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Financing and Marketing Horticultural Exports in Uganda

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Foreword

The Development Funds for Africa (DFA) has challenged the U.S. Agency for International Development (USAID) to scrutinize the effectiveness and impact of its projects in Africa and make needed adjustments to improve its development assistance programs. Structural adjustment programs have been adopted by many sub-Saharan African countries, often with reluctance, but some significant economic development progress has been made.

As donor agencies face severe cutbacks and restructuring and less assistance becomes available to developing countries (not just in sub-Saharan Africa), new ways must be found to channel declining resources to their most effective and productive uses. Donor agencies like USAID, therefore, are increasingly looking at the private sector for sharpened competitiveness, with agriculture as the dominant sector of sub-Saharan African economies and the potential catalyst for generating broad-based, sustainable economic growth. The USAID Africa Bureau's Office of Sustainable Development, Productive Sector Growth and Environment Division (SD/PSGE) has been analyzing the Agency's approach to the agricultural sector in light of the DFA and the experience of recent structural adjustment programs in several sub-Saharan African countries.

In January 1991, the Africa Bureau adopted *A Strategic Framework for Promoting Agricultural Marketing and Agribusiness Development in Sub-Saharan Africa* to provide analytical guidance to USAID/Washington, the Regional Development Support Offices (REDSOs), and field missions. The framework suggests that:

- while technical and environmental problems must continue to be addressed, a major cause of poor performance of the agricultural sector has been the inefficiency of financial and marketing systems; and
- improving financial and agricultural marketing systems can have a significant beneficial impact on incomes, foreign exchange earnings, domestic consumption, and food security.

The framework further suggests that private agribusiness firms and supporting financial services have a critical role to play in the development of more efficient agricultural marketing systems, and more empirical information is needed regarding specific policies, regulations, institutions, and services that can best promote more efficient marketing systems and private agribusiness growth.

To enhance the Africa Bureau's analytical guidance and technical support that it provides to the field, SD/PSGE initiated a series of country case studies to investigate and analyze:

- marketing and financial strategies of horticultural subsectors in five countries (The Gambia, Ghana, Rwanda, Uganda and Madagascar); and
- import substitution and export promotion of the horticultural and poultry subsectors in Swaziland.

This document, ***Financing and Marketing Horticultural Exports in Uganda***, is a product of these studies. Ohio State University conducted the field research and report preparation. **USAID/Uganda** was particularly cooperative and helpful in providing counsel and direction of field research and reviewing the draft report. SD/PSGE staff also reviewed the document and provided comments. SD/PSGE believes that this report will be useful to field missions in sub-Saharan African countries, in providing insights, ideas, information, approaches, and strategies for financial servicing, marketing, and agribusiness development.

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FINANCING AND MARKETING HORTICULTURAL EXPORTS IN UGANDA

by

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and

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The insights provided by the staff at the Agricultural Secretariat and the Economic Policy Analysis Development Unit, and the cooperation extended by the Management Consulting Company in sharing and analyzing some of the data used in the study are highly appreciated.

None of the above should be held responsible for the opinions presented in this report or possible errors that may remain.

Executive Summary

Uganda has the potential to expand horticultural exports to the European market. The country enjoys favorable production conditions for producing many tropical and temperate horticultural crops at a relatively low production cost. The country is also implementing important economic reforms and is beginning to recover from the disastrous political and economic experiences of the past two decades. Advances are being made to create a political and economic environment conducive to private sector growth. Expansion and diversification of export earnings is a prerequisite for sustained growth and a reduction in donor dependence to cover foreign exchange deficits. Low international commodity prices for the country's traditional agricultural exports has contributed to the urgency of expanding non-traditional agricultural exports (NTAEs), of which horticultural crops are an important possibility.

Uganda has made progress in meeting this objective. The value of NTAEs increased from $23 million in 1990 (representing 13 percent of total export earnings) to $71 million in 1993 (34 percent of total export earnings). A large quantity of maize and beans are exported to neighboring African countries. Only 6.6 percent of total earnings from NTAEs in 1993 came from horticultural exports to overseas markets. The majority of horticultural products are exported in the form of fresh fruits and vegetables and fruit juices. The primary products are low value Asian and African vegetables exported to Europe, especially to ethnic communities in the U.K, fresh flowers to auction markets in the Netherlands, and pineapples and organic bananas to supermarkets in Switzerland.

The purpose of this study was to assess some of the issues associated with expanding horticultural exports, with special emphasis given to understanding financial patterns and problems. The research involved analyzing the flow of commodities from producers to consumers through various production and marketing channels. The methods used to finance the transactions were determined. Interviews were conducted with agents throughout the channels and in the financial system to assess why the observed financial patterns existed and what changes are needed.

The horticultural commodities are produced by many small and a few large producers who market their products through a variety of agents in the domestic, regional and overseas markets. The large producers concentrate on the overseas markets and sell their export surplus and rejects in the domestic and regional markets. Small producers largely serve the domestic market, but some also contribute to exports through outgrower contracts with a large producer or exporter. The high level of technical requirements for flower production makes it infeasible to use outgrower schemes for these products.

The marketing structure of the subsector cannot be described by a single nomenclature. At the producer level, the marketing structure is dualistic. On the one hand, there are a few large producers engaged in exporting with vertically integrated operations from production to exports.

On the other hand, there exist several small producers operating independent fragmented farms. They primarily serve domestic and regional markets through several marketing agents transacting on a spot market basis. At the market agent level, there exist several competitive wholesalers, commission agents and retailers who service domestic and regional markets in spot markets and through short term contractual arrangements. The inherent differences in the products traded that gives rise to asset specificity and uncertainty, access to finance and information are observed to affect the marketing structure.

Most producers self-finance their operations or utilize informal finance. The majority of exporters use the consignment method of sales in which they implicitly provide credit to foreign importers. The majority of transactions in the domestic markets, however, involve only cash transactions in spot markets.

The formal financial system serves few farmers and the total volume of agricultural credit represents only about four percent of total agricultural output. Most loans are allocated to marketing activities, and the medium and large farmers easily absorb the small amount of funds allocated for production costs. The Uganda Commercial Bank and the Cooperative Bank have large amounts of nonperforming loans accumulated from poor lending in the 1970s and 1980s when there was considerable political interference in the banking system. The political and economic systems of the country were seriously undermined during the past two decades and this resulted in a serious decline in business ethics and respect for legal contracts. This problem needs to be resolved in order for the efficient functioning of any financial institution, formal or informal.

The NTAEs are perceived as being exceptionally risky and, therefore, even more credit rationed by the banks than other farm enterprises. The export refinancing schemes and export guarantee funds have done little to resolve this problem for most horticultural entrepreneurs. The limited amount of funds utilized in these special programs have been extended to large farmers such as the flower producers. Likewise, venture capital funds are limited to investments in these firms. The Bank of Baroda is experimenting with providing working capital loans to small producers who are outgrowers to large producer-exporters who act as loan guarantors. Overdraft facilities are extended by commercial banks to some large producer-exporters to finance production and marketing costs. NGOs have begun to make loans but they reach few farmers. Likewise, RoSCAs are beginning to emerge but they seem to be limited to vendors in domestic retail markets.

Although firms face problems in getting formal loans, there appear to be many more important constraints affecting horticultural exports.Transportation facilities are poor and investments in public infrastructure amount to only four percent of GDP. Airport facilities are poorly maintained and the lack of cooling facilities contribute to losses. Airfreight is used for most exports but the airfreighters are small and have inconsistent schedules. High airfreight costs sharply reduce producer margins. Research and extension programs are weak or nonexistent. The Economic Policy Analysis and Development Unit (EPADU) is valued by exporters for its training and assistance to individual firms. The Horticultural Exporters Association is in its infancy and has not made a significant impact on the subsector. Likewise, the Uganda Export Promotion Council has suffered from bureaucratic problems. For these several reasons, horticultural exports fall short of their potential.

Furthermore, horticultural exports to Europe have become increasingly competitive. Importers and supermarkets are demanding higher quality and regular supplies from their suppliers. Prices must also be competitive. Established producing countries such as Kenya are struggling to maintain market share in the face of increased competition from other suppliers. Late comers such as Uganda, therefore, are entering an increasingly competitive market which implies that market niches must be carefully identified if producers and exporters expect to succeed.

Four specific suggestions are made for monitoring new developments and for future analysis. First, the impact of the country's system of investment incentives needs to be monitored and possibly altered after it has become fully developed. If investment incentives are going to be granted, their employment and equity impacts should be evaluated in addition to their value of total investments. By fine-tuning the incentives granted, it may be possible to tilt the production system chosen by some entrepreneurs for some products in the direction of relatively more labor and less capital, and relatively more production through outgrower systems rather than through plantations.

Second, outgrower financing schemes, such as the one initiated by the Bank of Baroda, should be monitored to determine if processor/exporter guarantees can be employed so that banks can begin to develop direct relations with outgrowers rather than lending indirectly through processors/exporters. Outgrowers will eventually benefit from an ability to borrow directly from lenders for uses unrelated to outgrowing, and to have greater flexibility in choosing where to market their products.

