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**UGANDA
NON-TRADITIONAL
EXPORT COMMODITY
RAPID APPRAISAL**

FINAL DRAFT

JULY 1992

AGRICULTURAL MARKETING IMPROVEMENT STRATEGIES PROJECT

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UGANDA NON-TRADITIONAL EXPORT COMMODITY RAPID APPRAISAL

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LIST OF ACRONYMS

AMIS	Agricultural Marketing Improvement Strategies Project
ANEP	Agricultural Non-Traditional Export Promotion Program
BOU	Bank of Uganda
DANIDA	Danish Agency for International Development
EEC	European Economic Community
EPADU	Export Policy, Analysis and Development Unit
EPC	Export Promotion Council
FAO	Food and Agriculture Organization
GOU	Government of Uganda
ICRC	International Committee of the Red Cross
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MCCM	Ministry of Commerce, Cooperatives and Marketing
MPED	Ministry of Planning and Economic Development
NEC	National Enterprises Corporation
NTE	Non-traditional Export
PMB	Produce Marketing Board
PTA	Preferred Trade Area
PVO	Private Voluntary Organization
TDD	Trade Development Division (MCCM)
UAE	United Arab Emirates
UEPC	Uganda Export Promotion Council
UGMC	Uganda Grain Milling Company
UNBS	Uganda National Bureau of Standards
USAID	United States Agency for International Development
WMGC	West Mango Growers Cooperative
WPF	World Food Programme

PREFACE

This study was undertaken for USAID/Kampala through a buy-in to the Agricultural Marketing Improvement Strategies Project (AMIS/R&D/EID). It is a rapid appraisal of the agricultural marketing system in Uganda with a focus on the issues and constraints facing private sector marketing participants attempting to increase non-traditional agricultural exports.

Fieldwork was undertaken over a five-week period in February and March, 1992, and covered Western, Central, and Eastern Uganda. The senior and coordinating author of the report is Dr. Patricia Kristjanson, an agricultural economist at Abt Associates. She teamed up with John Bosco Sezi Iyadema, a Ugandan agricultural economist on leave from the Produce Marketing Board, to focus on cereals marketing issues. Reginald King, a horticultural marketing specialist, and Tom Wittenberg, an Abt Associates agricultural economist, teamed up with Constance Owori, a post-harvest handling specialist on leave from FAO's horticultural project at Kawanda Research Station, to examine the export of horticultural crops. Agricultural economists Peter Ngategize and David Woodward of Deloitte & Touche focused on the restructuring of agricultural parastatals and credit issues. A local consulting firm, INCAFEX, located and hired the Ugandan experts, provided office space, secretarial, and excellent logistical support for the team.

The authors wish to thank USAID/Kampala for their support and feedback during the study. In particular, Robin Phillips and Carol Carolus provided thorough and valuable comments on the first draft. The expatriates on the team would also like to thank our Ugandan counterparts who were not only technically qualified and hard-working, but proved extremely valuable during fieldwork at locating and accessing key informants, particularly given our time constraints. We were very impressed by the willingness of both public and private sector marketing participants to frankly give us not only their perceptions of the constraints they face, but to discuss ways in which these constraints could be overcome. Our thanks to all the Ugandans who participated in the study.

EXECUTIVE SUMMARY

This report presents the findings and recommendations of a study of the structure, conduct, and performance of rural markets in Uganda. The study was undertaken for USAID/Kampala through a buy-in to the Agricultural Marketing Improvement Strategies Project (AMIS/R&D/EID). It was conducted over a six-week period (February and March 1993) by a team of expatriate and Ugandan consultants using a rapid appraisal approach based on key informant interviews, informal surveys of producers, traders, and exporters, and a review of secondary data sources.

The objectives of the study are to: (1) identify major constraints to exporting non-traditional export crops from Uganda, (2) assess the relative importance and impact of these constraints on marketing system efficiency, and (3) determine the extent to which recent policy reforms have alleviated targeted regulatory constraints. The study also identifies other areas for policy reform, and suggests possible approaches or interventions for USAID. Generally, this study should provide a better understanding of how the agricultural system operates in Uganda and by doing so should inform the ongoing policy dialogue.

Non-traditional export (NTE) crops are defined by the Government of Uganda (GOU) as all agricultural export crops with the exception of cotton, coffee and tea. The study focuses on two broad categories of NTEs, maize and other cereals, and fresh fruit and vegetables. These two categories were chosen for their export growth potential and for their differing characteristics. Maize and cereals are low-value, bulky commodities exported regionally while horticultural crops are high-value, perishable crops that are exported to lucrative markets in developed countries. The authors hypothesized that the two different categories of crop exports would face very different types of constraints and that by looking at both categories the full range of constraints facing the majority of NTEs could be identified.

The premise underlying a structure, conduct, performance study is that the structure, or organization of a marketing system, influences the conduct, or behavior of market participants, which in turn affects the overall market performance, or how well a marketing system meets economic and social goals. A second premise is that competitive markets lead to optimal economic performance.

The structure of a marketing system can be described in terms of organizational characteristics that largely determine where the market falls on the spectrum between monopoly and competition. Commonly recognized characteristics of structure include the number of and correlation between buyers and sellers, the proportion of total market volume concentrated in a small number of firms, and the ease with which new firms can enter and exit the market.

The structure of a market influences the conduct, or behavior, of market participants primarily through competitive pressures. Competition essentially keeps participant behavior in check. For example, a single firm in a marketing system in which there are many buyers and sellers is less likely to be able to influence prices in its favor than a single firm that buys in a market in which the number of sellers greatly exceeds the number of buyers. Similarly, it is theorized that a more competitive market will be more likely to stimulate market participants to adopt more efficient, cost-cutting measures than in less competitive markets.

Conduct in turn, influences market performance, or how well a marketing system meets economic and social goals. In theory, the more a market resembles a perfectly competitive model, the closer prices will come to approximating actual costs. Hence, competitive pressures are hypothesized to lead to optimal economic efficiency and allocation of resources. Competitive markets are also thought to lead to achievement of many social goals, such as equality of opportunity and incomes. For example, the presence of many small buyers and sellers ensures decentralized decision making; well-informed consumers are compatible with consumer sovereignty; low barriers to entry imply equality of opportunity; and competitive pricing minimizes underutilization of resources and encourages equality of incomes (Connor et al., 1985).

Structure, Conduct and Performance of Cereals Markets

The structure of cereals marketing in Uganda was found to be extremely competitive at the lower levels of the marketing chain (producers and small rural traders) and less competitive at the exporter level. Few regulatory or policy-related constraints to entry were reported. The most consequential barrier to entry into the grain trade is sufficient working capital for purchasing grain. Other barriers to entry are access to grain storage facilities and transportation. Most exporters sell grain in fairly small quantities (<5,000 mt grain) to international aid agencies such as the World Food Program. With the exception of sesame (*simsim*), a relatively small amount of Ugandan grains is actually exported commercially by the private sector. Sesame is sold in relatively large quantities to buyers in Europe and the Middle East.

Currently, there are only approximately 12 private cereal exporters in Uganda. Nonetheless, those interviewed felt it was a competitive market. All are fairly recent entrants to the business as grain export was limited to government parastatals until policy reform just two years ago. Some current exporters were previously traders that sold to the parastatals. Others are grain importers who have expanded into the export business.

Exporters essentially compete with the Produce Marketing Board (PMB), the grain marketing parastatal, in both purchasing and selling grain. Several indicators suggest that the importance of PMB in the market appears to be declining while that of the private sector is increasing. Specifically, in 1991, PMB exported one-half the level of maize it had exported

the year before. Private exporters, in contrast, reported increases in the amount of maize exported.

Those interviewed reported that the parastatals' only advantage over private sector exporters was greater access to storage and cleaning facilities. The Produce Marketing Board, in particular, owns roughly 90% of storage, cleaning, and drying facilities in the country. Surprisingly, preferential access to credit by the parastatals was not an important issue, as it usually is where private sector must compete with publicly-owned agencies.

Sector performance was evaluated by examining marketing margins at each level of the system. Margins were generally very small for cereal market intermediaries at the lowest levels (e.g. rural and urban traders), indicating a highly competitive market. Rural traders generally made profits of around 8 Shs/kg, while urban traders made around 11 Shs/kg, or approximately 7% of the price received for the grain in Kampala. Moreover, the difference between a rural trader's buying and selling price can be traced largely to transportation costs. Strong competition at this level is to be expected since licenses and other entrance requirements that previously restricted entry have been removed. Similarly, there was no evidence of collusion by transporters. Transportation costs were also very similar among most traders, suggesting that the transport sector is also sufficiently competitive.

Higher up the marketing chain, particularly at the exporter level, access to capital and information are important barriers to entry. There are also fewer participants. Exporter profit margins are higher than that for traders at around 41 Shs/kg, or 8% of the export price. However, these margins are still not high enough to suggest any "super-normal" profits are being made. While informal, single visit surveys cannot fully address issues of the evolution of competition and impact on prices and margins, respondents in all regions reported more competition at all levels of the marketing chain over the last few years.

The growth of cereals exports is hindered by several constraints. Small farmers in Uganda have the same problems small farmers face throughout the world. The most important constraints include lack of on-farm storage and information and extension services. The most important constraints to rural traders include insufficient working capital, lack of ownership of transportation and storage facilities, and very limited access to market information. Urban traders were constrained by poor communication infrastructure, insufficient capital, limited access to storage facilities, lack of market information and high transport costs. Exporters felt the overriding constraint was insufficient working capital. Lack of domestic and regional market information and unreliable production were also cited as constraints.

Structure, Conduct and Performance of Fruit and Vegetable Markets

A combination of high soil fertility and ample rainfall make Uganda extremely suitable for horticultural production. A wide range of horticultural crops are produced in nearly all parts of the country throughout the year with practically no irrigation or fertilizer.

Despite the tremendous potential, the quantity of horticultural crops that is actually exported is relatively small. Currently, Uganda is exporting less than 15 metric tons of fresh fruit and vegetables through Entebbe per week (at high season). To provide some perspective, Kenya is exporting roughly 250 metric tons per day.

The market structure is very straightforward. There are essentially two major channels, one for high-value crops (e.g. okra, gourds, chilies, plantain, ginger, avocado, eggplant, jackfruit, passion fruit and other miscellaneous Asian vegetables) exported to lucrative markets in developed countries, another for mid-value crops (e.g. plantain, bananas, oranges, pineapples, and onions) exported to Kenya.

The number of participants involved in exporting high-value horticultural crops to Europe is very small. Only five or six of the 75 listed exporter members of the Horticultural Crops Exporters' Association are currently exporting on a regular basis. It is worth noting that several other individuals that had exported previously in the 70s and early 80s were preparing to begin exporting again.

The nature of the high-value export business requires that exporters closely coordinate all production and collection activities. Many of the crops (e.g. okra, chilies, gourds, and other Asian vegetables) are not consumed domestically to any great extent so exporters must rely on their own production or contract with specialized producers under informal outgrower arrangements. The quality demanded by foreign markets is also substantially higher than that by the domestic market. Consequently, exporters must closely monitor production and often provide inputs and technical assistance to outgrowers to assure that high quality is consistently maintained. Perhaps most importantly, the logistics involved in harvesting, grading, packing and transporting in accordance with rigid schedules requires extensive coordination of a wide range of individuals.

All outgrower agreements are informal. Most exporters provide seeds, chemicals, packaging and technical assistance on planting, harvesting, and grading techniques. In exchange, the producer will informally agree to sell the crop to that exporter at harvest.

As in all countries, cases of abuse of the outgrower relationship by farmers as well as exporters were reported. Farmers complained that exporters had encouraged the production of particular crops but failed to appear when it was time to harvest, or offered to buy at prices that were too low. In some instances, exporters and producers agreed upon prices at planting, but more frequently prices are renegotiated regularly throughout the season. As there are very few exporters, once the crop has been planted, the producer has little bargaining power over price. Hence, outgrowers must often accept the price the exporter offers or not sell at all. Despite the complaints, producers continue to grow horticultural produce because of the higher profitability in comparison to other crops. Producers reduce risk by growing other crops in addition to horticulture. Exporters, on the other hand, reported cases where they were unable to recover the costs of inputs because production was poor or farmers sold to others who offered higher prices.

High-value produce from Uganda is exported primarily to ethnic markets in Europe, with the most important destinations being the United Kingdom, Denmark, Sweden and Norway. Ugandan produce is slotted in the lower-priced end of the ethnic market. The exporters admit that they have not achieved the quality obtained by other more experienced exporting countries and that Ugandan exports compete primarily on the basis of price. All exporters of high-value crops sell to importer/wholesalers under long standing agreements and several have such agreements with more than one buyer. The importers are primarily Asian or Ugandan expatriates who import the produce to supply local ethnic communities.

The channel for mid-value crops exported to Kenya is quite different. An indeterminate number of large- and small-scale exporters purchase crops from a large number of producers. Sizes of loads range from head loads to 30-ton trucks. Large-scale exporters purchase primarily on a spot basis with very little organization or coordination with the producer before hand. These large-scale exporters simply visit production areas, offer to buy directly at farms until they have accumulated enough produce, and then transport the produce across the border at Malaba and Busia. The exported produce is sold in local markets just across the Kenyan border as well as to large wholesalers who may distribute throughout Kenya or even re-export the produce outside Kenya.

Efficiency, income distribution and economic growth are commonly recognized performance criteria. Qualitative analysis suggests that there is room for improvement in at least two of the categories. Less-than-optimal efficiency is indicated by the high incidence of poor quality produce, much of which is simply discarded.

The sector generates substantial benefits for a wide range of individuals, including among others, producers, hired farm labor, exporters, hired exporter labor, local banks, foreign exchange dealers, and importers of agricultural inputs. However, without more in-depth data on firm-level profitability, the system's performance in terms of the distribution of benefits, is not entirely clear.

The potential for economic growth has hardly been tapped. This growth, however, is hindered by several constraints, many of which are external to the sector. The **main constraints facing exporters**, which are examined in more detail in the main report, are summarized below:

Buyer identification. The exporter must find suitable foreign clients and ensure that they are reliable. Exporters must also establish their credentials with potential clients. Both steps are time consuming and costly.

Market intelligence. The exporter needs market information from independent sources for identifying markets, general planning and for evaluating offers from potential buyers.

Airfreight. Few scheduled flights fly directly from Uganda to lucrative markets. This lengthens transit time, reduces produce quality, increases post-harvest losses and limits expansion to new markets.

Finance. Many of the exporters are small operators with few assets acceptable to lending agencies as collateral.

Export marketing know-how. Many prospective exporters interviewed had little idea of prices in their target market, nor their intermediate costs, and had only a vague idea of the steps involved in exporting.

Ignorance of domestic import/export regulations. There is currently no systematic means of communicating knowledge of policy changes to exporters, particularly in the provinces.

Ignorance of Kenyan regulations. This puts the exporter in a weak negotiating position *vis-a-vis* Kenyan officials and traders who are not always the most helpful.

Quality advice availability. Currently exporters have to be their own extension and market intelligence staff.

The major constraints for producers were found to be the following:

Access to information. This includes both technical assistance and marketing intelligence to plan cropping and identify potential markets and buyers.

Sources of inputs. Suitable fertilizers, spray chemicals, and varieties of seed suitable for foreign markets are not widely available.

Credit. Large- and small-scale farmers do not have easy access to credit to make the heavier investments needed to grow the quality produce demanded by the foreign markets.

Irrigation. In the case of horticultural crops, a controlled water regime is very important to achieve high quality and to take advantage of demand opportunities.

Conclusions and Recommendations

Policy Reform. Our interviews confirmed that recent policy changes have been beneficial to farmers, traders, and exporters. Horticultural exporters were very satisfied with the new export certificate process and the ease with which foreign exchange could be obtained. Similarly, cereals traders reported that procedures for getting licenses are no longer a constraint, and while some complained of high taxes, it did not appear that the cost of taxes or licenses was restricting entry at any level.

There are a few areas, however, where further policy reform could accelerate market development. In particular, the authors recommend encouraging the GOU to make the storage facilities and trucks of the Produce Marketing Board and Foods & Beverages available to the private sector, whether through some kind of leasing program, or actual divestiture. This would help overcome two of the major constraints facing traders and exporters - namely, lack of grain storage and cleaning facilities and trucks.

The authors also recommend encouraging the GOU to continue streamlining Ministries in order to focus resources more effectively. In particular, the authors recommend decreasing the number of extension agents and trade development officers, and using any resulting resources for training and support of those remaining.

Monitoring implementation of the ongoing policy reform is also an important issue. Efforts should be taken to discourage policy "back-sliding", such as the March ban on foodcrop exports. Continued support in the area of policy analysis and implementation is therefore encouraged.

Information. A critical, binding constraint to the expansion of cereals and horticultural exports is lack of access to information at all levels of the marketing chains. A specific action that could be taken to help alleviate this constraint is the design and implementation of a marketing information system (MIS). Participants in the cereals trade agreed that a radio broadcast providing market information to rural producers and traders would be extremely useful. Furthermore, MIS is an area in which USAID has a comparative advantage in offering assistance. Indeed, the MIS under development in Kenya can offer some valuable and extremely relevant lessons.

Credit. Lack of credit was also cited as a critical constraint by many marketing participants. Provision of credit, however, is an extremely complex issue, requiring a more focused study before specific recommendations are made. A case in point is the Bank of Uganda's recent Export Finance Scheme to provide low-interest credit to non-traditional agricultural exporters. The scheme, which has not been very effective to date, deserves a detailed examination to understand why.

Institutional Support. The authors recommended immediate resolution of the institutional conflicts and overlapping responsibilities of Export Policy Analysis and Development Unit (EPADU) and the Uganda Export Promotion Council (UEPC). The team concurs with EPADU that EPADU concentrate its efforts on policy analysis and monitoring of policy implementation, and that all other responsibilities shift to UEPC. UEPC would be solely responsible for all firm-level trade promotion activities, such as market intelligence, marketing advice, promotion, training, the identification of promising export-oriented industries, and possibly establishment of produce inspection services in major European trading centers. Ideally, UEPC as well as EPADU would operate independently of any government Ministry. Rationalization of institutional conflicts would maximize returns from scarce government resources.

Another option is to provide support to non-governmental groups such as the Horticultural Exporters' Association of Uganda, and the Ugandan Horticultural Farmers' Association. The major cereals exporters have also recently formed an exporters' association. Technical or financial assistance could be provided to strengthen the linkages between private sector associations and government units, such as EPADU and UEPC.

Communications. Poor communication infrastructure was found to be a major constraint to efficient marketing. An area for further investigation by A.I.D. is possible investments (or the encouragement of GOU investments) to improve the communications network.

Lack of Storage. Lack of on-farm storage limits marketing options for small cereals farmers. Lack of storage also contributes to post-harvest losses, which are estimated at 20-30% for grains. FAO is starting up an ambitious on-farm storage project (based at Kawanda Research Station) to disseminate information on existing low-cost, appropriate storage technologies to small farmers. The project may also disseminate information to traders and provide technical assistance as well. It does not seem, however, that the project has sufficient funds to undertake all the activities desired. The authors recommend that A.I.D. consider the possibility of a joint or complementary project to ensure that the important objectives of the FAO project are fully implemented.

Lack of Scheduled Flights. The lack of direct scheduled flights to Europe is constraining growth of high-value horticultural exports. Several donors are currently supporting development of Entebbe airport and many airlines are considering establishing new direct flights in the near future. The team therefore has no recommendations for interventions or further policy changes needed in this area.

Transportation. Few respondents cited poor roads as a constraining factor. Similarly, nobody complained of extreme shortages of vehicles. Given these responses and since A.I.D. and other donors are already involved in road construction projects, the authors have no recommendations regarding further investments in this area. As is true for traders in most developing countries, many complained about the high cost of transportation. The authors believe, however, that ongoing infrastructural improvements may help reduce transportation costs.

On a final note, since prospects for increasing cereals exports to the PTA countries are encouraging, a topic for further research is examination of shipping costs for cereals from Uganda to neighboring countries.

1. Introduction

The Government of Uganda (GOU) is currently pursuing a strategy to expand and diversify exports of non-traditional agricultural commodities (i.e., crops other than coffee, cotton, tea, and tobacco). The Agricultural Non-traditional Export Promotion (ANEP) Program was initiated by USAID/Uganda in 1988 to support GOU efforts in this area. A major focus of USAID/Kampala's program in recent years has been support for policy reform (i.e., liberalization) of agricultural marketing. At this point in the policy reform process, it is useful to take a closer look at whether policy factors continue to constrain growth in the non-traditional agricultural export sector, or if policy and regulatory constraints have largely been overcome.

The objectives of the study were to: (1) identify major constraints facing Ugandan marketing participants involved in exporting non-traditional export crops, (2) undertake an analysis of the relative importance and impact of these constraints on marketing system efficiency, and (3) determine to what extent policy and regulatory constraints have or have not been overcome. From these findings, recommendations are made for further policy reforms needed, and suggestions for possible approaches or interventions for USAID to pursue in its assistance in the area of non-traditional agricultural exports. It is also hoped that this study will contribute to a better understanding of how the agricultural system operates in Uganda and inform the ongoing policy dialogue.

1.1 Study Approach

A rapid appraisal approach (developed under AMIS) was used to examine the structure, conduct, and performance of the cereals and horticultural marketing systems in Uganda. This approach entails identifying "key informants" at every level of the marketing chain, and following informal interview guidelines (rather than formal surveys) developed for each type of participant (e.g., farmer, rural trader, exporter). The study focused on horticultural goods, which are high-value, perishable goods exported internationally, and maize and other cereals, which are low-value, bulky commodities exported regionally, in order to get as complete a picture as possible of the various policy and nonpolicy constraints faced by marketing participants. It was hypothesized that the types of constraints facing exports of maize to Kenya would be quite different from those of exports of Asian vegetables to London, for example.

The team focusing on cereals exports travelled to several cereals production areas - Kasese, Rugendabale, Fort Portal, and Kamwenge in Western Uganda; and Jinja, Mbale, Siroko, and Kapuchorwa in Eastern Uganda. The horticultural team visited Kawanda, Entebbe, Jinga, Masaka, Iganga, Tororo, Malaba, Busia, and Mbale, and in and around Kampala. Farmers, traders, exporters, government officials, and members of the numerous institutions involved in some way in the export of non-traditional crops were interviewed in each of these regions.

This report is divided into four chapters. Chapter 2 explores the structure and conduct of Uganda's cereals markets and the implications for their performance. Constraints limiting the emergence of a more efficient system are also discussed. Chapter 3 examines the structure of the horticultural marketing system and describes the participants and their activities as well as constraints. Chapter 4 summarizes the conclusions reached by both the cereals and horticultural teams, and makes some suggestions as to possible approaches to overcoming constraints causing inefficiencies in the export of non-traditional agricultural commodities. Areas for further research are also identified.

1.2 Background

The major foodcrops produced in Uganda are cooking bananas (matooke), maize, beans, groundnuts, millet, sorghum, cassava, and sweet potatoes. These crops accounted for 93 percent of the foodcrop area in 1988. The total area devoted to all foodcrops makes up 91 percent of Uganda's crop planted area. In terms of area planted, bananas are the most important crop (1.3 million hectares in 1988), beans are second at 445,000 hectares, and maize third at 393,000 hectares. Production of bananas increased from 6.6 million tons in 1986 to 7.7 million tons in 1988, while production of maize increased from 286,000 tons to 560,000 tons over the same period. (Ministry of Agriculture 1990).

The cereals team focused their surveys primarily on maize because it is an important source of food as well as income for Ugandan households since maize is traded extensively and exported regionally¹. While the data on quantity of maize exports varies considerably depending on the source, in 1991 the Bank of Uganda recorded exports of over 36,000 m.t. of maize valued at \$4.9 million (BOU, from records of the Commercial Banks, 1992). The export policy analysis and development unit of the Ministry of Planning and Economic Development (EPADU) show the value of maize exports increasing from just \$624 to \$3.3 million from 1988 to 1990. However, it is probable that the actual value of maize exports before 1990 was much higher than recorded by the Customs Department, which only had export statistics for two posts, Entebbe and Kampala, before August 1990 (Herlehy 1991). For the year 1991, the World Food Programme (WFP) alone purchased over 48,000 m.t. of Ugandan maize valued at \$6.8 million, with over 20,000 metric tons valued at \$2.9 million going to Sudan and Zaire (WFP 1992)².

¹ While the interviews focused on maize in order to limit the number of questions asked, most traders and exporters dealing in maize also bought and sold either beans, millet, sorghum, groundnuts, or sesame. For this reason the team cereals marketing is used.

² In 1991 the WFP purchased total commodities (the most important being maize, maize meal, and beans) worth \$10.2 million, \$6.3 million from private suppliers, and \$3.8 million from the three parastatals -- Produce Marketing Board (PMB), Uganda Grain Milling Corporation (UGMC), and Foods & Beverages. (WFP, 1992).

A combination of high soil fertility and ample rainfall also make Uganda extremely suitable for horticultural production (including fruits, vegetables, flowers, and spices). A wide range of horticultural crops are produced in nearly all parts of the country throughout the year with practically no irrigation or fertilizer, including okra, green chili, gourd (dudhi), plantain (matooke), ginger, avocado, eggplant, jackfruit, passion fruit, pineapple, oranges, and cavendish bananas (bogoya), and apple bananas (ndizi). Despite the tremendous potential, however, the quantity of horticultural crops actually exported is relatively small. In 1990, the value of banana exports was around \$520,000 with all other fruit and vegetable exports valued at approximately the same amount (EPADU 1991). Sesame (simsim) exports, however, amounted to \$5.2 million in 1990 (EPADU 1991)³.

1.3 Structure, Conduct, and Performance of Agricultural Marketing Systems in Developing Countries

In economic terms, the structure of a marketing system is defined by the organizational characteristics that largely determine where the market falls on the spectrum between monopoly and competition. The structure of a market influences the competitive conduct of individual sellers and buyers or firms, which in turn influences market performance. The performance benefits of a free market system cannot be realized without maintaining competitive market structures. The essential elements of competitive markets are independent and decentralized decision makers, relatively free entry and exit for competitors, and well-informed buyers and sellers.

The behavior of the various market participants defines market conduct. This includes the practices and policies that sellers follow in determining what prices to charge, outputs to produce, and selling costs to incur. In competitive markets, individuals or firms have relatively few strategic options, since market forces penalize managers who fail to keep pace with cost-reducing possibilities. In noncompetitive markets where sellers have oligopolistic market power, for example, they are at greater liberty to set prices as they wish.

The typical performance objectives for a marketing system can best be met by so-called "perfectly competitive" markets. This is because the perfectly competitive model incorporates a number of widely accepted social and economic ideals. For example, the presence of many small buyers and sellers ensures decentralized decision making; well-informed consumers are compatible with consumer sovereignty; low barriers to entry imply equality of opportunity; and competitive pricing minimizes underutilization of resources and encourages equality of incomes (Connor et al., 1985). As Uganda's agricultural marketing system develops further, it is important to understand its underlying structure, since it determines how efficiently the system meets the social and economic goals mentioned above.

