports are reported to be made to other neighboring regional markets — Guinea Bissau, Mali, Sierra Leone, and Liberia — but there is no documentation on existing volumes or of the potential scale of demand. Small airfreight shipments have been made to Morocco, but the capacity on the existing Air Maroc flights is limited to a reported 0.5 to 1 ton/flight twice a week. The potential market demand of the Moroccan, Tunisian, and Libyan markets is frequently referred to, but no commercial linkages have been developed¹ and no data on actual market demand potential exists. Exporters to Senegal report that a major part of shipments are re-packed by the importers for re-export to Morocco, but no factual data on this exists.

1.1.2 Export Transport

Export transport is by road to neighboring markets, and by air to Europe. Seafreight shipments by local boats to Senegal have been made in the past, and offer cost and transit time advantages over shipment by road. A newly built wharf is available at

¹ Bourquiah has made exports to Morocco.

Mawonde close to Fanjie in the fruit production zone, along with the port of Benti for local boats. Seafreight could be used for shipments to Morocco, using Maersk routes.

Airfreight costs are competitive with those of competing suppliers to the European markets, and capacity is currently adequate, but production has the potential to expand at a faster rate than cargo capacity, which could lead to price increases. Substantial expansion of the production sector is dependent on accessing the seafreight market in Europe. Maersk has regular bi-weekly sailings to Europe, but costs to Northern European ports are higher than for other West African suppliers, due to the lack of volume, and transit times are disappointingly long, 15 to 17 days², due to trans-shipment at Algeciras, giving little advantage over other West African suppliers in journey time. Costs will come down when volumes reach critical levels greater than 250 containers/year. Current volumes for refrigerated containers are limited to around 50 containers/year of pineapples. When volumes reach 250 containers/year (around 4,000 to 5,000 tons/year) a significant downward revision of the charges can be expected. A significant advantage in transit time could be gained by transferring to road transport at Algeciras. Since the total transit time from Algeciras to Northern Europe is less than 10 days³, there is a greater potential to deliver significantly better quality fruit than with other major seafreight suppliers that require 19 to 22 days to transport fruit from Algeciras to Europe.

1.1.3 Structure of the Production Base

The production base comprises a mix of:

- Large scale industrial production (*agro-industrielle*) by individual companies, with areas of 10 ha upwards;
- Large farmer production (*patronales*), with areas in the range 1.5 to 3.5 ha; and,
- Small farmer production in the range of 0.2 to 1 ha.

The industrial production sector is very limited — production areas are very small by international standards. SOBRAGUI was the major company involved, with airfreight exports of up to 500 tons/year, but it will finish production in May 2007. It has 200 ha of land, and leases an additional 500 ha. CMRA (previously DAFCO) has just re-started production with 13 ha planted and an additional 13 ha planned, planting Queen (also known as Victoria or Tahiti) and Smooth Cayenne, with a total of 100 ha available for cultivation. SALGUIDIA/NST is nonfunctional. Nothing remains of the 500 ha plantation developed by the World Bank Project at Duboya. Industrial production sites are on flat to gently sloping, free draining land. They are also fully mechanized and highly dependent on fertilizer inputs and irrigation.

Large and small farmer producers are mostly organized into structured groups. The major players are: Coopérative Bourquiah⁴; Union des Groupements des Planteurs des Ananas de Maférinyah (UGPAM); Union des Planteurs de Fruits de Fuiguiajbé (UPFF)⁵; Union des Producteurs de Fruits de la Guinée Maritime (UPFGM), Union des Planteurs de Fruits de Basse Guinée (UPFBG).

² Six days to Algeciras, average three day dwell time. Six days to Northern European ports, giving an overall average of 15 to 17 days.

³ And immediate and direct access to the Spanish market.

⁴ Bourquiah has many of the characteristics of the industrielle producers in terms of business, marketing, and financial capacity but is considered in this grouping because of its production base structure.

⁵ UGPAM and UPFF are the major unions focused on pineapple production, but members of other unions are also involved in pineapple production.

Bourquiah's structure is a network of eight large growers, each of whom has a number of small producers linked to them. Large growers must cultivate at least 1 ha for the cooperative. The cooperative supplies necessary inputs and purchases the crop ex-field for export. Total production is currently around 14 ha. Annual exports are currently reported around 95 tons (2005/06), up from 30 tons in 2004/05. Projected output is rising to 215 tons in 2006/07 and more than 500 tons for 2007/08, against a reported demand of 1,000 tons.

UGPAM currently has 236 farmers in 16 *groupements* (in six zones), with membership continuing to expand (up from earlier levels of around 100). Members must have a minimum of 1,000 plants (170 m² crop). The cooperative supplies inputs and markets the crop. Due to the high cost of irrigation (fuel for the pump), cultivation is increasingly moving from the free draining hillside to the lowland. Its current market focus is Senegal. It has a contract for 40 tons/month over the period October/May, and expects a second contract of 20 tons/month for Banjul (Gambia).

The unions are themselves members of the Fédération des Organisations Paysannes de Basse Guinée (FPBG), which is grouped with other regional federations under the Confédération Nationale des Organisations Paysannes de Guinée (CNOP-G).

1.1.4 Production

The current scale of pineapple cultivation in Guinea is estimated at around 5,000 to 10,000 tons/year in total. Food and Agriculture Organization of the United Nations (FAO) statistics give in excess of 100,000 tons, but the statistics are not credible and likely the result of a standard annual multiplier applied to the acreage without reference to the situation on the ground. Within the target zone, there are very substantial areas of suitable soils available for large scale, fully mechanized, and irrigated high yield cultivation (hillside). The resource to support a production of 100,000 tons/year is there. In addition, more restricted areas of lowland are available, where, if good drainage and water control is provided and with some sacrifice of yield and quality, lower cost production can be undertaken in small production units. Production is over a 36 month cycle, with harvest in 15 to 18 months followed by production of “*rejets*” for future plantings.

A component of the *Projet Fruits et Legumes*⁶ has resources to support the development of an additional 100 ha of pineapples — with potential output of around 1,500 tons/year.

Cultivation protocols for pineapples are well established from earlier development work but are primarily focused on high input/high outputs. With the current constraints of the costs and availability of inputs, and the operational costs of irrigation, smaller growers are using restricted levels of inputs and irrigation, and accepting lower yields and fruit size. Export markets supplied require large fruit size — 1.3 kg or larger for the European Union (EU), 1 kg or larger for premium markets in Senegal — and export grade percentages can fall as low as 30 percent of the total crop, with growers increasing plant spacing to try to increase export grade to 45 to 50 percent of the total crop. Where the full cultivation protocol is followed, yields are in

⁶ *Projet Fruits et Legumes*: a project financed by the Banque Arab de Developpement des Exportations Agricole, which provided a range of supporting inputs (facilities and technical services) for the cultivation and processing of fruits and vegetables.

the range of 60 to 80 tons/ha, with 70 percent at export grade. Where the protocols are revised to lower costs, yields are in the 35 to 50 tons/ha range.

Production is based on three varieties: Smooth Cayenne is the dominant variety, followed by Baron de Rothschild and Queen. Queen was recently introduced and gets a significant premium on the airfreight-supply EU market over Smooth Cayenne, although not as large as that for types classed as “sweet” (probably MD-2) or “baby” (very small, 300 g to 500 g fruit, primarily supplied from South Africa). Significantly, the MD-2 variety is not present in Guinea. This variety now dominates supply to the EU market and takes all growth in the market, as well as getting a significant price premium (around 27 percent) over Smooth Cayenne in the dominant seafreight market.

1.1.4.1 Training and Extension

There is a well established base of technical production skills in the sector, which are the result of earlier training programs and commercial production experience. (At one time, a Centre de Formation des Ananas at Maférinyah was formed for training small pineapple producers in cultivation skills. This program was financed by the European Union but is now closed.) Large producers are responsible for their own technical support. The federation and unions provide technical support to their members. The Extension Service of the Ministry of Agriculture has little effective field capability at present due to funding and other governmental constraints. The sector should follow a strategy of building technical support skills within the companies and federations and unions, rather than through the Ministry of Agriculture, as this strategy is the only route that offers a realistic prospect of development of a sustainable technical service. This type of technical training should be coupled with development of a contractual relationship between the organizations within the sector and the research services of the Ministry, so that government-funded research is based on the needs of these organizations.

1.1.5 Post Harvest

A number of important post-harvest infrastructure developments exist, but none are currently used, other than for simple grading/packhouse purposes. No cold chain is used for exports to Europe or other markets. And given the need to power such units with gen sets, the operational cost of any unit not used at full capacity would be likely to be prohibitively expensive. Facilities include:

- *Airport packhouse/cold store*: very substantial facility with large packhouse area and three cold stores and three freezer stores; non-functional as access and exit. Electricity connection remains to be completed.
- *Conakry port*: provision for connection of around 40 refrigerated containers.
- *Futur Agri (Kindi)*: — brand new large grading, packhouse and cold store and frozen store. Only freezer unit is used.
- *SIPEF, Kindia*: SIPEF is a large Belgian plantation company that has taken over a World Bank-financed cold store and packhouse facility. Used for mangoes in season.
- *Port de Mawonde (Fanjie)*: large packhouse/storage unit with wharf for boats to 30 tons. Unused (was used 1998-2001 for melons, by Belgian company, AIC).