Third, programs such as those implemented by EPADU and the Uganda Investment Authority are useful in providing information to potential investors and in the matchmaking of domestic with foreign investors. This latter function is particularly important because of the constraints imposed on foreign access to land. The sustainability of these efforts, however, is crucial if Uganda is to gain a competitive edge in the markets for horticultural produce.

Fourth, there is an important role for the government in providing the traditional public goods that benefit all firms. Investments in cooling facilities, reductions in transportation costs and delays, and improved communication services help all exporters, but may fall outside the scope of what any single firm can provide. Uganda must be competitive in both on-farm production and off-farm processing, handling and transportation to survive in the increasingly competitive foreign markets for horticultural products. Careful attention must be given to determining which support services can only be provided by the public sector, and which are best left to the private sector to develop and manage.

FINANCING AND MARKETING HORTICULTURAL EXPORTS IN UGANDA

by

Richard L. Meyer and Geetha Nagarajan

I. Introduction

Uganda is aggressively implementing a series of important economic reforms and the country is recovering from the disastrous past two decades. Since the start of the Economic Recovery Program in 1988, the annual GDP growth rate has averaged three times the rate of the 1965-90 period. Political stability has been achieved and inflation has been reduced thanks to tight fiscal and monetary controls and increased food production. Foreign exchange controls have virtually been eliminated. Advances are being made in creating a political and economic environment conducive to private sector economic growth. The government has identified the expansion in and diversification of export earnings as a prerequisite for sustained growth and a reduction in donor dependance to cover foreign exchange deficits. A key element in this strategy is the expansion of non-traditional agricultural exports (NTAEs). Low international coffee prices, the key export earner, contribute to the urgency of this task. Cotton and tea production are being rehabilitated, but it is doubtful that they will compensate for the decline experienced in coffee receipts.

Table 1 shows that agricultural export earnings have increased from $178 million in 1990 (99 percent of total export earnings) to $203 million in 1993 (98 percent of total export earnings). However, the traditional exports of coffee, tea and cotton have declined during the same period. The share of these traditional crops in total export earnings declined from 85 percent in 1990 to 63 percent in 1993. However, the value of the NTAEs increased from $23.02 million in 1990 (13 percent of total export earnings) to $70.80 million in 1993 (34 percent of total export earnings). The NTAEs include a wide variety of products such as horticultural and fish products and wood furniture. While a large quantity of maize and beans are exported to neighboring African countries, horticultural exports to overseas markets accounted for only 6.6 percent of the total earnings from NTAEs in 1993 (Table 2). The majority of horticultural products have been exported in the form of fresh fruits and vegetables and fruit juices. These include low value Asian and African vegetables exported to several European countries, especially to ethnic communities in the UK, fresh cut flowers to auction markets in the Netherlands, and organic bananas and pineapples to supermarkets in Switzerland. Uganda is one of the few African countries with producers certified by the European Union (EU) to market organically grown produce in EU markets.

The potential exists to expand horticultural exports from Uganda. The country enjoys favorable agricultural production conditions for growing many tropical and temperate horticultural products at relatively low production costs. The horticultural subsector can effectively serve domestic markets and, to a lesser extent, neighboring African countries. However, expansion of the sector to serve European markets represents a formidable challenge for several reasons including strong competition from established exporting countries such as Kenya, the lack of infrastructure facilities and market information, poor research and extension services, inadequate air and sea port facilities, and an inefficient formal banking system.

Thanks to the creation of the Economic Policy Analysis and Development Unit (EPADU), several well researched studies have been completed in Uganda which identify the nature of the challenges the country faces in expanding horticultural exports. These studies examine problems ranging from distorted macroeconomic policies to transportation bottlenecks to farm-level production constraints. But studies focussing on the role of finance in supporting horticultural production and marketing have been rare. This situation exists in spite of the lack of and/or the high cost of formal credit for investments and working capital. Furthermore, a frequently mentioned problem for farmers, processors and exporters is the lack of access to finance.

This paper makes a small contribution towards a better understanding of financial issues. It summarizes the marketing and financial strategies currently used by heterogenous agents in the horticultural subsector, assesses the importance of the credit constraint argument relative to the many challenges that entrepreneurs face in the sector, identifies possible ways to improve the financial system for horticultural exports, and examines the prospects for the subsector to effectively service domestic, regional and overseas markets. The next section of this paper describes the methodology used in the study. This is followed by a documentation of commodity and financial flows in the subsector through various agents. The marketing structure and the ability of the subsector to serve alternate markets are then discussed. Policy implications conclude the paper.

II. Methodology

The flow of commodities from production to final consumption in the horticultural subsector involves several participants. The commodity flow is also interrelated with financial and informational flows that eventually shape the market technology followed by agents in the various channels. The modified subsector framework employed in this study expands the traditional subsector approach developed by researchers at the Michigan State University for examining the participants at various levels of a subsector. The modified framework allows one to examine if access to finance and information along with asset specificity and uncertainty related to production and marketing of a product affect the marketing technologies and structure observed in a subsector (Nagarajan and Meyer, 1994). In addition to the standard analysis of linkages among the several agents found in the various channels of the subsector, our approach included an attempt to determine how access to finance and to information shaped the subsector and affected its performance.

The methodology involved first reviewing the several related studies currently available in Uganda. This information was then supplemented with a series of interviews conducted by the authors during April 1994. The interviewees included several exporters, wholesalers, retailers, commission agents, producers, hotels/restaurants that purchase large volumes of fresh horticultural produce, and agents who provide financial, transportation and other support services including market information. Table 3 describes the composition of the sample of key participants in the subsector interviewed for this paper. In addition, data collected from horticultural exporters by a local consulting firm during 1992 through structured questionnaires, and from interviews of indigenous savings and credit associations conducted by the authors in April 1994 were also analyzed for this report.

Emphasis was given to the fresh fruit and vegetables subsector within the NTAEs in order to make some comparisons between Uganda's situation with that of The Gambia, Madagascar, Rwanda, and Ghana where researchers from the Ohio State University had previously conducted studies on the problems of financing agribusiness. These case studies involved field work similar to that conducted in Uganda, complemented with interviews in the U.K. import markets. It is clear that other subsectors involving low value crops such as maize and beans may hold more market potential for Ugandan producers, especially at this stage in the country's development, than fruits and vegetables. Some of the issues analyzed here for horticultural crops, however, are likely to have relevance for other crops as well.

III. Commodity Flows in the Horticultural Subsector

The commodities produced in this subsector by several small and a few large producers are marketed by a number of agents in the domestic, regional and overseas markets. This section discusses the key participants in the horticultural subsector and the several supporting agents and support services that facilitate the flow of commodities through the various channels that comprise the subsector. Figure 1 describes these commodity and financial flows.

A. Fruits and Vegetables

a. Producers

The majority of the horticultural products are grown by numerous small producers and a few large farms. Several small producers in peri-urban areas also function as outgrowers to large producers or exporters. For example, nearly 400 small vanilla growers function as outgrowers to an established large vanilla exporter; about 20 small farmers are contracted by a large producer-exporter to grow Asian vegetables for export. The small producers usually serve the domestic markets through marketing agents, and indirectly the overseas markets through their contracted exporters. The large producers, however, concentrate on the overseas markets, and sell their export surplus and rejects in the domestic and regional markets through marketing agents (see figure 1).

b. Consumers

The domestic and regional markets are the primary consumers for large volumes of the low value horticultural produce grown in Uganda. A limited quantity is also consumed by domestic hotels and restaurants that cater to Ugandans and tourists. The EU markets have become major overseas consumers in recent years through increased imports of: (i) Asian vegetables for ethnic markets, especially in the U.K., (ii) high value products such as organic produce and asparagus for supermarkets, and (iii) roses for the auction markets in the Netherlands.

c. Marketing agents

Several wholesalers, retailers and commission agents function as market intermediaries to facilitate the smooth flow of commodities from producers to final consumers in domestic and regional markets. While the marketing agents, especially wholesalers, frequently produce the products traded by them, the retailers and commission agents generally perform only marketing functions. Several producer-wholesalers and commission agents in the major market sites in Kampala were observed to operate from temporary market spots such as parking lots instead of permanent market stalls within the market. Retailers, however, tend to operate within established markets (see figure 1).

d. Exporters

There are several exporters who actively trade with neighboring African countries but only a few export to overseas markets. The majority of the exporters tend to produce the products traded by them. However, a significant number of producer-exporters also buy from contracted outgrowers and independent growers to increase their volume of exports. There also exist a few pure exporters who exclusively purchase the products exported from contracted outgrowers and independent growers (tables 4 and 5). The use of outgrowers to produce export crops, however, depends on the type of products exported, level of infrastructure facilities available, and ability of the exporters to screen and monitor the outgrowers and effectively enforce the production and marketing contracts. Several exporters reported problems in enforcing contracts with their outgrowers (see annexes 1 and 2 for detailed case studies).