³ Despite the importance of sesame exports, this study did not examine sesame specifically, since a recent USAID-funded study focused on constraints to expanding sesame exports (EPADU 1991).

For in-depth structure, conduct, and performance studies, it is necessary that substantial secondary data already exist on subsector organization, prices of agricultural commodities at different levels of the marketing system, and marketing costs. In developed markets, concentration ratios are calculated to describe the structural characteristics of a subsector (among other measures), and these require knowing the exact number and sizes of firms. In the developing world, where we are talking about small traders rather than firms, a formal survey, where interviews are conducted with key participants on a monthly or bi-weekly basis, is usually required to get this information. Similarly, market conduct in developed markets is measured by such indicators as the percentage of revenues a firm spends on advertising, or what types of product and pricing strategies a firm is following. These types of measures may or may not be relevant in developing markets, but are typically not readily available from secondary sources.

Measuring the performance of any marketing system or subsystem is difficult -- there are at least three different measures of the efficiency of markets in utilizing scarce resources to meet the demand for goods and services. These are allocative or price efficiency (how resources are allocated among competing uses or users), operational or technical efficiency (the efficiency of a firm or industry with a given technological or infrastructure frontier), and economic efficiency (the combined influence of allocative and operational efficiencies holding institutions, infrastructure, technology, human capital and management constant). Specific measures include price differences across space and time, which reflect real transfer and storage costs plus a normal return for the spatial and temporal arbitrage functions. Economic analysis of these measures requires not only price margin information, however, but also time series data on these prices.

Given these information constraints, how can a rapid appraisal use the structure, conduct, performance paradigm? Rather than getting exact numbers of firms and exact concentration ratios, our approach is to develop an approximate picture of how the subsystem is organized vertically -- from input supply through to final markets -- where in the vertical chain the greatest degree of economic power or control over commodity, financial, and information flows is exercised, and how key stages are organized (i.e., a horizontal cut in the subsystem). By focusing on the structure and conduct aspects -- degree of competition, barriers to entry, and how participants go about their business (e.g., who and where do they buy from and sell to) -- much can be inferred about the resulting efficiency of the system. From this information, key themes, issues, and problem areas for further research are identified, along with possible pilot innovations that could be implemented and rigorously monitored.

2. Structure, Conduct, and Performance of the Cereals Marketing System in Uganda

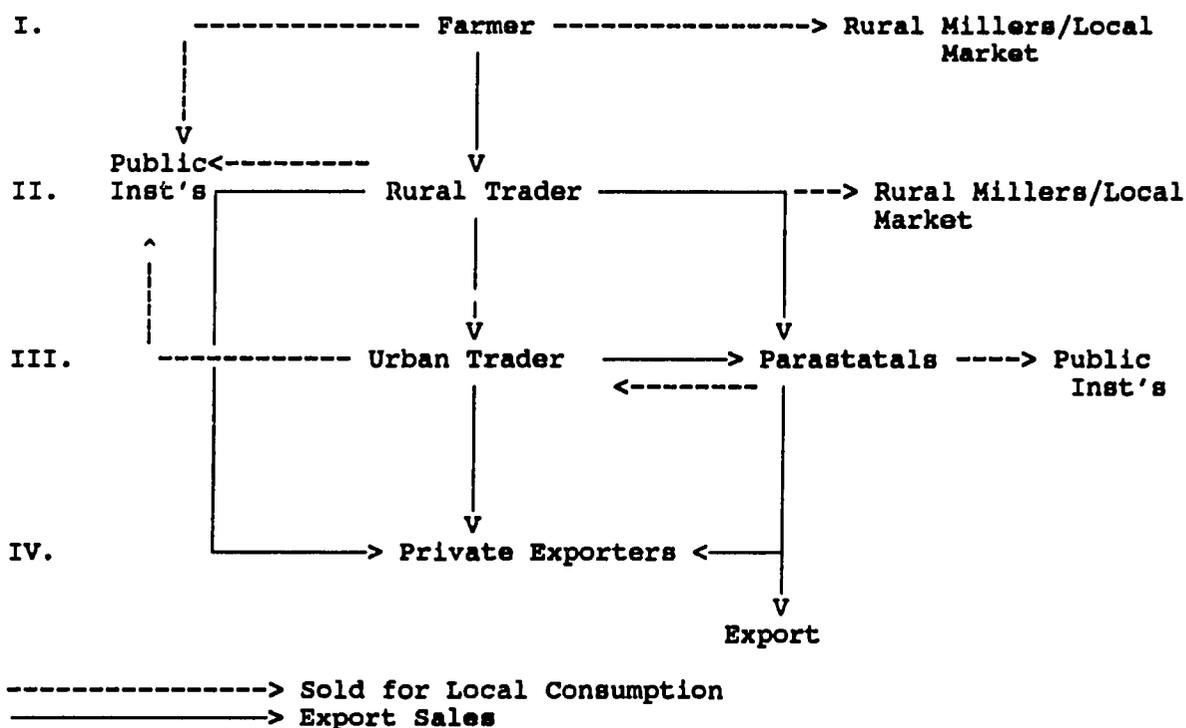
This chapter explores the structure and conduct of Uganda's cereals markets and the implications for their performance. Constraints to the emergence of a more efficient system are also discussed. Chapter 4 presents conclusions and recommendations for overcoming constraints that cause inefficiencies. Some of the questions raised during this rapid appraisal are difficult to answer without longer-term research, and suggestions as to particular areas where more formal surveys are needed are also made in Chapter 4.

The surveys focused primarily on maize in order to limit the number of questions asked of each respondent (examples of the survey instruments are found in Annex E). The term cereals marketing is used throughout the study, however, because the maize marketing structure was found to be similar for that of beans, millet, sorghum, groundnuts, and sesame, and because participants such as traders or exporters typically dealt in more than one of these commodities. Thus the term cereals is used rather loosely to include these commodities.

2.1 Market Structure and Description of Participants

Figure 2.1 illustrates the structure of the cereals marketing system in Uganda, and the direction in which grain flows for both domestic and export markets. It is useful to break down the structure into four levels, and the participants and their marketing behavior is described for each level below.

Figure 2.1 Structure of the Cereals Marketing System



For each of these levels, who the participants are and how they typically carry out their various marketing functions are described below. Section 2.2 discusses constraints affecting the performance of cereals marketing at each level of the marketing chain.

2.1.1 Level I - Farmers

The majority of Ugandan farmers operate on a very small scale and own or have access to less than 50 acres of land. Most produce a variety of foodcrops, with the most important crops being bananas, maize, beans, and groundnuts (EPADU 1992). A small sample of farmers in each region visited were interviewed for this study⁴ focusing on their marketing activities and constraints to increasing their marketed surplus. For more information on farm-level activities and constraints, see EPADU's recent producer survey of non-traditional export crops (EPADU 1992).

Small-scale farmers typically do not engage in marketing activities other than carrying their grain by headload (usually women and children carry these loads) to the nearest point at which it is sold to small rural traders⁵. Producers usually sell directly to these rural traders, who come by bicycle or rented pick-up (or tractor) either to the farm or to local marketplaces on market day. Women also sell small quantities of produce for consumption locally on market days. While women may be responsible for a large part of the total amount produced, for the most part it is men who make the marketing decisions and handle the cash received. Producers are usually paid in cash for their crop by rural traders. Medium- and large-scale farmers are often advanced gunny sacks by rural traders, while small-scale farmers deliver grain in their own containers which they keep.

2.1.2 Level II - Rural Traders

The rural villages visited included Kamwenge, Rwini, Kyazanga, and Rugendabale in western Uganda (where the nearest urban center is Kasese); Iganga (near Jinja); Mbale and Siroko (near Mbale) in eastern Uganda. Two or three rural traders were interviewed in each village.

⁴ Some farmers were interviewed as they brought their grain to sell to rural traders in small villages. An effort was also made to get out to several isolated farms to discuss marketing constraints with farmers.

⁵ Traders are often called agents in Uganda, but the term traders will be used throughout this report.

Rural traders typically buy directly from farmers, or at local marketplaces on market day. They transport the grain by bicycle or rented pick-up (around 1-3 tons⁶) or tractor, at a cost ranging from 4 to 15 Shs/kg. They rarely own storage capacity, but rent out small stores in rural towns (with storage capacity ranging in size from 30 to 300 m.t.), where larger urban traders come and pick up the grain. The volume handled by each trader per year, varies considerably, ranging from 2,000 to 20,000 100 kg. bags (200 to 2000 m.t.). The distance they travelled to collect grain ranges from 10 to 20 km. from their store. The rural traders we interviewed had been trading for 10-12 years on average, although some reported a recent increase in the number of new, small-scale, and sometimes short-lived attempts by new entrants to compete with them⁷. This increase in the number of traders was attributed by many to easier procedures for getting licenses (they can now get them locally instead of having to go to Kampala). Interviewees described their business as extremely competitive and easy to enter, although established traders felt that they had a slight advantage due to long-standing relationships with farmers. Most of the older traders had been purchasing from the same set of producers over the past few years, but indicated increased competition from new traders going out to "their" farmers. Only a few traders indicated that they advanced credit to farmers⁸, with the majority dealing in purely cash transactions. Similarly, they do not usually receive credit from their buyers (i.e., urban traders). Rural traders are usually men, but a few women trade at this level.

2.1.3 Level III - Urban Traders

Urban traders were interviewed in the major urban centers of Kampala, Kasese, and Jinja, as well as in small villages when encountered buying from rural traders.

⁶ Although pickups have a 2.5 m.t. capacity in theory, in practice most traders said they held 3 tons, which was confirmed by the numerous precariously-loaded trucks seen on the roads.

⁷ Although the exact number of rural traders in each region is difficult to determine without longer-term formal surveys, traders were asked if they knew how many other traders were operating within their trading area. The answer was usually "many." In the Kamwenge area -- an isolated maize production area around 40 kilometers south of Fort Portal on a road which is impassable during the rainy season (luckily the railway goes through Kamwenge and the majority of the maize goes by rail to Kampala) -- "many" was estimated to be at least one hundred traders purchasing maize.

⁸ This was common in Madagascar, for example. Rural traders also owned stores, and advanced goods such as soap, sugar, and other necessities during the growing season, and deducted payment for these goods upon delivery of the crop. This type of tied transaction can in some cases limit competition, since the farmer is obligated to sell his crop to that particular trader.

Urban traders come and pick up produce from the small stores of rural traders and deliver it to larger urban centers, and then on to Kampala. They usually have their own storage space in urban centers which have storage capacity ranging from 100 to 300 m.t.⁹ The majority rent 10-ton lorries to transport from smaller towns to urban centers, however, and some own their trucks. Recently, some urban traders have been renting storage space in small rural towns such as Kamwenge (approximately 25 kilometers east of Kasese), renting small pickups or tractors to reach farmers and rural traders in isolated production areas, and shipping the grain to Kampala by rail. In this case the urban trader waits for the rural traders to deliver to him, and will buy from many small traders. The volume of maize handled by those surveyed ranged from 300 to 12,000 metric tons per year. Urban traders have slightly more capital than rural traders, and some extend cash advances for crop purchase to rural traders for short periods (if they have an established, though usually informal, business relationship with that trader). Only one woman was observed trading at this level.

Barriers to entry at this level of the marketing chain are slightly higher than at the rural trader level. These barriers do not, however, seem to be policy-related in the sense that it is difficult or overly expensive to get licenses, etc. The most important barrier to entry at this level is access to sufficient cashflow to pay for grain purchased. Other entry barriers reported were ownership of grain storage capacity and transport.

2.1.4 Level IV - Exporters

Cereals exporters are located in Kampala, and some of them also rent stores and have representatives in rural towns. There are 10-12 exporters focusing their activities primarily on cereals exports (the most important of which are maize and beans, although sesame has also become an important export crop for around half of the exporters interviewed). They purchase grain predominantly from urban traders delivering to their stores in Kampala. There is evidence this year, however, that due to the shortage of maize, exporters have been sending representatives and vehicles out into rural areas in search of grain supplies (rather than waiting for the crop to be delivered to them as they have done in the past). About one-half of the exporters interviewed owned some storage space, ranging in size from 300 to 1500 m.t.¹⁰, and the rest rent storage and cleaning facilities. Equipment consists of screens for cleaning. Cleaning is done by hand--one female exporter visited hired up to 500 women per day to hand clean maize, paying a minimum of 2,500 Shs/day, or around \$2.10 (this

⁹ Most of the storage facilities that are "owned" by urban traders belong to the Departed Asian Property Custodian Board.

¹⁰ Four out of 8 private exporters interviewed owned their own storage facilities (Magric: 1500 tons in Kampala, Transways: 300 mt in Iganga, Sarurika: 700 tons in Kasese, and Prodexico: 800 mt in Kampala).

relatively high salary by Ugandan standards was verified by interviewing some of the women cleaning maize). Few, if any, exporters (other than the parastatals) own blowers or dryers.

The majority of exporters sell grain (primarily maize and beans) to the World Food Program, Lutheran World Federation, ICRC, and other donors or PVOs, with small amounts being sold to European buyers. One exporter in Kasese was bartering beans for timber with Zaire. Most is exported on an f.o.t. basis in Kampala, with the transportation arrangements left up to the buyer. Simsim is being sold to buyers in the Europe and the Middle East, again usually on an f.o.t. Kampala basis.

For the most part, these exporters are dealing in fairly small quantities (<5,000 m.t. grain), and selling to international aid agencies. There are still very small amounts of commercial exports to international buyers, with the exception of simsim, which is being sold to buyers from Europe and the Middle East. Simsim exports by private exporters increased from around 9,000 m.t. in 1990 to over 13,000 m.t. in 1991.

Despite the fact that there are only around 10 private cereals exporters, those interviewed felt it was an extremely competitive market¹¹. Since liberalization (allowing the private sector to export grain) occurred only around two years ago, cereals exporters are all fairly recent entrants to the business (some were formerly traders who sold to the parastatals, and some were importers who expanded into the export business). Entry barriers include storage and cleaning space, transportation, and access to credit. All eight exporters interviewed felt that the only factor that put them on an "uneven playing field" with the parastatals that had previously dominated cereals exporting was differential access to storage, cleaning, and drying facilities (PMB is estimated to have 90% of these facilities in the country -- see section 2.3). Interestingly, preferential access to credit by the parastatals was not an issue, as it usually is where a private sector must compete with publicly-owned agencies. While PMB's 1991 maize exports were one-half the level of the year before, private exporters reported increases in the amount of maize they exported over the same period, indicating the beginning of a shift from parastatal dominance to a more active private sector (see Table 2.11).

2.2 Constraints Affecting Cereals Marketing

Marketing participants interviewed were asked to discuss the constraints they faced, and how they would prioritize these constraints. These are described below for each type of participant. The survey instruments used are found in Annex E.

¹¹ While the perception is that Asians completely dominate the import/export business, in the case of cereal exports, half of the exporters interviewed were not Asians.

2.2.1 Producer Constraints

Although a formal farm-level survey was beyond the scope of this study, a small sample of cereals producers were interviewed to find out the types of constraints they face in getting their produce to market (many small traders are also farmers or members of cooperatives, thus we included questions for them about problems from the producer point of view).

Small farmers in Uganda have the same problems small farmers face throughout the world: high levels of risk and uncertainty, poor access to information and credit, lack of capital to purchase inputs, high input costs, lack of on-farm storage, and no easy access to improved seed varieties.

Perhaps the two most important constraints, particularly from a marketing system perspective, are the dearth of **information and extension services** reaching small farmers, and the **near total lack of on-farm storage**.

With little or no on-farm storage, farmers are obliged to sell their crop immediately after harvest (although lack of cash is another reason for doing so), and often they will harvest early when the crop is still very wet increasing the probability that some of it will be rejected by traders. With no proper storage capacity, the farmer is limited in his choice of when to sell his grain, and thus will typically receive a very low price for his produce rather than having the opportunity to sell later in the season when the price has risen. Again, lack of information on demand and prices exacerbates the problem.

2.2.2 Constraints Facing Rural Traders

Table 2.1 summarizes the constraints reported by 16 rural traders interviewed. Rural traders typically deal in cash transactions, paying producers in cash, and receiving cash from their buyers. Virtually all respondents said they had an **insufficient amount of cash** available to purchase the quantity of cereals they desired. Most had not attempted to get a loan through a commercial bank, citing high interest rates as a constraint (many traders were aware the rate was over 40% even though they had not approached a bank)¹². Many also felt that commercial banks would not lend to them if they should apply for a loan. Local commercial banks confirmed that this was true for both traders and farmers due to the high level of risk.

Seventy-five percent of respondents felt that **not owning means of transportation** was a serious constraint, and 63 percent felt the same about **storage capacity**. Most rural traders rent tractors or pickups (at an average cost of 1 Sh/kg/mile) to get out to the villages to purchase grain, and rent out small stores (which were not intended for cereal storage)

¹² Given an estimated rate of inflation of 40%, this nominal interest rate of 40% is not surprising.

where they store it until their buyers show up. Storage costs for rural traders averaged around 10,000 Shs/month for a store with a 40-60 metric ton capacity. Because the grain is kept in stores that are not properly designed for grain storage (e.g., no ventilation), **grain quality** also becomes a problem for traders. Many of them expressed the desire to build their own stores (although they probably wouldn't know how to build better quality storage without some technical assistance), but cited a lack of capital as a constraint to doing so. It is interesting to note that availability of transport was not listed as a constraint, but rather that traders would prefer to own their own vehicles and not have to rent them out.

Table 2.1 Rural Trader Constraints

Problems	Percentage of Respondents Who Feel Problem is a Serious Constraint to Their Business
Lack of Working Capital (primarily cash for crop purchase); Lack of Access to Formal Credit at a Reasonable Interest Rate	88
Don't own vehicles for transporting commodities	75
Don't own good quality storage facilities for the grain	63
Lack of information on markets/buyers	38
Production uncertainty/unreliability	25
Income and local taxes too high	25
Stiff competition for supplies	13
Unstable prices	13

Number of respondents - 16

Lack of information about potential buyers and markets was cited as a serious constraint by 38 percent of rural traders interviewed. For the majority of them, the only source of information about prices came from their buyers. None of the rural traders we spoke with were aware of the ultimate export price. The level of knowledge about how or where to find new buyers, or what demand and prices were in other regions was very unsophisticated at this level of the marketing chain. A few enterprising rural traders did travel around to other regions, however, in an effort to get this type of information. When asked if they thought they would benefit from radio broadcasts of market information, they

all said yes, although not all of them could explain why this would be beneficial to their business.

The link between farmers and rural traders is not very strong if measured by the presence of tied transactions (i.e., reciprocal arrangements involving credit, or noncash transactions). In many developing agricultural marketing systems in Africa, credit gets passed down the system, from exporter to large trader, from large trader to small trader, and from small trader to farmer (Kristjanson et al. 1991).

Rural traders did not offer higher prices for better quality grain since they in turn were not paid a quality differential by urban traders or exporters. Their only method of ensuring a high enough quality to satisfy their buyers was to reject extremely poor quality grain. The quality of maize was more of a problem in the areas visited in Eastern Uganda (Mbale, Siroko) than in Western Uganda (Kamwenge, Kasese). In Eastern Uganda, rural traders stated that in any given year they might reject as much as 30 percent of maize delivered to them, while in Western Uganda traders said the quality had been improving over the last few years. These traders thought that the farmers were aware that poor quality grain would be rejected, and thus they sorted their maize before delivering to traders. Rural traders typically sieve and dry the grain, but rarely fumigate or own any cleaning equipment other than a sieve.

Production uncertainty, stiff competition at the rural trader level, high income taxes, and unstable prices were also cited as problems. Most respondents reported that there were more rural traders operating in their area in the last year or two since liberalization.

Policy and Regulatory Constraints at the Rural Trader Level. Most of the rural traders interviewed could not think of any serious policy constraints other than taxes, which some felt were too high. They must pay a one-shot tax "deposit" of US\$ 250,000, which is quite high for small traders. Several mentioned it wouldn't be such a burden if they could spread out their payments. If they keep records, they are supposed to get a refund if their level of business is low, but few keep good transaction records. They did not feel that the cost or procedures for getting licenses were overly burdensome. The cost of licensing their stores was US\$ 14,000 plus US\$ 20,000 for a local administrative tax.

While taxes must be collected, such a regressive tax system undermines small formal sector participants (i.e., small traders pay as much as larger traders). The present system under which businesses pay a substantial lump sum tax in advance may be limiting new entrants into the formal sector (i.e., keeping traders in the so-called "informal sector").

A trader in Kasese mentioned that local market taxes can be a problem for traders in certain isolated locations, such as Kicwamba. He said in this particular rural area, anyone selling produce had to pay a daily market tax of 10 percent of the value of their produce (although this apparently became negotiable), and this was supposedly going toward the

maintenance of nonexistent marketplace infrastructure (e.g., a roof, running water, etc.). Other towns with weekly market days where local administrative taxes were deemed arbitrary and burdensome included Rwimi, Kasunganyaza, Hima, and Rugendabara.

2.2.3 Constraints at the Urban Trader Level

Urban traders reside in urban centers¹³ and buy from the smaller rural traders, either by sending out agents and trucks to the small centers, or by having rural traders deliver to them. They generally have more capital to work with, some storage capacity, more business skills, and better access to market information. Nevertheless, their level of sophistication and business acumen is still relatively low in many cases.

Table 2.2 summarizes the major constraints mentioned by urban traders. At this level, more were aware of the constraints to their activities due to **poor communication infrastructure** (especially the lack of working telephones connecting Kampala and up-country urban centers other than Jinja and Entebbe). Traders were quite frustrated at this level due to the difficulty in obtaining market information. It was more common at this level for traders to send out scouts to other regions or Kampala to find out what was going on (which of course is a very time-consuming and expensive way of obtaining information).

Several urban traders interviewed indicated a strong interest in exporting directly themselves, but said they were constrained by **lack of capital and lack of information about potential buyers**. However, even at this level, lending to traders could be a very risky proposition. When asked how they would use the funds if they had access to credit at a reasonable interest rate, most responded that they would purchase more grain. This is despite the fact that 40 percent also felt that lack of storage space and vehicles were limiting their activities. Credit issues are further explored in section 2.6.

Forty percent of traders also reported that **some buyers did not pay cash immediately** upon delivery. This is typically the case when the buyers are government institutions. For example, one trader had sold maize to the Ministry of Defense in 1990 and still hadn't received payment for it.

The **cost of transport** due to poor feeder roads was cited as a serious problem by 40 percent of urban traders. In many cases, grain was coming out of isolated production areas on bicycle to the nearest point where it could be transferred to pickups. Again, despite

¹³ Urban centers visited by team members were Kampala, Jinja, Mbale, Kasese, Fort Portal, Tororo, and Entebbe.

complaints about high costs, the grain was getting picked up even from remote areas, unlike when the PMB had a monopoly¹⁴.

Table 2.2 Constraints Facing Urban Traders

Problems	Percentage of Respondents Who Feel Problem is a Serious Constraint to Their Business
Poor communication/lack of information	80
Lack of working capital (primarily cash for crop purchase); Lack of access to (short-term) formal credit at a reasonable interest rate (i.e., 10-20%)	60
Buyers not paying in cash immediately	40
High transportation cost/bad roads	40
Insufficient storage capacity	20
Poor quality of storage facilities	20
Stiff competition reducing profits	20
Production uncertainty/unreliability	20
Price instability	20
Quality of grain purchased/available	20

Number of respondents - 10

As with rural traders, **insufficient and poor quality storage facilities** were also an issue. Many traders at this level are using facilities that had been retail stores owned by Asians who apparently they rent them out at a below-market rental cost. Thus the quality of the storage facilities is more of an issue than the cost, although most reported they could not construct their own facilities due to lack of capital.

Stiff competition, production uncertainty, poor grain quality, and price instability were also cited as constraints by 20% of urban traders surveyed.

¹⁴ Although once again it is difficult to attribute this solely to liberalization because it is a year of high demand for grains throughout the region.

Policy and Regulatory Constraints at the Urban Trader Level. It appears that **lack of market information and marketing expertise pose as much a constraint to urban traders as does credit.** Most of these traders said obtaining licenses and other formalities were no longer problems, that is **the major policy constraints have been overcome.**

The remaining policy issues at this level all concern the lack of support currently being provided to the private sector by the public sector, including access to telephones, market information, and better roads.

2.2.4 Constraints at the Exporter Level

The overriding concern at the exporter level was **lack of access to capital.** All the exporters complained that they could not secure sufficient marketing finance from the commercial banks to meet the large consignment contracts that foreign buyers offer. Furthermore, the current 40+ percent interest rate being charged by commercial banks was felt to be prohibitive. Most used their own capital, and only one had actually received a loan through the BOU Export Refinance Scheme (see section 2.6). One exporter pointed out that since profit margins are small in the export business, successful exporters know that turning over stock quickly is crucial, and this requires access to capital.

There appeared to be a surprisingly small amount of exports of cereal to Zaire and Kenya, except for small amounts smuggled (in the case of maize grown in the Kapchorwa area at the foot of Mt. Elgon) or taken by headload or wheel-barrow on market day (in the case of Malaba and Busia border points). One exporter in Kasese, though a barter deal, had exported beans to Zaire in return for cement. When urban traders or exporters were asked why they were not taking advantage of liberalized trade policies and strong regional demand for maize, especially in Kenya, most responded that they had no need to since they had enough Ugandan buyers.

Lack of information about regional supply, demand, and prices was also acute at the exporter level. One of the reasons for lack of international market expertise even at the exporter level in Uganda appears to be **the reliance on international aid export markets.** The major export market for Ugandan cereals has been the World Food Program (WFP), which purchased 48,427 m.t. of maize in 1991 from both parastatals and the private sector. This is a market that requires very little marketing skill, and indeed, this year many exporters were in financial trouble because they had signed contracts three months in advance to supply WFP with X tons of maize at Y price, only to find that due to widespread drought, their own purchase price increased daily (i.e., before they had purchased enough maize to fulfill their contracts). Due to this crisis, a first-time meeting of the 10 major cereals exporters was hastily arranged to discuss their predicament. However, instead of discussing ways in which they could find new markets, or avoid locking in a selling price three months in advance, they attempted to fix the buying price, which could not possibly succeed given the current market conditions.

While many exporters complain about **poor and unreliable production** as a constraint, few had contractual ties of any kind to producers. In Madagascar, for example, exporters extended advance payments to urban traders, who in turn extended money to rural traders, who in turn were able to pay cash to the farmer. Ties in Madagascar were quite strong between exporter and urban trader, and between urban trader and rural trader (Kristjanson et al. 1991). Given the lack of access to capital, and the degree of mistrust at every level of the marketing chain in Uganda, very little of this type of activity is happening. Cereals farmers throughout Uganda receive no inputs on credit.