In addition to the above, the Projet Fruits et Legumes includes a component to construct four cold stores and associated grading/storage units for fruits in the zone.

1.1.6 Processing

No processed product is produced at any scale for any of the available market niches from the local street market upwards. The SALGUIDA facility is not operational, and given its large scale is unlikely to provide a viable resource for the sector in the short to medium term — at which time, its facilities will likely be outdated. A small company, NABEKAM, was exporting a dried certified organic pineapple product up to 2000/2001 (80 tons), but after a change in the organic regulations prohibited the use of the compound used to stimulate flowering in the crop, production ceased.

A new processing facility for juices (primarily mango, but also pineapple, etc.) is planned under a component of the Projet Fruits et Legumes.

It is notable that, in contrast to the scale and sophistication of the SALGUIDA facility, few low technology, small scale, processing technologies (for juicing, drying) appear to be present locally, certainly not in the target pineapple production zone. No hand/foot operated simple juicing machines were seen in the markets for production of fresh juices; no locally produced packets of juice are available in the stores.

1.1.7 Documentation and Certifications

Export formalities are centralized under the Centre d'Appui aux Formalités d'Exportations (CAFEX), in the Ministry of Commerce. CAFEX provides a single source for all documentation necessary for export and has offices at the air and sea port, and Labé, (route to Senegal) with another planned for Kankan (route to Mali). CAFEX is not responsible for determining quality, but works with the Service Nationale de Control de Qualité, which can undertake laboratory analyses, but capabilities are limited. CAFEX maintains information on standards and regulations — and interacts with the EU agencies, Europe-Africa-Caribbean-Pacific Liaison Committee (COLEACP), Centre for Development of Enterprise (CDE), to do this — and gives advice on how to improve quality and/or meet standards.

No domestic source of certifications — EurepGAP, Fair Trade, Organic, Hazard Analysis and Critical Control Point (HACCP), etc. — is available.

1.1.8 Finance and Credit

Producers have little formal access to credit. Credit Rural will loan to producers, but the maximum loan is 20 million FG — around US\$3,000 and equivalent to the full cost of cultivating 0.5 ha of pineapples — and the maximum loan period is 12 months for agricultural production. It is primarily targeted at small producers who are unable to raise a lump sum required for a specific input (fertilizer, planting material, etc.) but can pay it back from other income earned from other sources over the following months. The major source of credit for small producers is through the producer organizations — groupements, unions — which supply inputs to members during the growing season and deduct the charge from subsequent sales of product to the Union.

1.2 THE VALUE CHAIN

Three basic value chains exist, each of which is currently profitable, and show considerable scope for improvement of profitability through further and continuing refinement of the model. Considerable documentation on costs is available in the reports on the sector; only summary data will be presented here. Data show major costs, the purpose being to show broad levels of returns. For detailed analysis the reports in Annex 2 should be reviewed. Exchange rates used in this report are: €1 = US\$1.25; US\$1 = 6,500 FG; CFA 1 = 12 FG.

Seafreight exports to Europe are not currently made, but the value chain is presented. No data is available on the processed product options — juice, dried fruit — but it can be expected that profitable market niches could be found if the necessary investigations are undertaken.

1.2.1 Local Market

Field production costs are estimated at around 500 FG/kg (US\$0.08). Producer prices ex-field are in the range 600 to 800 FG/kg (US\$0.09-0.12). Prices in the retail markets are 1,000 FG/kg (US\$0.15) and above, depending on distance.

1.2.2 Regional Market — Senegal

Sales price delivered Dakar:	2,700 FG/kg (CFA 225)	US\$0.42
Transport costs:	840 FG/kg (CFA 70)	US\$0.13
Fruit cost ex-field:	800 FG/kg	US\$0.12
Gross margin:	1,060 FG/kg	US\$0.16

The analysis excludes packaging costs (re-used large cigarette cartons) and charges levied along the route/boarder (CFA 5,000/ton administration charge at boarder 60 FG/kg, etc.), but it is clear that the trade has strong value addition over simple sales to the local market (or sale ex-field to Senegalese buyers).

Considerable scope exists for increasing returns and margins, including:

- Moving up the distribution chain in Senegal: end market prices in the high quality end of the market are CFA 500 (6,000 FG/kg).
- Reducing transport costs: shipments by sea have been made (using 30 ton coastal vessels) in the past but difficulties were encountered with permissions for the boats to enter the Senegal/Dakar port. Road transport was 600 FG/kg, while boat transport was 200 FG/kg. Formalization of the boat route would give lower costs, faster transits (3 to 4 days as opposed to 4 to 7 days), and less fruit damage.
- Onward export of the fruit from Senegal to Morocco and other markets: establishing (or contracting) repacking and storage facilities in Senegal to allow re-export of fruit to other North African markets to take advantage of greater airfreight export capacity and lower transport costs from Senegal. Later, as volumes increase and export quality packaging is available domestically, explore direct refrigerated container shipment from Conakry to Casablanca.

1.2.3 Airfreight Exports to Europe

Sales price delivered Europe:	16,250 FG/kg	US\$2.50
Airfreight:	8,905 FG/kg	US\$1.37
Carton and post harvest treatment:	2,535 FG/kg	US\$0.39
Fruit cost ex-field:	800 FG/kg	US\$0.12
Margin before marketing and commission:	4,010 FG/kg	US\$0.62
Marketing/commission costs at 5-15% of selling price:	813 to 2,438 FG/kg	US\$0.13-0.38
Gross margin:	1,572 to 3,197 FG/kg	US\$0.24-0.49

The margin achieved is highly dependent on the price achieved, and the level of marketing and commission costs. Price is strongly dependent on variety, and other fruit quality factors — appearance, size, etc. — and what level of the chain it is sold into. Airfreight product selling prices in the major markets range from €2 to €4/kg (US\$2.50 to US\$5). Marketing and commission costs depend on the channel used and the exporter's competence and skills.

Considerable scope exists for increasing margins, including:

- Maximizing price through varietal selection and matching quality parameters to the market demand.
- Reducing marketing costs and commissions through the exploration of direct supply outside the wholesale markets.

1.2.4 Seafreight Exports to Europe

Sales price delivered Europe:	6,955 FG/kg	US\$1.07
Freight:	1,755 FG/kg	US\$0.27
Carton and post harvest treatment:	1,690 FG/kg	US\$0.26
Fruit cost ex-field:	800 FG/kg	US\$0.12
Margin before marketing and commission:	2,710 FG/kg	US\$0.42
Marketing and commission costs at 5-15% sales price:	348 to 1,043 FG/kg	US\$0.05-0.16
Gross margin:	1,667 to 2,362 FG/kg	US\$0.26-0.36

Considerable scope exists for increasing margins, including:

- Increasing price through production of the MD-2 variety, certainly by 10-15 percent given that MD-2 ex-Costa Rica is selling at a 27 percent premium to the price used here.
- Reducing marketing costs and commissions through the exploration of direct supply outside the wholesale markets.
- Reducing freight costs and transit time (and increasing fruit quality and price) by exploring options to ship to Algceiras and then using road transport to final market destination.

1.2.5 Processed Products

There is considerable scope for the development of processed products — specifically fresh juices. No fresh juices are available in the local market in any form, yet it is reported widely that SALGUIDA product, when it has been available, has sold well. A range of technologies could allow fresh juice products to be developed for different market niches, from the street seller upwards, increasing the value of under-sized, over-ripe and damaged fruit, and as such overall returns to the grower. With international standard packaging (tetrapak-type) it is possible that competitive supply could be made to regional markets.

A range of processed fruit options are possible for the European market, including dried fruit, and semi-prepared fruit (bulk supply of ready prepared and portioned fruit for supply to the restaurant and catering trade). Development of certain certifications — particularly Organic and/or Fair Trade — in addition to standard industry requirements is likely to be important in securing both market access and price requirements. The level of sophistication of hygiene and packaging requirements for fresh products for the European markets (juices, semi-prepared) are such that these product developments could only be considered in the medium to long term.

1.3 CURRENT DEVELOPMENT PROJECTS

A number of development projects, current and planned, and donor programs impact on the sector. A summary of the major programs, current and recently ended, is given in Annex 4.

1.3.1 Specific Development Projects

Projet Fruits et Legumes/Arab Development Bank for Agriculture (BADEA).

Activities in pineapples, in the Kindia region, include supporting the development of 100 ha of crop, developing four cold stores, and a juice production facility.

Groupe Agence Francaise de Development. Long history of support to the development of Fédération des Paysans du Fouta Djallon (FPFD) for potato commercialization and now starting program to support Producer Unions in the Forécariah zone through a four-year support program to the Fédération des Paysannes de Bas Guinée (FPBG), which includes a component focused on structuring and development of commercial activities of Unions. About to start a program to look at requirements for Fair Trade certification. Long involvement with Credit Rural.

Common Fund for Commodities. Program to restart production and export of bananas, with many points of overlap with pineapples and other fruit for export due to common constraints — inputs, packaging, cold chain, etc.