B. Floriculture Products

Floricultural exports, especially roses and asters, accounted for three percent of the earnings from horticultural exports in 1993 (EPADU). There are, however, only two large rose producer-exporters in the country. The roses are sent through Sabena airlines three times a week directly to the auction market and to private agents in Holland (see annex 3 for detailed case studies). The flowers are grown under glass house conditions that require heavy start-up capital. Floriculture requires constant supervision to maintain quality and rapid transport of flowers under cool storage conditions. These attributes of floriculture make outgrower systems for producing flowers for export markets, especially roses, less efficient compared to vertically integrated production systems where all aspects of production through exporting activities are handled by a single firm.

C. Supporting Agents and Support Services

The efficient functioning of markets requires many support services with agents who provide research, extension and market information, and transportation and packaging facilities. The government currently plays an insignificant role in providing the infrastructure required for the effective marketing of horticultural produce. In general, the share of investments made by the government in public infrastructure in 1993/94 was only 4.2 percent of GDP. Government research and extension support for production and marketing of horticultural produce is almost negligible except for the EPADU project.

The internal transportation facilities are poor. Since it is a land locked country, the majority of produce exported to the EU is air freighted. However, the airport facilities are poorly maintained and the lack of a cooling facility at the airport contributes to quality deterioration due to tarmac spoilage. The airfreighters have a small capacity and are not consistent in their schedules. There are only two commercial airlines, British Airways and Sabena Airlines, that consistently service Kampala twice a week to European destinations with a cargo capacity of only 30 tons/week. Other cargo companies such as Dairo Air (capacity of 36 tons/week to Europe), African Airlines Inc. (capacity of 30 tons/week to the Middle East) and Air East Africa (capacity of 36 tons/week to Nairobi) are unreliable. In addition, the air freight costs are high so several low value products such as Asian vegetables do not provide a high profit margin for exporters. With the current airfreight rate of $1.35 to 1.60/kg, transport costs account for 38 to 66 percent of the prices paid for Ugandan chillies and pineapples by the U.K. consumers. Furthermore, local facilities do not exist to produce quality packaging materials designed for exports so they are imported from Kenya.

The Economic Policy Analysis and Development Unit (EPADU), with assistance from USAID, currently documents and analyzes the prospects of the horticultural subsector to serve alternative markets including overseas markets. The unit effectively provides market information and short term training in production and marketing of horticultural products. In addition, it engages in matchmaking of prospective producer-exporters with importers, venture capitalists and foreign investors interested in joint ventures. Another organization, the Uganda Investment Authority (UIA), issues licenses for exporters and provides information to prospective foreign investors about the investment environment in Uganda. The Horticultural Exporters Association (HEA) is in its infancy and has not yet significantly affected the subsector. The Uganda Export Promotion Council (UEPC), a parastatal, has been less efficient in servicing exporters due to bureaucratic problems. A survey of horticultural exporters indicated that EPADU has been very supportive of the exporters by providing market information and training. The UEPC has also been used by exporters to obtain market information (table 6).

IV. Financial Flows in the Horticultural Subsector

The physical flow of commodities in the subsector is accompanied by financial flows since several transactions among agents in the channels involve consignment or delayed payments. This section examines the financial flows observed in the Ugandan horticultural subsector. Figure 1 traces the types of financial flows that exist among several agents.

Our interviews revealed an impression that Uganda faces a particularly serious social problem which constrains the development of the banking system. The fighting and political conflicts of the last two decades have eroded personal ethics, cultivated opportunistic behavior and contributed to a deterioration in respect for contracts. The loss of jobs due to economic restructuring and privatization, along with the incidence of AIDS, contribute to great uncertainty about the future. Many Ugandans are driven to seek quick profits and easy gains. Quick turnover trading activities are preferred to longer-term investments.[1] Lack of finance was often mentioned as a major constraint by several participants in the subsector. There are, however, several financial mechanisms developed by the participants to facilitate transactions in the subsector. This section examines the role played by formal, informal and semi-formal finance in the horticultural subsector.

A. Formal Finance

The Ugandan banking system was liberalized in the late eighties and it is currently constituted of one development bank, ten commercial banks and one cooperative bank. However, formal financial institutions play a negligible role in financing the agricultural sector. Of the total loan portfolio of all commercial banks of USH 183 million, only USH 56 million (31 percent) was allocated to agricultural activities by September 1993.[2] The Uganda Commercial Bank (UCB), a parastatal, and the cooperative bank, a quasi government owned organization, are the largest banks that actively lend to the agricultural sectors. The majority of loans from the other commercial banks go to trading activities and they allocate only one percent of their loan portfolio to agricultural production loans and three percent to crop loans. For example, while the UCB and the cooperative bank allocated nearly 46 and 38 percent, respectively, of the their total loan portfolio to agricultural activities, the next largest commercial bank, Bank of Baroda, allocated only 6 percent as of September 1993 (Bank of Uganda, 1994). The export guarantee and export refinance schemes initiated by the Development Finance Unit of the Bank of Uganda are seldom used by the commercial banks for loans to the horticultural exporters. The lenders are discouraged from using these schemes because of the administrative requirements and a guarantee coverage

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[1] Surprisingly, many foreigners we talked to are more optimistic about the country's future than are many Ugandans. The return of Asians to recover lost properties and rising foreign investments are indicative of this situation.

[2] The exchange rate as of April 1994 was USH 950 = US$ 1.

of only 80 percent of the loans.[3] Table 7 indicates that only 35 percent of the sampled horticultural exporters obtained export finance and development bank project funds from the formal banks.

Many of the problems faced by the Ugandan formal banks are common to Sub-Saharan Africa. The financial reform projects that are underway in many countries, including Uganda, have yet to make much impact on improving access or reducing costs of finance for agribusinesses. Rebuilding financial institutions and services is going to take considerable time, and the many production and marketing risks involved in agriculture will always place the sector at a disadvantage in competing for funds from formal banking institutions.

A large number of reports discuss the many problems of the formal financial system and the implications for agricultural development in Uganda. The problems are fairly well understood and include the following:

1. The total volume of agricultural credit is exceptionally low representing only about four percent of the total value of agricultural output. Very few of the farmers have access to bank loans. Most of the credit is allocated to marketing activities. The small share which goes to finance direct production costs is absorbed largely by medium and large farmers.

2. The maximum nominal interest rates authorized for agricultural loans are fairly high ranging between 23 and 42.1 percent compared to the rate of inflation currently estimated at about 9 percent. On the other hand, the minimum interest rate authorized for saving deposits is 11 percent. The resulting high banking margins are justified in part to cover the large amount of nonperforming loans that the two largest banks, the Uganda Commercial Bank and the Coop Bank, hold in their portfolios. This bad debt problem is attributed to poor loans made in the 1970s and 1980s when there was considerable political interference in the banking system. Loans were made to persons who were incapable or never intending to repay. Loan default is also frequently attributed to a significant amount of bank fraud that occurs even today when borrowers divert loan funds to purposes other than those for which they were lent. Poor loan recovery is also hampered by the lack of funds to make new loans to borrowers who repay their existing balances.

3. Transaction costs for getting loans and making deposits are high for many rural bank customers because there are only about 226 bank branches and they tend to be clustered in the more densely populated areas. This problem is expected to increase because the UCB is planning to close more than 40 unprofitable branches. This problem is expected to have especially negative consequences for rural savings mobilization.

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[3] This result is not surprising. Evaluations of export finance and guarantee schemes suggest that they have had only a limited impact in the countries where they are used (see Levitsky and Prasad, 1987; and Asian Development Bank, 1991 for details).

4. The rate of savings is low (four percent) because of poverty and limited access to financial outlets. The M2/GDP financial deepening ratio is only 7.32 which is amongst the lowest of the Sub-Saharan African countries. This implies that a large amount of transactions occur outside the financial system. Therefore, the financial system does not effectively play its expected role of reducing transaction costs within the economy.

5. Most agricultural loans are made with government or donor funds rather than funds mobilized by banks through checking and savings accounts. These funds are subject to wide fluctuations so borrowers can not be assured of access to new loans if they have a good repayment record and propose high quality investment projects.

6. The several problems of the financial system imply that most entrepreneurs must rely on offshore banking, informal loans or equity to finance their investment and working capital requirements for farming or for procuring, processing and exporting farm products.

Given the high transaction costs involved in screening, monitoring, and enforcing loan contracts to highly risky subsectors such as horticulture, the formal banks are reluctant to lend, and when they do lend they demand secure collateral, and prefer traditional, well-established customers. The loans made are largely limited to the traditional crops of tobacco, coffee, tea and cotton. The NTAEs are perceived as being exceptionally risky and even more subject to credit rationing by local banks. The export refinancing scheme and export guarantee funds have done little to resolve this problem for most horticultural entrepreneurs. The limited funds in these special programs are often extended to large farms such as rose producing farms (see annex 3 for details). A few private commercial banks, however, are experimenting with innovative financing methods to reach small producers. For example, the Bank of Baroda is experimenting with providing working capital loans to small producers who are contracted as outgrowers by large established producer-exporters who function as loan guarantors. Some commercial banks also provide limited overdraft facilities to large producer-exporters to finance their production and marketing costs.

