The Uganda Commodity Exchange: Is It Time?
A Preliminary Feasibility Review

in conjunction with

The Task Force of the Uganda Commodity Exchange

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The Agribusiness Development Centre
(Uganda's Investment in Developing Export Agriculture)

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SUMMARY

This preliminary report serves to outline the intended development of the Uganda Commodity Exchange (UCE) and is based on the research of the Task Force. It is meant to provoke discussion so as to better guide the efforts of the Steering Committee.

What is an exchange? A commodity exchange is simply a place where, or means by which, farmers, traders, processors can meet to transact business. In short, it is an organized market place. Exchanges are not new. England's first exchanges appeared in the 1700s. The Chicago Board of Trade organized as a spot exchange in 1848. The Zimbabwe Agricultural Commodity Exchange (Zimace) began operations in 1993. Clearly, we are not suggesting a revolutionary trading tool, but rather a proven, time-tested mechanism for facilitating trade. An exchange will exist sooner or later in Uganda. It is a near economic development necessity. The question, therefore, is not 'Will it happen?' but 'Is now the time?' And, if now is the time, 'How should we proceed?'

The objective of any exchange is to reduce the costs of doing business. Exchanges are not rigid mechanisms and how they reduce such costs will depend on the prevalent needs of buyers and sellers. Therefore, it is imperative that key groups—buyers, sellers, processors—be represented and involved in exchange start-up.

On the surface there appears to be opportunity for a commodity exchange to reduce the costs of trading in Uganda by more than the cost of doing business through the exchange. Initially this value might come in the form of price discovery and dissemination, offering an alternative market for producers, and by facilitating the meeting and transacting of business by buyers and sellers through brokers. The Uganda Commodity Exchange will be seen to add significantly more value when it can bring security to the performance of contracts and facilitate trading in paper rather than physical commodities.

In addition, it appears that the Ugandan business environment would support an exchange. Both small farmers and commercial farmers will benefit. There are many traders, processors and other buyers who would find the services of an exchange attractive. Telecommunications, though not up to international standards, is improving and the parastatal phone company will be privatized. Infrastructure is adequate. The media is diverse and open. The currency is freely exchanged. The finance sector trails other sectors in terms of reforms but it is improving.

The Government is supportive of private sector efforts to improve trade such as a commodity exchange. UCE will look to the Government to provide the legal underpinning that will permit its operation, but beyond this should attempt to self-regulate so as to avoid extensive Government oversight. The Government can support the UCE in other ways by considering tax concessions to those trading on the exchange, promoting it, and encouraging parastatals such as the army to purchase from it.

For a number of reasons—e.g., accessibility, communications, infrastructure—Kampala is suggested as the site for the exchange. It is envisioned that the exchange will move through three stages of development over the next five years from a "coffee shop" exchange to a spot exchange to a cash exchange. A "coffee shop" exchange describes those initial months when the exchange is as much an oddity, a curiosity as a functioning exchange where buyers and sellers, and those representing them, meet to seek out bids and offers, and to transact business. The first phase will hopefully be short and evolve into a spot exchange by the end of the first year or mid-way during the second year. From the spot exchange it is expected that a cash exchange will emerge sometime during the fourth year.

UCE would likely open its floor to the trading of almost any commodity. The list of possible products is quite long and includes locally consumed items, e.g., matooke, to products with local and regional potential, e.g., ground nuts, maize, soya beans, to internationally traded products, e.g., commercial bean varieties, to imported items, e.g., wheat, rice, edible oil. In time though, perhaps very soon, the exchange would likely trade a narrow list of products based on the volume currently or potentially moving through Kampala, the use of grades or the existence—if not use—of known and acceptable quality standards / grades, the storage life of the commodity and the number of potential traders.

Some of the promising products are profiled in the review, e.g., maize, beans, soya beans, wheat, rice, and sesame. Coffee and cotton also hold some promise but only if the UCE can identify and offer the services required by traders of these commodities. Trading in these products is a bit more structured and, therefore, the services needed may be more advanced. Given the potential volume represented by these two items and the need for UCE to trade volume to meet its budget, it would behoove the exchange to find a way to deliver the services needed by coffee and cotton traders.