International Trade Center (ITC)/Ministry of Commerce and Industry. Support for training in commerce and export through *Projet de Renforcement des Capacités de la Guinée en Matière de Commerce International et d'Exploitation par la Formation* (€1 million). New program for support to input supply (with other donors) starting 2007 (US\$12 million). Supports establishment and running of Centre d'Information within Ministry, with access to ITC's information databases.

The EU has substantial funds for the agricultural sector but activities are currently suspended due to conditionalities with the Government of Guinea. The World Bank has also been a substantial donor to the agricultural sector in the past, but has no current activities in this sector.

1.3.2 Accessible Donor Programs

African Development Foundation (ADF).: Provides two types of support to enterprise development on a case-by-case basis: technical assistance focused on more effective market penetration and enterprise expansion grants.

EU agencies. A number of EU agencies have programs which could be applied to for assistance. The Center for the Development of Enterprise (CDE) has supported commercial developments in the past in Guinea, and has the potential to assist private sector developments in the processing sector, and export market investigations.

International Finance Corporation/African Project Development Facility. Can assist in business planning and appraisal, and identifying sources of finance for large scale private sector investments.

2. ANALYSIS

2.1 OPPORTUNITIES

The scope for substantial commercial development of the pineapple sector is based on a number of core opportunities:

- *Access to market demand:* there is substantial scope for increased supply to both the regional and European markets. The different market requirements support a range of production operations.
 - *Neighboring/regional.* The Senegalese market is probably the major current export market for Guinean pineapples and actually has an unmet demand for pineapples from Guinean markets. Supply to other neighboring markets has not been seriously developed. There is the potential to increase access to other North African markets, initially through Senegal but later through direct seafreight shipments from Guinea.
 - *Europe.* Currently only airfreight exports are made to Europe, primarily to France (with smaller shipments to Belgium and Switzerland). There is scope for moderate expansion of volumes to existing markets, and potentially other European markets — particularly the UK, Holland, and Germany. Overall, existing export volumes could certainly be doubled or tripled in the short to medium term. Major increases in volumes to the European market are conditional on the development of seafreight exports, which would give access to a new market of several hundred thousand tons, where existing suppliers of Smooth Cayenne are losing market share to new suppliers of the MD-2 variety, providing a competitive entry point for Guinea.
- *Development of seafreight export transport:* access to the Senegalese market could be considerably improved by use of local shipping. Direct access to the North African market — initially Morocco — could be opened through refrigerated container shipment from Conakry to Casablanca. Use of seafreight would open access to the major volume market for fresh pineapples in Europe.
- *Scope for increased production:* there are substantial areas of cultivatable land available in the zones well suited to intensive pineapple cultivation, with a resource of experienced producers.
- *Scope for increased productivity/reduction in unit costs:* Guinea can already show low unit costs of production, and there is scope for further increases in productivity through better management of inputs and irrigation and reduction of input costs.
- *Varietal change:* the European seafreight pineapple market has become dominated by the MD-2 variety. Traditional West African suppliers to the European market have been slow to take up this variety. Guinea, with only a small existing production base is not bound to existing varieties and could base expansion on the new variety.
- *Development of processing:* there is considerable scope for developing a processing sector for product supply to local, regional and the European markets, based on a range of technologies and scales.

2.2 COMPETITIVE ADVANTAGES

The key competitive advantages that Guinea can mobilize to access the opportunities are:

- An excellent growing environment — climate, soils — for pineapples.
- Extensive land resources with access to water for irrigation and suitable for mechanized cultivation.
- Access to markets: strong market demand in the neighboring countries; closest to the European market of all the major suppliers with the potential to give advantages in transit time and costs.

2.3 CONSTRAINTS

Despite the long history of pineapple production in Guinea and the opportunities and competitive advantages, production and exports remain low and unstable due to a large number of serious constraints. Realization of the opportunities is dependent on addressing these constraints. There are major constraints in production, processing, marketing, as well as the structure of the productive sector and capability of the organizations within it.

2.3.1 Structure and Capability of the Sector

While the production base includes both industrial and small producer operations, the industrial operations are few and small, and the organized groupings of small producers are weak in resources, business skills, and organization. Constraints include:

Lack of large-scale industrial producers. Development of the volume seafreight market to Europe is almost certainly dependent on the establishment of at least one large-scale (1,000 ha minimum) producer. Entry of such an investor is almost certainly dependent on the availability of the MD-2 variety (see section 2.3.2).⁷

Lack of an industry association (exporters association). At present, the sector is a collection of individual operators, each dealing separately with the constraints arising. There are many areas of common interest where a collective position would have a stronger impact. A common industry front would also help attract donor support and enable the industry to exert control over where and how any support was provided. There was previously an exporters association, but it no longer exists. One of the problems with the previous entity was that the bulk of the members were not professionally involved with the sector; they were simply traders and therefore had little interest in strategic investments and developments in the sector. It is essential that membership comprise committed members of the sector.

Weak producer organizations. Small producers are grouped through a structure of groupements and unions under a federation. These are essential to the development of small farmer production and exports through the provision of essential services — programming of production, access to inputs, training, and marketing. The material and business/marketing skills resources of these unions and federations are weak. The

⁷ Many reports mention the need to prepare an “incentive package” to attract one of the major multinational producers. The view of this report is that when the local situation is such that (i) the MD-2 variety is available locally (one of the activities of the development plan); (ii) a substantial block of land is available (such as the SALGUIDA lands); and (iii) there is a well established, stable, and expanding pineapple production and export sector — the objective of the development plan — a major producer will want to establish locally.

potential role they can play is seen in the development of the potato sector through the activities of FPPD.

2.3.2 Production

The key production constraints are:

Availability and cost of inputs (fertilizers, pesticides and other chemicals). Inputs are frequently unavailable when required. There is no established national distribution system. Pineapples require the application of straight — not compounded — fertilizers, and much of what is imported for other crops is compounded, or of the wrong type. Local costs have, and continue to, escalate rapidly. High application rates are used — the full production protocol requires 3,500 kg plus 666 kg lime per hectare.

Availability and cost of equipment (irrigation pumps and piping; cultivation machinery). Pumps, piping, rainguns, etc., must be imported specially and are expensive. This expense together with the high cost of fuel is increasing costs of production on the coteau and moving production to small areas in the more restricted bas fonds.

Access to credit to finance production. Pineapple cultivation is a high input/high output system with a long (36 month) crop cycle, and crop finance is required if producers are to enter and significantly expand production. Total cost of the full application of inputs is around 10 million FG/ha. Fuel costs for irrigation, necessary for production on the hillside, are a further 5 million FG/ha. Current Credit Rural facilities are only capable of assisting small producers to maintain production. Significant expansion of the small farmer production sector requires access to credit — or at the least, a system whereby inputs are provided against deductions from the subsequent harvested crop.

Availability of the MD-2 variety and appropriate production package. Development of a viable seafreight export trade to Europe is almost certainly dependent on the introduction and development of the MD-2 variety, which will require a program of field testing and development of specific production packages and definition of suitable production zones.

2.3.3 Marketing

The development of exports is constrained by a range of factors that limit the investigation, development and supply to markets. Key constraints are:

Market information and contacts. The industrial producers that export to Europe all have a fixed linkage based in the market. The groupings of small producers do not. For the latter, the development of the regional markets has been slow and tenuous, there has been little development beyond Senegal, and there is little experience and skill in the identification, development, and maintenance of market contacts and sourcing of information. Market information resources and support are available through the Ministry of Commerce, but few, if any, of the key members of the organizations have the capability to make use of these resources.

Commercial (marketing, business) experience. Outside of the industrial producers, experience and skills are very limited. Members, and their organizations, are primarily

producers. Business skills and experience outside the local market are severely limited.

Export channel. The export channel contains the key elements of cold chain and storage — though these are not used due to the limited nature of the European export trade and characteristics of the regional markets — and the facilities and connections necessary to develop seafreight exports to Europe. The key constraints relate to transport costs, and access, to the regional markets. Seafreight transport could significantly reduce costs and improve access to the Senegal market but is constrained by issues of access. Significant development of exports to North African markets is probably dependent initially on using Senegal as an airfreight shipment point, but direct refrigerated container seafreight shipments could be developed to Morocco (Casablanca) in the medium term.

Availability and cost of quality export packaging. Local packaging is poor quality and expensive, and is only suitable for bulk transport to the markets of neighboring countries. Packaging for the European market must be imported. This would also be required for any market development into the higher value North African markets. Development of a local capacity to produce competitively priced suitable packaging would benefit pineapples and a wide range of sectors.

Standards and certifications. Continuing and expanded access to the European market is dependent on meeting current standards for product, business, and facilities (EurepGAP, HACCP, etc.) and capitalizing on the clear potential for Fair Trade certification (for the small producer based organizations). Fair Trade is an increasingly powerful marketing tool, and offers the potential to turn the small producer base of the sector into a positive asset for European market development and penetration. Potential for organic certification may be limited for pineapples but it is certainly relevant for other agricultural products and should also be included. Costs of certifications are high and difficult if everything is done from Europe. Local competence in this area has to be established to service the sector.