Since loan screening, transaction and collection costs are prohibitively high for formal financial institutions, a variety of informal credit and savings arrangements have emerged to service household and business needs. Some of the informal arrangements are a response to financial repression and underdeveloped formal financial services and institutions in the country. Others, however, are based on traditional values of reciprocity, and because of their low transaction costs will continue to prosper even when financial markets become more developed. The next section elaborates on this source of financial services.

B. Informal Finance

In general, the investment and working capital needs of producers, exporters, and marketing agents are either self-financed or financed with informal finance. Table 8 shows that the majority of horticultural exporters used the consignment method of sales which implicitly provided short term supplier's credit to the foreign importers. In this way, the exporters essentially provided informal finance to the importers. The majority of the transactions in the domestic markets, however, involve cash transactions in spot markets. Informal finance through outgrower credit schemes, supplier's credit, loans from moneylenders, friends and relatives, and indigenous savings and credit associations play a major role in financing working capital requirements of small producers and marketing agents (see figure 1).

a. Outgrower credit schemes

Outgrower schemes are not as widely practiced in Uganda as is in Kenya to procure produce for exports. The data reported through interviews with 32 horticultural exporters indicate that while 47 percent of the exporters contracted with outgrowers, the majority produced the products they exported and/or purchased them in spot markets. This section provides an outline of the nature of the outgrower contracts and their implications based on our interviews with exporters and outgrowers.

The outgrower schemes are essentially product-credit linked contracts between exporters and producers. They can also be treated as advance payments made by exporters to producers to ensure a good supply of produce at harvest time. Our interviews with exporters of Asian vegetables and organic bananas revealed that they provide loans to their outgrowers at the beginning of the season with an agreement that the outgrowers repay them in kind through the sale of products delivered to them at harvest time. In addition, several exporters provide technical advice to their contract producers. Although no explicit interest rate is charged on these loans, exporters are generally able to negotiate a product price about 25 percent lower than the market price to compensate for their opportunity cost of funds lent. The outgrowers are expected to follow the exporters' instructions about cultivation practices and are bound to sell their produce to the exporters at a price fixed by the exporter at the time of harvest. A breach of contract results in termination of future contracts. On the one hand, exporters reported problems in that several outgrowers sold their produce to other exporters who offered better prices or failed to deliver quality produce on time. Indeed, one exporter had to work with about 85 different outgrowers in the past seven years to eventually pick a core of 20 reliable outgrowers (see annexes 1 and 2 for details). On the other hand, some outgrowers were concerned about the underpricing of the produce by the exporters and their occasional refusal to buy all their products due to their poor quality. The majority of the crops produced for export markets are not preferred by local consumers so the producers are left with no market for their produce if the exporters reject them.

Outgrower schemes can have several advantages: (i) they help achieve equity objectives by benefiting small growers, (ii) they enable exporters to obtain a larger quantity of produce for exports, and (iii) they facilitate the production of labor intensive crops at a lower price on small farms. For small producers, outgrower schemes ensure an assured market in addition to information about production techniques and to production loans. Therefore, the outgrower system offers an important alternative financial source to small farmers since formal financial institutions are reluctant to lend to them and several informal financial arrangements are expensive.

These schemes, however, can involve: (i) high monitoring costs for the exporters to ensure quality and timely delivery of products to meet export market requirements, (ii) larger capital outlays for exporters who lend to their contract growers, and (iii) additional transaction costs incurred by exporters to screen borrowers and enforce loan contracts. These costs can, however, be offset for certain crops through economies of scale due to large quantities of exportable produce, and savings in labor and management costs involved in own farm production. Whereas some crops lend themselves to outgrower systems since they involve little supervision, a small amount of working capital and minimal hired labor, some crops can not be feasibly produced under this system. For example, while french beans and bananas are suitable for outgrower schemes, floriculture production involving glass house production is not feasible under an outgrower scheme. Furthermore, outgrower schemes for exportable perishable crops are economical only when the farms are concentrated in small geographical areas and are located close to airports so that transaction costs can be minimized.

Contract farming may be a viable option in land constrained countries and in countries where ownership of large plantations is prohibited. However, high asset specificity in production of the crop, poor attitude of farmers to honor contracts to produce quality produce on a reliable basis, limited access to public information on production technology, and high transaction costs involved in screening outgrowers, enforcing contracts, dealing with opportunistic agents and loan collection costs may tilt the scale toward vertically integrated systems where production through exporting activities are carried out by a single firm. This shift toward vertically integrated systems may eliminate a loan source available to small producers through outgrower schemes. However, if exporters are able to device mechanisms to effectively screen outgrowers and enforce contracts, outgrower systems offer a good financial source for small farmers in Uganda.

b. Supplier's credit

Supplier's credit that flows upstream from sellers to buyers is the primary source of working capital for the participants in the horticultural subsector. The majority of the producers extend two to three week credit to their buyers including wholesale agents and exporters. Some producers also consign their products to commission agents who sell them and pay the producers after deducting a commission of eight to ten percent of the total value of the produce sold (see figure 1). Wholesalers often provide two to three week credit to retailers who, to a lesser extent, extend two to three day credit to their customers. The hotels and restaurants usually pay their suppliers at the end of every month, although products are delivered several times during the month. In all cases, supplier's credit is limited to customers with a long standing relationship and with a good reputation.

c. Informal moneylenders, friends and relatives

Some moneylenders charging over 50 percent interest rates per month were reported to finance the working capital needs of some exporters. Loans from friends and relatives are also occasionally used to finance working capital

d. Indigenous Savings and Credit Associations

Indigenous savings and credit associations are not very common among producers but Rotating Savings and Credit Associations (ROSCAs) are emerging among the vendors in retail markets to finance working capital needs. *Kibiinas*, meaning clubs or groups in Luganda, are indigenous groups found in Uganda. While these groups performed several social, financial and political functions in the 1960s, they are believed to have become inactive during most of the 1970s and 1980s. Our interviews revealed, however, that they are reemerging in several urban and rural market centers primarily to perform financial services. The characteristics of the groups interviewed are summarized here.

A total of eleven groups, ten drawn from four major markets in Kampala and one from a bank, were interviewed. Of the eleven groups, nine were Rotating Savings and Credit Associations (ROSCAs) while two were non-rotating in nature. The non-rotating associations were generally large with about 80 members, both men and women, and the membership was open to all types of vendors located in the same market. Savings were held by an elected treasurer. Each member had a passbook and was allowed to withdraw savings from his/her account when a need arises. A limited number of members were also given loans for very short periods to meet emergency needs at an interest rate fixed by the members.

Of the nine ROSCAs interviewed, only eight are currently functioning since the one operating within a bank stopped functioning in 1993 (advances for housing and buying consumer goods provided by the bank to its employees substituting for the funds mobilized through the ROSCAs combined with delinquency problems led to its demise). These ROSCAs are generally small with an average membership of about seven and are comprised of both men and women. Interestingly, men were found to be leaders of a few ROSCAs and were considered trustworthy by women members. These groups are formed among young and educated vendors functioning in the same market with an ability to pay the contributions on time. The average size of each saving contribution was equal to about US$10.50 made either in installments or as a one time contribution. The pots of accumulated savings were generally allocated to one group member every week through a lottery system or in order of recruitment in the group. Pots are also allowed to be swapped among members to meet emergency needs. Members are not constrained as to the use of funds. The majority of members used the funds to finance working capital and consumption needs, while a few used them to expand their business.

While the reemergence of informal group arrangements is encouraging, it is disappointing to discover, however, so few such group activities in Uganda compared to several other Sub-Saharan African countries. Nonetheless, three aspects of these groups are worth mentioning: (i) the majority were formed after 1990 due to the perceived economic stability and increased business attributed to a constant supply of produce from upcountry, (ii) the small size of groups and short rotating time reveals that the "water is being tested" for group solidarity that broke down during the 1970s and 80s, and (iii) the groups organized among young and educated vendors indicates a positive attitude among the Ugandans about their future. This provides a potential for NGOs to further sensitize these groups to the need for savings mobilization and to build financial institutions using a savings first approach and for later linkage to formal financial institutions.

Like formal finance, informal lending requires loan screening and recovery, but it can often be done at a far cheaper cost. It is logical, therefore, to expect that informal arrangements will continue to provide many of the financial services used by the agricultural sector in Uganda in the near future while the financial system is being improved and strengthened. Trader/processor/exporter financing of farm producers will likely be one of the important informal arrangements and is already being used effectively in tobacco production.