The first year budget for the exchange, including fixed expenditures, exceeds $350,000. In subsequent years the budget runs between $250,000 to $290,000. Assuming an exchange commission of .5 percent (discussion with private traders indicated a willingness to pay from .5 to 2 percent) and an average value per metric ton of $200, UCE would need to trade an annual volume of 250,000 to 300,000 metric tons to cover its estimated costs safely. Reaching this level of annual trade would appear to be attainable by year five of operation.

SECTION I
INTRODUCTION AND OVERVIEW

A. Terms Of Reference

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1. The birth of this feasibility review dates back to 1995 and the work of the Agricultural Policy Committee, of the Bank of Uganda, then analyzing risk management and the creation of a warehouse receipts system. At that time, the committee endorsed the suggestion to investigate the creation of a commodity exchange. Against this backdrop and growing interest within a small circle, the Uganda Cooperative Alliance, the Agribusiness Development Centre (ADC) of the USAID-funded IDEA project[1] and VOCA (Volunteers in Overseas Cooperative Assistance) began to discuss the idea of researching in earnest the creation of an exchange.

2. In May 1997, at a meeting attended by 20 representatives of farmer organizations, traders, processors, exporters, development agencies, Makerere University and the government, the idea for an exchange was endorsed. Two committees were created, a Policy (Steering) committee and a smaller Task Force. The latter was assigned to undertake a preliminary feasibility review. The Task Force comprises eight members representing producers, traders/exporters, and government. This report, which was guided by the input of an outside expert,[2] is the result of the work of the Task Force. Appendix A contains an abridged version of the Terms of Reference for the Task Force.

B. Method And Process

3. Each member of the Task Force was assigned responsibility for researching different topics pertinent to the formation of an exchange. Subjects such as the role of government, the selection of commodities, the cost of an exchange, its organization etc. were considered and are presented in this report. The members relied on their own sources of information, including interviews with possible users and other interested parties.

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[1]IDEA stands for Investment in Developing Export Agriculture.

[2]Mr. Edmund "Ned" Pendleton has agreed to come to Uganda, through the auspices of VOCA, to assist in the establishment of a commodity exchange. He has significant experience with establishing exchanges and is a strong advocate of the need for a preliminary assessment before creating an exchange. In this regard, he has provided the Task Force invaluable guidance in the formulation of this report.

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4. This preliminary report serves to outline the intended development of the Uganda Commodity Exchange (UCE) based on the research of the Task Force. It is meant to provoke discussion so as to better guide the efforts of the Steering Committee.

D. Organization Of This Report

5. The report is presented in six sections:

I. Introduction and Overview
II. Commodity Exchanges: The What, Why, Who, How
III. The Uganda Commodity Exchange
IV. Commodity Profiles: Which Ones Have Potential
V. The Government's Role: Finding A Balance
VI. The Cost Depends On What Form UCE Takes

SECTION II
COMMODITY EXCHANGES—THE WHAT, WHY, WHO, HOW

A. What Is A Commodity Exchange?

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6. In 1114 A.D., in an attempt to encourage trade (for which they received fees), the Italian Counts of Champagne began to organize trade fairs. These fairs became primary centres of exchange for traders from England, Italy, Scandinavia and Flanders (now Holland and Belgium). The Counts provided safe keeping, money changers, and storage. To avoid disputes, as traders came from varied backgrounds, a commercial code called the *law merchant* was developed. Violators of this commercial code were taken before *courts of the fair*, manned by merchants, to argue their case and seek settlement.

7. Most transactions concluded at these fairs were *spot* in nature. An innovation to emerge from such fairs though was a forward contract document called a *lettre de faire* that specified delivery at a later date. First issued only in the sale of cash commodities between a single buyer and seller, these *lettres* evolved into negotiable documents. These standardized letters could be transferred to several parties before the commodity arrived in a warehouse. The *lettres* made trade by sample at the fairs acceptable.

8. From the above it is easy to see that an exchange is simply a place where, or means by which, farmers, traders, processors can meet to transact business. In short, it is an organized market place.

9. It is also evident that exchanges are not new. England's first exchanges appeared in the 1700s. The Chicago Board of Trade organized as a spot exchange in 1848. The Zimbabwe Agricultural Commodity Exchange (Zimace) began operations in 1993. Clearly, we are not suggesting a revolutionary trading tool, but rather a proven, time-tested mechanism for facilitating trade. An exchange will exist sooner or later in Uganda. It is a near economic development necessity. The question, therefore, is not 'Will it happen?' but 'Is now the time?' And, if now is the time, 'How should we proceed?'