2.3.4 Processing

Currently all product goes into the fresh channel, or has no market. Undersized and other damaged fruits are either sold at a severe discount or have no market. Development of a processing sector — particularly for juice — would open additional outlets and increase overall farmer returns. Fruit drying — combined with other fruits — would open other niche added value markets. The scale of the SALGUIDA facility is not relevant to this development because the requirement is for small-scale and simple developments. The initial focus is the local market, and subsequently, depending on market potential and packaging requirements, regional markets. Key constraints are:

Availability of appropriate technology for juicing and drying fruit and packaging product.

- *Juices.* Simple hand/foot operated juicing machines would support micro-businesses in the local street markets. Small scale equipment in a mixed hand/machinery line with plastic packaging types already used for water, etc. would allow small business development to supply domestic market demand through standard distribution channels. The addition of minimum scale tetrapak-

type packaging and facilities meeting international hygiene standards would open up access to regional markets.

- *Dried fruit.* Solar drying is widely used elsewhere, but given the availability of land, and the long rainy season, particular consideration should be given to indirect wood-fired cabinet driers linked with wood-lot planting schemes. These would enable year round production of high quality product through rapid controllable drying. Capital costs are small, US\$5,000 to US\$10,000 and the only direct operational cost is a small generator to power a fan.

Availability of technical expertise. Technical expertise is need to assist in the identification of suitable technologies (juicing, drying, packaging); the uptake and operation of mechanized juicing production and packing lines; and in the uptake and operation of driers. Technical support to process and product health and hygiene issues is also required. Support should be delivered through a local Institute with a remit for food processing.

3. PRODUCT DEVELOPMENT PLAN

3.1 OBJECTIVES

The objectives of the product development plan are:

To deliver consistent and substantial export growth.

- Short term (1-3 years): exports increased to 2,000 tons/year, through continued expansion of existing airfreight European and Senegal exports, and opening of other neighboring markets
- Medium term (3-5 years): exports increased to 3,000 to 5,000 tons/year through continued expansion of neighboring markets, development of North African markets, and further expansion in European markets through development of Fair Trade certification
- Long term (7-10 or more years): exports increased to 10,000 to 30,000 tons through development of seafreight exports based on MD-2 variety and investment by major plantation company

To improve returns to growers.

- Short term: reduction of input and transport costs
- Medium term: improving prices through increasing product quality and moving up the supply chain in the markets
- Long term: increase in prices through production of MD-2 variety and development of volume seafreight shipments to European market

To maintain and develop the mixed base of the sector — industrial producers and groupings of small producers.

- Short and medium term: support to both industrial producers and organizations of small producers
- Long term: secure investor for large scale production

To initiate the development of a processing sector

- Short to medium term: introduce and promote uptake of appropriate technology
- Long term: support the development of the sector

3.2 SPECIFIC FOCUS

3.2.1 Target Regions

The plan is focused on the production triangle defined by Kindia, Forécariah, and Coyah. Commercial pineapple production is centered in this zone, which has the best climatic conditions for production, has substantial areas of available land for cultivation and is close to the key export shipment points of the airport and seaport of Conakry.

3.2.2 Target Groups

The plan focuses on:

- Industrial producers; and unions of producers of pineapples, specifically including UGPAM, UPFF, and Bourquiah through the FPBG.

- Private sector companies involved in the supply of inputs (agrochemicals and packaging) and machinery for cultivation and irrigation, and export handling of fresh produce.

The development plan is designed to maintain the mixed base of the production sector (large and small producers) and to build the capacity of the essential service companies that are necessary for commercial development.

3.2.3 Market Opportunities

The plan is based on:

- The regional markets of neighboring countries and North Africa
- The airfreight market to Europe
- The seafreight market to Europe

All these markets offer potential for increased supply from Guinea. In the short to medium term, exporters will build export volumes through increasing supply to the regional markets and the European airfreight market. As the unions of local producers build competence and experience in supplying the regional markets, they will be able to move up to the higher margin but more difficult airfreight European market. In the long term, opening of supply to the European seafreight market will offer the prospect for a very substantial increase in export volumes.

3.2.4 Value Chains

The plan will work on:

- The domestic market for fresh fruit
- The regional market for fresh fruit
- The European market for airfreighted and seafreighted fresh fruit
- The domestic and regional market for juices and other processed product markets

All these markets are profitable to supply and have scope for increasing the margins to supply, as well as increasing supply volumes. The diversity and mix of value chains targeted complement the diversity of the production base (large and small producers) that it is seen as important to maintain.

3.2.5 Economic Potential

The FOB value of current fresh fruit exports is estimated at around US\$500,000. Short-term objectives are to double this to around US\$1.2 million within three years, increasing to US\$1.8-US\$3 million within five years. Successful development of a large-scale seafreight sector in the long term would raise export revenues to US\$7-US\$10 million, with longer term growth potential to US\$20 million.

Proposed pineapple processing developments are initially small-scale low technology focused on the domestic market and can be expected to deliver total revenues of the order of US\$50,000 to US\$300,000⁸ to the micro-business sector. Successful development of formally structured small businesses with modern processing and packaging technology capable of producing product meeting regional export market

⁸ Initially a total of 1,000 kg/day juiced (20 operations using 50 kg each) at output value of 1,000 FG/kg; rising to 6,000 kg/day

standards (juice, dried fruit) could raise turnover attributable to pineapple into the range of US\$500,000 to US\$1 million. The greater value of the processing developments is that they would be multi-fruit operations (mango, banana, citrus, and others), with pineapple accounting for only a proportion of turnover so that substantially greater economic activity would be stimulated by work on pineapple.

3.2.6 Key Beneficiaries

Key beneficiaries will include:

- *Small farmers and their organizations*: development of a technically strong cadre of small farmers, grouped under professionally managed organizations delivering key support services to members; farmers providing family and non-family employment
- *Industrial farming companies*: development of a number of strong, well-established industrial farming operations, providing employment
- *Service industries*: development of private sector companies serving the agricultural production and export sector

3.3 STRATEGY AND ACTIONS

The objectives of the product development plan will be achieved through the following strategy and action plan. It is not necessary for the strategy and action plan to be implemented as a single project, and as already noted, the activities of a number of Donor projects — notably of the Groupe Agence Francaise de Developpement, and Projet Fruits et Legumes — will address some proposed activities directly, and a number of broad-based marketing and business development programs (ADF, CDE) can also be accessed directly by operators in the sector. However, the key strategic interventions are laid out as a sequential series, reflecting the priority needs of the sector and the conditionalities for overall development.

3.3.1 Structure and Professionalization of Sector

The commercial operators in the sector have to take the lead responsibility for its development, and have to be able to mobilize the synergies that collaboration can give in actions to address the key constraints.

The key activities required are:

- Establishment of a sector organization (exporters organization)
- Professionalization of the producer unions and development of their services to members

3.3.1.1 Exporters Organization

Successful development of the sector requires a mixed production base of producer types, and collaborative activities outside of competitive areas, such that an industry is formed. A forum is required through which the industry can address common problems, approach donors, and lobby government. The formation of such an entity, with a minimal though professional secretariat, is seen as an essential prerequisite for industry development.

The organization could be specific to the pineapple sector. However, because many of the problems to be addressed are common to most of the major export fruits

(mangoes, pineapple), production areas are closely similar. Some operators are active in more than one product, and numbers of operators are small. As a result, the organization could also have a wide membership that includes several sectors.

The organization would allow the industry to take a pro-active approach to its own development. Priority areas of common interest to be addressed include:

- Input supply
 - Market access and promotion
 - Standards and certifications
 - Introduction of the MD-2 variety
 - Land package for a strategic investor for the seafreight export channel

The main elements of the support program required are:

- Technical assistance to help in the formation, and to build operational function, of an Exporters Association
- Financial assistance to support the operation of a small office and secretariat

3.3.1.2 Producer Unions

Significant development of the small farmer producer sector is dependent on the development of professional producer unions that provide the services necessary to allow planned production and export shipments to meet market contracts secured. Output from this sector will only increase significantly and sustainably if security of output is achieved through control over access to critical production inputs and regional markets beyond Senegal are penetrated. This will only be possible if the unions are able to provide the necessary professional services and inputs to producers and to develop a strong commercial marketing function.

A number of unions exist in the production zone (UGPAM and others). Cooperative Burquiah has a small producer base but maintains its independence. A regional federations exists FPBG, and interested organizations can join. It is recommended that centralized services be developed at the federation level, using the model that has proved successful for potato development through FPPD.

The major elements of support that are required are:

- Long-term technical assistance in all aspects of institutional organization building
- Long-term technical assistance in all aspects of business development and management, including marketing
- Financial support to allow centralized purchasing of inputs, and sale to members on credit terms (deduction against product sales receipts)
- Long term technical assistance and financial support to support continued research and development activities for production protocols for reduced input systems for small farmers and maintenance of plant health through renewal of planting material

3.3.2 Introduction of the MD-2 Variety

Introduction and establishment of the MD-2 variety is seen as a pre-requisite for the entry of a large scale industrial producer and the development of seafreight exports, and for achieving increased sales and higher sales prices in the European market. Clean planting material must be introduced and multiplied at the tissue culture laboratory at CRAF, field trials undertaken to confirm adaptability to local conditions and establish production protocols, and material bulked for distribution to the sector. This process will take a minimum of five years, and should be started immediately.

Access to the planting material would be required by all producers in the sector. Introduction would best be done through a contract between the exporters association and CRAF.