There is one exporter in Kampala, Magric, that is currently working on a possible joint venture with West Mango Growers Cooperative. The plan is for Magric to market a fixed tonnage of crops on a guaranteed minimum price basis for cooperative members (exactly what the farmers are frequently request).

Magric has presented a list of seven possible crops (maize, beans, sorghum, millet, sunflower, simsim, and soybeans) and included required tonnages, varieties, quality standards, and prices, and are asking WMGC to agree to certain conditions, and in return they will supply the seeds to the farmers for the upcoming planting season (Mar. 1992). Magric may also agree to repay any loans advanced to the farmers by the Cooperative Bank from the proceeds of the crop sales.

Given the past performance of most Ugandan cooperatives, Magric is taking quite a risk in signing a contract of this nature. They are considering hiring someone full-time to follow up on this contract and work with the producers. Magric considers their major constraints to be access to credit at a reasonable interest rate, and poor communication infrastructure making timely communication with the cooperatives difficult. They pointed out that joint ventures of this nature had failed in the past because the exporter had not followed through and provided sufficient technical support to producers during the growing and harvest season. The extremely poor record of cooperatives with respect to management and corruption also hinders the development of these types of marketing arrangements.

Policy and Regulatory Constraints at the Exporter Level. All exporters said that recent policy changes had reduced bureaucratic hurdles facing their businesses, and that things had gotten easier over the past year. Procedures for getting licenses are no longer a constraint, and while some exporters thought their taxes were too high, it did not appear that the cost of taxes or licenses was restricting entry.

Even at the export level, however, there appeared to be confusion over exactly where the GOU stands with respect to the promotion of non-traditional exports, and where they could go if they needed assistance.

Constraints to Expansion of Regional Trade in Cereals. Exporters were also asked why they were not taking advantage of the demand in regional markets, particularly for maize. Lack of information on demand, prices, transportation costs, and policies and

regulations (both Ugandan regulations and those of neighboring countries) appears to be the most important constraint limiting exporters from currently exporting more cereals to PTA countries, **rather than policy or regulatory hurdles per se**. For example, several traders interviewed in Siroko (near the Kenya border) insisted that it was illegal to sell grain in Kenya, and were completely unaware that local trade development officers could issue border permits¹⁵. Similarly, interviews carried out with small traders/farmers at the Kenya border crossing of Malaba indicated confusion over when a border permit was required and where they could obtain one. Clearly, without adequate publication, policy changes will not achieve the expected impact. USAID should, therefore, continue to support monitoring of the implementation of policy changes.

Transportation costs may also be a constraint, but the exporters interviewed were unaware for the most part of what these costs were (although some knew the cost of transport to Kenya). Since such a small sample was interviewed at each location, however, this area need further investigation.

2.3 Market Performance

To improve market performance, the efficiency of the agricultural marketing system must be increased and the costs of marketing activities reduced. There are many different measures of market efficiency, including allocative or price efficiency, operational or technical efficiency, and economic efficiency.¹⁶ Industrial organization theory traces the causes of performance outcomes to the structure of markets and the mode of industry conduct (Connor et al., 1985). The structural and performance dimensions emphasized are those attributed to perfectly competitive markets. Constraints within the underlying structural characteristics of competitive markets (i.e., independent and decentralized decision making, homogenous products, relatively free entry and exit of competitors, and well-informed buyers and sellers) decrease efficiency of markets. While a quantitative measure of the degree of efficiency (e.g., spatial and temporal price efficiency) is beyond the scope of this study, key informal interviews gathered indicative data on prices and marketing margins, which are summarized in Tables 2.3 and 2.4.

¹⁵ The GOU introduced the Border Permit in April 1991 to complement the Export Certificate. It is valid for six months and carries a maximum limit of \$5000 worth of exports within that time frame. If an individual possesses a border permit they do not need an Export Certificate.

¹⁶ It should also be noted that while efficiency is the appropriate measure of market performance at a given time, markets are dynamic by nature, and measuring the dynamic quality of market performance involves long-term analysis.

2.3.1 Price Margins and Degree of Competition

While formal surveys need to be administered monthly or biweekly at each level of the marketing chain for a more comprehensive analysis of prices and market efficiency, the margins elicited during the rapid appraisal are nonetheless informative. In a competitive market, margins are expected to reflect a "normal" profit margin above costs to each market intermediary. To learn how tight actual margins are, key informants were informally surveyed on their buying and selling prices and marketing costs. Representative margins for one village (Kamwenge - located around 40 km south of Fort Portal and 25 km east of Kasese) are provided in Table 2.3. These prices were verified by other individuals interviewed in Kamwenge. Similar marketing margins were found in other regions. Despite the small sample size, these marketing margins are included because they provide a good indication of the degree of competition.

Margins were generally very small for market intermediaries at the lowest levels (e.g., rural and urban traders), indicating a highly competitive market. Rural traders generally made profits of around 8 Shs/kg, while urban traders made around 11 Shs/kg, or approximately 7 percent of the price received for the grain in Kampala. Strong competition is to be expected since licenses and other entrance requirements no longer restrict entry at this level. The difference between a rural trader's buying and selling price could be attributed largely to transportation costs. For most participants, transportation costs were very similar, indicating a sufficient degree of competitiveness in transport. It is worth noting that transportation costs were similar in all regions surveyed, suggesting that collusion is likely.¹⁷

Higher up the marketing chain, particularly at the exporter level, entry barriers in the form of access to capital and information become more important and there are fewer participants. Table 2.4 provides an example given by one exporter of the breakdown of marketing margins for simsim exported from Kampala (most exporters would not share such detailed cost data). His profit margin was higher than the traders at 41 Shs/kg, or 8 percent of the export price -- still not a very high margin, certainly not suggesting "super-normal" profits. Once again, buying and selling prices and other costs (which are few since very little processing takes place) were verified through interviews with other exporters to the extent possible.

While informal, one-shot surveys cannot fully address issues of increased competition and its impact on prices and margins, respondents in all regions reported more competition at the lowest levels of the marketing chain (rural and urban traders). Competition at the export level was also reported as strong, although an exporter's association of around 12 members

¹⁷ While not included here, marketing margins calculated in other regions visited were very similar.

**Table 2.3 Trader Marketing Margins
(Shs/kg)**

Category	Urban Trader #1	Urban Trader #2
Price urban trader paying for grain delivered to him in Kamwenge	120	136.5
Cleaning costs & rebagging	5	5
Transportation cost to railway + loading costs	5	3
Rail transport to Kampala	15	13
Unloading in Kampala	1	1
Transport to store in Kampala	3	4
Total Costs	29	26
Selling Price in Kampala	160	173
Profit Margin	11	10.5
Transport as percent of total cost	69%	69%
Category	Rural Trader #1	Rural Trader #2
Farmgate price paid by rural trader (distance to farm: approx. 15 miles)	107	105
Price paid by rural trader at his store	120	120
Cleaning & rebagging costs	2	3
Handling costs	2	4
Transport from farm to Kamwenge	15	15
Total costs (purchased on-farm)	126	127
Total costs (delivered to store)	124	127
Selling Price in Kamwenge	135	135
Profit margin (purchased on-farm)	9	8
Profit margin (delivered to store)	11	8
Transportation costs (Shs/kg/mile)	1	1

Table 2.4

Exporter Marketing Margins - Simsim

Category	Shs/kg
Buying price	410
Selling price	522
Margin	112
Costs	71
Profit	41

was being formed during the study, in an attempt to collude and establish a maximum price to be paid to traders for maize. As mentioned earlier, this association was formed in response to frustration with the rapidly changing maize prices due to the drought conditions throughout southern Africa. Maintaining a below-market price was proving impossible due to market conditions and the inherent difficulties in collusion with more than a few participants.

2.4 The Structure and Conduct of Agricultural Parastatals

This section examines the current role of state-owned agricultural enterprises in the external trade of non-traditional agricultural exports. Four parastatals are currently engaged in this trade: Produce Marketing Board (PMB), Food and Beverages Ltd (Food & Beverages), Uganda Grain Milling Company (UGMC), and the National Enterprises Corporation (NEC). The structure and operations of these parastatals are summarized in this section and constraints and performance issues arising from continued parastatal involvement in agricultural marketing are discussed. Possible areas for donor assistance are suggested in the concluding chapter (section 4.5).

2.4.1 Produce Marketing Board (PMB)

PMB was established by parliament in 1970 to undertake a monopsonistic/monopolistic role in the marketing of controlled agricultural crops. In 1986, the government opened up trade in food crops to the private sector, with the exception of five crops, namely: maize, beans, soybeans, groundnuts, and simsim. However, during the 1988/89 crop season, government extended trade liberalization to the marketing of all food/grain crops.

The removal of controlled producers prices and the advent of competition from the private sector has had a profound impact on the Board's procurement volumes and its trading stance (see Tables 2.6 and 2.7 for data on annual purchases and local, and export sales for fiscal years 1982/83 through 1990/91).

Prior to total trade liberalization in 1988/89, PMB had the monopoly to supply foodcrops to government institutions such as the army, hospitals, schools, etc. Removing this monopoly was a principal cause of the reduction in PMB local sales from a high of 46,000 tons in 1982/88 to a low of 5,000 tons in 1989/90. Where previously the local market typically accounted for 75 percent of total sales, by 1990/91 almost half of PMB's sales were exports. In the 1991/92 season, PMB purchased and exported 24,000 tons of maize, 500 tons of groundnuts, and 5,500 tons of simsim. 10,000 tons of beans were purchased, of which 8,000 tons were exported.

This reorientation in sales policy appears to be a reaction to falling purchases (Table 2.5) in the face of increased private sector competition in the domestic market, and a lack of adequate and timely crop finance (both of these issues are discussed further below).

**Table 2.5 PMB Crop Purchases : Percent Change
1988/89 to 1990/91**

Crop	Percent (Decline)/Increase in metric tons purchased between 1988/89 and 1990/91
Maize	(60)
Beans	(33)
Soybeans	(73)
Groundnuts	(100)
Simsim	34
Overall	(54)

As evident from Table 2.7, a shift to export markets was a logical decision given the Board's traditional reliance on trade under barter protocols. Although less predominant since 1988/89, barter trade still figures significantly in PMB export totals and is a market outlet which allows the Board to invoice the government on a cost plus basis.

Liberalization in 1988/89, and the corresponding fall in throughput volumes, has severely impacted PMB's profitability as shown in Table 2.8. PMB has attempted to reduce variable and fixed costs in the face of falling purchases, as evidenced by the decline in their administrative costs from 1 million US\$ to .6 million US\$ from 1989/90 to 1990/91.

Table 2.6 PMB Purchases and Sales in metric tons, 1982/83 - 1990/91

Purchases					
Year	Maize	Beans	Simsim	Other	Total
82/83	21292	916	213	0	22421
83/84	50023	7004	136	172	57335
84/85	40784	18448	85	161	59478
85/86	14192	13436	0	0	27628
86/87	31883	12805	22	305	45015
87/88	69409	5753	337	1273	76772
88/89	19353	8480	382	2764	30979
89/90	31791	5849	72	77	37789
90/91	7300*	5300	440	710	13750
91/92	24000	10000	5500	500	40000
Local Sales					
82/83	0	823	13	0	836
83/84	17116	3265	136	122	20639
84/85	18030	12732	85	150	30997
85/86	16750	11247	0	0	27997
86/87	23641	9837	0	48	33526
87/88	40415	5110	33	97	45655
88/89	12845	6932	437	117	20331
89/90	1821	3251	70	65	5207
90/91	5000	5300	0	0	10300
91/92	0	2000	0	0	2000

Source: Produce Marketing Board.

Note: Financial year is July 1- June 30. Other crops are soybeans, rice, and groundnuts.

* This figure is suspect, since export sales were supposedly 14,000 tons during this year.

Table 2.7 PMB Export Sales in metric tons 1982/83 - 1990/91

Year	Maize		Beans		Simsim		Total	
	Cash	Barter	Cash	Barter	Cash	Barter	Cash	Barter
82/83	0	20,000	0	0	200	0	200	20,000
83/84	0	28,846	0	3,361	0	0	0	32,207
84/85	0	23,230	0	5,500	0	0	0	28,730
85/86	0	0	0	0	0	0	0	0
86/87	0	437	0	4,740	0	0	0	5,177
87/88	0	4,000	0	0	0	0	0	5,076
88/89	0	1,898	0	0	0	0	0	4,550
89/90	9,945	3,047	0	1,081	0	0	9,945	4,128
90/91	6,000	8,000	1,019	0	385	0	7,404	8,000
91/92	24,000	0	8,000	0	5,500	0	37,500	0

Source: Produce Marketing Board.

Crops are procured at PMB depots and buying centers, largely from private traders and produce dealers. In 1989/90 the Board closed down eight buying centers in rural district towns and several seasonal depots and moved to ex-depot procurement from five locations (Kasese, Nalukulongo (Kampala), Jinja, Tororo, and Kyazanga). Total current storage capacity amounts to 89,000 tons, of which 6000 tons need repair (Table 2.9). PMB also owns 21 vehicles of either 7 or 10 ton carrying capacity, giving a total fleet carrying capacity of 209 tons.

Downsizing has also been applied to staffing levels, with the number of full-time staff decreasing from 335 to 289 from 1989 to 1991. The number of part-time staff also declined from 385 in 1989 to 200 in 1991.

Table 2.8 PMB Trading Profit and Loss Account (Shs. million)

Item	86/87	87/88	88/89	89/90	90/91
Revenue (Shs million)					
Internal Sales	290	1,686	1,200	671	1,647
Export Sales	66	36	421	1,597	1,308
Misc. Income	3	4	10	595	40
Total Revenue	359	1,726	1,631	2,863	2,995
Costs (Shs million)					
Cost of Sales	269	1,186	737	1,826	2,405
Direct Expenses	18	180	196	589	190
Administration	51	222	538	1,047	629
Total Costs	338	1,588	1,471	3,462	3,224
Pretax Surplus/ (Deficit)	21	138	160	(599)	(229)

Source : PMB; 1986/87 - 1987/88 audited accounts: thereafter, draft accounts.

Table 2.9 Capacity and Distribution of PMB Storage Capacity

Station	Type	Capacity (m.t.)	Cleaning Capacity (m.t./hr)	Drying Capacity (m.t./hr)
Masese-Jinja	silos	20,000	150	15
Kazimingi-Jinja	warehouse	6,000	5	0
Tororo-depot	warehouse	18,000	10	0
Nalukolongo	warehouse	18,000	10	0
Kampala 5thSt.	warehouse	12,000	0	0
Kyazanga - Masaka	warehouse	3,000	30	10
Kasese	warehouse	6,000	5	0
Gulu	warehouse	6,000	5	0
Total		89,000	215	25

Source: Produce Marketing Board.

Despite attempts to reduce PMB's operational and overhead costs to accommodate reduced trading volumes, PMB's excess storage capacity and private sector access to it is still an issue. Further, the Board has examined future programs to increase storage and transport capacity, although it should be stressed that no firm financial commitment has been made.

Clearly, the major constraint faced by PMB is insufficient cashflow to purchase crops the consequent late payment of funds to sellers. In the current season, for instance, PMB asked Uganda Commercial Bank for US\$ 1.5 billion and actually received US\$ 100 million. However, other constraints mentioned by Board personnel include communication, bureaucratic, centralized decision-making, quality control, grading and sorting, and peak trucking capacity problems.

2.4.2 Food & Beverages Ltd.

Food & Beverages was established in 1974. Following the expulsion of Asian traders in 1972, its mandate was to distribute essential commodities (sugar, salt, cooking oil) throughout the country at Ministry of Commerce controlled prices. As with PMB, Food & Beverages enjoyed a monopoly in supplying these commodities until trade liberalization in 1989.

The company entered the export trade at the request of the government to meet barter agreements entered into in 1988/89.¹⁸ However, problems were encountered with exchange rate policy and the government finally released the company from the contract and allowed it to operate commercially in export trade. (A subsequent protocol to supply 45 tons of bogoya per week to Libya also lapsed). The company entered horticultural export trade in a minor way in 1990, but lost the market to a rival local private sector exporter; the company has since tried promoting horticulture in other markets but with no tangible results as yet.

Current export trade is, therefore, mainly in grains, cereals, and legumes. Commercial sales are negligible and food aid sales predominate (e.g., WFP, ICRC and EEC). Export volumes and values for 1990 and 1991 are shown in Table 2.10.

Food & Beverages bids on food aid contracts in full or part fulfillment at a specified date and price. Because of lack of foreign exchange, the company generally quotes on an f.o.t. basis (free on truck – the buyer is responsible for the cost of transportation from Kampala to the final destination). This limits access to the EEC food aid markets where quotes are generally required on a c & f basis (customs and freight – the seller pays transportation cost to the final destination).

¹⁸ This arrangement was developed as part of the Rural Product Procurement Scheme. Bartered produce from was marketed through Food & Beverage's depot network.

Table 2.10 Export Sales of Food & Beverages Ltd

Year	1990		1991	
	Quantity (m.t.)	Value (\$US)	Quantity (m.t.)	Value (\$US)
Maize	6,246	0.6	9,458	1.3
Beans	1,523	0.4	6,633	2.1
Mixed Beans	92	0.03	1,120	0.3
Simsim	59	0.04	500	0.3
Millet	486	0.08	0.0	0.0
Cowpea	150	0.06	0.0	0.0
Horticulture	4	0.005	0.0	0.0
Total	8,560	1.22	17,711	4.0

Source: Food & Beverages Ltd.

Having suffered a stock loss of US\$ 300 million in 1988, the company's purchasing operations are largely contract driven.

The company's 50 depots nationwide are used as buying centers. Staff (four per depot) procure and market locally a range of items, including locally-made industrial products under the Local Industries Production Procurement Scheme, as well as groceries on a wholesale basis. When export contracts are entered into, the depot staff announce which commodities the company wishes to buy and the prices being offered. Storage facilities at the depots are a major constraint, since they were constructed to store essential commodities, not food grains. The company has no facilities for drying grains, but has cleaning and fumigating facilities and a grading machine, which only grades one size rather than the three sizes required. The company plans to build its own silos and to acquire a dryer. It is not enthusiastic about using PMB facilities.

Food & Beverages has its own transport fleet: 54 seven to ten ton trucks and six with trailers (30 ton carrying capacity). Other assets include its network of stores and staff houses. The company is examining a rationalization program for its depot operations and may get rid of 16 depots, possibly by offering them to private traders.

The company funds its export operations from internal funds, although last year it satisfied only \$4 million of \$5 million worth of contracts secured. The company's overall working capital requirements are around US\$ 3 billion, and half of this can be made available to the export side of the business.

Although its overhead costs are not directly related to the export trade (and, therefore, may be viewed as sunk costs), the company's Export Unit estimates an export volume of 50,000 tons per year is required to ensure profitability. It has a standby trade finance facility with Equator Bank of US\$ 1 million but as yet has not used this source of finance. It has also looked at the Bank of Uganda Export Refinance and Credit Guarantee Scheme, but again has not used it.

The company has a fairly ambitious export development plan: sales volumes of 50,000 tons per year each for maize and beans and 10,000 tons for simsim by the year 2000, in addition to substantial increases in horticultural and other produce. Currently, its major constraint is storage infrastructure, although clearly finance could be a problem if anticipated procurement quantities are to be achieved. Other constraints cited by the management of the company include the following:

- ◆ A somewhat ill-defined strategy in the export business (the company entered the export trade more by accident than design)
- ◆ Heavy competition from the private sector
- ◆ Inadequate production infrastructure at the farm level, most notably input supply, extension, land tenure, quality control, and post-harvest losses
- ◆ Poor overseas perception of the quality of Ugandan non-traditional produce (organic production, for instance, does not command a premium because of quality control concerns)
- ◆ Inadequate transport and storage infrastructure, especially in the horticultural trade

2.4.3 Uganda Grain Milling Company

The Uganda Grain Milling Company (UGMC) comprises four operating subsidiary companies, namely: Uganda Millers Ltd (wheat milling); Uganda Feeds Ltd (feed mill); Bread Ltd (bakery); and Uganda Maize Industries Ltd, a maize milling operation which currently also exports maize.

The present holding company originated in the 1930s as an Asian business involved in oil milling and soap manufacture at Jinja. This business was sold to a European in the late 1930s who went into wheat milling. The colonial government later provided silos in return for a majority equity holding. A new wheat mill was constructed in 1961 and a maize mill built in 1963. Utilization of by-products from the two mills resulted in the construction of a feed mill in 1966. Finally, a bread factory was added to the Jinja site in 1968.

As a result of competition with other maize millers in the Jinja area, the company purchased Uganda Maize Industry in 1972 and moved to its present location at Kawempe. In 1987 the company received a grant from Danida (Danish Aid) to improve its storage and milling capacity. The current storage capacity is made up of four 1,000-ton silos and four 100-ton silos, with drying, cleaning, and fumigating facilities. The maize mill is capable of a throughput of 2 tons/hour.

Until recently the Uganda Maize Industry's main business was maize milling. However, competition from smaller millers, consumer preferences (for a very fine flour similar to wheat flour), technical problems (the company's drier is fueled by diesel and is very expensive to operate), and distribution constraints (the company does not have its own transport fleet and all transactions - both local and export - are ex-depot, limiting access to Northern markets where maize meal is the staple food) have all combined to make maize milling unprofitable. This competition has pushed the company into the maize export market to earn foreign exchange to fund wheat imports for Uganda Millers Ltd and purchase the group's imported equipment requirements.

The company started exporting maize in 1990. Quantities and values of their exports for 1990 and 1991 are shown in Table 2.11. The maize meal is sold locally.

Table 2.11 Uganda Maize Industries Ltd: Maize Purchases and Export

Year	Quantity Purchased (m.t.)	Quantity Milled (m.t.)	Quantity Exported (m.t.)	Export Value (\$USmil.)
1990	3930	1183	1500	0.188
1991	15265	2471	6945	1.007

Source: Uganda Maize Industries Ltd.

According to its budget, in 1992 the company expects to export 6,000 tons and mill 4,000 tons of maize. The biggest customer for maize exports is the World Food Program. The company made no money on its first consignment of 1,000 tons of maize to WFP because of additional drying costs. It considers WFP standards to be high and it is now company policy to export directly to PTA countries. A head office manager is charged with marketing for all of the four constituent subsidiaries and exports are currently being pursued aggressively. As of yet, however, they have not exported directly to Preferential Trade Area (PTA) countries.

The company has regular suppliers (approximately 10 traders/middlemen), who deliver maize to the mill. In addition, personnel from the head office of its Purchase Supplies Department provide village-level maize price information which forms the basis of supply contracts entered into with traders. Contracts are for two weeks duration after which prices are reviewed. As part of a group of well-integrated companies, cashflow for financing crop purchases is not a problem. Purchases are made throughout the two seasons against a pre-determined budget quantity. The company's general manager reports that overall the group is in a reasonable financial condition.

The maize operation employs a staff of 70. Constraints are most in evidence in the local maize milling business (the company intends to purchase a truck this year to enhance its local distribution capability). Given the synergies between the four subsidiaries, the move into maize exports has a powerful rationale.

2.4.4 National Enterprises Corporation (NEC)

The National Enterprises Corporation (NEC) was established in March 1989 to provide an employment outlet for disbanded army personnel (the "sword to ploughshares" paradigm). It operates as a parastatal under the Ministry of Defense, but according to the corporation's Director General, receives little financial support from the government.

The corporation has 13 small subsidiaries and employs approximately 3,000 employees across a range of labor-intensive micro-enterprises and trading activities. These include lime mining, farms, ranches, restaurants, importing (e.g., building material and chemicals), and exporting (e.g., pineapples, fruits, vegetables, simsim, ginger). Its main domestic customers for produce are the police, army, prisons, and the Ministry of Defense.

The corporation has storage facilities in Kampala, Kasese, and Arua, although it rents drying and cleaning facilities. NEC owns a pest control company (which recently won the tender for fumigating all government premises), as well as a fleet of 12 seven-ton trucks. As with Food & Beverages, procurement is contract-driven, that is, once the corporation has obtained a contract, its trucks are sent up-country to purchase the commodities required. Export contracts tend to be one-shot deals -- for instance, under a contract with the Kingdom of Dubai, NEC chartered a local plane and managed to make three trips, but had to stop supplying because of an inability to secure return loads.

Export quantities and values for 1990 and 1991 are shown in Table 2.12. All exports went to the Middle East -- the U.A.E.

The corporation considers the overriding constraint to expanding its export trade to be lack of working capital. At the moment it funds export activities by borrowing internally from its subsidiary companies. It believes that its status confers no preferential access to finance, and in fact feels that its Ministry of Defense image is viewed unfavorably by the

commercial banking system. The corporation is actively pursuing joint ventures with overseas companies, which it views as providing access to expertise, markets, and finance.

Table 2.12 Export Sales of National Enterprises Corporation

Year	1990		1991	
	Quantity (m.t.)	Value (\$US '000)	Quantity (m.t.)	Value (\$US '000)
Simsim	102	66.3	110	71.5
Pineapples	7	9.1	0	0
Passion Fruit	4	8.4	0	0
Ginger	16	19	0	0

Source: NEC

2.5 Constraints Limiting Performance of Parastatals

Issues arising from the continued operation of agricultural parastatals despite moves toward liberalized markets may be categorized into policy, public good, and operational issues.

Policy Issues. The following major policy changes have already taken place: the GOU has opened up marketing for export to the private sector, and the foreign exchange regime has been liberalized. If, however, it is assumed that the private sector is better at making trading calls than are governments, and that the legitimate role of governments is to provide a facilitating environment in private sector entrepreneurship, an important question is whether the current structure of the market for non-traditional agricultural exports (i.e., both public and private sector involved) is a transitional stage to ultimate parastatal divestiture or not. In the current situation the two major arguments against maintaining the status quo are that parastatals compete at an unfair advantage with the private sector, and that their activities tend to "crowd out" private sector entry into the business.

Regarding unfair competition, the evidence available suggests that the "playing field" is reasonably level. Certainly the parastatals have an advantage in being able to undertake barter protocol on behalf of government, since these contracts are reimbursed on a cost plus basis. However, barter trade is diminishing as Uganda's foreign exchange earnings become regularized. There is limited anecdotal evidence of government partiality to PMB and Food & Beverages in allocating funds under the Bank of Uganda Export Refinance and Export

Credit Guarantee Scheme. The advantages to the Commercial Bank of loaning to parastatals rather than the private sector are that transaction costs and, arguably, loan risk are reduced. However, Food & Beverages has not as yet used this facility and marketing managers within the parastatal state that the parastatals have as much difficulty as private traders in obtaining crop financing from a banking system generally averse to agricultural lending and more interested in financing the import trade. Certainly, with the exception of barter trade agreements, the Treasury is not financing their operations.