10. An exchange is also not a profit-seeking import / export company. Exchanges typically are not money makers but a forum by which members, buyers and sellers benefit through organized trading. The exchange does not trade but provides a platform for it. It keeps records, disseminates price information and enforces contracts. An exchange

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earns its income by providing these services, receiving fees and commissions from brokers and dues from members in return.

11. If the exchange is not intended as a money maker, why organize or become a member of one? The answer to the first part of this question depends on what the market needs to efficiently transact business. Whatever those needs are, the exchange should be designed to provide. (For further discussion as to what an exchange in Uganda might offer see below part E. Can A Commodity Exchange Work In Uganda?). The answer to the second half of the question is that, among other things, members determine the mix of services the exchange will offer, can become brokers (earning broker commissions on trades concluded for others and saving such fees on their own trades), can establish the rules and regulations, can select commodities to be traded, can establish arbitration procedures and can draft the standard trading contract.

B. Why Have An Exchange?

12. The objective of any exchange is to reduce the costs of doing business. How this is achieved depends on the circumstances prevalent at any given time, and will be different from country to country. These costs might include the cost of finding buyers or suppliers, of poor quality, of price discovery, of unhonored contracts and so forth. Two basic attributes of most exchanges are that they aid in price discovery—based on standards, location, transportation, storage—and reduce performance risk, as only brokers, backed by bonds or some other performance assurance mechanism, can work on the exchange.

13. In addition, the services offered by an exchange will change over time with the evolution of the country's economy and needs of the businesses using it. Commodity exchanges are not rigid mechanisms. For example, in some countries the exchange adds value by providing and organizing a physical place at which buyers and sellers can be sure of finding a market. (Such a physical need was the rationale behind the Chicago Board of Trade.) In other circumstances, an exchange reduces transaction costs by bringing order—standard definitions of quality, standard contracts, standard acceptable means of resolving disputes—where previously there was known. Still in other countries, an exchange ameliorates accessibility to finance by adding value to assets previously rejected as collateral by lenders.

14. If the value of an exchange is in its ability to reduce costs of doing business then it is imperative that traders, representatives of producers, processors, brokers, banks, and government officials all be involved in one way or another in the establishment of the exchange. The risk of not

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doing so is that the exchange fails to identify the services it can offer that will bring value to its users. Key groups should be involved not only in defining the services but also in the organization of the exchange and its trading procedures. Their involvement does not end with the establishment of the exchange, but should continue as members of it in order to enhance the exchange's reaction time to users' needs.

15. From the government's perspective, commodity exchanges can contribute greatly to national development goals by facilitating trade at reduced costs and lower risk. This improved trading environment encourages more production and trade and increased international marketing opportunities, further spurring production and trade. These relationships become a self-perpetuating and ever expanding circle of on-going events to which an exchange contributes by:

    - Reducing costs of identifying markets.
    - Improving volume and quality of information available to those seeking to transact business.
    - Establishing and enhancing the acceptance and use of quality standards.
    - Improving on existing quality standards.
    - Enhancing the reliability of transacting business.
    - Facilitating access to finance.
    - Facilitating price risk management.

C. Who Uses An Exchange?

16. The principal beneficiaries of an exchange are the sellers and buyers. Exchanges depend on filling the needs of those active in the physical commodity sector. Sellers bring in products (physically or on paper). Exchange marketing brings in buyers, as do brokers anxious to earn fees.

17. Large companies can benefit from an exchange, but may be more reluctant to give up their "investment" in their current procurement system. Coffee may be a good example of this in Uganda. The bulk of coffee is purchased by international concerns who have financed local buyers. These buyers in turn have invested in a system of procuring coffee for their international companies. International companies may be reluctant to switch to an untested commodity exchange. Likewise, their

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buyer representatives may be reluctant to see an exchange develop as it could make their services redundant.