The major elements of the support program required are:

- Financial support for the contract between the exporters association and CRAF for implementation of the variety introduction, development of crop production packages, and bulking of the planting material for distribution to the sector
- Technical assistance to CRAF to assist in undertaking the program

3.3.3 Development of Production

Current export volumes are limited by restricted production and will continue to be so until the major production constraints are addressed. Export volumes to the European market are about to fall sharply as Sobragui withdraws from the sector; and UPGAM and others in the small producer sector are unable to increase production to meet demand in their core regional markets. These constraints have to be addressed before further market development can be undertaken.

The key constraints to production are availability and access to inputs (fertilizers, pesticides) and the costs of irrigation (equipment and fuel costs). Of these, fertilizers are the key production constraint: production levels are directly dependent on the level of fertilizer application, and costs account for up to 30 percent of total production costs. The long-term sustainability and expansion of production, particularly in the small farmer sector, also requires maintenance of healthy vigorous planting material, and the continued development and refinement of production packages to suit different environmental zones and varietal types.

3.3.3.1 Availability and Access to Inputs

Current imports of inputs are very limited. Of a “theoretical” national demand for fertilizers of 60,000 tons/year, annual imports are in the range 4,000 to 6,000 tons, a significant part of which is provided under the Japanese KR-2 program. Usage is dominated by cotton and oil palm. Inputs are imported and distributed by a very wide range of organizations, including the Ministry of Agriculture, a diverse range of projects, NGOs, and other bodies working with specific crops and/or programs, and a few private sector companies. The high rate of inflation further constrains the development of the sector as it adds seriously to the costs of stockage and distribution and limits import shipments to small volumes for immediate use/sale. The fractured nature of the sector prevents the establishment of even the network of commercial distribution channels that could be expected given the actual total level of imports.

Outside of the major crops, producers not linked to a specific import have organized their own imports and have experienced great difficulty in accessing necessary inputs when needed. This is the case for small farmer pineapple producers.

Expansion of the small farmer production sector requires that inputs are made available on credit — to be paid for at harvest.

The situation can be addressed either as a component of a National Input Program, or as a stand-alone program. A program should be established with the producers' Federation for providing a revolving fund for the purchase of inputs, which would be distributed through the unions to the producers. Import orders should be placed through the commercial importer-distributor companies currently dealing with inputs, to assist in delivering economies of scale and sustainability to their operations. Producers in the industrial sector should be encouraged to consolidate their orders with the Federation to give further economies of scale, and therefore some benefit to the industrial sector as well.

Key elements of the support program required are:

- Financial support for the establishment and operation of a revolving fund for the purchase of inputs
- Technical assistance to the Federation on the operation of the program

3.3.3.2 Irrigation

A program should be established to increase the security and reduce the costs of irrigation in the small producer sector through:

- Direct import of irrigation pumps and pipelines, to minimize costs, and provision on credit terms to groups of producers, to maximize usage and minimize usage unit costs
- Provision of cost sharing grants for materials required for improved water and drainage management in the bas fond areas; for the construction of sleeved shallow wells in the bas fonds; and for the construction of small dams

The program should be run through the Federation.

Key elements of the support program required are:

- Technical assistance package for training and support of groups developing shared irrigation facilities
- Technical assistance for the design and specification of improved water management systems for bas fond areas
- Financial support for a revolving fund for the purchase of irrigation equipment

3.3.3.3 Plant Health and Production Packages

The competitiveness of the production sector depends on maintaining the health and vigor of planting material. A program to ensure this for the small farmer sector has to be put in place, through a contract between the Federation and CRAF.

The small farmer sector will continue to expand usage of the bas fond areas and have an interest in reduced input/reduced output production systems. An adaptive research program should be established to adapt current production protocols so that formal

production packages are established for these situations, and returns to production established. A program should be put in place through a contract between the Federation and CRAF.

Key elements of the support program required are:

- Finance for the contract of work with CRAF
- Technical assistance to CRAF to assist it to undertake the work required

3.3.4 Market Access and Promotion

There are five key elements that have to be addressed to improve and expand market access and increase export demand:

- Neighboring and North African Markets
- Seafreight transport to neighboring markets
- Standards and certifications
- European markets
- Packaging

No support is recommended for further support to the cold chain. There are adequate planned and existing facilities for the sector when it starts to have need of them. When airfreight exports to the European markets have increased substantially there might be a commercial base for commissioning and use of the airport cold store, but any necessary support could be applied for by the exporters association at the time needed.

3.3.4.1 Neighboring and North African Markets

Good penetration has been achieved by UGPAM and others in the Senegal market, but substantial scope is thought to exist for increasing shipments and moving up the value chain within Senegal. Small shipments are reported to be made to other neighboring markets, but no structured program for market development and supply exists. Morocco and Tunisia are thought to be markets with considerable demand potential, but development of significant supply volumes depends both on market development and finding a supply route with the necessary capacity at a competitive cost.

A program for these market developments should be established under the Federation.

Key elements of this program's requirements are:

- Technical assistance for the preparation of detailed commercial market studies
- Finance to support exporter market visits and attendance at trade fairs
- Technical assistance for training of federation staff and exporters in business and marketing

3.3.4.2 Seafreight Transport to Neighboring Markets

All exports to neighboring countries are by road.

Re-opening of the seafreight route (particularly to Senegal, the major market) would deliver an immediate increase in margins to current export shipments and assist in improving the quality of fruit delivered. It would also be an important support in developing exports to the North African markets. Improved access to Senegal

(through reducing transit times and costs and minimizing loss of fruit quality) would assist exporters in accessing the better airfreight linkages (volume, frequency, cost) from Dakar to the North African markets for re-export to these markets. When access and volumes have been established in these markets, direct seafreight from Conakry can be developed.

Support should be given, through the exporters association, to work with the Ministry of Commerce and Industry to regularize the situation with the relevant Senegalese authorities.

A key element of the support program required is:

- Technical assistance to the exporters association and Ministry of Commerce to assist in identifying and resolving the issues that prevent small boat access to Dakar

3.3.4.3 Standards and Certifications

Standards and certifications are a key requirement for maintaining and building supplies to the European market. EurepGAP is a fixed requirement for long-term supplies. HACCP is an increasingly common requirement for post-harvest activities for supply to the major multiples, and if any processed products are supplied. The structure of the small farmer sector is ideally suited to Fair Trade certification, which can deliver preferential market access and higher and stable prices. Fresh and processed products must meet established market product standards.

At present, this element of the industry is poorly developed in Guinea, and the use of outside services carries a very high cost that limits uptake and development. Significant expansion of the existing airfreight export channel to the European market requires local access to these services. These services are applicable to the full range of agricultural export products, not just pineapple. A separate support program for the development of these services should be developed through CAFEX.

Key elements of the support program required are:

- Technical assistance and financial support to a locally based NGO to develop the capability for provision of Fair Trade and organic certification services
- Technical assistance, training, and financial support for CAFEX to provide training and promotion/awareness services to companies and other producers for EurepGAP and other industry certifications

3.3.4.4 European Markets

Current exports to the European market are made primarily to France and Belgium. Shipments are made to the major markets (Rungis) and directly to wholesalers/distributors outside the markets. A range of product niches are supplied — both large and small fruit size (Baron de Rothschild, Smooth Cayenne), and sweet (Queen). Exports are only made by those organizations that have direct representation in the market (SOBRAGUI, CMRA/DAFCO, Bourquiah), which are mainly the industrial producers.

Small producers could increase their potential to enter European markets, particularly in the UK and Germany, if they could supply Fair Trade certified MD-2 varieties. If

the small producers, through the Federation, are to enter the European market and build substantial and sustainable supplies, a technical assistance program for the investigation of the major national markets and their supply requirements and routes, and development of commercial contacts, is required. This program should be in parallel with support to the development and professionalization of the Federation and the services it provides to producers.

Key elements of the support program required are:

- Financial support, through the exporters association for exporters to make market tours and attend trade fairs for the promotion of product and securing commercial contacts
- Technical assistance for the federation in developing marketing activities and training in business and marketing skills

3.3.4.5 Packaging

Currently, only bulk boxes suitable for the minimal demands of the domestic and neighboring markets are available from the domestic packaging supplier. All packaging for the European market is imported. It is reported that Senegalese importers re-pack Guinean produce for supply to the higher end markets with Senegal and for re-export to North African markets. Imported packaging is cheaper than equivalent materials from the domestic supplier.

Packaging is an important element of product presentation and branding. Good quality packaging specifically suited to the product is a fixed requirement for the European market and will be a requirement if Guinea is to move up the supply/value chain within Senegal and to access North African markets.

Access to necessary packaging is a constraint that is relevant to a broad range of products, not just pineapples. A technical and investment support program is needed to develop the production capability in the private sector required by the export sector. Support should ideally be delivered through a National Program; otherwise, it could come through the Exporters Association.