C. Semi-formal Finance: Role of NGOs

There are reported to be as many as 200 NGOs operating in Uganda with about a dozen offering financial services. Although many NGOs focus on relief and reconstruction, many have begun to offer financial services because of the perceived failure of both markets and government. A few NGOs are experimenting with a wide variety of institutional designs to provide short term working capital loans to producers. There is, however, a great deal of skepticism about the ability of NGOs to become financially viable in providing financial services. This section summarizes the key information provided by two NGOs about their financial activities.

a. The Uganda Women's Finance and Credit Trust Ltd (UWFCT)

UWFCT was established in 1984 as a national NGO supported by locally mobilized funds to assist women entrepreneurs in Kampala with loans and training. Currently, UWFCT is active in six districts, both urban and rural, in providing credit, training and a limited amount of deposit mobilization services. Women engaged in poultry, cattle rearing and vegetable gardening are the primary targets for receiving their services. Since earlier attempts to provide credit on an individual basis did not succeed in terms of good loan repayment, UWFCT is currently focussing on providing loans through indigenous groups that are reemerging in rural and urban areas. The indigenous group guarantees the individual loans extended by the trust. In addition, UWFCT also helps in the formation of groups to gain access to these services.

Although the credit program is not based on a savings first approach, the trust is sensitizing its clientele to save with the trust bank. Indeed, a pilot project has been implemented with one group where the trust matched the funds mobilized by the group to give individual loans to members.

The trust has a membership of 3,574 women, both individuals and groups. A total of 190 loans (USH 498 million) was reported to be outstanding as of March 30, 1994. The loan recovery rate was only about 44 percent. Deposits mobilized from members accounted for only about USH 174 million and the funds were mostly invested in T-bills. Funds for credit programs were drawn from a revolving fund formed using grants from the Netherlands Development Agency and local donations. An annual interest rate of 28 percent is charged for loans and 11 percent is paid only on deposits over USH 10,000.

b. World Vision/Uganda

World Vision/Uganda, an international NGO funded by Canada, started functioning in 1985 primarily to provide community development services. The credit program was started in 1992 to assist women engaged in poultry, dairying, trading, bee keeping and vegetable gardening activities. Credit activities account for only about 5 percent of their total portfolio of activities. A revolving fund provided by the World Bank is used to provide loans.

Currently, two types of credit projects are implemented by World Vision. A women's project initiated in 1992 targets individual women engaged in farming, livestock activities and trading. The loans are guaranteed by the borrower's husband and local chief. In addition, the borrowers are mandated to maintain a minimum amount of deposits in a local bank based on their cash flows. A total of USH 14 million was given out in loans to about 20 women and a recovery rate of about 85 percent was reported. A second project was implemented in 1993 to help women's groups who care for children orphaned due to civil war and AIDS. Although loans are given out to individuals for vegetable gardening, poultry and bee keeping activities, the group guarantees the loan. Loans are generally given in kind at annual interest rates of 15 percent for production loans and 20 percent for trading activities. So far, a total of 400 loans (loan size ranges from $100 - 1000) have been given out under this project and the loan repayment rate has been encouraging. This project also has a compulsory savings component although the deposits are not directly linked to size of loans or to loan repayment.

In addition to a dozen NGOs engaged in the provision of loans in rural and urban areas, there exist several NGOs who provide grants. It is difficult to estimate the share of NGOs in the total credit disbursed in Uganda. Nonetheless, they are believed to reach the clientele who are usually neglected by formal financial institutions. The NGOs, through their grass roots network, are perceived to be endowed with an ability to effectively screen borrowers and enforce contracts. However, their ad hoc financial policies based on a "credit first approach" and little emphasis on mobilizing local deposits is disturbing. A sustainable financial institution cannot be built purely on donor funds. A substantial amount of local initiative in terms of deposit mobilization needs to be incorporated into the institutional design. Whereas a credit program based entirely on locally mobilized funds may be difficult to achieve in the short run given the current economic situation in Uganda, there should be a stronger emphasis on deposit mobilization. Of course, the involvement of NGOs in deposit mobilization would require the Bank of Uganda to formulate guidelines to regulate their activities because any organization mobilizing deposits from the public has a prudential responsibility to account for them.

Both NGOs and donors need to be cautious about utilizing the slowly reemerging indigenous groups as conduits for loans. It may be too soon to intervene into these fragile groups. Channeling funds to these groups might destroy their local initiatives based on savings mobilization and mutual help. It is necessary to wait and see how these groups evolve before formulating ways to link them with formal financial institutions.

D. Joint Ventures and Venture Capital

A few producer-exporters, such as the one exporting organic bananas, have entered into joint ventures with foreign partners who provide them with working capital loans to finance production and transportation costs and, to a lesser extent, investments. Venture capital funds from the DFCU (Devl. Finance Company of Uganda) are reported to be the major source of investment loans for the large rose producing-exporting farms (see annex 3 for details).

E. Financial Services: A Summary

The methods that horticultural entrepreneurs currently use to finance their operations reveal the segmented nature of the country's financial markets. First, there are some highly specialized, highly profitable firms such as the rose producing farms that started with considerable equity capital, obtained information about and access to the foreign markets, and are able to generate good profits. These firms can obtain venture capital for investment purposes, have the political clout to access special lines of credit and guarantees, and are creditworthy enough to access domestic working capital loans and overdrafts. Frequently, these entrepreneurs were engaged in other businesses so that the new business can be cross-subsidized by other profitable businesses. The entrepreneurs may also have established creditworthiness with an offshore financial institution so they can choose among alternative sources of finance to get the best terms and conditions.

Second, there are a set of firms that have accumulated some assets earned from other businesses and decide to try their hand at horticultural production and/or exports. They may or may not have access to domestic or offshore sources of finance. These firms represent the type for which a government or donor may be able to make an effective contribution. The immediate problem for this firm is not finance; rather it is access to markets and production technology. Before the firm can expect to obtain bank credit, it must establish itself in the market place. This implies that it must use equity or informal credit to start the business. No bank will lend until the entrepreneur proves that he/she can successfully manage the firm and penetrate the high risk market so equity capital must form the original business capital. The firm may be able to enter a joint venture with a foreign company that wants to invest in Uganda, but the operation may be too small for a venture capital investment. Production may come from either own and/or outgrower sources. After demonstrating its capacity for several years, this firm may eventually obtain domestic finance, first for working capital, then for investment capital to expand the business. Eventually this firm may reach a financial constraint that will limit its growth or expansion. It will need a domestic financial system able to evaluate its performance and decide whether or not to grant a loan based solely upon balance sheet and income information, not upon politics.

The third group in this segmented market consists of small producers. They lack access to markets, information and finance and cannot hope to individually penetrate the export market. Their best alternative in the short-term is to link up with a domestic exporter in an outgrower scheme, or develop a direct link with an importer who is willing to extend private loans to facilitate their business. In the short-term, these individuals need savings services to help manage their cash flows, but they will not be able to access domestic loans. Furthermore, they probably would not be able to effectively manage a large loan.

Given the competitiveness of the horticultural export market and the lack of experience of most producers in penetrating it, the government and donors must recognize the limitations of any finance-led strategy to accelerate exports. For most producers and exporters, their real constraints are not just financial but include problems in transportation, storage and acquiring information (see table 9). Entrepreneurs must go through a long learning process probably with many successes and failures before either they or a lender can have much confidence in their future success. This analysis does not suggest that a sound financial system is not necessary for agricultural and rural development. In the long-run, producers of both traditional and nontraditional crops need reliable places to save and to borrow. The financial system of Uganda does not provide these services very efficiently today. A system is needed that will reward businesses and households with good performance, and exclude or punish those who misuse loans or default on payments. A savings-led strategy, perhaps linking formal with informal finance, may be worth considering. Large amounts of government or donor funds targeted for on-lending are definitely not appropriate. They will only serve to strengthen those with enough political clout to access the funds and to avoid repayment.

V. Marketing Structure and Prospects for Serving Alternative Markets

A. Marketing Structure

The commodity and financial flows discussed above indicate that the marketing structure of the Ugandan horticultural subsector cannot be described by a single nomenclature. It is highly segmented with various channels following diverse marketing technologies ranging from simple spot market transactions to complete vertical integration.

Figure 1 shows the commodity and financial flows through various channels that exist in this subsector. At the producer level, the marketing structure is dualistic. On the one hand, there are a few large producers engaged in exporting and have vertically integrated their operations from production to exports. The level of integration may be of three types: (i) complete integration in the case of large producer-exporters who produce all the products they export (C1: the large rose producing farms), (ii) partial integration in the case of large producer-exporters who also buy products from outgrowers to increase their volume of exports (C2: large exporters of Asian vegetables), and (iii) partial integration in the case of large exporters who exclusively buy all their products from outgrowers and independent growers (C3: large exporters of Asian vegetables and organic fruits). These large producer-exporters and exporters primarily serve overseas markets and sell only rejects in the domestic and regional markets. On the other hand, there exist several small producers operating independent fragmented farms. They primarily serve domestic markets and, to a lesser extent, regional markets through several marketing agents on a spot market basis (C3 and C4). Occasionally, some of the small producers may also function as outgrowers for large producer-exporters/exporters through market specification contracts and resource providing contracts.[4] At the market agent level, there exist several competitive wholesalers, commission agents and retailers who service domestic and regional markets in spot markets and through short term contractual arrangements.