18. Experience shows that large companies, with many marketing possibilities and ability to afford more risky trading strategies, tend to use exchanges less than small companies, especially early in the life of the exchange. Small companies require more effort to educate and to contact, but provided they are aware of the exchange and how it works, and receive current market information from it, they can become the backbone of the exchange during the informative years. Again, coffee may provide a useful example. While a few buyers control nearly 80 percent of the coffee trade, there are numerous smaller companies vieing for the remaining 20 percent. These local companies do not enjoy the deep financial backing of international coffee companies and, for this reason, could find the exchange a quick and reliable way to turnover their trade, providing them the capital they need to purchase additional product.

19. Exchanges need to make an effort to educate and attract users, both large and small. This is a long process. Exchanges represent a new way of doing things and it takes time to overcome resistance, especially for those vested in the old ways. It is critical then that the UCE expect a long development lead time and budget adequate funds for education and awareness.

D. A Place To Meet To Trading On Inspection To Paper Sales: Is It An Inevitable Evolution?

20. If reducing transaction costs is the main rationale for an exchange, then it is imperative when establishing one to identify how the exchange can reduce such costs. An exchange survives by serving a need, bringing some value to the business of buying and selling by reducing the costs of doing so. Failure to do this, to identify correctly the needs and to change as required, will doom the exchange. As noted, there are many ways an exchange may bring value, e.g., facilitating communication between buyer and seller, organizing a physical place to buy and sell, standardizing how business is transacted.

21. At the same time, there is a sequence an exchange is likely to follow in its development and in the services it offers. For example, Zimace commenced operation on almost a "coffee shop" level. It is a place for buyers and sellers, and those representing them, to meet to seek out bids and offers, and to transact business. One broker works the exchange. From this, Zimace will progress to an open outcry system with a trading floor and several brokers.

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22. Just as the physical operation of an exchange tends to progress through known stages, the services offered by the exchange also follow a certain sequence. As a general rule, traders will require proper physical facilities for the spot trade of commodities before there will be trade in forward contracts. Before an exchange can improve financing for traders, it first must develop trade accepted quality standards and a reputation for reliable application of such standards. While the sequence of operation and services may proceed along fairly well documented stages and phases, the speed at which an exchange progresses through each will vary.

23. For purposes of this preliminary review it is anticipated that the Uganda Commodity Exchange will move through three stages during its first five years from coffee shop to spot exchange to cash exchange. More on this in Section III, The Uganda Commodity Exchange.

Spot vs. Cash Exchanges

On a **spot exchange** people buy and sell actual commodities for immediate delivery at an agreed to price. Spot markets work best for commodities with significant supply and demand from many potential sources to whom the commodity is important. Other aspects that aid in the proper functioning of a spot exchange:

- Orderly, supervised trading to take advantage of varied competition.
- Self-regulating, at this early stage there is little need for extensive government regulation.
- Trading in storable commodities with standard grades, or the ability to establish grades.
- Pricing left to market forces.
- Accessible facilities and smooth operation for transparent and efficient trading.
- Standardized contracts useful, though not a necessity at this point.

On a **cash exchange** people buy and sell actual commodities for immediate or forward delivery. A cash exchange will include all of the above plus use accepted standard grades and contracts. With such standardization, transacting business on the exchange may well evolve to trading on specification—grade certificates—rather than physical sample. In turn, this activity will likely expand the volume of trade.

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E. Can A Commodity Exchange Work In Uganda?

24. To answer this question it is first necessary to ask what are Uganda's needs? The short answer would appear to be "plenty." Price discovery for some important commodities is an expensive undertaking. Too, most commodity markets are disorganized, though the marketing system is fairly effective if not efficient. Middlemen, currently buying the bulk of basic commodities, like maize and beans, may find the exchange useful especially if they are not already tied to a buyer through credit.[3]

25. The lack of any significant commercial farming could retard exchange development, but UNFA and others have with degrees of success organized small farmers in the past to coordinate deliveries. The sanctity or inviolability of a contract is questionable. Buyers and sellers alike frequently break contracts if it suits their purpose. This presents both a hurdle and an opportunity for the exchange to add value. Quality is largely unrecognized in price and, not surprisingly, standards are not therefore applied by the producer. However, the notion of price for quality is accepted, i.e., coffee, and is learnable, i.e., Multipurpose Training and Employment Association.[4] Financing is a major obstacle.