Key elements of the support required are:

- Technical assistance for a technical investigation and specification of equipment and material inputs required for the packaging requirements for the pineapple export sector
- Preparation and appraisal of a commercial feasibility study for investment in the packaging industry
- Assistance in securing investment finance for the enterprise, and continuing technical assistance to the commercial enterprise

3.3.4 Processing Technology

The absence of any freshly squeezed juices, of any fruits, in the local market is notable. No production of dry fruits was seen or reported. Simple, appropriate technology for juicing, drying, and development of this sector would deliver value added products to the small business sector. Such technology would also invite more formal businesses accustomed to using more sophisticated technology, yield products and packaging appropriate for regional export markets, and improve the quality of a wide range of dried agricultural products.

Initial developments should be small (micro) scale, low cost, low technology, focused on fruit juice supply to the local market, and suitable for financing through Credit Rural or other micro-finance programs. Subsequently, larger developments at the small business level could be supported to produce products for national distribution, and eventually possible entry to the regional markets. Drying technologies are unlikely to have relevance until businesses are capable of considering supply to the European market. The key constraint is knowledge of, and access to, existing sources of appropriate technology. A program of adaptive research could be undertaken by an appropriate local institute under contract to the Federation.

Key elements of the program required are:

- Technical assistance and finance to develop a range of recommended technology packages
- Seed finance/credit to work with private sector companies to make the equipment available
- Provision of supporting technical assistance in operation of the equipment to the small businesses that take up the opportunity.

4. GENDER ISSUES

4.1 Background

Women — particularly those 20 to 55 years old — play an important role in agricultural production, because they represent the majority of the active workforce (Table 1, below⁹). Their position, however, is severely constrained and limited due to minimal levels of formal education (Figure 1, below) — less than 5 percent of women in this age group have any primary school or other formal education, as opposed to 20 to 25 percent of men in the equivalent age bracket. The particularly disadvantaged family groups — those families with a single adult — are dominated by female-headed households (67 percent), and this group comprises 33 percent of all female-headed households (Table 2, below).

TABLE 1. AGRICULTURAL POPULATION OF GUINEA, BY AGE AND SEX

Age	Male		Female		TOTAL	
	Population	%	Population	%	Population	%
< 5 yrs	501 267	7.9	483 005	7.6	984 272	15.5
5 - 9 yrs	620 040	9.7	564 151	8.9	1 184 191	18.6
10 – 14 yrs	443 854	7.0	357 879	5.6	801 733	12.6
15 – 19 yrs	323 341	5.1	274 307	4.3	597 648	9.4
20 – 24 yrs	164 761	2.6	226 529	3.6	391 290	6.1
25 – 29 yrs	147 724	2.3	283 470	4.5	431 194	6.8
30 – 34 yrs	118 779	1.9	227 953	3.6	346 732	5.4
35 – 39 yrs	117 489	1.8	218 154	3.4	335 643	5.3
40 – 44 yrs	114 767	1.8	175 942	2.8	290 708	4.6
45 – 49 yrs	120 050	1.9	129 142	2.0	249 193	3.9
50 – 54 yrs	96 175	1.5	110 420	1.7	206 595	3.2
55 – 59 yrs	76 438	1.2	61 479	1.0	137 918	2.2
60 – 64 yrs	84 391	1.3	72 256	1.1	156 647	2.5
65 – 69 yrs	62 263	1.0	34 698	0.5	96 962	1.5
70 – 74 yrs	41 659	0.7	28 478	0.4	70 137	1.1
75 – 79 yrs	24 259	0.4	14 159	0.2	38 418	0.6
80 – 84 yrs	12 565	0.2	13 054	0.2	25 618	0.4
85+ yrs	10 430	0.2	9 463	0.1	19 893	0.3
Total	3 080 251	48.4	3 284 539	51.6	6 364 790	100.0

⁹ Source for Tables 1 & 2 and Figure 1: Recensement National de l'Agriculture (RNA 2000/2001) Service National des Statistiques Agricole, République de Guinée

FIGURE 1. PERCENT OF THE POPULATION WITH NO FORMAL EDUCATION BY AGE AND SEX

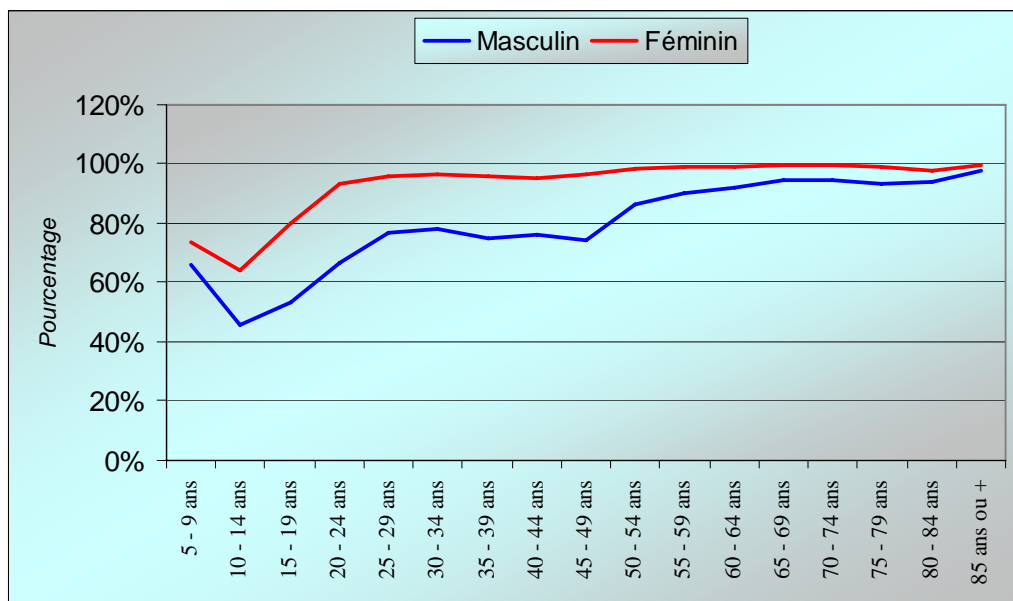


TABLE 2. AGRICULTURAL FAMILIES: DIVISION BY NUMBER OF ACTIVE WORKERS AND SEX OF HEAD OF HOUSEHOLD

Number of Active Workers	Male		Female		Total	
	Households	%	Households	%	Households	%
1 active	7707	1.0	15620	32.8	23327	2.8
2 active	165849	20.9	13539	28.5	179388	21.3
3-4 active	337559	42.6	14037	29.5	351596	41.8
5-9 active	253292	31.9	3988	8.4	257280	30.6
10-14 active	24612	3.1	378	0.8	24990	3.0
15+ active	3873	0.5			3873	0.5
Total	792892	100.0	47562	100.0	840454	100.0

Support to agricultural production will directly benefit women involved in production. Support to the development of agricultural extension services will directly benefit a very substantial proportion of the population that has little or no formal education and will directly reach a higher percentage of women than men. The type of extension services recommended in this development plan — delivered to local producers by local organizations (unions) — is far more likely to reach local women than equivalent services delivered by educated persons in the Ministry of Agriculture Extension Service.

Women play an important role in market trading, and dominate the trading of pineapples in the domestic market. Women also play an important role in the employment market where consistency, reliability and attention to detail is required, as found in the packhouse industry for pineapples.

4.2 GENDER ISSUES IN THE DEVELOPMENT PLAN

Gender issues are primarily relevant to the small farmer producer sector and the structure of unions and federation under which they are organized. The industrial producers are stand-alone businesses employing paid labor.

Pineapples are a high investment commercial cash crop, and production is, therefore, dominated by wealthier small farmer producers. Female-headed households are predominately poor with few resources. Although the development plan has a strong focus on production, this cannot be expected to have a disproportionate impact on women producers — most producers are men.

Within the small producer sector, pineapple production is primarily a male activity; women play a major role in the purchase ex-field and marketing within the domestic market. Export marketing has no clear divisions, and is partly a function of individual producers, and partly of the unions and federation.

The scope for women to increase their role and responsibilities within the unions and federation depends largely on the organization and management of these bodies. Organizations should focus on employment practices while requiring that equal opportunity employment practices are in place. As the objective of the development plan's activities is to increase the professionalization of these organizations, so they become results based, it can be expected that the role of women will become more important, and increasingly on a level with that of men.

Implementation of the development plan will significantly increase the scale and scope of the marketing function at all levels. The increase in production, and therefore availability of product for the domestic market, and the development of micro-processing operations to focus on the local domestic market, will create significant opportunities for women to increase their independent private sector commercial activities. Similarly, the development of packhouse activities, as export operations grow larger and more sophisticated will significantly increase the scope for employment for women — employment that will generate practical skills and improve their prospects in the wider fresh produce export sector.

It is not expected that any of the activities and development envisaged will result in exacerbating or reinforcing the disempowerment of women. The activities of the development plan will advance the condition of women, particularly in the areas of marketing, and employment in the post-harvest sector. The role of women in production is restricted because production is generally in the hands of those with substantial resources. However, the focus of the plan in developing extension services for small producers through the unions will ensure that access by women to these services is maximized. Strategies should be adopted to ensure that some of the extension agents of the unions are women, who will in turn help to ensure that more women are encouraged to participate in the production sector.

4.3 IMPACT ON EMPLOYMENT AND TRAINING

Successful implementation of the development plan will result in a substantial increase in pineapple exports and employment. A major component of the development plan is the delivery of training to people at all levels of the product

chain, from production through to business and marketing skills. Women will participate in both employment and training.