Several factors including the asset specificity and uncertainty related to the products traded, and access to finance and information affect the marketing technologies used and the structure of the Ugandan horticultural subsector. While channels C1, C2 and C3 have access to formal loans, joint ventures, venture capital and good information, and are completely or partially vertically integrated, the C4 and C5 channels are self-financed or financed by informal sources and utilize market technologies ranging from spot markets to contractual arrangements. Access to finance helps shape the choice of marketing technologies found in the subsector but also segments the

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[4] In *spot markets*, assets are owned and operated by several agents at various stages and transactions are usually consummated through immediate cash transfers where price function as the primary coordinating mechanism. In *complete vertical integration*, all assets in all stages from production to marketing are owned by a single firm that produces all the commodities marketed by it, allowing for complete control over the production to distribution process by a single decision maker. In partial vertical integration, assets in some stages of production/marketing are jointly owned by several coordinating firms/agents that are contracted by a single focal firm. Similar to taper vertical integration, products marketed by the focal firm are produced by both the firm and its contracted partners. In between spot markets and complete vertical integration lie several types of contractual arrangements such as market specification, production management and resource providing contracts. *Market specification contracts* are formal but open contracts that are closer to spot markets where a marketing firm only promises a marketing outlet to its contracting partners without specifying the quantity to be purchased or prices or commit any of its resources in production of the commodities. In *production management contracts*, the marketing firm has increased control over the production and management of contracted producers since it is concerned about the quality of the produce. *Resource providing contracts* are closer to partial vertical integration where marketing firms provide market outlets and inputs for the production process of their producer clients. See Nagarajan and Meyer, 1994 for a more detailed explanation.

subsector. However, the inherent differences in the products traded that gives rise to asset specificity and uncertainty also affect the marketing technologies. Therefore, while finance shapes the marketing technologies observed in the subsector, it is not the only factor.

B. Opportunities and Constraints for the Horticultural Subsector

Uganda possesses favorable climatic conditions suitable for growing temperate and tropical horticultural products. It also may have lower production costs because of lower labor costs and fertilizer requirements than Kenya and several West African countries. The possibility of producing organic products also provides an opportunity for the country to serve an important niche in European markets. These advantages provide opportunities for producing horticultural products for alternative markets.

The current production and marketing systems can effectively serve domestic markets and, to a lesser extent, neighboring African countries. However, several factors limit its ability to efficiently service overseas markets. First, Uganda faces strong competition from well established exporting countries including Kenya, Zimbabwe, South Africa, Morocco, and the southern European countries in its effort to penetrate the fresh fruit and vegetable market of the European Union (EU) and the Middle East. Strong competition also exists from Madagascar, Indonesia, and other countries for vanilla exports, another labor-intensive crop which is attractive because it offers possibilities for increasing employment and income for small farmers. Second, changes in consumer demand in the EU countries and the increasing market shares of supermarkets places a premium on high quality and uniform production from dependable suppliers. The ethnic market for Asian vegetables in the U.K. is small, highly competitive and is also undergoing changes with a premium placed on higher quality. Even well established producers in Kenya are being forced to adjust to these demand changes by improving their quality and reliability through investments in cold storage, prepackaging and speedier transportation with less handling of the product between the farmers' fields and the supermarkets' shelves. Third, pressures to reduce transportation costs are prompting a relocation in the production of several commodities from East to West Africa, and from the use of air to sea transport. Fourth, the country's weak formal banking system lacks the capacity to support investments in risky enterprises such as horticulture.

Floricultural exports offer a good potential for the country but are constrained by the same problems outlined above. While cargo space is not a problem for the current level of cut flower exporters, excess demand for transportation may occur once the production increases in another two years. However, it will take a long time for the current two producers to produce a large enough quantity to justify chartering cargo planes to transport to Holland. A cargo plane explicitly for Ugandan flowers is justified only when more producers come into the picture and/or the current producers expand their business. However, with the high initial capital requirements and the inability of local financial institutions to finance such large and risky investments, it is difficult to imagine a substantial increase in floricultural exports from Uganda in the near future unless foreign firms and capital enter the subsector in a substantial way.

VI. Conclusions and Policy Implications

The horticultural subsector in Uganda has good potential to serve domestic markets and modest potential to serve other African markets. However, severe infrastructural, financial and managerial constraints impede its ability to effectively serve overseas markets. Four specific suggestions are made for monitoring new developments and for future analysis.

First, the impact of the country's system of investment incentives needs to be monitored and possibly altered after it has become fully developed. If investment incentives are going to be granted, their employment and equity impacts should be evaluated along with the value of total investments. By fine-tuning the incentives, it may be possible to tilt the production system chosen by some entrepreneurs for some products in the direction of relatively more labor and less capital, and relatively more production through outgrower systems rather than through plantations.

Second, outgrower financing schemes, such as the one initiated by the Bank of Baroda, should be monitored to determine if processor/exporter guarantees can be employed so that banks can begin to develop direct relations with outgrowers rather than lending indirectly through processors/exporters. Outgrowers will eventually benefit from an ability to borrow directly from lenders for uses unrelated to outgrowing, and to have greater flexibility in choosing where to market their products.

Third, programs such as those implemented by EPADU and the UIA are useful in providing information to potential investors and in the matchmaking of domestic with foreign investors. This latter function is particularly important because of the constraints imposed on foreigner access to land. The sustainability of these efforts, however, is crucial to maintain Uganda's competitive edge in the markets for horticultural produce.

Fourth, there is an important role for the government in providing the traditional public goods that benefit all firms. Investments in cold storage facilities, reductions in transportation costs and delays, and improved communication services help all exporters, but may fall outside the scope of what any single firm can provide. Uganda must be competitive in both on-farm production and off-farm processing, handling and transportation to survive in the increasingly competitive markets for horticultural products. Careful attention must be given to determining which support services can only be provided by the public sector, and which are best left to the private sector to develop and manage.

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Annex 1. Case Studies of Exporters Using Outgrower Schemes

Mr. A: Exporter of Fruits and Asian Vegetables:

Starting his career as a fish exporter, Mr. A shifted to exporting fresh Asian fruits and vegetables to the UK wholesale market beginning in 1985. Although experimented with own production for exporting, management problems compelled him to abandon own production and opt for an outgrower scheme. He also buys from independent growers who are not explicitly contracted to sell their products to him. Currently, a total of 22 outgrowers have been contracted to produce all his exportable products. Since the products exported require little monitoring and supervision and are sold to a wholesaler who caters to the UK ethnic market, it has not been difficult for him to maintain the quality of products produced by outgrowers.

Mr. A generally provides the outgrowers with loans in kind for production (average loan size of US $500/acre) at the beginning of the season and collects them through their sale of the products to him at harvest time. The outgrowers are bound to sell their products explicitly to Mr. A at a price 25 percent lower than the prevailing market price. This credit-product linked contract ensures supply of products to the exporter and also assures the farmers of a market in addition to access to production loans. However, there were several instances in which where the outgrowers did not sell their products to him. Instead, they sold to other buyers who offered better prices than Mr. A. Indeed, choice of outgrowers has never been easy because contract enforcement is difficult. Mr. A had to work with about 85 growers in the past seven years to end up with 20 reliable farmers that he is currently working with.

Generally, Mr. A pays the outgrowers two weeks after delivery of their products. The importer in the UK, on the other hand, pays Mr. A one month after delivery. Mr. A has been financing his business through retained earnings and occasional loans from friends. Although he has approached several domestic commercial banks, he has never been able to obtain loans for horticultural exports. While he faces some financial constraints in expanding his business and diversifying into higher value crops, the major constraints have been lack of cooling facilities, and research and extension services oriented towards horticultural crops.

Mr. B: Exporter of Organic Fruits :

Mr. B specializes in exporting organic fruits such as apple bananas. He started exporting three years ago with a Swiss based partner who was a consultant in Uganda. The Swiss partner provides capital and Mr. B provides management. The Swiss partner has obtained a contract with a major supermarket in Switzerland. The profits are shared 70:30 between the Swiss partner and Mr. B. He was grateful to EPADU for helping him to obtain an EEC certificate for organic farming. The certificate helps him to market his products as organic fruit in Europe which provides better prices than regular products. He exports about two tons once a week through Sabena Airways.