Regarding the "crowding out" of the private sector by the parastatals, the evidence is more mixed. As Table 2.13 shows, parastatals have figured significantly in the export trade for maize and beans, although their role is diminishing as an eager private sector has recently begun increasing their grain export activities. The parastatals role in the burgeoning simsim and nascent horticultural export trade is, however, minimal. Is the dominance of the parastatals in maize and beans exports the result of differential access to storage facilities (PMB is estimated to have 90 percent of storage, cleaning, and drying facilities in the country)? And, given that utilization of these assets is currently low (again, with particular reference to PMB), should these facilities be "freed up" for private sector use?

Table 2.13 The Relative Importance of Parastatals in Non-traditional Agricultural Exports (1990 and 1991)

1990 Exports (metric tons)						
Parastatal & Commodity	PMB	F&B	UGMC	NEC	Total Exports	Parastatals as % of Total Exports
Maize	21913	6246	1500	0	26733	110*
Beans	1080	1615	0	0	9278	29
Simsim	0	59	0	102	9207	2
1991 Exports (metric tons)						
Maize	11492	9458	6945	0	36096**	77
Beans	3999	7753	0	0	16056	73
Simsim	530	500	0	110	15541	7

Sources: PMB, Foods & Beverages Ltd, Uganda Grain Milling, NEC; Department of Customs and Excise (1990 exports), BOU (1991 exports).

* Demonstrates the unreliability of official export figures.

** This figure includes the quantity of all cereals exports, as recorded by the commercial banks (customs figures show 27,433 tons of cereals exported).

The only clear government stance on the above questions is that at some point private sector equity will be offered in PMB, Food & Beverages, and Uganda Grain Milling Company, but government will maintain a majority shareholding. Preliminary thinking within the government, however, seems to have moved on from this position to a growing consensus that PMB and Food & Beverages should be restructured and eventually privatized. The alternative approach would be asset disposal, a more radical solution and one with a shorter leadtime. Its main disadvantage is the possibility of replacing a de facto public sector monopoly with a private sector one.

PMB management is currently considering an internally-produced strategic business plan. If the strategic plan were accepted, the Board would be restructured and all operations would be managed on a commercial basis. All depots would become profit centers, as would the transport function and the head office exporting unit. Depot managers would have the latitude to sell produce either via the exporting unit or to private exporters. All facilities would be available to the private sector on a rental/user-charge basis.

The plan will be submitted for Board approval in March of this year. The plan projects a six to eight month period to move PMB into profitability. Thereafter, equity participation would be invited from private sector traders/exporters with the objective of spreading share ownership as widely as possible. Although initially the government would remain the majority shareholder, the ultimate aim of the plan is to transfer ownership of PMB's assets and activities to private traders. A start has been made in implementing the plan -- a private sector company has contracted PMB to clean and dry 20,000 tons of maize this year (i.e., the private firm is paying PMB per metric ton of maize cleaned and dried at PMB facilities for them), and the Board is renting its trucks to the private sector.

The policy issue is, therefore, not one of principle but rather one of implementation. Policy decisions already taken need to be pursued to their logical outcome.

Public Good Issues. Parastatal reform and divestiture usually involves deciding which residual functions will continue to be performed (promotion, regulation, input supply research, extension, quality control, market information, etc.) once trading and attendant activities are transferred to the private sector and/or other sector participants (e.g., cooperatives). Currently, none of the four parastatals provide any of these support activities. However, the proposed PMB plan envisages seed distribution and pesticide sales. In the absence of parastatal involvement, it is critical that these support functions be efficiently undertaken by the public sector. The private sector is currently not well organized. Without some support provided by the public sector, this situation could deteriorate. A downward cycle could develop in which variability of farm-level supply and lack of coordination constrain the ability of traders to maintain regular contracts with buyers. Without regular contracts, traders do not have the ability to assure producers of outlets for surplus production.

Two other relevant issues are food security and price stabilization. Is either necessary, and, if so, who would undertake these functions? Previous studies have shown that PMB's procurement levels are too small a percentage of national maize and beans output to effectively stabilize these markets. Equally, with double-cropping, the need for a strategic food reserve is not clear.

Operational Issues. The most pressing operational issue for the parastatals, particularly PMB, is adequate and timely crop finance. Because it has a much higher fixed-cost element in its overall cost structure than do private traders, PMB's financial viability is heavily contingent on adequate throughput volumes (a comparison of PMB's budgeted costs in 1991/92 with those estimated for private buyers indicates that lower administrative costs largely account for the private sector's competitive edge). Annex F reviews Bank of Uganda's recent initiative to provide crop financing through commercial banks. Projections by the Bank of Uganda suggest that availability of funding for non-traditional export crop purchases will continue to be inadequate, particularly given anticipated export growth. There is clearly a need to ensure that the scheme operates effectively and, if necessary, to supplement it.

The other operational issue in privatization is parastatal management. As is evident from Table 2.7, the bulk of parastatal export trade is in maize and beans; the major marketing outlets are either barter trade or food aid. Selling into either market does not require a high level of commercial acumen.

Two preconditions, therefore, have to be met, if plans to restructure, and eventually privatize PMB (and subsequently, perhaps, Food & Beverages) are to stand any chance of success: adequate crop finance and commercially-oriented management.

2.6 Policy Options with Respect to the Parastatals

Key policy issues, center on the final end state of PMB (and, to a lesser extent, Food & Beverages). Two basic policy options are the following:

- ◆ **Divest PMB's assets to the private sector as soon as possible either by direct sale or leasing**
- ◆ **Restructure PMB organizationally and financially with a view towards trader/exporter equity participation as soon as PMB is profitable**

The advantage of the first option is that it is a more radical and quicker solution to the problems generated by parallel involvement of both the public and private sector in the non-traditional agricultural export trade. Divestiture of PMB, however, does not guarantee the emergence of competitive and efficient private sector storage industry. Some steps should be taken to assure that the public sector monopoly is eliminated only to be replaced by a private sector monopoly.

Another issue is the ability and willingness of the private sector to assume control of PMB's assets, many of which are "bulky". At this stage in the development of the industry are there enough private sector players with sufficient management, technical, and financial resources to efficiently operate PMB's extensive investments? Several exporters interviewed indicated that they already had a plan to join forces (they indicated there were six firms, not all Asian-owned incidentally, willing to collaborate) and rent out PMB facilities, but that they were not willing to do so unless they were given complete management control.

The second option would require a much longer leadtime, say four to five years. As noted above, its success is heavily contingent on two key factors, namely:

- ◆ The provision of adequate and timely crop financing to PMB
- ◆ The ability of PMB to restructure organizationally (with some inevitable staff retrenchment) so that management operates on commercial rather than bureaucratic lines

The problem with donors in providing credit to the parastatals is the "anti-private sector" message this sends. Making financing available to them increases their competitiveness vis-a-vis the fledgling private sector. If donors are serious about the goal of promoting the private sector, they should be aware of the contradictory message this policy option would portray.

If the second option is adopted another concern would be ensuring that the proposed strategy is kept to an agreed timetable: i.e., identification of key events/milestones and monitoring to make sure that these are adhered to, with remedial procedures in place if they are not. A final issue is GOU shareholding. Under the current policy government will retain a majority shareholding in PMB. If the objective is to transform PMB into a commercial undertaking, the rationale of the government's keeping majority ownership of the Board is not immediately apparent.

An issue, finally, which relates to both options is that of food security. There does not currently appear to be a clear policy on the need for a strategic food reserve, or which organization might manage it on behalf of government. If such a policy is established, option one would require deciding which assets government should retain to undertake a food security function, and who should manage the reserve. If option two is followed, PMB would be a natural candidate to undertake food security functions on behalf of government, however, such a responsibility would ill fit the drive toward a more commercial organization and could jeopardize the overall privatization strategy.

3. Structure of the Export Marketing System for Fresh Fruits and Vegetables in Uganda

A combination of high soil fertility and ample rainfall make Uganda extremely suitable for horticultural production. Indeed, a wide range of horticultural crops are produced in nearly all parts of the country throughout the year with practically no irrigation or fertilizer. Despite the tremendous potential, the quantity of horticultural crops that is actually exported is relatively small. Currently, Uganda is exporting less than 15 metric tons of fresh fruit and vegetables through Entebbe per week (at high season). To provide some perspective, Kenya is exporting 250 metric tons per day. As will be discussed below, development of the Ugandan fresh fruit and vegetable export sector faces many constraints.

The value of the most common horticultural exports from 1988-1990 according to the Customs Department is shown in Table 3.1 (EPADU 1991).

Table 3.1 Value of Horticultural Exports

Commodity	1988 (\$US)	1989 (\$US)	1990 (\$US)
Bananas	273,975	252,201	518,900
Pineapples	252,673	207,895	175,700
Ginger	108,108	152,653	79,600
Mixed Fruits	34,879	35,614	69,100
Vegetables	0	320	135,900
Tomatoes	0	0	41,100
Papain	15,940	12,800	0
Mangoes	2,098	4,913	0
Chilies	1,942	22,217	0
Cucumber	0	12,083	0
Avocado	0	2,180	0
Passion fruit	0	3,448	0
Oranges	0	531	0
Jackfruit	0	1,803	0
Pepper	0	0	37,000
Spices	0	4,246	0
Total	689,615	712,904	1,057,300

Source: EPADU, 1991 (from Customs data).

The team that examined horticultural exports chose to focus primarily on fruits and vegetables, not because flowers and spices are uninteresting, but because of time constraints. This chapter describes the structure and conduct of the export marketing system for fresh fruits and vegetables as well as constraints identified by market participants interviewed.

The market structure for fresh fruit and vegetable exports is very straightforward in Uganda. There are essentially only two export channels, one for high-value crops destined for European markets (e.g., okra, gourds, chilies, plantain, ginger, avocado, eggplant, jackfruit, passion fruit, and miscellaneous Asian vegetables), another for mid-value crops exported to Kenya (e.g., bananas, oranges, pineapples, and onions). High-value crops that are exported to European markets are purchased directly from specialized producers by exporters, who in turn transport the produce by air to wholesalers in the importing countries.

Mid-value crops that are exported to Kenya are purchased from producers by large- and small-scale exporters who transport the produce across the border at Malaba and Busia in unit sizes ranging from head loads to 30-ton trucks. The exported produce is sold in local markets just across the Kenyan border as well as to large wholesalers who may distribute throughout Kenya and may even re-export the produce to higher-value markets.

It is worth noting that pineapple exports to high-value markets, previously an important source of foreign exchange, have all but disappeared. As will be discussed below, the suspension of flights by Ugandan Airlines has left essentially only one aircarrier, Sabena, with direct flights to Europe. The higher freight rates charged by Sabena together with an ever increasingly competitive European market has made transport of pineapples by airfreight uneconomical. Most pineapple exports from other countries are shipped by sea or at low subsidized air transit rates.

3.1 Producers of Horticultural Export Crops

3.1.1 Production Areas

Areas where horticultural crops are produced for export are determined more by access to roads and distance from the export exit points than by growing conditions. To put it another way, exporters do not have to venture too far from exit points to find adequate supply. Most high-value horticultural export crops are produced relatively close to Kampala, within a 40 mile radius. More specifically, the three largest exporters get much of their production from the Luwero triangle. This area, which includes parts of Mubende and North Buganda Provinces, is roughly bordered on two sides by the Hoima and Masindi roads. The third side of the triangle is formed by connecting a line from Luwero on the Masindi road to Katera on the Hoima road. Areas in and around Masaka in Central and South Buganda Provinces are also sources of supply for high-value exports, in particular plantain and jackfruit. Similarly, the majority of mid-value crops such as oranges and cavendish and apple

bananas that are exported to Kenya are produced in Tororo and Mbale districts, again largely within 40 miles of the main border crossing at Malaba.

The importance of distance and access affects not only the location of production but also the choice of crops. A case in point is passion fruit which is generally abundant throughout the country. It grows wild in many parts but is not often intensively cultivated. Instead, it is common for farmers to have a few vines trained up some trees and to harvest the passion fruit only after it has fallen to the ground. Despite the abundance and relative ease of production and a high demand for passion fruit in Europe, few passion fruit are exported because the cost of accumulating many small lots from a large number of farmers is prohibitive.

A small sample of horticultural producers in the Luwero triangle and the Tororo and Mbale areas were visited. An overriding characteristic of these farmers is a tendency toward diversification. These farmers tend to cultivate a wide range of crops that is clearly not limited to export fruits and vegetables. Many grow maize, beans, cassava, sweet potatoes and other food crops and kept livestock or chickens as well. This is true of farmers who serve as outgrowers as well as those who produce independently. In general, the area planted in any one horticultural crop was not more than 50 percent of the total area cultivated. It is clear that farmers recognized the value of reducing risk.

3.1.2 Methods of Production

On the farms visited, the scale of production varied somewhat, but the methods of production were largely the same. As mentioned above, little if any irrigation or fertilizer is used. Of the sample of farmers visited, all tilled the soil with a hand hoe -- no tractors were employed. Nearly all applied chemicals at times to retard fungicidal growth and pest infestation, and most used sprayer units to apply the chemicals. Some did hire outside labor, but most relied primarily on labor supplied by the family.

3.1.3 Vertical Coordination

The primary differentiating factors among farmers interviewed are the types of crops produced and the level of coordination between the farmers and their buyers. There is essentially no coordination between the farmers of mid-value crops in the Tororo/Mbale area and exporters of those crops. From the farmers' points of view, buyers would simply show up at the farmgate and offer to buy. The buyers would generally not visit on a regular basis, provide any inputs, or suggest which crops the farmer should plant. One farmer who has an orchard of 86 orange trees did not know for sure if the numerous buyers were exporters but soon became suspicious when none of the oranges he sold ever showed up in the large local markets. For these producers, if traders did not come to them when the crop was ready to sell, they would simply take the produce themselves to local markets.

In contrast, production of higher-value crops exported to Europe tends to be closely coordinated by exporters. To be sure, most of the high-value export production is grown by the exporters themselves or under informal outgrower arrangements. Currently, exporters are relying largely on outgrowers to produce okra, chilies, gourds, and a handful of other Asian vegetables. Exports often provide seeds, chemicals, instructions on when to plant, and other technical assistance to producers in exchange for producers' informal obligation to sell. Such arrangements are very important for both the exporter and the producer of high-value crops. Exporters enter into these relationships to ensure that they have an adequate and reliable source of produce. They provide inputs and technical assistance to ensure adequate product quality and use of proper harvesting and grading techniques. Farmers, for their part, are dependent on exporters to purchase their produce, most of which could not be sold profitably in domestic markets. For producers of crops that have a very limited domestic market, such as okra or chilies, planting the crop without first locating an exporter that will buy the crop when it is ready for harvest is a very risky decision. Thus, the farmer's real choice is whether to enter into an informal outgrower agreement or simply to produce a crop that can be sold domestically.

As in all countries, cases of abuse of the outgrower relationship by farmers as well as exporters were reported. Farmers complained that exporters had encouraged the production of particular crops but failed to appear when it was time to harvest, or offered to buy at prices that were too low. It is true that in most cases, prices are not fixed before planting but are negotiated at harvest. Hence, outgrowers often must accept the price the exporter offers or not sell at all. Exporters, on the other hand, reported cases where they were unable to recover the costs of inputs because production was poor or farmers sold to others who offered higher prices.

3.1.4 Producer Constraints

The constraint noted most frequently by farmers was lack of financing for inputs. All farmers complained of the high cost of inputs but very few had any external source of funding. Most farmers under outgrower relationships received inputs from exporters and some even received cash advances but the majority of farmers had to purchase their own inputs. Most felt that bank loans were not a consideration. Several stated that the high interest rate was prohibitive while others said that the process was lengthy and that approval was unlikely. One farmer who did receive a bank loan under a government guarantee scheme received approval for two disbursements, one to purchase planting material, a second to purchase inputs, but then was denied a third crucial loan needed to pay hired labor. All but the most progressive farmers complained that they often have to sell produce at low prices to meet urgent cash flow needs, the most important being school fees.

Many farmers' crops had been devastated by the drought this year, thus they expressed a strong interest in irrigation. Even during years with more normal rainfall patterns, irrigation would improve the farmers' ability to plant crops in accordance with the timing of foreign market demand. Currently, farmers must wait for the rainy season to

begin before they can plant many crops, consequently a portion of the market window is missed. Quality of crops is also a consideration. Short dry spells quickly reduce the appearance and post-harvest life of crops, a serious problem when exporting to foreign markets where reliability and consistency of quality is a necessary precondition. Because of lack of credit, investment in irrigation is not in the realm of consideration for most farmers.

Farmers also consider lack of information a serious problem. Most have little access to information on prices other than that provided by buyers who come to their farms. Farmers also crave information on production techniques and new planting materials. While outgrowers often receive assistance from exporters and some of the most progressive farmers seek out information on their own, most other farmers rely on horticultural extension workers for information on production techniques. Extension workers, however, are sorely underfunded and clearly incapable of adequately performing this service.

For nearly all farmers, with the exception of outgrowers, cost and availability of inputs are also serious problems. Farmers in Mbale complained that the Ministry of Agriculture had not made any seeds available to them since 1983. Chemicals are also inaccessible. Some farmers from Mbale relied on relatives in Kampala to purchase chemicals for them.

3.2 Exporters of High-Value Horticultural Crops to Europe

The number of Ugandan exporters of high-value horticultural crops to Europe is very small. Only five or six of the 75 listed exporter members of the Horticultural Crops Exporters Association are currently exporting on a regular basis. All are located in or close to Kampala. Two firms, which are reportedly the largest, ship roughly 8 to 10 tons of fresh produce each per week, while a third firm exports approximately 2 to 3 tons per week. All exporters stated that current levels are unusually low due to the extreme drought conditions. The three above mentioned firms export mixed shipments of fruits and vegetables, the composition of which varies with seasonality in the export market. Current shipments are composed primarily of okra, green chili, gourd (dudhi), and plantain (matooke) with some ginger, avocado, eggplant, jackfruit, and passion fruit. These exporters also periodically ship other Asian vegetables as well as cavendish and apple bananas. All export some produce throughout the year, but do most of their business during Europe's winter season (January through May) when European production is low.

3.2.1 Source of Supply

All three exporters grow a portion of what they export on their own farms but rely predominantly on crops produced by others. For more intensively cultivated crops that are grown essentially for the export markets (okra, chili, gourd) all three exporters have established outgrower arrangements. One exporter who was interviewed had made arrangements with 4 farmers, another had arrangements with roughly 10. The details of the

arrangements clearly vary by exporter and farmer, but in all cases the arrangements appeared somewhat informal. No written contracts were established. Generally, exporters provide seeds, chemicals, chemical sprayers, and some technical assistance in exchange for the farmers' informal obligation to sell to the exporter. Perhaps most importantly, exporters tell farmers what crops to plant and when to plant them. More valued and reliable producers also receive cash advances. The cost of inputs and cash advances are recouped by exporters by discounting the price offered for the crop. One exporter reduced his buying price per kilogram by 25 percent to recover costs of chemicals.

Exporters stressed the importance of developing strong relationships with valued outgrowers to assure that the necessary crop quality and supply can be obtained on a regular basis. Exporters reported that they often "took care" of "their" farmers during the off-season by providing loans; buying higher quantities or lower qualities than the export market demanded; or buying at prices that could not be recouped. The accuracy of this statement, however, could not be verified.

Export crops that are also consumed domestically and that often grow wild, such as avocado, passion fruit, and plantain (matooke), are typically purchased without prior arrangements with farmers or provision of inputs. Generally, farmers and outgrowers are paid in cash either on delivery or on some prearranged schedule (e.g., weekly).

3.2.2 Harvesting and Collection

Harvest and collection of produce are carefully coordinated by exporters. Outgrowers are instructed in harvesting techniques and grading requirements. Packaging is distributed to outgrowers on a regular basis, as often as twice a week, and special containers for harvesting, such as plastic tubs for okra, are provided when standard baskets are not appropriate. Outgrowers generally begin harvesting in the morning of the day before or in some cases two or three days before a scheduled flight and finish grading and packing by early afternoon. Exporters generally collect the packaged produce directly from the outgrower farms the day of the harvest and take it to a central location for regrading or directly to Entebbe airport. All exporters inspect the produce at some point in the chain to ensure proper grading and to cull substandard quality. One exporter has three specially-trained employees inspect the produce as it is being unloaded from the truck at the airport. In most cases, rejected produce is simply discarded.

For the most part, exporters collect produce that is not supplied by outgrowers, such as plantain (matooke), passion fruit, and avocados simply by visiting production areas and buying directly at the farms. One exporter does have a small store front facility where farmers may bring produce to sell. Purchased produce is graded and packaged directly at the facility and transported to the airport along with the outgrower production. For a more detailed description of harvest and handling techniques see Annex C.

3.2.3 Packaging

Although a Ugandan firm, Mulbox, Ltd., produces two types of boxes suitable for horticultural produce, all current exporters rely entirely on boxes imported from Kenya. Exporters prefer the Kenyan boxes for several reasons. Perhaps most importantly, the cost of a Kenyan box at Shs. 1,000 is less than the local box priced at Shs. 1,200. Executives at Mulbox suggest that the higher cost of locally-produced boxes is due at least in part to customs duties imposed on imported raw materials, such as glue from Germany and kraft from Kenya. Mulbox suggested that the Kenyan boxes are often imported informally and sold without any duty or sales tax. Mulbox also stated that the Kenyan boxes are made of cheaper imitation kraft.

Exporters also prefer the Kenyan boxes because they are of the self-locking variety. These boxes, when purchased, are unfolded and lie flat. They can be easily transported to farms and folded when ready for packing. The Mulbox variety is prefolded and consequently more bulky to transport. The top on the Kenyan box also locks into place automatically where as the Mulbox variety must be sealed shut with tape or staples.

The exporters also claim that the Kenyan boxes are stronger. Mulbox denies this claim, stating that the imitation kraft used in the Kenyan boxes breaks down much quicker under moist conditions than the genuine kraft used in local boxes. The exporters state emphatically that they have had no complaints from their buyers about the Kenyan boxes deteriorating. Although no empirical tests of strength have been attempted, the self-locking boxes do appear quite strong, in places having double or triple walls because of the way the box is folded. One exporter demonstrated the strength of the box by standing on it.

The Kenyan boxes are also preferred because they more closely meet the packaging quality desired in foreign markets. The standard local box is clearly not as attractive, an important consideration in foreign markets. However, at the request of horticultural exporters, Mulbox imported several large rolls of white kraft last year especially to address this issue. Mulbox complained that only 300 boxes using the white kraft were purchased, leaving several rolls unused. Exporters feel that the white kraft boxes are still less attractive than the Kenyan alternative and cost even more than the standard local box.

Mulbox currently does not have the capability to produce self-locking boxes. Executives have explored the possibility of investing in the necessary machinery and found that the current demand for that type of box is nowhere near the level needed to make the investment economical. Moreover, having been left with several rolls of white kraft, Mulbox is unlikely to invest without concrete assurances that exporters will not still buy the Kenyan alternative.

3.2.4 Airport Procedures

At the airport, the produce is weighed, stacked on pallets, covered with strap netting and held in the general cargo storage area until flight time. Produce that is shipped on the

twice weekly 11:00 a.m. Sabena flight is held overnight while the produce leaving on the weekly 3:00 a.m. Egypt Air flight is generally held less than 12 hours.

All produce exports must be accompanied by a health certificate that is issued by a Ministry of Agriculture health inspector stationed at Kawanda. The inspector is supposed to personally inspect all shipments at the airport. However, it is questionable whether this actually happens in practice. All exporters use a clearing agent to pass through customs procedures and have reported little or no problem with the process. Nonetheless, the Sabena operations manager commented that the customs clearance procedures at Entebbe are extremely inefficient compared to airports in other countries.

In general, though, exporters had few or no complaints about government export regulations and procedures. All exporters were quite satisfied with the relatively new export certificate process and the ease at which foreign exchange could be obtained. Clearly though, all exporters reported that payments to government officials were a necessary cost of business.

3.2.5 Airlines

There is little prospect of exporting by sea from Uganda as one can from West and East African littoral states. The extra road haulage from Uganda renders most products uncompetitive. Freight charges from Kampala to Mombasa were around \$60/ton at the end of 1991 (Harris and Caiger 1991). Delivery times from Kampala to Mombasa by lorry can be as short as three days or as long as seven days, depending on delays at the border or vehicle breakdown. Exports of perishable horticultural produce from Uganda to the higher-priced European and Middle East markets therefore depend on air freight.

The actual cargo-carrying capacity of the airlines visiting Entebbe exceeds the supply of produce being consigned, but the essence of horticultural exporting is speed and reliability of service. Airlines such as Egyptair and Ethiopian Airlines serve Entebbe and connect with attractive target markets but neither is direct, with consequent time loss (and pilferage according to one exporter who does use this route). Even Sabena, the one regular carrier, does not go directly to London where most Ugandan exporters consign, and so produce leaving Entebbe on Wednesday goes to London by truck on Thursday morning, clears Customs in the afternoon and is exposed for sale in the London wholesale market on Friday morning. It therefore cannot be offered to the final buyer until Friday afternoon or Saturday, and even later if it is reconsigned within the U.K. Therefore, about a week elapses between harvesting in Uganda and sale in Europe, and most Europeans do not expect to have to buy and consume immediately.

In 1971 Entebbe airport handled 245 flights per week. This number has now declined to 60. Currently the airport is served by five passenger and two cargo lines.

Ugandan Airlines no longer has flights to Europe or the Middle East. When it was flying these routes the unreliability of its service discouraged exporters. Past exporters told of consignments being left behind, of flights being canceled on short notice, and of flights overflying expected destinations, thus delivering goods at the wrong airport, generally without compensation.

Ugandan Airlines hopes to resume a scheduled European service in April in conjunction with the consortium consisting of Zambian Airways, Air Tanzania and Ugandan Airlines. They should fly to London Gatwick alternately via Frankfurt and Rome. It is anticipated that the freight capacity will be some 15-20 tons and the rate for horticultural produce \$0.90-1.06/kg. However, for an airline in the perilous financial condition of Ugandan Airlines it is unlikely that they will be able to offer such low rates simply to encourage horticultural exports when Sabena indicates that theirs is a concessionary rate. (See below.)

Additionally, a joint Air Mauritius and Ugandan Airlines flight direct to London Heathrow is under consideration. It does not appear likely that Ugandan Airlines will resume a cargo-carrying flight to the Middle East, as the proposed Air Botswana/Ugandan Airlines service would be flown by relatively small passenger only planes.

Air Tanzania used to provide a service from Entebbe to Djibouti and Muscat. There were two flights per week with a capacity of 7.5 tons per flight at a freight charge of \$0.58/kg. These were joint Air Tanzania/Ugandan Airlines flights and were terminated because of technical problems. Currently Ugandan Airlines is not in a position to resume this service itself and holds the carrying rights over the route. Air Tanzania is negotiating to resume the flights but admits that its own future is somewhat uncertain, given its financial condition. A considerable variety of produce was exported by this route although exporters surveyed reported problems with some of the importers regarding the quality of the produce on arrival. Equally, a representative of the carrier said that some of the produce was over-ripe before departure and was unsalable.