4.3.1 Increase in Employment

Employment will be a mix of seasonal/part-time¹⁰ and full time. Estimates for the projected increase in employment are based on the projections made for increases in export: an extra 1,000 tons/year in the short term (1 to 3 years); an extra 3,000 tons/year in the medium term (3 to 5 years); and an extra 10,000 to 30,000 tons in the long term (7 to 10 years). Employment will result from increased field cultivation activities, packhouse activities, administrative and technical employment within large companies (production and service companies) and the producers' unions. For the analysis here, it is assumed that packhouse employment will be predominately seasonal/part-time; field cultivation employment will be a mix of seasonal/part-time and full time; and employment with the companies and unions will be full time.

Packhouse. Employment will be predominately seasonal/part-time. On the basis of a packing requirement of 3.5 work days per ton of export fruit, employment will rise by 14 full-time equivalents in the short term, 40 full time equivalents in the medium term, and 140 to 420 full-time equivalents in the long term. Women — frequently preferred — are well suited to this work, and 70 percent of this employment can be expected to be taken up by women.

Cultivation. Employment is likely to be an equal mix of seasonal/part-time and full time. At an average export output of 50 tons/ha and 3 full-time equivalent employees per ha cultivated, employment is projected to rise by 60 full-time equivalents in the short term, 180 full-time equivalents in the medium term, and 600 to 1,800 full-time equivalents in the long term. While cultivation is currently dominated by men, it is likely that the significant increase in seasonal/part-time work will create opportunities for women — possibly 20 percent to 30 percent of the total employment can be expected to be taken up by women.

Companies and unions. Employment will be predominately full time. Development of the unions and industrial production companies, and supporting service companies will lead to some increase in employment in the short to medium term, but the major increase will come about in the longer term when a large scale plantation company becomes established. In the short term, the increase in administrative, technical, and managerial positions is estimated at around 20 full time positions; in the medium term, 40 full time positions; and in the long term 100 or more. While the general resource base of women is disadvantaged in terms of education, for this number of jobs it is quite reasonable to expect women to take 50 percent of the available positions.

In summary, implementation of the development plan is projected to lead to an increase in employment of an estimated 94 full-time equivalent positions in the short term, rising to 260 positions in the medium term, and 840 to 2,320 in the long term. Around 40 percent of these positions are likely to be taken up by women. The greater levels of employment for men are due to the fact that most of the new employment is related to field cultivation activities that are predominantly undertaken by men.

¹⁰ Seasonal/part-time employment is converted to full-time equivalents at the rate of 250 work days per full time equivalent.

4.3.2 Training

The development plan calls for the broad-based delivery of training in all functions from production through post-harvest handling to marketing and business management. All participants in the sector will have access to training, whether delivered through the unions to their members or by companies to their employees. The training services will be equally accessible by women, and all women involved in the sector should receive training relevant to their activities.

ANNEX 1

SCOPE OF WORK

GUINEA AGRICULTURAL MARKET LINKAGES ACTIVITY

PRODUCT DEVELOPMENT PLAN: PINEAPPLE

PROJECT BACKGROUND

The Guinea Agricultural Market Linkages Activity (GAMLA) is a USAID-funded contract executed by Chemonics International Inc. Project implementation began in June 2005 and will end in December 2006. The primary objective of GAMLA is to increase market-driven production, processing and sales of selected agricultural and forest products. Secondary objectives include the identification of longer term opportunities for agribusiness development in Guinea, the identification of key policy constraints and solutions to agribusiness development and the identification of water technologies that could have a significant impact on rural income generation. GAMLA has one long-term technical assistant in addition to significant amounts short-term national and international expertise.

GAMLA will contribute to a key strategic objective of USAID/Guinea: Increased Use of Sustainable Natural Resource Management Practices. By creating additional economic opportunities in rural-based value chains, Guinean farmers will be motivated to manage their productive resource base in a more sustainable manner by, for example, decreasing use of unsustainable slash and burn farming techniques on the country's steep hillsides.

Guinea's potential as a regional and international exporter of horticultural crops and forest products has long been recognized. The country has modern port facilities in Conakry, several weekly flights to major European markets and near ideal growing conditions for a host of tropical products demanded by regional and European markets. Guinea's potential, however, has mostly remained untapped, due, in large measure, to the absence of effective linkages along the farm to market commodity chain.

GAMLA will seek to reinforce those linkages through a mixture of technical assistance and training at key points in the farm to market continuum. GAMLA, in coordination with USAID, will identify and prioritize promising product areas and market opportunities through the implementation of feasibility studies, analysis, and product development plans. Commodities may include shea butter targeted for export to the US cosmetic market, mangoes to Europe, potatoes for sale in Senegal, and other select products, including pineapple.

The project will create linkages between the Guinean and regional/international private sector to increase the competitiveness of local products across these markets by providing technical advice and business development services to identify investment, financing, and trading opportunities for producers and businessmen alike. GAMLA will provide recommendations to USAID on long-term agribusiness opportunities and policy constraints to be addressed by the Government of Guinea, identify crosscutting technologies, such as improved irrigation, that can be readily adopted by Guinean farmers, and address gender concerns as they arise during the course of value chain reports and product development plans.

INTRODUCTION

The activities to be carried out under this scope of work are centered on formulating a product development plan (PDP) for pineapple, an important agro-industry in Guinea. With the assistance of international as well as local expertise, GAMLA has completed numerous studies and assessments of the pineapple agro-industry in this country. This information must now be synthesized, reviewed from an international perspective, and elaborated into a “road map” for the further development of the sub-sector. The road map should include a comprehensive strategy and approach for the development of this commodity into viable a agro-industry, including its production, transformation and export to external markets. Different finished products may also be considered, including fresh and processed fruit products such as dried pineapple fruit, pineapple fruit concentrate and fresh fruit salad. Markets to be considered include sub-regional markets in West Africa, North Africa, the Middle East, and the European Union.

The PDP must consider the product development constraints that exist in Guinea, as well as any opportunities for development of this agro-industry. The consultants should describe those activities to be carried out to address the constraints and to take advantage of the development opportunities.

The PDPs will include the following:

- Target region(s)
- Target group(s)
- Market opportunities
- Value chain(s)
- Economic potential
- Key beneficiaries

The plans will also identify potential Guinean agribusiness partners that provide input distribution, processing and/or export services that would encourage development of the respective product. The PDPs must include a proposed set of interventions for strengthening the respective commodity chains, organized around objectives, with recommended performance indicators. Depending on the consultant’s analysis, the proposed interventions may target the following illustrative areas:

- Increased efficiency of business management skills
- Improved production, processing and marketing technologies
- Efficient production with consistent product quality
- Increased market opportunities and mechanisms
- Increased access to financing.

The consultants’ plans must take into account the work being done in these sub-sectors by other international organizations, government agencies, and NGOs.

Additionally, the product development plan should identify the most significant gender issues that need to be considered during future implementation activity, or conversely, the Plan should explain why gender roles are not relevant to the activity. Specifically, the PDP should consider the following:

- How will gender relations (the varying social/cultural/economic/political roles of men and women in Guinea) affect the achievement of this activity’s results?

- How will proposed activities and results affect the relative status of men and women and different age groups within each gender?
- If there are significant gender issues, what actions need to be taken to ensure 1) results are still achieved, given gender factors that may play a role and 2) the program either advances the condition of women or does exacerbate or reinforce the disempowerment of women.

As GAMLA is ending, this product development plan must be targeted to an audience outside USAID. The PDP must present a useful plan of activities for investors, exporters, local NGOs and international organizations to follow to address the product development constraints and to take advantage of product development opportunities.

After an internal review by GAMLA, the consultants must present the PDP to USAID for discussion and approval.

WORK TO BE COMPLETED

The specific tasks to be completed under this SOW include the following:

- Review of GAMLA studies completed to date (pre-feasibility, value chain assessment, regional market analysis, input study, irrigation study, policy constraints study, etc...). As these were all researched and written by Guineans, they will provide a sound context of reality on the ground.
- Meet with relevant consultants who authored the reports, pineapple exporters, producer groups, transporters, shipping lines, international donors, and the USAID technical representative. This will include visiting production sites, packing sheds, collection and export centers, airport and port facilities, and possibly, external markets.
- Identify target region(s), target group(s), market opportunities, value chain(s), economic potential and key beneficiaries in this sub-sector.
- Identify the most significant gender issues that need to be considered during future implementation activity.
- Consider other USAID activities with other implementing partners as well as NGOs and other donors, to maximize the ability to cover all levels of the value chains within this sub-sector.

DELIVERABLES

The consultants should submit a comprehensive report for this commodity, using the illustrative format in the Attachment, of no more than 35 pages without including the executive summary and the annex, detailing very specific step by step recommended actions, organized by objectives, for further development of this sub-sector in Guinea. Annexes should include a list of people/organizations met and their contact information.

Once the report has been completed the consultants will make a presentation of their findings to the USAID/Guinea Mission.

CONSULTANTS

This work will be carried out by a team of two consultants: an international consultant and a local consultant. The international consultant will have overall responsibility for report preparation and presentation. The local consultant will assist the international consultant in all aspects of report preparation and presentation.