26. Given the above, there would certainly appear to be opportunity for the Uganda Commodity Exchange to bring value by reducing the cost of trading by more than the cost of doing business through the exchange. Initially this value will come in the form of price discovery and dissemination, offering an alternative market for producers, and by facilitating the meeting and transacting of business by buyers and sellers through brokers. The Uganda Commodity Exchange will be seen to add significantly more value when it can bring security to the performance of contracts and facilitate trading in paper rather than physical commodities.

27. For the exchange to work it must have the support of potential buyers and sellers and of business people willing to become founding members and brokers. The exchange will require private capital invested by those with a long-term vision as to what an exchange can do for them. It will not be

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[3] Again the case of coffee may prove informative. Other commodities are traded much like coffee in that large local, rather than international, companies in some instances finance the field buyers. This relationship may influence both parties reaction to a commodity exchange in much the same way as described for international coffee companies and the local buyers they finance.

[4] MTEA is applying a system, developed by a private trader with assistance from the ADC, that pays a farmer according to the quality of maize delivered. Three grades are applied in the field. MTEA then delivers the maize direct to large buyers in Kampala, who, because of the savings on cleaning and drying, pay MTEA a premium price, a portion of which is passed on to the farmer through higher prices at all three grade levels. MTEA prices to the farmer are typically 10/= more per kilogram than the competition's.

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possible to raise sufficient private capital, so donor funding will be a necessity but can not become a crutch that mutes the exchanges ability to recognize and respond to the needs of those trading on it.

28. As noted, exchanges succeed by satisfying the needs of those active in trading. If UCE can not attract a representative sample of active traders for the commodities traded on it, than the exchange will have a short life. Can UCE improve on the current trading methods in Uganda? Is there adequate interest and participation on the part of potential users? The answers appear to be yes, but these are sufficiently important questions as to warrant further discussion.

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SECTION III
THE UGANDA COMMODITY EXCHANGE

A. The Business Milieu In Uganda Will Support An Exchange

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29. To determine whether generally speaking the business environment in Uganda could support an exchange a series of questions were posed and answered by the Task Force.

1. Will UCE serve / benefit the subsistence farmer as well as the commercial farmer?

30. The exchange will help all farmers by providing realistic market information (e.g., prices, quantity, quality). This information will become the basis for bargaining with buyers and planning.

31. As traders / brokers ascertain market demand and enter into contracts, there will be better chances for offering farmers competitive prices. Secondly, with contracts, farmers / traders can then approach a bank for production or marketing credit, applying price risk management tools. Therefore, the exchange will provide to small farmers realistic information on the market prices, the trends, and quality premiums, and it will empower the traders through better information, access to credit and cheaper arbitration procedures.

2. What is the quality of telecommunications?

32. The current state of affairs is poor, but improving. Installation can be maddeningly slow and errors on the monthly bill are still too frequent. With the privatization of Uganda Post and Telecommunications, it is expected that service will improve significantly. Cellular phones are available as is Internet access through two providers. Good switching equipment is available. In general, though not excellent, the telecommunications service is adequate.

3. Are there public warehouses issuing negotiable warehouse receipts?

33. Negotiable warehouse receipts are not yet used in Uganda, though there is a program underway to establish such for coffee. Warehouse receipts are being issued at a private, tripartite level. The law providing for negotiable warehouse receipts is yet to be passed by parliament, but the bill and Warehouse Receipts System regulations for coffee have been

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drafted. The WRS is expected to be launched in October 1997, although parliament might take awhile before passing the bill.[5]

34. Uganda does have modern public warehouse facilities in Kampala, Jinja, Kasese and Kyazanga and elsewhere. In addition, private warehouses also exist in these towns and others including Mbale, Masaka and Kabale.

4. Will the media be interested in / supportive of UCE?

35. The media in Uganda is liberalized and open, with over 10 daily or weekly newspapers in English and local languages. There are over five FM stations, numerous regional stations and three private television stations. These are all used regularly to disseminate business information and to educate the listeners or readers. Given that agriculture is the backbone of the economy, the media will be an important ally in building awareness and communicating information.