Dairo Air Services is one cargo line which flies into Entebbe once per week. However, this service runs on an *ad hoc* basis depending on cargo availability at its other pick-up points, which include Kano and Nairobi. Furthermore, the plane stops at Cairo to refuel. Several relayed stories of bad experiences from attempting to ship exports by cargo.

Available charter cargo services are not well suited for fresh produce transport. They depend on multiple pick-up points in Africa and flexibility of scheduling to ensure that cargo space utilization is maximized. Hence, times of arrival at ultimate destinations can vary substantially. This standard practice is clearly incompatible with the fresh produce trade.

The only way to ensure direct and prompt arrival would be to charter an entire cargo planeload (20 metric tons). At the time this study was undertaken, at least two exporters were considering this option, but were constrained by lack of availability of production and

working capital. These exporters stated that the demand was there. It is worth noting, however, that chartered cargo service could greatly shorten time to market, but would not lower costs at all. It is also interesting to note that the owner of Dairo Cargo Service experimented with exporting fresh fruits and vegetables to Europe, but quit reportedly because it wasn't profitable.

The sole passenger line direct to Europe is Sabena, which flies a combination passenger/freight service to Brussels twice a week. With a capacity of some 12 to 13 tons, each flight is currently carrying around 4 to 5 tons of horticultural produce. The quantities consigned by Ugandan exporters vary seasonally and the current dry period has depressed quantities.

Sabena's rates for cargo are \$1.35/kg to Northern Europe and \$1.55/kg to Scandinavia. Although this rate is considered high by some of the exporters it is, in fact, a concessionary rate compared to the \$7-8/kg for normal cargo. Ugandan airfreight costs for horticultural produce are high, however, compared to some of its competitors. For example, airfreight rates for horticultural produce from the following locations to Northern Europe are: Kenya - \$1.19/kg (although reportedly rising), Ghana - \$.91/kg, Zimbabwe - \$1.27/kg, Senegal - \$1.16/kg, Ivory Coast - \$.90/kg, and Gambia - \$.70/kg (Harris and Caiger 1991).

As the airport is improved and the investment climate in Uganda becomes more attractive, the number of scheduled flights to Europe will increase, and costs should go down. British Airways and Air France are apparently studying the situation, as is KLM. However, given the possibilities of mergers and takeovers among the European airlines the options may change by the time new routes are opened.

3.2.6 Foreign Markets and Buyers

Currently, all exports are sold to importer/wholesalers under long-standing agreements. Buyers place their orders and negotiate prices regularly (twice weekly in one case), generally 3 to 5 days before the flight. All current exporters have relationships with more than one buyer. The produce shipped from Uganda is primarily destined for ethnic markets in Europe, with the most important destinations being the United Kingdom, Denmark, Sweden, and Norway. The importers/wholesalers themselves are primarily Asian or Ugandan expatriates who import the produce to supply local ethnic communities. Ugandan produce is slotted in the lower-priced end of the ethnic market. The exporters admit that they have not achieved the quality obtained by other, more experienced exporting countries and that Ugandan exports compete primarily on the basis of price.

Exporters clearly recognize the importance of maintaining a favorable long-term relationship with a good buyer. Letters of credit are not commonly used in horticultural trade because of the high perishability of the produce, consequently essentially all consignments are shipped without guaranteed payment. The exporter can only rely on the good faith of the buyer to ensure full and prompt payment. More importantly, finding a

good honest buyer can be a very expensive process of trial and error. Exporters that were interviewed often visited the importing country themselves but still had no way of determining the credibility of the buyer beforehand. As a result, nearly all current and former exporters interviewed reported experiences of slow or partial payment, and many reported instances of no payment at all. Some had court cases pending but all felt that they had little or no recourse for such occurrences. The latter is especially true of partial payment. Many exporters reported instances of buyers paying less than agreed and claiming that the quality of the produce was substandard. The exporter can do little else but accept the price and continue looking for a good buyer. Furthermore, few exporters had any source of price information other than the buyers themselves, making it difficult to know if the price offered was a good price. Most exporters agreed that finding a good buyer in the Middle East was particularly difficult. One ginger exporter complained that a buyer who paid on a weight basis always waited at least one day after the shipment arrived before he would weigh the shipment. During that extra day, the non-refrigerated ginger could lose 25 to 30 percent of its original weight.

As a result, once a good buyer has been found, exporters will do all that they can to keep them. Exporters reportedly will ship consignments at a loss during the off-season in order to ensure the good buyer is there during the peak season. Indeed, even during peak season, mixed consignments may include crops that are priced at a loss or that offer very unattractive margins. One exporter suggested that he often loses money on okra but that he makes up the loss on plaintain (matooke). To keep in touch with the buyer and to make sure all is going as planned, exporters visit the foreign markets as often as two or three times per year (an expensive proposition for small exporters). On his visits to foreign markets, one exporter compares price records kept by the Chamber of Commerce to the prices he received to ensure that he was being treated fairly.

3.2.7 Capital Investment and Cash Flow

In terms of investment, most exporters own little more than a single pickup or midsize truck, if anything at all. Indeed, all exporters surveyed rely on rented transport either throughout the year or to supplement their own transport during peak season. There are no refrigerated storage facilities. Land farmed by exporters is usually rented, not owned.

The financial needs of exporters are not insignificant. Nearly all costs are incurred up front: farmers are paid on delivery or shortly thereafter; airlines often require prepayment of shipping costs in foreign currency; and owners of hired vehicles also tend to require prepayment. Exporters may receive payment from buyers up to a month or more after delivery of the produce.

Nearly all exporters rely entirely on their own cashflow to finance operations. To ease the strain, at least one exporter offers discounts for prompt payment. Other exporters have made arrangements with airlines for the buyers to pay the shipping costs on delivery of produce whenever possible. One exporter has made an arrangement with a foreign exchange

bureau to draw local currency in advance of the foreign exchange payment. Several exporters reported that they had tried to get bank loans, but that banks are not willing to consider financing such risky operations even with loans partially guaranteed under the export financing schemes. Lending policies require substantial collateral which exporters clearly do not have or letters of credit which are uncommon. Exporters shrug it off by saying that the 40 percent interest rate and the time it takes to process a loan (four to six months) make bank loans out of the question anyway. Clearly, growth of horticultural crop exports is severely limited by the availability of capital.

3.3 Exporters of Mid-Value Horticultural Crops to Kenya

The number of participants involved in the export of mid-value horticultural crops, such as oranges, cavendish bananas (bogoya) and apple bananas (ndizi), to Kenya is not easily identifiable. Export records are inconsistent and unreliable. Moreover, a significant amount of horticultural produce is taken across the border in small lots (head loads or wheelbarrows) during market days and does not show up in official records.

3.3.1 Characteristics of Exporters of Mid-Value Crops

Three broad categories of exporters have been identified. First, there is a significant amount of trade that is undertaken on a relatively large scale on a fairly regular basis. One group of 26 exporters located in Malaba transports roughly 20 tons of cavendish and apple bananas twice weekly to Nakuru. These exporters buy directly from farmers in the Mbale area on a spot basis. They rent pickups as needed and simply visit production areas and buy at farms until they have accumulated enough for a full lorry load. The full load is stored in a heap in the fenced customs area in Malaba until an arrangement with an operator of a transit vehicle can be worked out. A load stacked in customs at the time of the interview had been waiting four days for a transit vehicle.

Banana stalks are stacked in the truck without any packing material or real regard for handling. Once loaded, the vehicle is generally cleared within four hours through both Ugandan and Kenyan customs with the use of a clearing agent. These large-scale exporters did not have any problem with the border permit process nor with Ugandan exit clearing procedures. The exporters did point out that clearing Kenyan customs was a very cumbersome and unclear process. Policies and regulations seemed arbitrary and unevenly enforced. The use of a Kenyan transit vehicle for importing is a case in point. Exporters reported that Ugandan transit vehicles are often delayed or even refused entry. Once cleared, the truck arrives in Nakuru 12 hours after leaving the border.

Some members of this group have been selling to the same buyers in Nakuru for nearly five years. Currently, there is a standing order for two lorry loads per week. A large percentage of these shipments are sold through barter arrangements. The group recently

traded a shipment of cavendish bananas for cement at a rate of three stalks per bag. Very few if any of the bananas are ever rejected by the buyer. The Kenyan buyer reportedly separates the bananas by quality and re-exports the highest quality as Kenyan bananas to European markets via Nairobi airport.

Second, and perhaps equally as significant in terms of total volume, an unrecorded amount of horticultural produce is taken across the border in small loads during market days (Wednesdays and Saturdays) in Malaba and to a lesser extent in Busia. The types of horticultural produce that cross the border during market days ranges from tomatoes to plantain to bamboo shoots. Cavendish and apple bananas are currently far and away the most significant crop. The Trade Development Officer in Tororo District estimated that the total volume of bananas exported during market days may be as high, if not higher, than the amount exported in truckloads. Other types of produce that are transported extensively on market days depending on the prevailing price include pineapples, oranges, passion fruit, and onions.

Some of the produce exported to Kenya may be consumed in towns along the border. However, the magnitude of the trade clearly suggests that a portion of the produce is sold to Kenyan wholesalers who resell throughout the country. Again, this is particularly apparent in the case of bananas. If actual figures are even one-half the Trade Development Officer's estimate of 40 tons per week, it is quite likely that at least a portion of the bananas reach Nakuru and beyond. Further, it is suspected that some may even reach as far as Nairobi and be re-exported to higher-value markets. Indeed -- although this was not observed by the team -- the Trade Development Officer stated that it is not uncommon to see Kenyans with large trucks on the other side of the border on market days, buying small wheelbarrow loads and packing the bananas directly into empty export-style packaging.

Third, some horticultural produce is shipped on a very ad hoc basis by generic traders who simply trade anything for which there is an arbitrage opportunity at any given time. Several such traders were identified in Masaka and Iganga. They tended to rent trucks as needed and had very few assets in general. Other products handled by these traders range from timber to cottonseed cake to dried fish. Clearly, trade of horticultural products was only a very small portion of their business.

3.4 Subsector Performance

Commonly recognized performance criteria include efficiency, income distribution and economic growth. Quantitative assessments of performance were not undertaken as accurate data are not available or commonly-used quantitative measurements are not deemed appropriate given the nature of the horticultural export business. For example, marketing margins, which are frequently used as a proxy measure for all three performance criteria for other industries, are not very meaningful measures when examining horticultural exports. Exporters' margins vary substantially by specific commodity and by the time of year because of the extreme seasonality of demand. More importantly, exporters reportedly will endure

losses on certain types of produce in a consignment and will accept very low margins on entire consignments during low season that are made up at other times in the year. (As mentioned above, these pricing strategies were employed in order to maintain relationships with valued producers and foreign buyers throughout the year). The overall result is that examination of a margin for a specific commodity at a single point in time can be very misleading. Accurate data for another potential quantitative measure of sector efficiency, post-harvest losses, are not available. Similarly, data for micro measures of performance, such as firm-level profitability or firm-level input-output analysis were not available. These types of analysis are also beyond the scope of this rapid appraisal.

Nonetheless, qualitative discussions of performance can provide some insight into areas for improvement. For instance, substandard produce is not uncommon. Exporters freely acknowledge that Ugandan produce is considered to be of lower quality than produce from many competing countries and that payments from foreign buyers are sometimes reduced accordingly. Moreover, when identified prior to shipping, substandard produce is simply discarded. The marked existence of poor quality produce signals that system efficiency as well as the sector's economic growth could be improved. As discussed in Annex C, there is substantial room for refinement in the area of harvesting, storage, handling and transport that could help improve system performance in this regard.

Horticultural exports generates benefits for a wide range of individuals, including among others, producers, hired farm labor, exporters, hired exporter labor, local banks, foreign exchange dealers, and importers of agricultural inputs. Without more in-depth data on firm-level profitability, however, the system's performance in terms of the distribution of benefits, is not entirely clear. It is more than likely that the exporters themselves receive the lion's share of income. Whether this is actually true and, if so, whether or not the divergence in income is socially unacceptable, though, is beyond the scope of this paper.

Assessment of performance using the third criteria, economic growth, is more straightforward. It is very clear that the potential for substantial growth in horticultural exports exists. This growth, however, is hindered by several constraints, many of which are external to the sector. These constraints, which have been mentioned above, are summarized in the following section.

3.5 Summary of Constraints to Horticultural Crop Exporting

The export marketing system for fresh fruits and vegetables, as described above, has operators at different levels, but the key actor is the exporter. Therefore the constraints affecting the exporter are the most important and from the exporter interviews can be listed in order of importance as the following:

- **Buyer identification.** The exporter must find suitable foreign clients and ensure that they are reliable in addition to establishing his credentials with the potential client.
- **Market intelligence.** This can be obtained from a reliable client once the relationship has been established, but initially the exporter needs market information from independent sources for planning and for evaluating offers from potential buyers.
- **Airfreight.** The lack of direct scheduled flights is delaying the growth in high-value horticultural produce.
- **Finance.** Many of the exporters are small operators with few assets acceptable to lending agencies as collateral.
- **Export marketing know-how.** Many of the wholesalers interviewed had little idea of the price they might receive in their target market, nor their intermediate costs, and had only a vague idea of the steps involved in exporting.
- **Ignorance of domestic import/export regulations.** There is currently no systematic means of communicating knowledge of policy changes to exporters, particularly in the provinces. Exporters were found who, although actively exporting and importing, thought that their activities were illegal.
- **Ignorance of Kenyan regulations.** This puts the exporter in a weak negotiating position *vis-a-vis* Kenyan officials and traders who are not always the most helpful.
- **Quality advice availability.** Currently exporters have to be their own extension and market intelligence staff. Farmer need independent advice for crop planning regarding cultivar choice, crop timing, and post-harvest handling.

The major constraints for producers were found to be the following:

- **Access to information.** This includes both technical assistance and marketing intelligence to plan cropping and identify potential markets and buyers.
- **Sources of suitable inputs.** This comprises suitable fertilizers, spray chemicals, and suitable varieties for the foreign markets.
- **Credit.** This is required to make the heavier investments needed to grow the quality produce demanded by the foreign markets.

- **Irrigation.** In the case of horticultural crops a controlled water regime is very important to achieve high quality and to take advantage of demand opportunities.

Both exporter and producer constraints are discussed in more detail in the following sections.

3.5.1 Buyer Identification and Market Information/Intelligence

The major impediment to entry into the fresh fruit and vegetable trade is finding a reliable buyer in the receiving market. Even after entering the trade in relationship with a merchant many exporters reported problems and changes due to differences between exporter and consignee.

In most cases identifying a potential buyer entails a journey to the receiving market which, in the case of perishable products to Europe or the Middle East, implies a substantial investment in air fares and subsistence. Even in the case of export to PTA countries most exporters had to make personal contact. Unfortunately after finding a merchant the potential exporter cannot rely on Ugandan government export promotion services to vet the merchant's credentials.

3.5.2 Constraints to Movement/Airfreight Constraints

Reliable scheduled airfreight capacity appears likely to increase in the not too distant future, and this will be the basis for expansion in high-value horticultural exports. When Kenya first entered the horticultural export trade, it had the advantage of a great many flights stopping in Nairobi because at that time long-hauls from Johannesburg to European destinations could not be achieved. This large number of flights allowed a progressive build-up of the industry to the point where entire planeloads could be consigned on a regular basis, thus justifying charter flights. Ugandan exporters must await an increase in scheduled flights to desirable target markets before developing their trade in the same way.

Constraints to the smooth movement of horticultural produce from farm to overseas markets have diminished. Formerly, the air carriers required produce to be at the airport twenty-four hours before flight departure, and at one stage the Customs officials were reported to have proposed its delivery forty-eight hours in advance. Now Sabena, the one major carrier, has relaxed this requirement and is prepared to receive cargo during the evening before the flight, i.e., some twelve hours before departure. No other in-country physical constraints to movement were reported.

On arrival in Europe the transfer of goods to the consignee, frequently in London, is usually smooth. The major problem regarding flight timings is that the Friday Sabena flight

lands produce in Europe before the weekend. Thus produce does not reach the consumer point of sale until Monday or later, which results in deterioration in quality and freshness.

Bribery does not seem to be a major problem. There is some demand for bribes at the airport but wholesalers did not seem to regard this as a major item of cost, nor abnormal.

3.5.3 Banking and Credit Policies

The financial constraints mentioned by so many operators are far from easy to resolve. Faced with a request from the fruit and vegetable trade, the financial institutions adopt a cautious approach reflecting a high risk situation. They are prepared to lend only to people with substantial collateral -- most often described as being property in Kampala. Land is not considered sound collateral, given that land titles are not always clearly defined and that legal procedures for obtaining possession in the event of default are extremely lengthy. Moreover, many exporters have stated that the banks require a letter of credit before any working capital loan will be approved. Letters of credit, however, are inappropriate methods of payment for horticultural trade and are generally not used as such anywhere else in the world.

Some of the lending institutions are reported to be extremely short of funds due to injudicious lending under political pressure in the past. Other banks who did not make loans during the mid-1980s are somewhat stronger and are looking for more flexibility in their lending policies, taking into account the track record of the exporter, the lower risks associated with certain crops, and the value of equipment rather than real estate. However, these institutions restrict the minimum loan size to around \$50,000, which may be more than a smaller exporter requires.

3.5.4 Producer Access to Information

It is often stated that the constraint to increasing exports is the unavailability of supply. This would appear to have more to do with the information gap, which is common to the whole trade, than to the Ugandan farmer's response to demand or his agricultural capabilities. For new crops, the farmer may require assistance, which he readily accepts if it is available and relevant. Several participants interviewed cited stories of farmers who had produced for exporters who subsequently did not turn up to purchase; of farmers who had produced crops for which there was virtually no domestic demand but for which they understood there was an export demand, although they had not bothered to first find a buyer; and of enterprises that like to send plane loads of produce to Europe every week if they could find ample supplies. Some of these stories probably became exaggerated in the telling, but all relate directly to the lack of information and the lack of a forum for transfer of information.

Technical assistance to the horticultural industry appears to be improving constantly through the Development of the Horticulture Industry Project and, it is understood, through the broadening of the Prevention of Post-Harvest Losses Project into post-harvest handling of perishable crops. The outreach programs of the former have been discussed earlier, and their continuation and development should be assured.

3.5.5 Improved Input Provision

The Ministry of Agriculture continues to provide a large proportion of agricultural and horticultural inputs, but many producers find their service less than satisfactory. There is some private trade in inputs but this will probably continue to be hampered as long as the Ministry is involved. In the case of planting materials distributed by the Development of Horticulture Project, there seems little reason why their multiplication and distribution cannot be privatized thus encouraging the development of an agricultural provision sector.

3.5.6 Credit Provision to Producers

The Rural Credit Scheme -- through which credit was provided to producers -- has largely disappeared because of borrower default. Many farmers currently find themselves in the same position as exporters, with no collateral acceptable to the traditional lending institutions. At current interest rates, it is probably inadvisable to borrow heavily for an uncertain venture such as horticultural exporting. The best short-term source of finance will thus continue to be the exporter -- at least until more regular and assured flights are established.

3.5.7 Irrigation

Very few horticulturalists are now irrigating, although many have expressed the desire to do so. Irrigation allows better timing of production, higher yields, and avoidance of damage due to water stress that good control over the water regime achieves.

It seems that there is no public service for the provision of wells for irrigation purposes. At this stage, for most growers, there is probably no need for a complex system involving mechanical pumps, since simple watering-can application may be sufficient.

3.6 The Institutions Supporting the Export Drive

The fulcrum of non-traditional export trade is the exporter. The exporters are the decision makers and the risk takers and their identification of the lack of adequate knowledge as the most important constraint indicates the area in which assistance can have the highest payoff in terms of increased efficiency. Given the complexity of the trade and the number of disciplines involved, it is inevitable that a large number of institutions must be the vehicles for the delivery of that assistance, but those institutions must be as closely integrated as possible and in constant liaison with each other.

Five of the listed constraints in section 3.4 depend on the transfer of knowledge to the operators in the system. Since information is largely a public good, at this stage of its development the industry will therefore depend heavily on assistance from public institutions.

The number of institutions (primarily governmental) that are designed to provide support to marketing participants involved in the production and export of non-traditional agricultural crops is overwhelming. A description of each is found in Annex A, which is summarized here, with institutional recommendations following in Chapter 4.

Two of the most important are the Export Policy Analysis and Development Unit (EPADU) within the Ministry of Planning and Economic Development (MPED), which is funded by USAID, and the Uganda Export Promotion Council (UEPC) located within the Ministry of Commerce, Cooperatives, and Marketing (MCCM). Their recent activities are briefly described here (for more detail, see Annex A).

EPADU is the executing agency responsible for policy analysis and development related to export diversification under USAID's Agricultural Non-traditional Exports Promotion Program (ANEPP). The main thrust of EPADU's work concerns policy analysis. However, it has recently broadened its activities into trade development functions as it was judged that there was no other effective agency to carry out such work. Trade development seminars have been conducted, an Operational Constraints Analysis Program has been initiated to identify promising export-orientated enterprises, an Exporters Handbook has been published, and a produce inspection service based in London and other major northern European trading centers is in the course of being established. The produce inspection service will be executed through a subcontract with a U.K.-based consulting firm. Consultants capable of inspecting the quality of produce subject to dispute between buyer and seller in markets in the U.K., the Netherlands, and Germany will be retained. They will also verify that prices being received are reasonable in a given market. Furthermore, the consultants will be able to comment on the reputation of importers and to seek market outlets for produce.

Data collection activities of EPADU have mainly been confined to export data from the Customs Department for policy analysis needs. These activities are being further refined to encompass data on individual exporters and to be available on a monthly basis. It is proposed that in the second phase of the ANEP project EPADU will collect overseas market data and disseminate the results of analyses of these data to policy formulators and decision makers as well as to exporters.

In addition, during the second phase of the ANEP project a post-harvest crop handling advisory capability will be developed. It is envisaged that a consultant will be employed who will advise exporters on handling and packaging. The service would be advertised and suitable potential exporters and larger-scale farmers assisted.

The Ministry of Commerce, Cooperatives and Marketing's (MCCM) trade development agency is the Uganda Export Promotion Council (UEPC). The UEPC and the

Uganda National Bureau of Standards (UNBS) have recently received sufficient funding from the UNDP to enable them to fulfill the basic needs of their organizations, but both have programs that do not have affirmed long-term funding. As discussed in more detail in Annex A, the UEPC is establishing data bases and has the mechanisms to link Ugandan exporters to potential buyers abroad. Additionally, UEPC can link growers and exporters in-country by providing a base for their associations. These data bases and the establishment of linkages will allow the UEPC to play a more active role in offering services to exporters than has been the case in the past.

Many public and private sector marketing participants interviewed expressed the feeling that it is an aberration to have two export promotion bodies -- some of whose actions duplicate those of the other, of which are not well understood by the trading community. Two other major institutional players in non-traditional export development are the Trade Development Division (TDD) of the Ministry of Commerce, Cooperatives, and Marketing (MCCM), and the new Marketing Section in the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).

The TDD, with well-educated trade development staff in every district, is an established vehicle for market intelligence dissemination, and also provides feed-back into the design of marketing policy. The officers of this department are supposed to offer educational courses in business management for traders, but currently lack the means. They are in direct contact with the provincial agricultural staff, and thus are in a position to link the producers into the information system. Currently the Division is so short of resources that it has difficulty in keeping its staff informed of policy changes, much less the general trading community. There is a degree of futility in analyzing the effect of policy changes if the people operating under those policies are unaware of the changes.

With the creation of a Marketing Section in MAAIF, coupled with the work being undertaken by the Development of Horticulture Industry Project and the reinforcement of the Uganda Export Promotion Council (UEPC), the major links in the production and marketing chain are in place. In addition, the creation of the Uganda National Board of Standards (UNBS), the phytosanitary inspection service in the Plant Protection and Quarantine Service, and the Agricultural Chemicals Control Board, will provide the control and quality assurance required by foreign buyers.

4. Conclusions and Recommendations

This chapter summarizes the conclusions and suggests areas in which A.I.D. could assist in overcoming the constraints to increasing Uganda's non-traditional agricultural exports. These constraints are broken down into the following categories: policy, information, credit, infrastructure, and investment. Issues which merit further study are also identified. Recommendations regarding the future role of agricultural parastatals in a liberalized agricultural marketing system are made in section 4.8.

4.1 Continuing the Policy Dialogue and Process of Liberalization

While many of the policy obstacles limiting exports of non-traditional agricultural commodities have been overcome, it is evident that the policy dialogue must continue, and pressure by donors be maintained to avoid backsliding and ensure proper implementation. The best example of the importance of this is the announcement just made by the Ministry of Commerce, Cooperatives and Marketing banning exports of maize, maize flour, beans, cassava flour, millet, sorghum, groundnuts, field peas, and rice "until further notice" (New Vision, Mar. 18, 1992). This move was justified as necessary to safeguard food stocks and avoid famine in the country, given this year's widespread drought.

There are several problems with attempting to ban exports. First of all, much of the food crossing the border is already exported without passing through border formalities. One of the goals of liberalization is to encourage informal traders to go through formal channels - banning exports, even for a short period, just encourages traders to do the opposite. Second, this measure increases the opportunities for rent-seeking behavior on the part of officials who will supposedly enforce this ban. Third, it limits earning opportunities for farmers and other marketing participants at a time when they desperately need the income. Fourth, it confuses market participants who just recently found out that food exports to Kenya are not illegal after all (although many still believe that it is illegal). This type of vacillation in Government policies is what makes implementation so difficult.

The article entitled "Maize Exports Cut" (New Vision, Mar. 16, 1992) also stated that the Permanent Secretary to the Ministry of Agriculture had also directed that only the Produce Marketing Board (PMB) should purchase produce from farmers. The problem with this is that the PMB currently has absolutely no funds with which to purchase maize. Unless this decree was coupled with a cash transfer to the PMB, it would be meaningless at best or crippling to farmers if enforced. This highlights the inherent dangers of PMB remaining a parastatal. It will continue to be subject to the whims of Government Ministers who feel that they have to "do something" to deal with a drought situation.

4.1.1 Other Policy Constraints

In terms of policies and regulations hindering their operations, the majority of respondents at all levels of the marketing chain said that recent policy changes had reduced

bureaucratic hurdles facing their businesses, and that things had gotten easier over the past year. Horticultural exporters, for example, had few or no complaints about government export regulations and procedures, and were all satisfied with the new export certificate process and the ease at which foreign exchange could be obtained. Similarly, cereals traders reported that procedures for getting licenses are no longer a constraint, and while some complained of high taxes, it did not appear that the cost of taxes or licenses was restricting entry at any level. Instead, the entry barriers most often cited were lack of access to capital for crop purchase, access to credit for investment in their business, ownership of assets such as storage facilities or trucks, and access to national market information (e.g., regional prices and supply and demand conditions) and international market intelligence (e.g., overseas buyers, price information, and quality requirements in overseas markets).