LEVEL OF EFFORT

A level of effort of twenty-two work days is authorized for this activity by the international consultant. This includes 20 work days and 2 travel days. A level of effort of twenty work days is authorized for this activity for the local consultant. This work will begin on or about October 10, 2006 and will end at or about November 15, 2006. The consultants will report directly to the GAMLA Chief of Party, Tom Easterling.

ILLUSTRATIVE REPORT FORMAT

Product Development Plan

An illustrative description of the contents of each report is the following:

- Title page
- Abbreviations used
- Table of contents
- Executive summary
- Introduction
- Background
- Analysis
- Conclusions and recommendations
- Annex:
 - Consultant's scope of work
 - List of documents reviewed
 - Names and contact information of people met

ANNEX 2

LIST OF DOCUMENTS REVIEWED

AGRIMEX (2005), « *Etude de marchés sur les filières porteuses agricoles* », Conakry, PACV, août 2005.

AMBRE- CONSULT (sept 2002), « *Diagnostic de l'entreprise SIPEF Guinée* ».

AGRO-IND/SOFRECO (juillet 2002), « *Diagnostic stratégique des filières agro-industrielles* » (Rapport Guinée).

ARCA (2005) : Etudes de compétitivité des filières mangues, karité, ananas (4 rapports)

CAMARA K (2005), « *Bilan de la LPDA2 sur les cultures d'exportations agricoles et orientations stratégiques pour la Nouvelle LPDA* », décembre 2005.

COLEACP (2001), « *Les importations de fruits et légumes dans l'Union européenne de 1995 à 2001* ».

LANGSTAFF M.F. (2005), « *Renforcement du dispositif institutionnel pour le développement des exportations* », MCIPME.

Larsen J. (1985), « *L'exportation de l'ananas guinéen frais vers l'Europe occidentale : étude de pre-factibilité* ». (CHEMONICS International)

MAE. (1998), LPDA 2 (Lettre de politique de développement agricole)
a. Volume 1: Document de synthèse
b. Volume 2: Document principal

MAEF/ Cabinet Gressard (oct. 1997), « *Faisabilité de l'implantation d'investisseurs européens dans la filière fruits et légumes* ». (rapport final)

MPIPME. 2002, « *Cadre intégré du commerce de la Guinée* ».

MAEEF/FAO (2004), « *Program National d'Investissement à Moyen Terme du secteur agricole en Guinée PDDAA/NEPAD* ».

PCPEA (août 2001), « *Etude de la compétitivité des filières agricoles et d'exportation, les facilités du commerce et l'amélioration du cadre incitatif* ».

CCI/MCPME. 2006. Développement de la commercialisation et de l'exportation de produits agricoles de guinée

NST.2004. Etude de faisabilité d'une unité de transformation agro-industrielle de l'ananas en Guinée

ANNEX 3

LIST OF CONTACTS MET

Mohamed Dioumessi, Directeur Général, Bureau Central des Etudes et de la Planification Agricole (BCEPA), Ministère de l'Agriculture, de l'Élevage, des Eaux et Forêts. BP 576 Conakry. Tel: 30 43 10 35

Abdoul Karim Camara, Director National de l'Agriculture, Direction National de l'Agriculture, Ministère de l'Agriculture, de l'Élevage, des Eaux et Forêts. BP 576, Conakry. Tel: 60 21 78 00

Hadja Zenab Diallo, Coordinatrice Générale des Projets du CFC en Guinée, Gouverneur du CFC pour la Guinée, Ministère du Commerce, de l'Industrie et des PME, BP 13, Conakry. Tel: 43 10 09

Moussa Bangoura, Directeur, Projet Fruits et Légumes pour les Régions de Mamou et Kindia, Conakry. Tel: 60 32 82 73

Mamadou Conde, Directeur Technique, Centre d'Appui aux Formalités d'Exportation (CAFEX). Tel: 60 26 46 18

Koumandian Camara, Head, Pineapple Program, Centre de Recherche Agronomique de Foulaya (CRAF), Kindia. Tel : 60 5743 80

Mme. Sylla Hadja M'Balou, Directrice Générale, Ferme Integre Fabik Condoya, BP 223, Kindia. Tel: 011 21 55 56/61 15 44

Futur Agri, Station de Conditionnement Fruits et Legumes, Kindia

SIPEF, Station de Conditionnement de Mangues, Kindia

Mbaye Dieye, Directeur d'Exploitation Volet Agriculture (Ananas, Miel, Tropical), CMRA (previously DAFCO) Plantation: Km66 Route de manférenya P. de Forécariah; BP 1974 Conakry. Tel: 64 32 23 93/60 34 55 74

SITEB sa (Société d'Importation et Transformation et d'Exportation de la Banane en Guinée). Kindia. Tel: 41 33 88

Jean-Luc Burquier, Plantations Burquier, La Boissière, 2486 route de d'Entredoizon. 74410 Saint-jorioz. France. Tel: +33 6 89 57 87 83/Fax: +33 4 50 02 73 49

Sekou Ahmadou Soumah, Président, Cooperative Ago-Pastorale de Bourquiah, Morebayah 030, BP 297, Conakry. Tel: 011 28 33 54/64 29 69 66

Sobragui, Maférényah.

Mamady Diane, Président, Union des Groupements des Planteurs des Ananas de Maférényah (UGPAM), Maférényah.

Ansoumane Soumah, Directeur de Usine, Nouvelle Société Tropicale (Salguidia)

Bakary Koulibaly, Directeur Général, Credit Rural de Guinée, BP 3790, Conakry.
Tel: 30 41 35 71

Michael Dam Schmidt, Manager, Maersk Line, Maersk Guinée S.A., BP 1166
Conakry. Tel: 30 455 565

Falilou Barry, Secrétaire Général, Ministère du Commerce, de l'Industrie et des Petits
et Moyennes Entreprises. BP 468 Conakry. Tel: 30 414 520

Dr Suliman Berité, Director, Centre Documentation et d'Information Commerciale,
Ministère du Commerce, de l'Industrie et des Petits et Moyennes Entreprises. BP 468
Conakry

Alpha Oumar Diallo, Représentant, African Development Foundation (ADF), BP
2399 Conakry. Tel: 46 75 05

Mamadou Kaba Souare, Assistant de Représentant (Program) Représentation de la
FAO en Guinée, Km 4, Moussoudougou, BP 633 Conakry. Tel: 46 85 81

Ansoumane Berete, Chef de Division, Politiques et Accords Commerciaux, Ministère
du Commerce, de l'Industrie et des PME, BP 13, Conakry. Tel: 43 10 48

El Hadj Mohamed Noba, 1^{er} Vice- Président, Chambre Nationale d'Agriculture, BP
6693. Conakry. Tel: 30 45 12 33

Fodé Mamoudou Bangoura, Secrétaire Général, Union des Producteurs de Fruits de la
Guinée Maritime, BP 3381, Conakry. Tel: 64 25 34 05

Mme Foulématou Camara, Présidente, Fédération des Organisations Paysannes de la
Basse Guinée (FOP-BG), Conakry. Tel: 60 34 70 94

Louceny Cherif, Confédération Nationale des Organisations Paysannes de Guinée
(CNOP-G). BP 5381. Conakry. Tel: 60 33 58 22

ANNEX 4 SUMMARY OF CURRENT AND RECENT PAST DONOR PROGRAMS

Title of the Project and Agreement Number	Donors	Status	Type of Funding	Duration	Intervention Areas	Amounts
Program to Strengthen Commercial Capacities (PRPE)	AFD	In progress	Grant	12/30/06-12/31/07	Agricultural marketing	€560,000
Project to Develop the Marketing and Export of Agricultural Products in Guinea – Reducing Poverty through Export Program (PRPE)	CCI	In progress	Grant	01/05-01/07	Agricultural export and marketing	€600,000
Fruit and Vegetable Project in the Kindia and Mamou Regions	BADEA	In progress	Loan		Agricultural production, agri-industry, infrastructure	
Project to Strengthen the Capacities of the Federation of Rural Organizations in Lower Guinea (FOP-BG)	FOGUI RED	In progress	Grant	12/13/05-12/12/07	Training	€26,545
Guinea Rural Credit (CRG)	AFD	In progress	Grant	11/28/02-12/31/08	Micro-finance	€5,000,000
Activities to Strengthen Agricultural Marketing (ARCA)	USAID	In progress	Grant	06/05-03/07	Agricultural export and marketing	\$1,322,314
Support for the Creation of a National Agricultural and Agri-Food Research System (SNRRA)	SCAC	In progress	Grant	05/21/04-05/20/07	Agronomic research	€1,600,000
Project to Support the UGPAM in Marketing and Processing Pineapples	ADF	In preparation	Grant	-	Pineapple marketing, export and processing	\$245,000
Project to Support the UPFBG in Selling Fruit in Lower Guinea	ADF	In preparation	Grant	-	Pineapple marketing, export and processing	\$200,000
Project to Support the Rice Chain and Rural Agriculture Organizations in Lower Guinea	AFD	In preparation	Grant	2006-2010	Agricultural production, PAO [professional agricultural organizations]	€9,000,000
CNOP-G Support Project	U.E.	In preparation	Grant	11/06-03/10	PAO	€4,000,000