While a small quantity of the fruit is produced on his own farm, about 90 percent of the products exported are procured from nine outgrowers. He started with about three outgrowers whom he knew well in 1991 and slowly expanded to the current set of nine based on experience and recommendations from his well established outgrowers. To enable the farmers to follow organic farming, Mr. B provides cash loans averaging about US $ 215/month to buy mulching materials and seeds, and pay labor. In fact, these loans are considered by Mr. B to be incentives/bonuses rather than strictly loans that need to be repaid. However, the outgrowers are not informed about the real status of the "loans" but are made to believe that Mr. B may collect any time. In addition, he agrees to buy all the fruit produced by the outgrowers. Mr. B argues that this system helps to keep the outgrowers from diverting the money to consumption purposes and from cheating on the contract in terms of not using organic farming methods or not selling all their fruit to him. While he has occasional problems with his outgrowers in terms of quality, he is generally happy with the system. Poor quality fruits that account for about five to eight percent of the fruit obtained from the outgrowers are usually sold in local markets.

Annex 2. Case Studies of Exporters Using Own Farm Production

Exporters of fruits and Asian vegetables

Mr. C:

Mr. C has been in the business of exporting Asian fruits and vegetables and spices to the UK wholesale market through an Asian agent for about nine years. Although he inherited land from his parents, he had to borrow from local money lenders at a monthly interest rate of 20 percent to start farming for exporting. Currently, his activities are financed through retained earnings and occasional loans from moneylenders. About 90 percent of the products exported are grown on his own farm, and 10 percent is procured from independent growers with whom he does not have any fixed contractual arrangements. In fact, Mr. C has experimented with about six outgrowers in the past but never succeeded in enforcing the contracts in terms of the timely delivery of quality products. In addition, since the quality of the products delivered were of poor quality, the loans extended to them could not be collected. The scattered nature of the outgrower farms, the lack of government extension services to assist horticultural producers, and the type of crops grown were reported to be the reasons for problems incurred in obtaining quality products for exports through an outgrower system.

Mr. D:

Mr. D also had similar experiences with outgrowers and, therefore, has shifted to own farming. He also grows Asian vegetables and spices and exports them to UK. Interestingly, he has a partnership with a Kenyan-Asian horticultural exporter who provides him with technical advice, seeds to grow Asian vegetables and packaging materials to suit European standards. In addition, he has a reliable Asian agent in the UK who markets his products and provides him with necessary market information. While the initial start-up capital was provided as a loan by friends and relatives, his current activities are financed through retained earnings and occasional advance payments from the importer. However, he faces financial constraints in expanding his farm to produce high value crops for European supermarkets. It was impressive to learn about the substantial investments made by Mr. D to travel abroad to collect market information and secure markets for his products.

Annex 3. Case Studies of Rose Exporters

Mr.E:

Financed by DFCU venture capital funds and loans from two local banks, Mr. E was able to start a 20 hectare farm to grow roses and ferns under glass house conditions, and asparagus in open fields for export markets. Roses and ferns are sent to auction markets in Holland. A commission agent in Holland clears the flowers sent through Sabena Airways three times a week and puts them into the auction. Mr. E pays for all the airfreight costs at the end of the month, and the agent pays Mr. E one month after the delivery of the flowers. In general, he is able to realize a net profit of about US $ 0.10 per stem of rose. He exports about 120,000 stems every week.

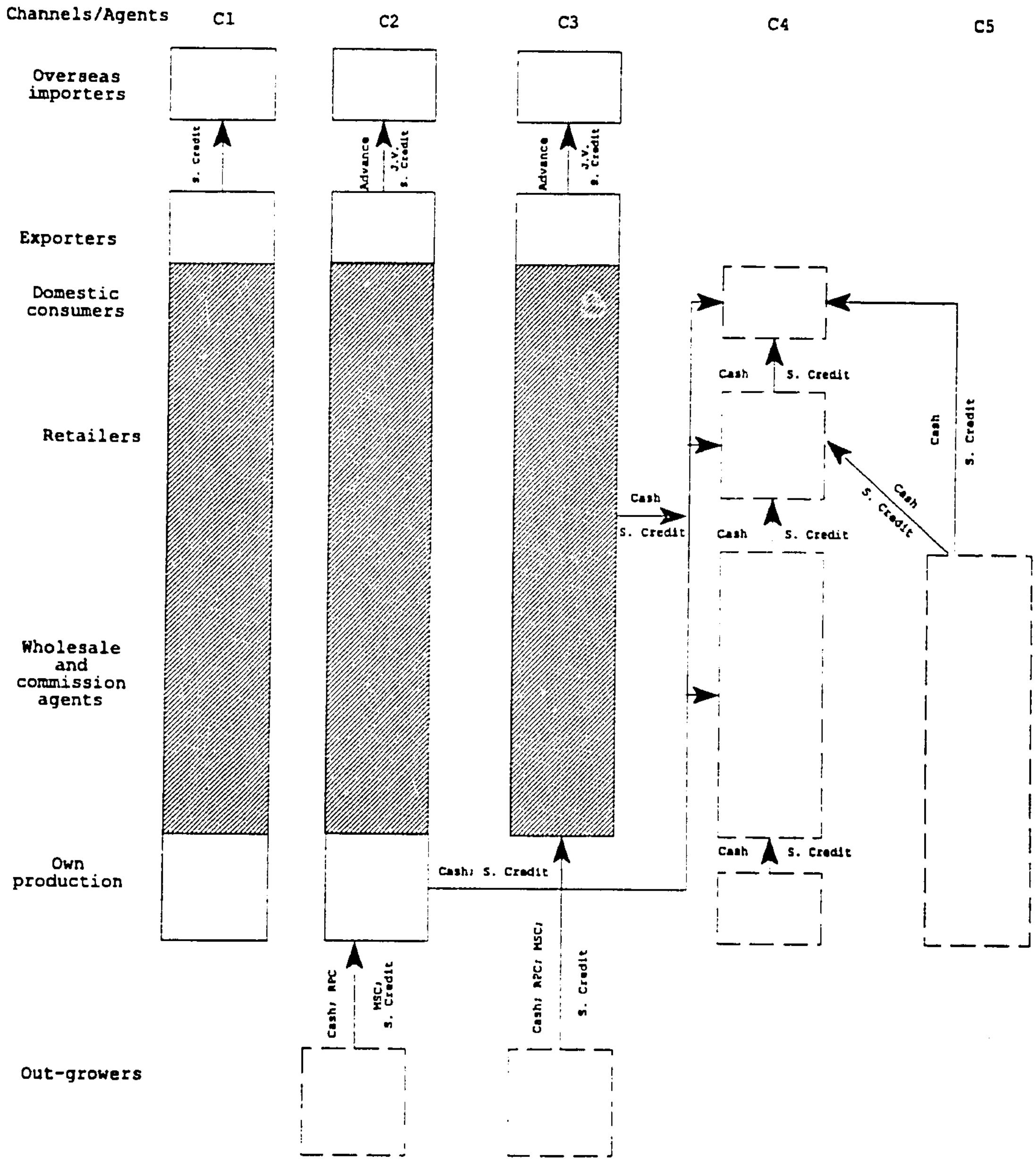
Thanks to the matchmaking efforts of EPADU, Mr. E got a contract with Geest, a major importer/distributor, in UK to sell asparagus. The importer exercised "due diligence" by inspecting his farm before accepting the cargo. Geest sells to supermarkets and pays Mr. E 30 days after delivery. So far, Mr. E has exported about seven tons of cut flowers and was able to realize a net profit of $2.00/kilo.

Mr.F:

Exporting about four million rose stems a year, Mr. F started cultivation of roses under glass house conditions for the export markets in 1992. A feasibility study conducted by EPADU helped him to obtain initial funds of about $1.2 million from DFCU venture capital funds, East African Development Bank and Uganda Commercial Bank.

The roses are airfreighted directly by Sabena airways three times a week to the auction market in Holland. The flowers are auctioned under Mr. F's brand name every Friday by the auction committee that pays for airfreight and auction handling charges. Mr. F is paid every week after the auction.

Figure 1 Commodity and Financial Flows through Various Channels in the Ugandan Horticultural Subsector.



Notes:

Occasional participation

Self and informal finance

Formal finance, joint ventures, venture capital

MSC: Market Specification Contract
S. Credit: Supplier Credit
JV: Joint Venture
RPC: Resource Providing Contract

Table 1. Earnings from Exports of Agricultural and Non-agricultural Products, 1990-93.[1]

Items	1990	1991	1992	1993
I. Agricultural Exports		(in million US $)		
a. Traditional crops[2]	152.57	140.69	115.52	130.39
	(85.0)	(71.7)	(75.9)	(63.3)
b. Non-traditional crops[3]	24.97	43.58	32.34	70.80
	(13.9)	(22.2)	(21.2)	(34.3)
c. Other agricultural products	0.24	0.29	0.87	1.35
	(0.2)	(0.2)	(0.6)	(0.7)
d. Sub-total	177.78	184.56	148.73	202.54
	(99.1)	(94.1)	(97.7)	(98.3)
II. Non-agricultural Exports	1.66	11.58	3.53	3.60
	(0.9)	(5.9)	(2.3)	(1.7)
III. Total Exports	179.44	196.14	152.26	206.14
	(100.00)	(100.00)	(100.00)	(100.00)

1 Share in total exports given in parenthesis.
2 Traditional crops include coffee, tea, cotton and tobacco.
3 Non-traditional crops include maize, beans, oilcrops, fruits, vegetables, spices, processed horticultural products, skins, hides, etc.