Recommendations regarding further policy reforms needed are identified in the following sections according to the major constraints in the order of importance identified by the marketing participants themselves.

4.2 Information Constraints

Access to information about domestic or foreign market opportunities, appropriate technologies, or economic conditions in general is limited at all levels of the marketing system. These problems worsen the further one moves from Kampala. There are almost no telephones in the district headquarters, let alone in rural trading centers. While the infrastructure, especially roads, is much improved from five years ago, the improvement is still only relative. A trader in an isolated rural area must physically go to Kampala to ascertain the supply and demand conditions for crops in other parts of the country.

Unfortunately, market competition alone will not give market participants the ability to acquire information and skills which are not locally available. Only the state can provide the resources needed to overcome some of the constraints faced by these individuals and small firms.

There are several ways in which A.I.D. may be able to assist the private sector in overcoming informational constraints, including the following:

- ◆ Investments in improvements to the communication network
- ◆ Dissemination of information on foreign market conditions¹⁹

¹⁹ Several commercial services will provide weekly price data for important export crops in major world markets on a timely basis for a fee. The International Trade Centre (ITC) of the UNDP provides such a service.

- ◆ Funding the establishment of a weekly radio farm broadcast of relevant market information to rural areas

The weekly radio broadcast could be set up as part of a more comprehensive marketing information system (MIS)²⁰. Designing and implementing an MIS to improve the performance of marketing systems has been the thrust of AMIS assignments in Kenya, Lesotho, and the Philippines. Lessons from the MIS development in Kenya would be particularly useful to the Uganda case.

The radio broadcast could also be set up as a pilot project. The steps involved in setting up a pilot project (i.e., a radio broadcast for farmers and traders) would be the following:

- ◆ Further specify participants' data needs, i.e., what kinds of information would be most important for producers, traders, etc.
- ◆ Examine the transaction levels at which price data could be obtained, commodity and geographic coverage provided by the various Ministries involved, and data collection and other technical issues that need to be addressed.
- ◆ Develop (with the radio station) a strategy for establishing a program that would broadcast the information deemed important by farmers and traders.

It may be useful to hire a consultant who has developed similar farm shows in other countries (perhaps someone with the BBC).

4.3 Credit/Finance Constraints

As mentioned throughout this paper, short-term working capital and term loans for long-term investments are sorely lacking at all levels of the NTE marketing system. The credit issue, however, is extremely complex and requires an in-depth examination that is beyond the scope of this study. It is clear though that the lack of formal credit results primarily from the underlying weakness of the banking system in general. Poor economic conditions and weak financial position of many banks, have forced the banks to consider lending only to the most creditworthy of applicants. NTE firms which are considered small-scale and high risk and often lack collateral do not fit into this category. Access to formal

²⁰ The Ministry of Commerce, Cooperatives, and Marketing recently began publishing weekly market prices in the daily newspaper. It would be useful to take a closer look at their plans for MIS, and how they fit in with the information needs identified in this study.

credit is also limited by inefficiency within the banking system. Four to six months can pass before loans are approved.

Mission efforts to improve the availability of credit, should be directed primarily toward exporters. As mentioned above, exporters are the key to the entire system: without exporters there would be little motivation for producers to grow export crops. Lending directly to the trader and producer level is risky, and recent programs that have attempted to do so have failed miserably (e.g., rural farmer scheme). Moreover, if loans can be made available to established exporters at a reasonable rate of interest, the benefits could pass on their suppliers (i.e., urban and rural traders) as well. Credit programs through commercial banks, however, must be very carefully designed and should include training for bank personnel. Few, if any loans under the previous export loan program were granted to horticultural exporters because of bankers' lack of understanding of horticultural trade.

More fundamentally, a primary contributor to the underlying weakness of the banking system, as in many other African countries, is a large government deficit. Hence, donor pressure to reduce the size of government by eliminating redundant jobs or divesting parastatals would also be beneficial to credit for exporters.

Informal lending is also surprisingly low in Uganda, particularly in rural areas. The relatively low degree of coordination and trust between market participants inhibits the amount of credit passed on from exporter to trader to farmer, for example. As information and communication constraints are overcome, and market participants develop more expertise in marketing, buyers will be more willing and/or able to provide credit to sellers.

4.4 Technology and Farm-Level Constraints

A primary constraint at the farm-level is the lack of access to improved seeds and information on new techniques. Thus, the technology issue is also basically an access to information problem. Although there exists an entire network of extension agents throughout the country, there is no evidence that they have ever been successful in extending relevant technologies to farmers (Brett 1992). While some argue that the reason for this is that they have not been given the resources to carry out their job effectively (e.g., a vehicle, money for gas, and a salary that provides sufficient incentives), it is doubtful that simply making these resources available will overcome all of the obstacles faced. For example, it is still very difficult to fire civil servants, and corruption is extremely entrenched. Since information is a nonexclusive good, it is difficult to envision a scheme that rewards extension agents according to performance. For example, if they are rewarded according to the number of farmers visited, it may encourage short, not necessarily useful, visits to as many farmers as possible. If they are paid for the ultimate result, i.e., increased production, there are many other factors affecting such an indicator, such as weather. Given the inherent risks of crop production, it would be difficult to make farmers pay for these services (as they would pay for a veterinarian, for example).

The typical extension "model" relies on many extension agents personally visiting and offering services to many farmers. Because information is such a scarce commodity in Uganda, another possible approach may be to focus on a few, well-trained agents (sometimes called subject matter specialists) extending information through other means, such as radio and written materials. Around 60 percent of the rural population can read and write in Uganda (Brett 1992), which is much higher than many other African countries. It is high enough that the payoffs for distributing written materials (e.g., one-page leaflets demonstrating specific farming techniques, or discussing a particular problem farmers are facing) are potentially high.

This would mean focusing money and training toward the top levels of the current extension service, and eliminating lower-level staff. It would also mean setting up a system that incorporates the proper incentives and accountability. It is important that information reach not only farmers, but also rural traders and other market participants. Everyone we talked to agreed that a weekly radio broadcast (focused at farmers and traders) giving market information would be extremely helpful.

It is difficult to make recommendations with respect to investments for improving services provided to producers, traders, and exporters of NTEs, because many of these services are public goods, best provided by the government, especially when it comes to research, development, and extension of new technologies. Given that USAID's goal is the promotion of the private sector, pouring money into the government would clearly send the wrong signal. However, until the size of government shrinks (which increased opportunities in the private sector should encourage), investment in government ministries is not recommended. Thus the policy recommendation in this area is to continue to encourage the GOU to decrease the number of extension agents and trade development officers, and better train and support those left in place.

An alternative would be to provide support to nongovernmental groups such as the Horticultural Exporter's Association of Uganda, and the Ugandan Horticultural Farmer's Association. The major cereals exporters were also in the process of forming an exporters association while the team was in Uganda. This is an area that requires further consideration, but the team feels it could be a worthwhile avenue for A.I.D. to pursue.

4.5 Infrastructure

4.5.1 Communication Infrastructure

Poor communication infrastructure was found to be a major constraint in many instances, raising marketing costs and decreasing efficiency. An area for further investigation by A.I.D. is in possible investments (or the encouragement of GOU investments) in improvements in the communications network.

4.5.2 On-farm Storage

Lack of on-farm storage limits small farmers' marketing options, and can cause them to harvest late (especially in the case of maize) since they are unable to properly dry the crop. This leads to large post-harvest losses estimated at 20 to 30 percent for grains and 30 to 40 percent for horticultural crops (Mr. Odogola, Prevention of Post-Harvest Loss Project, Kawanda Research Station, personal communication). FAO is starting up an ambitious on-farm storage project (based at Kawanda Research Station) aimed at disseminating low-cost, appropriate storage technologies to small farmers. They also expressed an interest in trying to reach traders with this information and providing technical assistance as well. It did not seem, however, that they have sufficient funds to undertake such a wide-ranging project. Since appropriate on-farm storage technologies have already been researched and developed, the authors feel that it would be beneficial for AID to fund a project aimed at the dissemination of appropriate on-farm storage technologies. It is recommended that A.I.D. look into this project in more detail and consider coordinating with other donors to ensure that it receives sufficient resources to be fully implemented.

4.5.3 Cold Storage Facilities

Several exporters mentioned the lack of cold storage facilities as a constraint. As discussed in Annex C, this is only partially true. Proper cooling of fresh produce after harvesting can improve product quality and maximize post-harvest life, however, the benefits of refrigeration are achieved only when the lower temperature obtained through refrigeration can be maintained throughout the entire marketing chain. Exposing produce cooled under refrigerated conditions to ambient tropical temperatures during packing and transport will lead to senescence and actually accelerate deterioration.

The authors feel that donor investment in a cold chain is unwarranted at this time. There are several other more binding constraints that should be addressed first. There are also other simple techniques for cooling produce that can be applied without much investment. See annex C.

4.5.4 Air Freight

The lack of scheduled direct flights to Europe is delaying the establishment of a steady growth in high-value horticultural produce. Reliable scheduled airfreight capacity, however, appears likely to increase in the not too distant future, and this will be the basis for expansion in high-value horticultural exports. Several donors have been supporting the development of Entebbe airport. As the physical condition of the airport and the investment climate in Uganda improve, the number of airlines coming into Entebbe will increase. The team therefore has no recommendations for interventions or further policy changes needed in this area.

4.5.5 Roads

Somewhat surprisingly, most respondents in the areas we visited did not cite poor roads as a major factor limiting the expansion of non-traditional exports (this was surprising because in most of the similar rapid appraisals undertaken in other African countries, poor roads were one of the first complaints participants had). However, due to time and security constraints, we were not able to visit northern or southern Uganda, and thus are unable to make any such conclusions regarding these regions. We heard no complaints that commodities were not getting to market from rural production areas. In one isolated maize-producing area visited (Kamwenge), traders complained about bad roads forcing them to use the railway which was slower, but also much cheaper²¹.

Many respondents complained about the high cost of transportation, and as infrastructural improvements are made, these costs should decrease. No complaints of extreme shortages of vehicles or monopoly rents being extracted by transporters were made²². Since A.I.D. and other donors are already involved in road construction projects, the authors have no recommendations regarding further investments in this area, although an interesting area for further research would be to examine the costs of shipping cereals from Uganda to neighboring countries, since prospects for increasing cereals exports to the PTA countries are encouraging, but hinge on the reliability and cost of transport.

4.6 Investment Constraints

Given the shortages of investment capital and lack of technical expertise and international marketing experience, attracting foreign investors to help establish new export businesses in partnership or joint venture with Ugandan entrepreneurs is desirable, and donors have a potential role to play in this regard. Uganda has made significant progress in the area of policy reform and is making progress on infrastructural rehabilitation (especially roads), thus creating a much more conducive environment for potential investors. A.I.D. could play an important role in identifying such potential investors, and providing information to them. Providing Ugandan entrepreneurs with information about and getting them in contact with potential investors (e.g., sending Ugandan businessmen to Europe) would also be important starts toward building long-term export relationships. Continued liberalization is also important for removing foreign investor's fears of backsliding. Since export promotion and building communication links between Ugandan and European

²¹ It cost 300,000 Shs to transport 10 tons of maize by lorry from Kamwenge to Kampala, compared to 130,000 Shs by rail.

²² This was the case in Zimbabwe and Ethiopia, for example, due to severe controls on access to foreign exchange to import new vehicles and spare parts.

entrepreneurs is one of the approaches being taken by EPADU, AID should continue to support such activities.

4.7 Institutional Changes Needed: Linking EPADU and UEPC

As mentioned above, market information is perhaps the primary constraint to the development of non-traditional exports. Yet the identification of export opportunities, potential foreign buyers, provision of market information, and export training are currently within the mandates of two very separate institutions, the UEPC and EPADU. Further, a link between the two institutions does not exist. As a result, there is much duplication of effort and consequently significant resources are being wasted.

It would clearly be sensible to combine the two institutions under one roof and eliminate duplication of effort. Benefits could best be maximized if EPADU, as primarily a policy analysis unit, would concentrate on policy issues (including the monitoring of the implementation of policy changes), while UEPC be given full responsibility for trade promotion activities. Combining the two within one institutional home with a single supervisor may be necessary to ensure that their efforts are well coordinated. In this area the authors are in agreement with EPADU's own recommendations on future institutional arrangements for furthering the process of export-oriented development.

4.8 Recommendations Regarding Agricultural Parastatals

Two policy options were discussed regarding the future role of agricultural parastatals in section 2.4 - restructuring PMB versus full divestiture.

If the Government adopts the policy option of restructuring PMB organizationally and financially with a view toward trader/exporter equity participation as soon as PMB is profitable, possible areas of donor assistance include the following:

- ◆ **Crop finance:** the World Bank is formulating an Export Diversification Project which would include some credit support
- ◆ **Technical assistance :** DANIDA is already providing a technical expert to PMB and may consider an additional one, which would still provide an inadequate level of support
- ◆ **Training of parastatal staff** in all management skills, but particularly marketing
- ◆ **Studies to delineate more clearly the options open to government in furthering the liberalization process, with recommendations on an optimum strategy for PMB and Food & Beverages**

If, on the other hand, the course of action chosen is the divestiture of PMB's assets to the private sector as soon as possible, either by direct sale or leasing, clearly the scope for donor assistance would be minor, although some support could be provided in areas such as asset valuation.

Annex A

Overview of Public Institutions Involved in NTEs¹

There are a number of public institutions which regulate or support the producer and exporter. Most are under-funded and unable to perform their role satisfactorily.

At farm level, the principal institution with the responsibility of supporting non-traditional export performance is the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). Some sections of the Ministry are relatively ineffective due to lack of resources, whereas the Development of Horticulture Industry Project located at Kawanda Research Station appears to be having an impact in motivating farmers and providing planting material of cultivars suitable for export.

A.1 The Agricultural and Horticultural Extension Service

The extension service in Uganda has been very weak due to lack of funds which has seriously affected the motivation of the officers and their mobility. Some producers of horticultural crops for export reported that they had little help or guidance from the extension service, although some of the more progressive, larger farmers had attended seminars conducted by the Development of Horticulture Industry Project. These larger farmers were also able to visit the extension officers to seek advice. The chairman of the Uganda Horticultural Farmer's Association (UHFA) also reported that members had benefitted from seminars held by the Uganda Horticulture Development Project and that the knowledge gained there was diffused by demonstration among other growers.

As far as marketing has been concerned, the MAAIF has tended to leave this to the Ministry of Commerce, Cooperatives and Marketing (MCCM). Recently, however, there has been a realization in the MAAIF that extension should include marketing advice as well as production assistance. To address this, a Marketing Section of the Production Division of the Department of Agriculture is being created at MAAIF. Initially this is to be headed by an officer who has been seconded to the Uganda Export Promotion Council (UEPC) for a year and has therefore participated in analyzing export market data. He will have an assistant and additional staff in due course. A further MAAIF officer has now been seconded to UEPC. The main objectives of the Marketing Section are to:

- ◆ establish a data base on demand, supply and market prices and trends for various agricultural produce and products;
- ◆ advise producers, buyers and agricultural field staff on prospects on internal and external markets to assist in marketing and crop planning decisions;

¹ This section was written by Reginald King.

- ◆ establish and maintain working relationships with Ugandan embassies abroad with a view to establishing new markets and expanding old ones;
- ◆ communicate with the producers, traders and agricultural staff through regular publications and training programs;
- ◆ carry out market research on agricultural produce and products providing feed-back to production researchers; and
- ◆ liaise with Government and Non-Government Organizations in all matters relating to agricultural marketing.

A.2 The Development of Horticulture Industry Project

This project is based at Kawanda and serves the horticultural industry which has been largely neglected by the Ministry of Agriculture. The project is strengthening the research capability of MAAIF in horticulture through adaptive research. Programs for selection of local cultivars and the selection of suitable exotic varieties are being conducted. Varieties being screened at the request of exporters include asparagus and green beans. Varieties of fruits and vegetables suitable for processing are also being tested for their suitability under Ugandan conditions, e.g. tomatoes.

Production of fruit has traditionally not been in organized orchards but is very scattered in Uganda. The project is encouraging more rational and efficient nursery production, again with selections from indigenous and introduced varieties.

Demonstration plots are being developed and seminars conducted in the provinces because the university and the agricultural colleges have done very limited work on horticultural crops. Nurseries are being developed at district farm institutes where farmers attend courses and obtain planting materials.

Post-harvest handling is an area which is also being developed. Economic considerations of the industry are beginning to receive more attention. At the production level an attempt is being made to improve the horticultural statistics base. At the marketing level, data on the seasonality of demand is being collected in order to give some guidance in crop planning.

The project attempts to maintain links with the export promotion bodies - UEPC and EPADU - through the Project Steering Committee which has representatives from each organization. It has also assisted the Ugandan Horticultural Farmer's Association through the loan of a motorcycle, believing strongly that such associations should be encouraged. Similarly, a motorcycle has been loaned to the officer who is heading the new Marketing Section in MAAIF so that he can maintain liaison with UEPC and MAAIF at Entebbe where he is based, and the Horticultural Development Project at Kawanda.

A.3 Phytosanitary Control

Phytosanitary control is a service of MAAIF. The inspectors are headquartered at Kawanda with an office at Entebbe. An officer travels to Entebbe to deal with consignments as required. This is a temporary arrangement as the inspector who was previously assigned to Entebbe and who resided there is overseas. Currently, with the small number of carriers, this is not a serious problem.

A.4 The Agricultural Chemical Control Board

This organization is in the process of being created and is clearly necessary in a country with aspirations to increase NTEs in the face of stricter and stricter regulations in the target markets.

A.5 The Ministry of Commerce, Cooperatives and Marketing (MCCM)

The MCCM is responsible for export licensing and is the line ministry for three organizations which influence, or potentially will influence, horticultural exporting. These organizations are the Uganda Export Promotion Council (UEPC), the newly created Uganda National Bureau of Standards (UNBS), and the Weights and Measures Commission.

A.6 The Trade Development Department

This department has a network of Trade Development officers at regional, district and county levels. The role of the Trade Development staff is to:

- ◆ enforce policy and regulations regarding trade, such as licensing wholesalers and retailers and issue export certificates or border export licenses;
- ◆ run training courses on business management in subjects such as simple book-keeping, cash flow assessment and simple analysis;
- ◆ assist lending institutions in assessing the credit worthiness of potential clients and the prospects for proposed schemes;
- ◆ review the effect of policy at field level and report back to head-quarters; and
- ◆ report on an *ad hoc* basis the market situation facing particular commodities, e.g. supply and price.

This department, in common with many others, operates under severe constraints given their limited means and the difficulties of communicating with the parent department in

Kampala. Thus the staff themselves receive very limited training and, in their turn, are not able to fulfill their training role in the provinces except to offer advice on an individual basis.

All staff at regional and district Trade Development officer level are university graduates in economics, commerce or statistics; their assistants are not all graduates but are holders of at least a diploma in marketing. County level staff are educated to 'A' or 'O' level.

A.7 The Ugandan Export Promotion Council (UEPC)

The UEPC has had a checkered history. It had its genesis in the 1960s and establishment in 1969 following which it operated for only two years and then collapsed. The Council was then officially established by an Act of Parliament in 1983. A short-lived attempt at operation was made in 1985, then in 1986 the UEPC actually started continuous operation. It has been described as largely ineffectual and due to lack of resources has had extreme difficulty in meeting any of its objectives. Currently neither the telephone nor telex work and there is only one car which is operational. A further handicap perceived by UEPC are their close links with a bureaucracy whose priorities are frequently not those dictated by commercial considerations or in the best interests of exporters.

The UEPC stated program for promoting exports includes:

- ◆ organization of Ugandan participation in external trade fairs;
- ◆ training for exporters;
- ◆ development of trade information centers for exporters;
- ◆ identification and research of potential export markets;
- ◆ research and analysis of the supply situation in Uganda;
- ◆ linkages with other trade promotion units; and
- ◆ participation in trade delegations abroad and discussions with visiting delegations.

The UEPC has participated in 15 overseas trade fairs in the last five to six years. These have had much impact for a variety of reasons, most of which are due to lack of funds. However, in some cases the UEPC does receive assistance from outside donors such as EEC and the Netherlands based Center for Promotion of Imports from Developing Countries (CBI).

The UEPC is part of the computerized PTA Trade Information Network (TINET). In addition, it receives U.K. fruit and vegetable price information through the Fresh Produce

Journal, and these data are computerized and analyzed by the UEPC staff. The UEPC has links with the U.K.- based Developing Countries Trade Agency (DECTA) and the CBI. Both of these agencies will assist, *inter alia*, in establishing links with potential importers by the providing a printed database of names of importers, arranging appointments for exporters visiting the importing countries, supplying market prospect digest from other countries supplying the European market, and maintaining contact with the Developing Country' Diplomatic Officers resident in Europe.

Due to lack of funds the UEPC has not been able to subscribe to all the data sources that it would have liked. However, the UEPC has recently received some assistance in the form of International Trade Center (ITC) support. Most of the \$600,000 funding is in the form of technical assistance. The support will also enable the UEPC to enhance its market information data base and its dissemination. Improved data and analytic capability is expected to improve services offered to exporters.

In the horticultural field UEPC serves as the registered office of the UHFA and attempts to maintain a liaison between that organization and the Horticultural Exporter's Association of Uganda (HEAU). UEPC feels that if they had the means they could offer a base and professional assistance to other associations of producers, manufacturers and exporters. This would enable these organizations to improve their services to their members and act as a forum for intercourse.

A.8 The Uganda National Bureau of Standards (UNBS)

The UNBS was created about three years ago. It is charged with creation of standards and quality control. In the field of agriculture it has drafted standards for pineapples and avocados and these are currently at the public review stage. Their ratification is expected sometime this year.

Inspection to ensure conformity to standards in all fields is limited at present by lack of staff. It is expected that the current staff of six professionals will be augmented to fourteen in the near future.

A Uganda quality mark will be devised following which the UNBS will be in a position to grade and certify. Currently the UNBS does not have the capability to test products for quality or health standards such as pesticide residues in agricultural products.

Financial support for UNBS establishment is being received under a UNDP funded project which will enable it to prepare premises and recruit suitable staff. The longer term aim, however, is for funding be made available for the creation of a system of foodstuffs control throughout the marketing chain from producer to consumer. This would entail training staff from the MAAIF, the Ministry of Health, Customs and Excise, as well as the UNBS staff.

Up-to-date foods standards legislation and the means to police it would have major national health benefits but would also ensure that the quality of exported goods was in conformity with modern food standards.

A.9 Weights and Measures Commission

The Weights and Measures Commission is responsible for verification of weighing machines and the weights of goods offered for sale. In Uganda many goods are offered for sale by volume and, while this is seen as traditional and acceptable, the Commission would like to standardize measures. It currently is unable to embark on such a program, however, since the Commission covers the entire country from Kampala and four regional offices. As with many public services, the Commission is very short of resources which limits its ability to conduct the number of inspections it feels should be done.

The Commission is responsible for labelling rules for boxed produce. Containers should bear labels indicating the contents, the net weight of the contents, the name of the packer or manufacturer, and the address of the packer. Currently these rules do not always appear to be observed.

A.10 Export Policy Analysis and Development Unit (EPADU)

The Export Policy Analysis and Development Unit (EPADU) was created under the responsibility of the Ministry of Plan and Economic Development (MPED) in 1988.

EPADU is the executing agency responsible for policy analysis and development related to export diversification under USAID's Agricultural Non-traditional Exports Promotion Program (ANEPP). The main thrust of EPADU's work concerns policy analysis. However, it has recently broadened its activities into trade development functions as it was judged that there was no other effective agency to carry out such work. Trade development seminars have been conducted; an Operational Constraints Analysis Program has been initiated to identify promising export-orientated enterprises; an Exporters Handbook has been published; and a produce inspection service based in London and other major northern European trading centers is in the course of being established. This latter service will be executed through a sub-contract with a U.K. based consulting firm. Consultants capable of inspecting quality of produce subject to dispute between buyer and seller in markets in the U.K., the Netherlands and Germany will be retained. They will also verify that prices being received are reasonable in a given market. Furthermore, the consultants will be in a position to comment on the reputation of an importer and to seek market outlets for produce.

Data collection activities of EPADU have mainly been confined to export data from the Customs Department for policy analysis needs. This is being further refined to encompass data on an individual exporter and monthly basis.

It is proposed that in the second phase of the project EPADU will collect overseas market data and disseminate the results of analyses of these data to policy formulators and

decision makers as well as to exporters. A further development in the second phase of the ANEPP project would be the creation of a post-harvest crop handling advisory capability. It is envisaged that a consultant will be employed who will advise exporters on handling and packaging. The service would be advertised and suitable potential exporters assisted. It is envisaged that the candidates would be larger-scale farmers or investors. Involvement of the MAAIF is not anticipated.

A.11 Civil Aviation Authority (CAA)

Clearly, exporting perishable horticultural products from a land-locked country implies air transport in most cases. Whereas responsibility for air transport and Entebbe airport was formerly divided among the Ministries of Finance, Transport and Works the system has now been rationalized and a Civil Aviation Authority (CAA) created.

The CAA was created in July 1991 as a fully government-owned corporate body whose mandate is to act as a regulatory body and to manage the country's airports. Its current aim is to return Entebbe airport to its former status and make it profitable. Formerly different functions of the airport were controlled by three ministries, but with the creation of the CAA and assistance from nine experts provided by the International Civil Aviation Organization, the target is a three year turnaround.

Currently there are considerable deficiencies in the state of the airport at all levels. The runway and apron are in need of repair, the terminal building needs rehabilitating, the airport is insecure, temperature controlled storage is inadequate and handling equipment is deficient.

Rehabilitation work on the terminal building is to begin shortly and funding has been obtained for navigational aids. Although the CAA considers the renovation of the runway and apron as high priority since this is the main impediment to International CAA safety clearance, funding has not yet been approved for this. There are currently two temperature controlled stores through which imports and exports are handled. The CAA hopes to renovate another two in the near future. The upgrading of handling facilities will probably await an increase in air traffic.

The question of handling is one which is of considerable importance to the fresh fruit and vegetable trade. Currently Ugandan Airlines has a monopoly on handling and the service it provides is not good. As mentioned above, the equipment is barely adequate and the motivation of the staff not considered very high. The current handling charge of \$2,160 per flight is considered high by SABENA staff, particularly since SABENA then pays an extra incentive fee to the handlers themselves.

A.12 Customs and Excise Service

SABENA staff consider Customs to be a major bottleneck since clearance takes so long. It is felt that the service should be sensitized to the needs of the nation in exporting and the particular needs of fruits and vegetables. As the SABENA operations manager pointed out, a plane arriving at the cargo facility in Brussels airport is discharged and has cleared Customs in one hour. It currently takes at least 6 hours at Entebbe.