5. Are reputable public inspectors / surveyors for quality control available?

36. There is still limited capacity of inspectors for most commodities. However, the coffee sector is well advanced in terms of coffee grades / standards based on bean size and liquor taste. This capacity is also developing in the cotton sector. In maize and bean trade, which is dominated by the World Food Programme, and oil crops, dominated by Mukwano Industries, there exist personnel who can be trained as trainers to build the necessary capacity for an exchange. In addition, there are two private providers of quality control, SGS Uganda Ltd. and Audit Control Experts. Both offer warehouse space and the ability to certify quality and quantity.

6. What is the condition of inland transport and infrastructure?

37. For over 30 years the Government has invested heavily in the road network including first class tarmac roads and feeder roads. Over the next five years, these investments will continue internally and with neighboring countries. There is no large producing area that can not be reached by a normal 7-ton lorry.

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[5] The existence, use and acceptance of warehouse receipts for coffee will likely expedite their use on the exchange for other commodities, moving the UCE more quickly into trading on specification.

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7. Status of insurance underwriters?

38. Several insurance companies exist in the country and they have a national association. Although they might have limited experience in commodity trading, they have the capacity and will to develop this quickly.

8. State of contract performance?

39. Contract performance varies. One of the benefits of UCE will be its cheaper and more convenient modality for settling contract disputes through arbitration. Currently, such disputes go to court—there is no commercial court—and the courts are generally inefficient and corrupt.

9. Are there other towns that could have an exchange?

40. At the moment, Kampala is most suitable for an exchange due to its central location, satisfactory transport and telecommunication network, high concentration of banks, buyers / traders, insurance companies and warehouses.

10. Is the currency freely accepted and exchanged?

41. The Uganda Shilling is fully convertible and there is free movement of it within and outside the country. The Government is committed to a low inflation rate and creation of a conducive environment for local and foreign business and trade.

11. Is there an efficient banking sector?

42. There are over 20 commercial banks in Uganda, but surprisingly few that are assertive. This trait is changing, slowly. There is some level of inefficiency in the banks and plenty of past bad experience with agricultural lending. As a result, interest rates to agriculture, and in general, are high. Lending is primarily collateral based. Credit for the marketing of non-traditional crops (non-traditional includes crops other than coffee, cotton, tea, tobacco) is scarce without a contract and letter of credit, and then it can still be problematic.

12. Is there widespread support for an exchange?

43. There is wide community support for the exchange by those who know what it is and its benefits. However, some important users have not as yet indicated support for an exchange. In addition, a cross-section of policy makers and farmers have limited knowledge of exchange operations. There is therefore need for wider sensitization of the public

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and policy makers, who are now facing the challenge of agricultural modernization which would be facilitated by a commodity exchange and a warehouse receipt system.

B. The Physical Operation Of The Exchange

1. A Kampala-based exchange

44. Several key factors point to Kampala as the location for the Uganda Commodity Exchange: the level of communication and accessibility to communication services; the availability of infrastructure for both an exchange office and an exchange warehouse; the city's accessibility to transport by truck, rail, and air; the existence of more management talent; Kampala's central location and the concentration of buyers.

45. There are some disadvantages to Kampala, e.g., some products do not conveniently move through Kampala, distance for some will make trading through Kampala unviable, usefulness to smallholder may be diminished without adequate organization.

2. The Evolution of the UCE

46. The Uganda Commodity Exchange is likely to move through three stages during the next five years from "coffee shop" exchange to spot exchange to cash exchange. Such transition appears to have been the case from the development of the first exchanges and may be an inevitable development path for Uganda given the need to grow accustomed to the exchange and for the exchange to prove itself.

47. Predicting the evolution of UCE, especially the timing of movement from one stage to the next is a bit like crystal ball gazing. The UCE will, or at least should, evolve just a rapidly as its users demand. The first two stages are closely related. A coffee shop exchange describes those initial months when the exchange is as much an oddity, a curiosity as a functioning exchange attempting to provide the services of a spot exchange. For this reason the two are consider together.

48. Year 1 (coffee-shop to spot exchange): The physical operation will begin much as Zimace has in Zimbabwe.

- The exchange will select commodities for trade and establish trading times.

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- At least one broker will work the exchange, though there is the possibility of more than one, especially if UCE accepts members from those firms selected as stock exchange brokers.[6]

- Bids and offers will be posted, published, disseminated to broader public through radio, newspaper etc.

- The exchange will seek to establish and use standard contracts from the beginning with price, quantity and point of delivery left blank. A version of one such contract is in Appendix B.