Source: Dept. of Customs and Excise, Uganda; Uganda Revenue Authority, Uganda.

Table 2. Earnings from Non-traditional Exports, 1990-93.[1]

Commodities	Years		
	1990	1992	1993
	(in million US $)		
Cereals & Beans	7.49	6.67	37.25
	(30.0)	(20.6)	(52.6)
Oil crops	5.44	6.5	3.03
	(21.8)	(20.1)	(4.3)
Fruits (including bananas)	0.78	0.28	0.45
	(3.1)	(0.9)	(0.6)
Vegetables	0.17	0.13	0.27
	(0.7)	(0.4)	(0.4)
Spices	0.12	0.49	0.45
	(0.5)	(1.5)	(0.6)
Processed horticultural products	0.95	0.41	0.44
	(3.8)	(1.3)	(0.6)
Other non-traditional products	10.02	17.86	28.91
	(40.1)	(55.2)	(40.8)
Total	24.97	32.34	70.80
	(100.00)	(100.00)	(100.00)

1 Share in total non-traditional exports given in parenthesis.

Source: Dept. of Customs and Excise, Uganda; Uganda Revenue Authority, Uganda.

Table 3. Number and Composition of Persons/Institutions Interviewed.

Items			Numbers/Institutions
I.	Case Studies		
	a.	No. of exporters/producers	6
	b.	No. of producers only (outgrowers)	4
	c.	Wholesalers	3
	d.	Retailers	4
	e.	Commission agents	2
	f.	Hotels/restaurants	2
II.	Surveys		
	a.	No. of exporters/producers	16
	b.	No. of exporters only	16
	c.	No. of indigenous financial groups	11
III.	Supporting Institutions		
	Formal banks, EPADU, UIA, Venture Capital firm, EDF projects, Horticultural Producers Association		

1 Includes fruits, vegetables and spices.
Source: Management Systems and Economic Consultants/OSU.

Table 4. Characteristics of the Sample of Horticultural Exporters by Types of Activity, 1992.[1]

Particulars			Number
I.	Sample Size		32
II.	Type of Activity		
	a.	Exporter only	16
	b.	Producer and Exporter	16

1 Includes fruits, vegetables and spices.
Source: Management Systems and Economic Consultants.

Table 5. Sources of Supply for Horticultural Exporters in Uganda, 1992.[1]

Item			Number[2]
I.	Sample Size		32
II.	Sources of supply		
	a.	Own farm production	20
	b.	Contracted outgrowers	15
	c.	Spot markets	20
	d.	Wholesale and/or specialized agents	5

1 Includes fruits, vegetables and spices.
2 Total may not add up due to multiple sources of supply.
Source: Same as Table 4.

Table 6. Services Obtained by Horticultural Exporters from Various Support Institutions, 1992.[1]

Service	UEPC[2]	EPADU[3]	UIA[4]
	(Number of Respondents: 32)		
Information about new market opportunities	10	8	0
Advertising of their products abroad	3	2	0
Training on production and marketing	3	28	1
Matchmaking	4	1	0
Incentive certificates	2	0	4

1 Includes fruits, vegetables and spice exporters.
2 Uganda Export Promotion Council.
3 Economic and Policy Analysis Division in Uganda.
4 Uganda Investment Authority
Source: Same as Table 4.

Table 7. Awareness and Use of Various Credit Sources by Ugandan Horticultural Exporters, 1992.[1]

		Number of Respondents	
		Aware	Access
I.	Sample Size: 32		
II.	Credit Source		
	a. Crop finance	10	0
	b. Export finance	17	5
	c. Development Bank project funds	12	6
	d. Operational constraint funds at EPADU	0	0
	Others	0	0

1 Includes fruits, vegetables and spices.
Source: Same as Table 4.

Table 8. Methods of Payment Used by Foreign Importers of Ugandan Horticultural Products, 1992.[1]

Particulars		Number[2]
I.	Sample Size	32
II.	Methods of payment	
	a. Letters of credit	4
	b. Consignment	27
	c. Advance payment by importer	3
	d. Supplier credit	1

1 Includes fruits, vegetables and spices.
2 The total may not add up due to multiple responses.
Source: Same as Table 4.

Table 9. Constraints Faced by Horticultural Exporters in Procuring and Marketing, 1992.[1]

Particulars			Number[2]
I.	Sample Size		32
II.	Constraints		
	a.	Financial	21
	b.	Transport	19
	c.	Poor quality products	17
	d.	High prices for inputs	15
	e.	Storage facilities	15
	f.	Cold storage at airport	13

1 Includes fruits, vegetables and spices.
2 Total may not add up due to multiple responses; the constraints are not arranged by ranking.

Source: Same as Table 4.

LIST OF PERSONS CONTACTED

Bank of Uganda

Agricultural Secretariat:
Mr. L.E. Eturu, Director
Dr. N. S. Shetty, Senior Agricultural Economist/Advisor
C.H. Gashumba, Deputy Director
Dr. W.O. Odwongo, Assistant Director
Ms. Laurent Kyokunda Tusingwire, Economist

Development Finance Department:
Achellis Okema Akena, Ag. Director
B. M. Kisambira, Deputy Director
Francis G. E. A. Emuron
A. N. Nair, I. D. A. Advisor
Joseph Nsereko, Desk Officer, Enterprises Division

Research Department:
Louis A. Kasekende, Director

Supervision and Regulation Department:
C. O. Mwa

Banking

Bank of Baroda Ltd.
K. U. Yajnik, Chairman & Managing Director
Amit Kharadi, Senior Manager

The Cooperative Bank Limited
C. M. Ntamu, Acting General Manager, Credit
Dirk Van Hook, Advisor, ACDI
Anne Gakwandi, Chief Credit Manager, South West Region
Sarah Mpanga, Credit Officer

Uganda Commercial Bank
Ben O. Opiny, chief Manager, Project Div., Dev. Fiance Group

Development Finance Company of Uganda Limited
Rick Phillips, Operations Manager

EEC/EDF Microprojects Programme
Steven Hind, Technical Assistant

Extension Department
Christopher Wali - Vanilla Coordinator, Mukono

Hotels and Restaurants
Equitoria Hotel: Sachin Damle, Foods and Beverages Manager
Sheraton Hotel: Patrick Kanyale, Purchasing Manager
Fairway Hotel: Silver Nyaleairu, Manager, Foods and Beverages
Botanical Beach Hotel: Purchasing Manager

Makerere University
J. Ddumba Ssentamu, Ph.D., Head, Department of Economics
Dr. Mark A. Marquardt, Senior Researcher, Makerere Institute of Social Research

Ministry of Finance and Economic Planning

Export Policy Analysis and Development Unit:
Professor E. O. Ochieng, Director
Nimrod N. Waniala, Deputy Director
Paschal Nyabuntu, Post Harvest and Marketing Specialist
Dr. Tuan A. Nguyen, Advisor (MetaMetrics Inc.)
James Cartwright, Advisor, Non-Traditional Agricultural Exports
Terry Bannister, Crop Development Specialist
Julie Stepanek, Assistant to the Senior Policy Advisor

Mark Henstridge, Macroeconomic Advisor

MSE Consultants Ltd.
Z. O. Ojoo, Managing Director
Omiat Omongin, Director of Projects

Producers/Exporters
Abdu Katende-Mukasa, Sun-Trade and Consulting Int. Ltd.
S. Kibalama-Katumba, Chairman, Horticultural Exporters Assoc.
Vincent Ssenyonjo-Bazira, Nile Roses Limited
G. Ddingiro-Lwanga, Ziwa Horticultural Exporters
Moses Kasule, Interfruit
Friday Mosoke, Mukono Exporters

Statistics Department
S. K. Gupta, Chief Technical Adviser and Int'l Survey Consultant

Uganda Coffee Development Authority
Peter K. Ngategize, Manager, Research and Development

Uganda Investment Authority
Lawrence Byensi, Senior Investment Officer
Angela Katama, Manager, Special Projects
Arnold Lessard, Deputy Executive Director

Uganda Women's Finance and Credit Trust Ltd. (NGO)
Rebecca Nsimbi, Sr. Operations Officer
William Asiimwe, Training Officer
Robina Kisule, Project Officer Charge of Savings
Edith Violet Mulyanga, Coordinator

U. S. Agency for International Development
Keith Sherper, Director
James F. Dunn, Agricultural Development Officer

World Bank
Gerard Byam, Senior Economist, Eastern Africa Dept.

World Vision/Uganda (NGO)
Sarah Ndugu - Administrative Manager, Credit.

This list also includes several outgrowers in Mukono, and wholesalers, retailers commission agents, Matoke truckers and leaders of informal groups in Nakasere and Wuvino markets in Kampala.