A.13 Members' Associations

1. Uganda National Chamber of Commerce and Industry (UNCCI)

The Uganda National Chamber of Commerce and Industry represents businessmen and has branches throughout the country. Its headquarters are in Kampala where it has a small staff and limited facilities. It, together with the Uganda Manufacturers Association (UMA), has been the subject of a UNDP funded project whose objectives were the establishment and operation of an information system in both of these organizations, some training of counterpart staff at the United Nations Industrial Development Organization in Vienna, and the preparation and promotion of investment profiles. A further objective was to strengthen the promotional and information activities of the UNCCI. One circular issued by the UNCCI dated July 1991 was seen in Iganga at the offices of the Trade Development Officer and apparently a further issue was made in October 1991. Since then the non-availability of stationery has prevented further issues. There appear to have been several delays to the execution of the project and therefore to the achievement of its objectives. At the present time the UNCCI does not appear to offer much prospect of assistance to those engaged in non-traditional exports.

2. Horticultural Exporters Association of Uganda (HEAU)

Exporters were encouraged to form an association by the Ministry of Commerce with the principal aim of obtaining more information regarding foreign markets. The exporters assembled and created a constitution and guidelines for the association's operations in 1989. The association was officially established in 1990 with the following goals:

- ◆ create a common front to Government particularly as regards foreign exchange rules as they applied at the time;
- ◆ to deal with the airlines, especially regarding reliability and freight rate changes;
- ◆ to project the interests of the exporter in relation to some producers who were felt to be playing one exporter against another;
- ◆ to try to solve packaging difficulties with bulk buying schemes and changes in the tax regime regarding packaging and packaging materials imports.

The membership fee is about \$10 per year and currently membership is claimed to be about 75. In addition there are some 45 farmer members. Exporters found they had to organize out-growers and coordinate with them, and so they were made members of the association.

3. Uganda Horticultural Farmer's Association (UHFA)

This organization is a federation of District Horticultural Farmer's Associations plus some independent farmers who are involved in horticulture. This association was created in 1989 with the following objectives:

- ◆ represent members to the authorities;
- ◆ negotiate with buyers where necessary;
- ◆ obtain technical assistance;
- ◆ purchase farm inputs; and
- ◆ investigate processing possibilities.

The main points of contact are with the MAAIF, principally through the Development of the Horticulture Industry Project at Kawanda, and the UEPC, whose office is the registered office of the UHFA. The major problems facing growers, according to their chairman, was the cost and availability of suitable and affordable horticultural inputs such as good seeds of the right varieties, fertilizers and spray chemicals. The UHFA investigated the benefits which might be gained by becoming affiliated to the cooperative movement but the majority of members did not find the cooperative rules acceptable.

There is also a network of horticultural associations sponsored by the MAAIF. The District Horticultural Associations are affiliated to the national association.

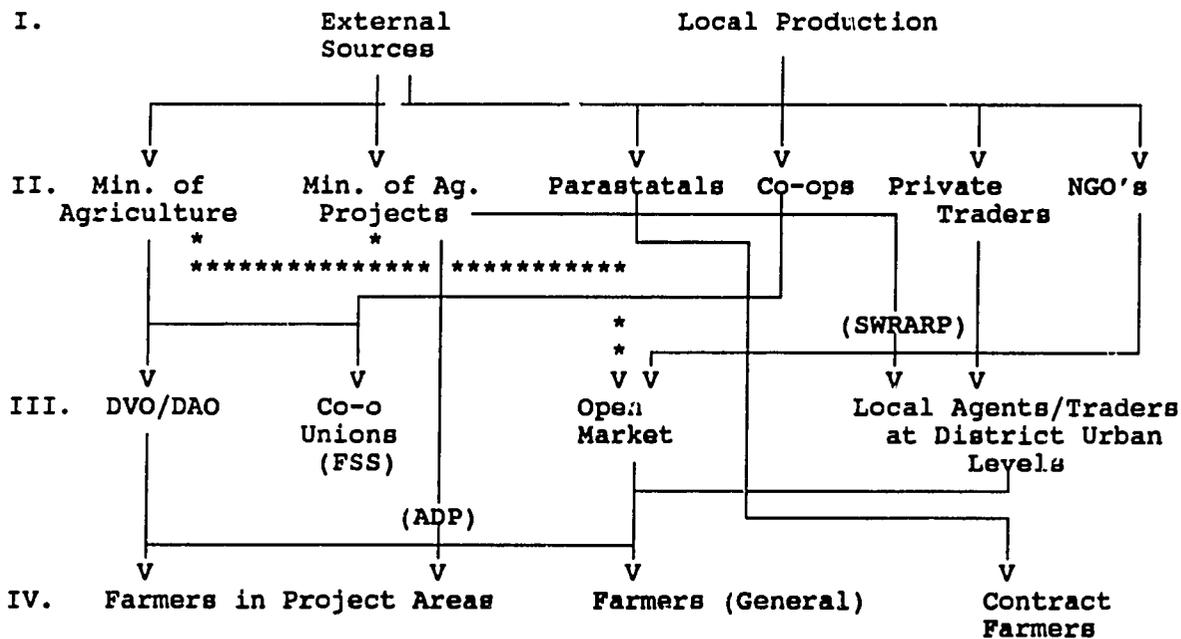
Annex B

The Structure of Input Marketing¹

Agricultural inputs are both imported and locally manufactured. Maize, bean, and groundnut seeds are produced locally, as well as basic farm inputs including hoes, fencing materials, fishnets, stockfeeds, and day-old chicks. Recent studies by the Agricultural Secretariat at the Bank of Uganda reveal increased importance of local agricultural input production for the years 1990 and 1991.

Imported inputs include pesticides, herbicides, fertilizers, and animal drugs, as well as seeds and basic farm tools (supplementing local production). Figure B.1 illustrates the structure of the agricultural input marketing system and how farm inputs reach the farmer. Four levels can be distinguished within the input marketing chain.

Figure B. 1 Structure of Input Marketing



Where: ———> Indicates direction of input flow
 *****> Indicates leakage from intended channels

¹ This section was written by John Bosco Iyadema Sezi, an agricultural economist with the Produce Marketing Board.

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Level I - External Sources/Local Production

Major local firms producing agricultural inputs include Chillington, LIGMA, Sembule, Uganda Feeds Ltd., and Fishnets. External sources of inputs are mainly European multinational firms producing pesticides, herbicides, animal drugs, and farm equipment. Some companies have representatives resident in Uganda. These include Shell Ltd., Cooper Ltd., Ciba Geigy, Twiga Chemical Industries, Pfizer Ltd., Wellcome Ltd., Gailey and Roberts, and General Machinery Ltd. Some inputs, such as hybrid maize seeds and fertilizer, are being imported primarily from Kenya.

Level 2 - Importers

Major input importers are the Ugandan Government through the Ministry of Agriculture, Animal Husbandry and Fisheries (MOAAIF), parastatals and large-scale farms, cooperatives, private traders, and non-governmental organizations.

Government involvement in importing agricultural inputs is still very high. In 1983, GOU was responsible for 55% of total agricultural input imports. It handled about 71% of total agricultural chemicals imported in 1986. In 1990 GOU imported 66.5% of all agricultural inputs, although this fell to 52% in 1991 (see Table B.2). Imports by private firms increased from 32.1% to 43.5% from 1990 to 1991.

Table B.2 Percentage of Agricultural Inputs Imported by Various Agencies

Agency	1990	1991
Government (MOAAIF)	19.5%	24.6%
Government Projects	19.6%	0
Parastatals	27.4%	27.4%
Cooperatives	0.8%	1.6%
Private Firms	32.1%	43.5%
NGOs	0.6%	2.9%
Total	100.0%	100.0%

Source: Inputs Status and Projections for 1991/92 and 1993/94 - Agricultural Secretariat, Bank of Uganda.

There is a potentially larger role for multinational chemical firms to play in agricultural input distribution. While the MOAAIF's Agricultural Development Project (ADP) insists on supplying inputs directly to farmers, its South Western Rural Agricultural Rehabilitation Project (SWRARP) utilizes private traders to distribute inputs.

According to officials within the Bank of Uganda, private sector participation in input marketing is limited by lack of capacity to raise local cover for their foreign exchange requirements. This is supported by the unutilized ASAC funds available for inputs importation. Procedures for obtaining trading licenses, import documents, and foreign exchange has been tremendously eased, encouraged competition in the trade. However, the current interest rates charged by commercial banks on loans and overdrafts are still too high for would-be importers using bank credits.

Level 3 - Input Distributors at District Levels

1. Cooperative farm supply shops are owned by district cooperative unions who usually fund them directly, although they can also obtain credit through the Uganda Cooperative Central Union. They receive their supplies from Importing Cooperatives (mainly UCCU). They are best suited for handling pesticides and herbicides as their employees have more on-the-job training than the parallel private sector. They handle a wide range of items including basic farm tools, pesticides, and seeds. Cooperative unions usually distribute inputs to cotton and tobacco farmers.

2. Private traders are fewer in number and operate with minimum knowledge about the proper use of agricultural chemicals. They get most of their supplies from the open market (e.g. KIKUBO in Kampala), UCCU, private importers, and government imports. Most traders have to travel to Kampala in order to replenish their stocks. They have a limited capital base, and limited access to credit. In most cases, however, their inputs are cheaper than those sold through farm supply shops because they access subsidized inputs from government officials.

3. District veterinary officers receive inputs imported by MOAAIF and re-sell them to farmers. Since these inputs are subsidized, and cheaper than those sold on the open market, they usually end up there or in farm supply shops. Most farmers therefore end up paying open market prices which many cannot afford. Some of these inputs also find their way into neighboring countries.

Level 4 - Farm Level Distribution

Farmers have been broken down into three groups: contract farmers for parastatals and other large farming institutions, farmers within specific project areas (such as ADP or SWRARP), and all others.

The first group has easy access to inputs from their parent organizations. They usually get these inputs on credit, to be paid upon output delivery to the parastatal, which is the only outlet available to them. This distribution chain applies to the sugar, tea, and tobacco parastatals.

Farmers within specific project areas have access to subsidized inputs from International donors. Inputs are tied to particular project programs which may not necessarily cover any other inputs they require. Thus they sometimes supplement their supplies by purchasing from the open market and farm supply shops at the district level.

Small, independent farmers get their supplies from local private traders at the district level or farm supply shops.

Constraints Limiting the Performance of Input Marketing

Interviews with cereals producers in Western and Eastern Uganda revealed that they were not using agricultural chemicals and fertilizers mainly because farmers felt they were too expensive and unnecessary. They did complain of lack of availability of hybrid seeds at affordable prices, and lack of access to credit. The current price of hybrid maize is Shs 260/kg². In 1990, PMB bought hybrid maize seed from Masindi, and ended up exporting it through a barter deal with Yugoslavia because they were unable to sell it to farmers in Uganda.

In the specific case of maize, seeds used by producers in parts of Eastern Uganda (Mbale and Kapchorwa) are coming from Kenya. The suppliers of these seeds bring them along with other commodities, and smuggle maize across into Kenya in exchange for the seeds.

We were told that maize seed varieties developed at Masindi (Uganda seed project) do not do well in most parts of the country. Thus many farmers have opted to use their own seed, which has led to continuously declining yields. Sesame yields and quality have also suffered from farmers using their own seed. In Lira, APAC, Gulu, and Kitgum, PMB found that the white seed content of the sesame they purchased decreased from 98% in 1989 to 92% in the 1991/92 season.

² Hybrid maize seed is produced through MOAIF's Uganda Seed Project in Masindi and sold at Kawanda Research Station.

Annex C

Post-Harvest Issues¹

Introduction

Poor post-harvest practices are a major contributor to reduction in produce quality and shelf-life. These losses occur mainly in harvesting, handling, storage and transporting the crops. In developing countries post-harvest loss level of perishable horticultural products may reach 30% or more. These losses regrettably represent a comparable waste of land, inputs and labor used to produce the lost food.

Consumers in export markets demand higher and more consistent quality in fruits and vegetables. In order to establish themselves in these markets Ugandan exporters and producers will have to meet these standards. Increasing emphasis will have to be placed on crop quality during marketing. The need for applying appropriate and advanced post-harvest technology during crop harvesting, handling, transport, grading, packing, storage must be communicated to exporters and farmers alike.

Main Findings and Conclusions

Export Crops and Quantities

Currently there are about four active exporters sending a product mix of Asian-type vegetables and other produce such as okra, squash (dudhi), long green chilies, raw mangoes, eggplant (aubergine), turia, plantain (matooke), apple bananas, sweet potatoes, yams and avocados to the U.K. market via Entebbe airport.

Produce is sent twice a week and export quantities range from 2-4 tones/week for the small exporters and 8-10 tones/week for the two larger shippers. One small exporter is, however, shipping to Scandinavia (1 ton/fortnight). Whereas the other products have a good local demand the local market for the Asian vegetables mainly okra, eggplants and chilies is very thin.

There is an association of twenty-five exporters in Tororo exporting about 40 tones of Cavendish bananas to Kenya (Nakuru) via Malaba. Each member of the association is allowed to ship only 40 tones of bananas twice a month across the border. This is done to control the supply of produce crossing the border and so reduce price fluctuations. However, a nearly equal quantity of bananas is sent every day to Kenya on small carts by many small traders. The bananas are bought from small farmers in the Mbale district.

¹ This annex was written by Constance Owori, a post-harvest handling specialist working at Kawanda research station.

The exporters to the U.K. market grow most of the Asian type vegetables (70%) that they send. The rest is obtained from selected outgrowers. One small exporter has 5 acres of chilies and supplies other exporters during the peak production season.

Seed and pesticides are supplied to some of his outgrowers by one exporter. The exporters may only give cash advances to the outgrowers to carry out their production. Cultivation is not supervised by the exporters and production is not on a systematic planned approach.

No artificial fertilizers, heavy mulching nor irrigation is practiced on the farms although this would improve both the soil fertility and water availability during production, especially in the dry season. These factors have greatly contributed to fluctuating yields and quality of the crops. In the dry and hot months, exporters find it difficult to get adequate quantities of crops to export. Adequate moisture during production not only affects the yield and quality of the crop but it also makes harvesting easier and post-harvest life of produce is maximized.

Exporters have realized the importance of adequate moisture during production and some of them are planning to set up irrigation systems on their farms to improve water availability. Water conservation and drainage would, however, be better achieved if heavy mulching using coffee husks or grass on raised beds were practiced in addition to irrigation.

These practices would need to be adopted too by the selected outgrowers. A more planned approach to production and better supervision and management by the exporter would help to avoid variation in production and exportable quantities.

Harvesting and the Post-harvest Situation

Harvesting

Harvesting is done by hand, usually into baskets of various sizes. It starts early in the morning when the temperatures are relatively low when the dew is off the crop. The crop at this time is also cool and fresh. However, most harvesting continues until early afternoon by which time temperatures are high, the crop gets heated up in the field and is no longer fresh. Also during the hot dry season, which is actually the main export season, it becomes hot quite early and early harvesting often does not result in cool fresh crops. No steps are taken to cool produce immediately after harvest on the hot days. Some farmers however, start harvesting in the evening when it is cool and can continue harvesting in the early night with the assistance of lamp-light. Crops are harvested twice a week and the farmers understand the importance of careful handling during harvesting. Over-mature or badly damaged crop is left to rot in the field. Passion fruit are not harvested from the vine but are collected from the ground in the morning and evening after they have fallen to the ground. This results in fruit which are over-ripe and bruised.

In the absence of cooling facilities, exporters could still plan their harvesting much more efficiently. Crops harvested on hot days when temperatures can be as high as 40°C. accumulate field heat. This increases the respiration and transpiration rates resulting in loss of weight, wilting, discoloration and reduced shelf-life. During hot dry periods, harvesting may be organized in the evenings only when it is relatively cool and wooden crates and baskets may be deliberately sprayed with water to assist in cooling produce by evaporation of the added water.

Most exporters appreciate that fresh produce should be cooled as soon as possible after harvesting to remove field heat and reduce respiration rates so as to maintain produce quality and maximize post-harvest life. Cooling produce by refrigeration, however, is only beneficial when a cold chain can be maintained during transport, temporary storage and marketing of the produce. Exposing produce cooled under refrigerated conditions to ambient tropical temperatures during packing and transport certainly leads to rapid absorption of heat thus increasing senescence and losses. However, simple practices such as packing under well ventilated shade can be used to keep produce cooler and fresh.

Harvesting needs to be done as fast as possible with minimal damage and at minimal cost. This requires the use of enough laborers who are well trained in proper harvesting methods.

If good quality passion fruits are to be exported in adequate quantities, exporters and farmers need to know the optimum harvest maturity of the crop and then plan careful harvesting from the vines instead of picking them from the ground.

Handling

Exporters and farmers should be aware of the need for careful handling of produce at all stages of the marketing chain. However, produce was seen being carelessly thrown during unloading of trucks.

Bananas sustain mechanical injury when thrown roughly, while vegetables may get impact bruising caused by dropping of packages. These injuries certainly are a cause of quality deterioration of produce by the time it reaches the export market.

Quality could be greatly improved by better supervision and management of labor and by reducing handling to a minimum.

Grading and Packing

Currently produce is not graded by specification but merely sorted to ensure a degree of uniformity. Grade standards are being developed for certain products by the Uganda National Bureau of Standards (UNBS) in conjunction with the industry.

Exporters distribute packaging materials to outgrowers who sort and pack the produce in cartons under some shade at their farms. The outgrower may deliver the produce to

the exporters packhouse premises if transport is available, but more usually the exporters themselves collect the produce and take it to their packing premises where further sorting is done.

One exporter who produces all the Asian vegetables that he exports has a temporary pole and polyethylene roofing packhouse structure at the end of his farm. There is no packing or grading facility in the structure. The packaging boxes are simply put on the floor and produce from the harvest container is selected according to size and stage of maturity, and then poured and packed into the boxes to a standard weight. The rejected produce is consumed directly by the exporter unless it is over mature or infested in which case it is thrown into the field and left to rot there for soil fertility improvement.

Field packing has several advantages. It reduces the problem of waste disposal, increases the volume of produce carried from the garden at a time and reduces multiple handling.

However, packing produce from the earth floor is not appropriate. The packaging boxes get dirty and produce may get soiled. It also takes a long time, particularly when large volumes of produce have to be packed.

The exporters could improve on their grading and packing operations by installing grading tables in the temporary structures.

Permanent packhouses may, however, be necessary if larger volumes of produce are to be handled when a higher throughput is needed. The packhouses would need to be designed in such a way as to accommodate operations such as retrieval, washing, grading, packing, checking, loading, and temporary storage of produce. They would also require to be cool, well ventilated and well lit.

The cavendish bananas exported to Kenya is not packaged at all. Bunches of bananas are put directly onto hired trucks immediately after harvesting. The small banana traders who use carts, de-hand the bananas before loading. Bulk stacking, rough handling and exposure of bananas to direct heat during transportation leads to over-heating and physical damage which lowers the quality of the bananas.

Transport

Exporters sending produce to the U.K. market use pick-ups and closed vans to transport fresh produce from their packing premises to the airport. Packages are stacked tightly onto the vehicles to ensure their stability and economy of space and they are protected with a tarpaulin from direct sunlight. The stacking, however, does not permit sufficient air movement to enable the removal of respiratory heat. Tight stacks which have great stability are only satisfactory for short periods during which self-heating by respiration will not be a problem.

The major roads leading to the city and the airport are in good condition. However, the feeder roads from the packing premises of one of the exporters is in poor condition. This leads to delays during transport, respiratory heat build-up and cause wilting of soft vegetables such as chilies and okra. Impact shocks as the vehicle navigates the pot-holes also causes bruising to produce such as apple bananas, which are very susceptible to this kind of damage.

The tight stacks with inadequate air movement around the produce is therefore not satisfactory for long distances and untimely departure of vehicles. This may be one of the factors leading to quality deterioration and spoilage of produce on arrival at the export destination, or even before.

Airport Facilities and Operation

There are four refrigerated stores at Entebbe but only two of them are functional. Temperatures are maintained at 18°C. but control is inadequate with great fluctuations. Humidity is not controlled and ventilation is not provided.

Placing produce in stores with such conditions would only lead to greater moisture loss and more rapid physiological deterioration. Clearly such stores are not suitable for fresh produce storage and are currently being used only for fresh fish storage.

Fruits and vegetables received at the airport first go through phytosanitary inspection to safeguard produce standards from the point of view of disease and infestation. One exporter has employed two Asians who further inspect his produce for quality assurance. The produce is then weighed and loaded onto pallets which are held in the warehouse with other goods.

The warehouse is closed all round with no ventilation and temperatures are not controlled. Clearly the warehouse is inappropriate for fresh produce. There is therefore ample justification for the construction of new cold storage specifically suitable for fruits and vegetables.

Conclusions

Table I shows the conditions required during transport of compatible fruits and vegetables while Tables II, III and IV show the optimum storage conditions and storage life for selected vegetables, fruits and spices, respectively. It is only under these temperature controlled conditions that produce is kept at its freshest and post-harvest losses minimized. However, in the short-term heavy investments in temperature controlled conditions are not justified by the throughput.

The greatest short-term contribution to quality and market penetration would be an intensive educational program of post-harvest techniques aimed at both farmers and exporters.

Table I

Compatibility of Selected Fruits and Vegetables During Transport in Mixed Loads

Compatible: Avocados
Bananas
Egg plant (aubergine)
Mangoes
Papaya
Pineapple (not with avocado)
Tomato - green & pink

Recommended transit conditions:

- temperature: 13-18 degrees Celsius
- relative humidity 85-95%
- Ice - never in contact with commodity

Compatible: Lemons
Oranges

Recommended transit conditions

- temperature 2.5-5.0 degrees Celsius
- relative humidity 90-95%
- Ice - never in contact with the commodity

Compatible: french beans
beans
okra
pepper (not with beans)
tomato - pink

Recommended transit conditions

- temperature 4.5-7.5 degrees Celsius
- relative humidity 95%
- ice - never in contact with the commodity

Compatible: cucumber
egg plant (aubergine)
ginger (not below 13 degree C and not with eggplant)

Recommended transit conditions

- temperature 4.5-13 degrees Celsius
- relative humidity 85-90%
- ice - never in contact with commodity

Source: National Institute of Fresh Produce, London

Table II**Recommended Storage Life and Conditions for Fresh Produce
Selected Vegetables Exported from Uganda**

Vegetables	Temperature		Relative Humidity %	Storage Period (weeks)
	Celsius	Fahrenheit		
Beans				
french	7-8	45-46	95-100	1-2
broad	0-1	32-34	95-100	2-3
Cabbage				
green	0-1	32-34	95-100	3 months
white	0-1	32-34	95-100	6-7 months
Capsicums (sweet pepper)	7-10	45-50	90-95	1-3
Chilies	7-10	45-50	90-95	1-3
Chinese Leaves	0-1	32-34	95-100	1-2 months
Cucumber	8-11	45-52	90-95	1-2
Egg Plant (aubergine)	8-12	46-54	90-95	1-2
Lettuce	0-1	32-34	95-100	1-4
Okra	7-10	45-50	95-100	1-2
Tomato				
mature green	12-15	54-59	90	1-2
turning	10-12	50-54	90	1-2
ripe	8-10	46-50	90	1

Source: National Institute of Fresh Produce London

Table III**Recommended Storage Life and Conditions for Fresh Produce
Selected Fruits Exported from Uganda**

Commodity	Temperature		Relative Humidity %	Storage Period (weeks)
	Celsius	Fahrenheit		
Avocado				
Unripe				
Taylor	4.5	40	85-90	2-4
Lula	4.5	40	85-90	4-5
Ettinger	5.5	42	85-90	3-4
Fuerte,	5.5-8	42-46	85-90	3-4
Hass				
Fuchs,	10-13	50-55	85-90	2
Pollock,				
Waldin				
Ripe				
Fuerte,	2-5	36-41	85-90	1-2
Hass				
Cavendish &	13	55	85-90	10-20
Apple				
Passion Fruit	7-10	45-50	85-90	3-5
(purple)				
Grenadilla				
Limes	9-10	48-50	90	1-2
Mango	13	55	90	2-3
Orange				
Valencia Late	2-7	36-45	90	1-2
Washington	2-7	36-45	90	1-2
navel				
Papaya (Pawpaw)				
green	10	50	90	3-4
turning	7	45	90	2-3
Pineapple				
mature green	10-13	50-55	90	3-4
turning	7-10	45-50	90	3-4
ripe	7	45	90	2-4
Plantains				
green	10	50	85-90	5
colored	11-15.5	52-60	85-90	1-3

Source: National Institute of Fresh Produce, London

Table IV

Recommended Storage Conditions and Storage Life of Selected Spices

	Temperature		Relative Humidity	Storage Period
	Celsius	Fahrenheit		
Garlic	0	32	70	6-8 months
Ginger	13	55	70	4-6 months

Source: National Institute of Fresh Produce, London

Annex D

Policy Constraints Affecting NTEs in Uganda¹

INTRODUCTION

One of the main thrust of the NRM government's economic policies has been to diversify and expand the country's exports by promoting the non-traditional exports (NTEs) including horticulture, hides and skins, timber, beans, maize, simsim etc. For a long time after independence, Uganda's foreign exchange earnings depended on coffee, cotton, tea and copper. The Amin era of the 1970s saw a drastic decline in most of the exports except coffee which as a perennial crop produced in intercropped systems was able to wither through the period. In 1986 when the government came to power, Uganda's foreign exchange earnings were almost entirely dependent on coffee. In 1987/88 non coffee exports started to appear in the official records contributing 12 Ml of the foreign exchange earnings which was only 4% of the total earnings. By 1990/91, non-coffee exports had risen to US \$ 58 Ml accounting for 31% of the total exports. NTEs contributed about 3/4 of the increased earnings.

NTEs POLICIES UNDER THE NRM ADMINISTRATION

There has been a broad range of policies associated with the export diversification and expansion drive. This paper addresses itself to the policies that relate to:

- a) Broad policy/regulatory areas
- b) Credit availability
- c) inputs supply
- d) Institutional and
- e) Infrastructure related policies.

BROAD POLICIES/REGULATIONS

Before highlighting a specific policy relating to the NTEs one has to recognise that one of the major contributions of the NRM government has been the establishment of peace and stability in the country which is a major prerequisite for production and engagement in commercial activities. It should be noted that in the World Bank Report of 1982, export promotion was identified as a major avenue for improving the economies of African countries. However, at the time the country was in a state of insecurity which did not only curtail normal production activities.

¹ This annex was contributed by Peter Ngategize.

African countries. However, at the time the country was in a state of insecurity which did not only curtail normal production activities.

Similarly, whereas simsim has been a major food crop in Northern Uganda, it took an improved security situation for foreign traders to venture into the region and buy simsim for export.

Other macro-economic policies including control of inflation from about 200 percent in 1988 to the current level of about 30%. Further improvements in budget control are needed to improve the macro-economic environment.

POLICY INSTRUMENTS

1. Liberalisation of the marketing and export of produce. This was critical in that it broke the monopoly of the parastatals, especially PMB which was often incurring losses in her operations and yet providing no observable services to the country. The liberalisation introduced the profit motive in the marketing of agricultural produce and hence efficiency in the operations of the traders. Under this arrangement, people were allowed to move produce from one region to another without hinderance. This allowed for efficient operators to take advantage of regional imbalances in the marketing of produce.
2. Replacement of export licences with export certificates. The original system created a situation where potential exporters were always moving up and down looking for export licences any time they wanted to export. The export certificates, valid for six months now enable them to avoid the extra expenses in terms of time, money and energy looking for papers.
3. Introduction of the Border permit. This is one of the recent policy instruments geared at promoting inter-regional trade along our common borders. Trade has always taken place along our common borders however, this trade was often regarded as illegal and is called smuggling. Government has taken a policy decision to legalise this trade by and in addition to facilitate the trade by issuing Border permits that allow for commodities of less than US \$5000 (over a six month period) to be traded conveniently across the bordering districts. This policy has been implemented in the border areas with Kenya but this has not been possible on the Uganda Ruanda area due to the civil war in Ruanda.
4. Decentralisation of the issuance of trade documents including licences, bank papers etc.
5. Exchange rate policies.
Government has made great strides regarding exchange rate policies. First, government put in place a mechanism for the determination of exchange rates through the market system by licencing foreign exchange bureaux in 1990. Secondly, government has gradually devalued the currency with the objective of merging the bureau and official

exchange rates. This has helped the exporters of NTEs in that they are able to exchange their proceeds at a rate higher than the official exchange rate which has been lagging about 25% below the bureau rate. To enhance the policy of merging the two rates, government has received funds from external donors for auctioning in the market so that the official rate is also determined based on the forces of supply and demand. This policy has, however been criticised because only about six banks are involved in the auction and the bureaux are not. Secondly, it is a managed auction in that the Governor has the discretion to determine the minimum buying rate.

6. Taxes: Except for the coffee exporters, NTE are exempted from export duty and hence the exporters retain 100% of their export proceeds. However, there are other taxes that have indirect impact on the export trade these include import duties on imports, excise taxes on domestic production and sales taxes. There are some investors who feel that these taxes discriminate against domestic producers who are not given sufficient protection from imported inputs or make exports to the outside difficult in spite of the exemption from export duties.

PROJECTED EXPORT EARNINGS FROM NTES

Commodity	1990/91		1991/92		1992/93		1993/94	
	value \$ MI	%						
A. <u>Food Crops</u>								
1. Maize	3.30	8.0	5.50	6.8	7.70	6.8	9.90	6.4
2. Beans	4.50	10.4	11.25	13.9	18.00	15.9	27.00	17.3
3. Simsim	15.00	34.6	19.50	24.2	22.50	19.8	30.00	19.2
4. Others	2.76	6.4	4.60	5.7	7.10	6.3	10.40	6.2
B. <u>Horticulture</u>								
1. Cocoa	0.30	0.7	0.5	0.6	0.70	0.6	1.00	0.7
2. Cashewnuts	0.25	0.6	1.50	1.9	2.50	0.2	3.75	2.4
3. Fruits	4.70	10.8	14.70	18.3	25.50	22.5	35.85	22.9
4. Vegetables	1.25	2.9	3.45	4.3	5.60	5.0	7.88	5.1
5. Other	0.20	0.5	0.20	0.3	0.40	0.4	0.51	0.3
C. <u>Livestock</u>								
1. Hides & Skins	7.26	16.7	7.53	9.4	7.80	6.9	8.10	5.2
2. Others	0.53	1.2	0.83	1.0	1.37	1.2	1.69	1.1
D. <u>Fish Products</u>								
1. Fresh Fish	2.50	5.8	10.00	12.4	12.50	11.0	17.50	11.2
2. Smoked fish	0.75	1.7	0.75	0.9	1.50	1.3	2.25	1.5
3. Others	0.10	0.2	0.25	0.3	0.15	0.1	0.25	0.2
TOTAL	43.40	100	80.53	100	113.32	100	156.06	100

Source: BOU, 1991. Export Development Financing and Strategy.

Note: Generation of export trends in this table is based on the following assumptions: an estimated 5-7% economic growth rate, increases in production of specific crops based on the market situation and consumption needs in the domestic market, and improvements in infrastructure (roads, airfreight etc).

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ANNEX E
UGANDA NON-TRADITIONAL EXPORT COMMODITY RAPID APPRAISAL

EXPORTER SURVEY GUIDELINES

Date:

FIRM NAME & ADDRESS _____ **CITY** _____

1. WHAT PRODUCTS DO YOU EXPORT? (In order of importance)
WHAT DO YOU IMPORT? OTHER SOURCES OF INCOME?
HOW LONG HAVE YOU BEEN EXPORTING?
 2. WHO ARE YOUR MAIN SUPPLIERS OF MAIZE (RANK THEM IN ORDER OF IMPORTANCE)
 3. WHERE DO YOU PHYSICALLY PURCHASE THE PRODUCT?
 4. WHO ARE YOUR MAJOR BUYERS? DO YOU SELL ON F.O.T. BASIS? TRANSPORT ARRANGEMENTS?
 5.

	Last year (1991)	This year (expect)
--	------------------	--------------------
- VOLUME OF MAIZE BOUGHT
MARGINS - AV. PRICE YOU PAID
(URBAN AGENT IN KAMPALA?)
PRICE PAID TO RURAL AGENT
PRICE PAID TO FARMER
5. STORAGE - CAPACITY (OWNED OR RENTED), COST, PROBLEMS?
 6. QUALITY CONTROL - WHAT DO YOU DO, ESTIMATE OF LOSSES (DO YOU REJECT POOR QUALITY FROM AGENTS? HAS QUALITY OF GRAIN YOU ARE PURCHASING IMPROVED OVER THE LAST YEAR?
 7. FINANCING - WHERE DO YOU GET YOUR FINANCING, WHAT INTEREST RATE DO YOU PAY? PROBLEMS?
 8. HAVE GOVERNMENT POLICY CHANGES OVER THE PAST YEAR MADE THINGS EASIER? WHICH POLICIES IN PARTICULAR HAVE HELPED? WHAT POLICIES STILL NEED CHANGING?
 9. HOW DO YOU GET INFORMATION ON: (IS INFORMATION A CONSTRAINT?)
 - 1) SOURCES OF SUPPLY
 - 2) EXPORT MARKETS (POTENTIAL BUYERS)
 - 3) LOCAL MARKETS/BUYERS
 - 4) LOCAL PRICES
 - 5) INTERNATIONAL PRICES
 10. WHAT ARE THE THREE MOST IMPORTANT CONSTRAINTS YOU FACE? SUGGESTED SOLUTIONS?
 11. WHAT KIND OF RELATIONSHIP DO YOU HAVE WITH OTHER EXPORTERS?
 12. WHAT DO YOU SUGGEST COULD BE DONE TO EASE EXPORTS OF NTE'S?

UGANDA NON-TRADITIONAL EXPORT COMMODITY RAPID APPRAISAL

TRADER SURVEY GUIDELINES

Date: _____

NAME & ADDRESS _____ CITY _____

1. WHAT PRODUCTS DO YOU TRADE IN ? _____
(In order of importance)

2. APPROX. WHAT % OF YOUR INCOME COMES FROM TRADING ACTIVITIES? _____

3. WHO ARE YOUR MAJOR SUPPLIERS OF MAIZE (RANK THEM IN ORDER OF IMPORTANCE)

FARMERS _____ RURAL TRADERS _____ SELF _____ OTHER _____

4. DO YOUR SUPPLIERS DELIVER TO YOU, OR DO YOU COLLECT FROM THEM? _____

5. IF YOU COLLECT FROM THEM, HOW FAR DO YOU HAVE TO GO ON AVERAGE (kms)? _____

6. WHAT MODE OF TRANSPORT DO YOU EMPLOY, WHEN BUYING _____ SELLING _____

DO YOU OWN OR RENT TRANSPORT, AND WHAT DOES IT COST YOU? _____

7. DO YOU HAVE STORAGE CAPACITY? IF YES, HOW MUCH? _____

WHAT DO YOU CONSIDER TO BE YOUR STORAGE COSTS? _____

DO YOU FACE STORAGE CONSTRAINTS (explain) _____

8. WHAT OTHER COSTS DO YOU INCUR BEFORE SELLING THE MAIZE (SHS/BAG OR KG)?

FUMIGATION _____
HANDLING _____
RE-BAGGING _____
OTHERS _____

9. IN GENERAL, HOW IS THE QUALITY OF THE MAIZE YOU BUY? _____

HOW OFTEN DO YOU HAVE TO REJECT SOME SUPPLIES? _____

WHAT GRADING EQUIPMENT DO YOU USE? _____

WHAT DO YOU DO TO IMPROVE THE QUALITY OF THE MAIZE BEFORE SELLING IT?

10. HOW DO YOU COMPARE YOUR BUYING PRICES WHEN AGENTS DELIVER TO YOU AND WHEN YOU GO COLLECT FROM THEM? GIVE A SPECIFIC EXAMPLE.

11. WHAT ARE YOUR MAJOR CONSTRAINTS IN GETTING THE STOCKS YOU REQUIRE?

12. WHAT ARE YOUR MAJOR SOURCES OF FINANCE? (List in order of importance)

TERMS OF CREDIT - S-T interest rate? _____ L-T ? _____

MOST COMMON TERMS OF PAYMENT TO YOUR SUPPLIERS? _____

13. HOW DO YOU GET INFORMATION ON:

1) SOURCES OF SUPPLY _____

2) EXPORT MARKETS (POTENTIAL BUYERS) _____

3) LOCAL MARKETS/BUYERS _____

4) LOCAL PRICES _____

5) INTERNATIONAL PRICES _____

ARE YOU SATISFIED WITH THE SOURCES OF THIS INFORMATION? IF NOT, WHAT WOULD YOU SUGGEST BE DONE TO IMPROVE THE SITUATION?

14. WHO ARE THE MAJOR BUYERS OF YOUR STOCKS (and where)? _____

ESTIMATE WHAT PROPORTION OF THE MAIZE YOU SELL ENDS UP OUTSIDE OF UGANDA

15. HOW MANY OTHER BUYERS OF MAIZE OPERATE IN THE SAME AREAS AS YOU?
ARE YOU AWARE OF THE PRICE THEY ARE OFFERING? DO YOU KNOW WHERE THEY ARE
SELLING, AND WHAT THEIR STORAGE CAPACITY IS? _____

16. HOW LONG HAVE YOU BEEN IN THIS BUSINESS? _____

17. HOW EASY WAS IT TO START TRADING WHEN YOU BEGAN? HOW EASY WOULD IT BE
NOW? HAVE YOU SEEN MORE PEOPLE TRADING IN THE LAST YEAR? EXPLAIN.

18. WHAT DO YOU CONSIDER WHEN SETTING YOUR SELLING PRICE? GIVE AN EXAMPLE
PERIOD _____ BUYING PRICE/KG _____ SELLING PRICE/KG _____

HOW MUCH MAIZE DID YOU HANDLE LAST YEAR (1991)?

KGS BOUGHT _____ KGS SOLD _____

HOW MUCH DO YOU EXPECT TO HANDLE THIS YEAR (1992)?

KGS BOUGHT _____ UGANDA NTE MARKETING KGS SOLD MAIZE _____

Farmer Interview Guidelines

Interviewer _____ Date: _____

Location _____

1. Do you own or have a long-term lease on this land?

Yes _____ No _____

If no, relationship to owner _____

2. Which household members are responsible for the following activities for maize:

Planting _____

Weeding _____

Harvesting _____

Transporting to market _____

Selling _____

3. Where do you sell your maize?

Farm _____

Collection point _____

At market (distance from farm) _____

Cooperative _____

Other _____

Why? _____

4. To whom do you sell your maize? _____

Why? _____

5. How do you transport it? _____

6. Do you own or rent these means of transportation? _____

Rental cost: _____

7. Who pays the cost of transportation to the buyer or collection point?

8. Amount and average yields of maize produced:

	Last year	This year
Metric tons	_____	_____

Average yield (mt/ha)	_____	_____
-----------------------	-------	-------

Percent marketed _____

9. Are you the member of a farmer's association or cooperative? Yes _____ No _____

If yes, do they offer the following services (& describe):

credit _____

inputs _____

marketing assistance _____

production assistance _____

transportation to market _____

10. What are the advantages or disadvantages of being a member of this association? _____

11. What are your principal purchased inputs and where do you purchase them?

Inputs	Place of purchase	From whom
_____	_____	_____
_____	_____	_____
_____	_____	_____

12. Would you like to market more maize? _____
Why? _____

13. What are the major factors constraining the amount of maize you market in a given year?

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14. Indicate the degree of difficulty each of the following factors poses:

minor major serious

Farm-market road
Means of transport
Extension services
Water problems
Access to fertilizer
Access to pesticides
Access to improved seeds
Access to credit
Cost of credit
Cost of inputs
Lack of market/price information
Storage problems
Processing problems

Annex F

Credit Constraints¹

Uganda is currently experiencing a serious credit crunch, and credit was mentioned as a constraint to expansion of NTEs at all levels of the marketing chain. This section provides an overview of what financial resources are available (and through what means) for participants at each level of the marketing chain engaged in production and marketing of non-traditional agricultural export crops (both cereals and horticultural crops).

F.1 Background to the Current Credit Crunch

Uganda's economy is still heavily dependant on one export crop, coffee, and inflation is high - probably higher than current official estimates of 40%. The GOU's macro-economic policies concerning the use of foreign funds, military spending, etc. have lead to inflationary GOU deficits and a very low savings rate estimated at 6%. (BOU, 1992). For example, \$200 million in foreign exchange earnings does not cover the external debt servicing requirements. In addition, 2/3 of the 1991/92 budgetary requirement of about US\$ 600 billion will be met through financing from external sources. Expenditures in line ministries are mainly recurrent rather than developmental. There is, therefore, need for improved government capacity to control expenditures and prioritize areas of spending with more attention to development rather than consumption-related spending. The high inflation rate and lack of liquidity in the banks has contributed to a situation where exporters cannot rely on normal financial arrangements.

F.2 Export Credit Facilities

A number of facilities have been put in place and others are in the planning stages -- including the Export Refinance Scheme (ERS) and the Export Credit Guarantee Scheme (ECGS) run by the Bank of Uganda, the Operational Constraints Program (OCP) run by the African Development Project Facility in conjunction with EPADU, and a proposed facility of around \$3 million to be operated by Nile Bank, USAID, and Equator Bank. These programs are aimed at reducing credit constraints facing exporters. A major improvement of the more recent schemes is their attempt to reduce the bureaucracy introduced by BOU in the original schemes which made the process long and tedious.

Export Refinance and Export Credit Guarantee Schemes. This facility was launched in October 1991 to support and facilitate the export diversification drive by meeting the credit needs of exporters. There are two components to the facility: export refinance, and an export credit guarantee. The export refinance facility is aimed at responding to needs of

¹ This annex was contributed by Peter Ngategize.

commercial banks, while the export credit guarantee gives a measure of insurance to the participating banks by minimizing their export risks.

An exporter processes papers through his commercial bank, which submits them to the Bank of Uganda with relevant papers including the export order or letters of credit, export licences, trading licences, etc. Bank of Uganda charges 5.5% interest for refinancing, and the banks are supposed to make a margin of 3% by charging 8.5% to the exporter.

Requirements for security are defined by each Bank. However, the Bank of Uganda provides an additional guarantee of 80% while the commercial bank absorbs the other 20% of the risk.

The scheme has since its launching operated on about US\$ 1 billion. An additional US\$ 1 billion has been obtained to support the export of NTEs. According to the BOU, it has been successful and a broad range of exporters have been served for agricultural as well as mineral exports. Although eight exporters of agricultural NTEs were interviewed, only one said he had received any money through this scheme, and that was too little, too late.

At the moment, the BOU argues that the main constraint is the current ad-hoc and variable nature of the export business and constraints facing exporters. They cite as an example that Sabena Airlines can only confirm availability of cargo space one day before it is due in Entebbe, implying a pineapple exporter in Masaka has less than 24 hours to prepare himself to export pineapples after confirmation of the availability of cargo space.

One exporter interviewed presented a different perspective: he said that BOU requires a confirmed line of credit to release money. However, the overseas buyers, aware of the production, packaging, and freight problems, want a guarantee that the exporter will actually export. This is very difficult to guarantee given the current exporting environment. Therefore, although credit is definitely a constraint to export, there are other constraints that may impose further impediments after it has been removed.

One of the problems with these schemes is the heavy level of involvement by BOU. The BOU justifies this by arguing that local banks have overlent, and have limited capacity to analyse economic ventures. However, there are recent experiences that show that the BOU has limited capacity to monitor the credit offered to people through banks or directly, as was demonstrated with the crop finance arrangement for 1988/89. Similarly, the delays being experienced in processing papers for inputs also indicate that the system imposes additional disincentives to the intending importers.

African Development Project Facility. This is a new facility supported by UNDP and other bilateral donors. The objective of the facility is to help African entrepreneurs with viable projects get started. The facility provides support for a feasibility study and also searches for (sponsors) funds to finance the project from within or outside the country. As part of the requirements for the facility, the entrepreneur has to raise 30% of the financial requirements.

Secondly, the prospects have to be worth \$500,000. This has however been reduced to \$250,000 since most of the potential recipients do not have the capacity to raise such capital. Thirdly, the entrepreneur commits to pay a fee of around 3% of the prospect to the ADPF.

The ADPF recently started a program with EPADU called operational constraints Programme (OCP). This program has a capital of \$700,000. The objective is to identify constraints facing exporters, and assist them financially in making the first three shipments, after which time the exporter should be able to manage on his own. However, the whole appraisal takes about six months and its impact has not yet been felt although it started in August 1991.

Farm Level Credit. Credit is regarded as one of the major constraints by the farming community in Uganda. However, credit problems go beyond the mere availability of credit, which the following experience with the Rural Farmers Scheme demonstrates.

In 1988, GOU mobilised funds from donors such as the African Development Bank to assist farmers under the rural farmers scheme (RFS). Over US\$ 3 billion was mobilised to give short term loans to small and medium farmers for agricultural production-support, labor & ploughing costs, and purchase of inputs. Although the project was attractive on paper it faced a number of constraints from the beginning, including the following:

- ◆ The approval process usually took a long time and farmers at times got the credit after the peak demand period i.e. planting time.
- ◆ The interest rate of about 40% was perceived to be very high. However, given the inflation rate in the country, one could argue that it was justified.
- ◆ Some inputs (e.g gumboots) were tied to the credit and hence farmers were literally being forced to buy unnecessary equipment with the credit.
- ◆ Most of the upcountry banks were experiencing liquidity problems. In northern Uganda and other areas it was often hard to cash a cheque of US\$ 100,000 (about \$100).
- ◆ Because the program became national without a trial period, and recipients were scattered geographically, the administrative costs were high and monitoring/supervision was not sufficient. The system was to an extent abused by the officials and a combination of factors gave rise to a high default rate resulting in failure to operate the scheme on revolving fund basis.

Rural Savings and Loan Schemes. In some parts of the country, there have been a number of rural savings and loan schemes. However, as a result of the political problems, government interference, high inflation rates of the 1980s, and the unprofitability and

riskiness of most crop enterprises, most of them collapsed. There now appears to be a chance that they will be starting once again since the policy and security environment has improved. Small credit organisations have recently started in Northern Uganda based on informal credit organisations and supported by NGO's, such as ACCORD in Gulu.

Commercial Banks. Some private banks interested in serving small-farmers have started emerging. For example, the Catholic based Centenary Rural Development Bank with branches in Kampala, Masaka, Mbarara, and Kabale is geared towards serving small farmers and traders with short-term development loans. Small farmers will continue to be outside the mainstream banking sector as long as they mainly produce for subsistence, lack collateral in form of land-titles, and lack market know-how and business acumen (such as rudimentary bookkeeping skills).

Rural Trader Facilities. Most traders of agricultural produce (especially grains/cereals) tend to use their own funds or informal channels of lending. Like their fellow farmers, they lack collateral, and perceive interest rates as very high. Some traders have benefitted from programs like the RFS. However, in most cases, what they are really looking for is subsidized loans.

Annex G

List of People Interviewed

Ministry of Commerce, Co-operatives and Marketing

Mr. H.N.Semanyo - Chief Commercial Officer
Mr. H.G.K.Nyakoojo - Principal Commercial Officer
Mr. S. Ojakol - Commercial Officer
Mr. Alex Oburu - Ag. Commercial Officer, Internal Trade
Mr. John Steven Kakaire - Trade Development Officer, Iganga
Mr. Chas. W. Kabuye - Asst Trade Dev. Officer, Masaka
Mr. William Mulabya - Trade Development Officer, Tororo
Mr. Michael Mugeni - Asst. Trade Dev. Officer, Busia
Mrs. Duca - Trade Development Officer, Mbale

Weights and Measures Commission

Mr. Vincent K. Buwule - Commissioner

Uganda Export Promotion Council

Dr Frank Nabwiso - Executive Secretary
Mr. Frank Olok - Analyst
Mr. William M. Lyakurwa - I.T.C. Senior Trade Promotion Adviser
Ms. Catherine Namuwanga - Librarian/Documentalist

Uganda National Bureau of Standards

Dr. Eve N. Kasirye-Alemu - Executive Director

Uganda National Chamber of Commerce and Industry

Mr. Obbo Clement - Chairman, Iganga Town

Ministry of Agriculture, Animal Industry and Fisheries

Mr. Mubiriu - Deputy Commissioner
Mr. J. Isabirye - Assistant Commissioner
Mr. Tony Okello
Mr. Valerian Kwesigaho - Horticulturalist
Mr. D. Nsubuga-Kikoyo - Marketing Section
Mr. Stephen Okwakol - Chief Agricultural Economist
Mrs. Eva Musenero - District Agricultural Officer, Tororo
Mr. Haumba Isaac - Officer i/c Horticulture, Tororo

Mrs. Mwambu - District Agricultural Officer, Mbale
Mr. Juona Wanyage - Agricultural Officer, Mbale
Mr. Eldadi Wasubire - Deputy District Agricultural Officer, Mbale
Mr. Odedo - Officer i/c Horticulture, Mbale
Ms. Janet Asege - Agricultural Officer, Mbale
Mr. Wasswa - Deputy District Agricultural Officer, Masaka
Mr. Ukwale - Legume seed project, Kasese

Development of Horticulture Industry, Kawanda

Mr. Lenny Yiga - National Project Co-ordinator
Mr J. Campbell - Chief Technical Adviser
Mr. Finton Scanlon - International Expert, Vegetable Production
Mr. A.R. Magwamba - Agric. Officer i/c Post Harvest Project, Iganga

Civil Aviation Authority

Mr W.R.Makuza - Deputy Managing Director
Mr. Cyril Rwabushenyi - Director Of Airports

Ugandan Airways

Mr. Mugizi - Marketing Manager
Cargo Manager, Entebbe

Belgian World Airlines - SABENA

Mr. Philippe Van Asch - Station Manager

Air Tanzania

Mr. Mohamed Mzee - Regional Manager (Uganda)

Dairo Air Services

Mr. John Kyaligonza - Regional Manager

SGS Uganda Ltd.

A.Dalmeyer - Managing Director

USAID

K. Sherper - Director
S. Ryner - Deputy Director

R. Phillips - Economist
C. Carolus - Economist
G. Bayer - ADO
A. Agard - MFAD
S. Earves - WID
H. Wise - PSO
D. Ericksmoen - CASS Project
Matthew Tokar - Agribusiness Advisor - CASS Project

Shell Uganda Ltd

James K. Ssemwanga - New Business Manager

Eklund Marketing Co. of California

Mark Matze

Appropriate Innovations

Dr E.A.Brett - Director
Adam Brett - Director

Exporters

Horticultural Exporters Association of Uganda

Mr. S. Kibalama-Katumba - Chairman
Dr Ssali-Baze - Director, Tropical Systems Ltd.,
Mr Friday Musoke - Director Mukono Growers Ltd.
Mr. H.D.Patel - Director Mukono Growers Ltd.
Mr. Matius Nsubuga - Makindu Growers & Packers (U) Ltd.,
Mr. C.Bwanika - Director, Tropicana Farmers (U) Ltd.,
Haji Dalawuzi Mukasa - Masaka
Mr. Bwire Garrison - Busia,
Mrs. Mugizi - Ibaare Agencies Ltd.,
Mr. Moses Kibirige Kasule - Director Interfruit Dealers Ltd.
Mr. Moses Awaniya - Iganga
Mr. Twaha - Ms. Twaha & Bros, Iganga
Mr. Christopher Musana - Iganga

Cereals Exporters

Mrs. Hope Ndege - N.G. General
Mr. Charles Mawenu - Prodexico
Mr. John Kato - Greenhouse

Mr. Sam Rubagumya - Sarurika Co. (Kasese)
Mr. Anil Jaffer - Nessroc-Uganda Ltd. (Kasese)
CEI/Kazinga Channel
S.T. Enterprises
RoadMasters
Alika (Kasese)
Kito
Produce Marketing Board

Mr. Rasmussen - technical advisor

Malaba Border Permit Holders Association

Musisi Alex
Paul Samba
Patric Wasoko
Matsanga Juma Heboya
Mustafa Manguyu

Producers

Uganda Horticultural Farmers Association

Geo. Wm. Ginolyanaye - Chairman
Mr. Edward Osudo - Tororo
Mr. Ochwo Obonyo - Tororo
Mr. Joshua Fagayo - Tororo
Mr. Sam Wambura - Mbale
Mr. Difas Wamambo - Mbale
Dr. Mukone - Mbale
Mr. Busiima - Mbale
Mr. Charles B. Kiyimba - Masaka

Processor

Mr. Bukawa - Elgonia Industries, Tororo

Development Finance Company of Uganda Ltd.

Steven Enderby - Executive (Evaluation & Systems)

Mulbox Ltd.

Mr. Lal Bahadur - Managing Director
Mr. Bupe Fenny - Marketing manager

Bank of Uganda

Mr. J.J.Y.Sekitoleko - Ag. Deputy Director, Dev Fin. Dept.

United Nations Development Programme

Mr. Konrad Goekint - Programme Officer

Mr. John Mukosa - Programme Officer, Agriculture

Ministry of Planning and Economic Development

Export Policy Analysis and Development Unit:

Professor E.O. OChieng - Director

Mr. Nimrod Waniale Nakisisa - assistant director

Mr. P. Steele - Technical Adviser

World Food Programme

Mr. B. Martinson - manager, Lifeline Sudan, western logistics operation

FAO/Prevention of Post-Harvest Losses Project - Kawanda Research Station

Mr. Odogola

Mr. Ammenet