- The exchange will establish arbitration procedures.

- Buyers / sellers will come together through an exchange broker.

- Transactions may occur through negotiation, auction or open outcry and agreements made pending inspection of product by buyer, after which contract is concluded.

- At this stage, UCE may not put itself between buyer and seller to guarantee performance. To provide some service in this area though, the exchange could require the establishment of a letter of credit by the buyer as a pre-condition to the buyer using the exchange. As agreements reached on the exchange should be consummated within a day, maximum two, this would not be an onerous requirement that might discourage buyers.

What is Open Outcry?

Open outcry is a method of sale where participants, together in one space, make bids and offers through open outcry and hand signals. This works best when buyers and sellers (or brokers representing them) are active in one physical location, i.e., a centralized trading floor, undertaking transactions during fixed trading hours. Transactions are then recorded on a board and into a computer system for public consumption. If buyers and sellers are already physically in one location, or they will need to be in one location once the exchange starts functioning, it is preferable to use an open outcry system. It is relatively inexpensive, has a low risk of system breakdown and has a certain appeal to first time users of an exchange.

[6] The advantage of accepting stock exchange brokerage firms as members and brokers of UCE is that they are backed by sound financial companies which will facilitate clearing and settling and expedite the emergence of a UCE clearinghouse function. The advantage to interested stock brokerage firms is that they will likely trade sooner, i.e., earn income. There may be possibilities for the exchanges to share costs, where one location serves both, trading commodities in the morning and stocks in the afternoon.

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49. Years two and three (mature into spot exchange): UCE could improve its services through the following actions:

- Rent warehouse space for receiving commodities for that day's or the next day's trading.
- UCE will establish specifications for different grades of each commodity traded based on needs of buyers.
- Exchange personnel would sample commodities, delivering the sample and a grading certificate to the exchange floor.
- Buyers will see the certificate and have the chance to touch, see, smell the sample as well. Through this approach, buyers will in time gain confidence in the certificate attached to the sample.
- Trades will be consummated based on sample and open outcry.

50. Benefits to buyers and sellers expected by the end of UCE's second year of operation include: facilitate the finding of counter parties, standardization of contract rules, access to arbitration, creation and use of standard grades.[7]

51. The UCE warehouse need not be adjacent to the floor of the exchange, but as samples will need to be brought to the exchange fast and sellers will prefer to be present when products are sold, it should not be more than a few minutes away. Sufficient laboratory capacity, i.e., quality control equipment, is needed to test all samples likely to be brought in during the peak season within acceptably short time. This means access to the exchange warehouse needs to be good, with plenty of space for queuing, and discharging, if necessary.

52. One advantage to Kampala for the location of a physical commodity exchange is the existence of several international inventory management companies. Firms, such as ACE and SGS, have the skills and capacity to act as surrogate UCE warehouses, which could lower the cost to the exchange—and hence to exchange users—of trading on samples.

53. UCE can enhance its spot trading, and expedite its transition to a cash exchange, by adopting a good grading system based on buyer needs for commodities it chooses to trade. As confidence develops in the exchange's ability to grade and trade, this system will free buyers from

[7] To be most effective, these grades should be established in conjunction with the needs of the buyers.

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the need to see samples, bringing additional efficiency and convenience—transaction cost reduction—to trading through the exchange.

54. By year four, sooner if users demand it, UCE will move to a cash exchange. A cash exchange is similar to a spot exchange except that paper with specifications detailed; i.e., grading certificates, will be traded. Initially this trading will still be based on certificates issued by the exchange warehouse. In time though, the exchange should be able to license private warehouses to perform the same work (maybe sooner, see paragraph 52). Based on accepted grades and use of licensed private warehouses, the exchange may start to move into forward contracting, and see the development of regional Ugandan exchanges, provided communication issues can be addressed.

55. The exchange can facilitate expansion to other regional sights by encouraging warehousing companies like SGS and ACE to adopt and use the same standards. In turn, this will expedite the use and acceptance of warehouse receipts for commodities other than coffee.[8]

56. It is worth repetition to note that the UCE will move through these stages just as rapidly as the private sector wishes it too. For example, even though Zimace is a combination coffee shop / spot exchange it appears to be trading some few forward contracts already.

57. Exchanges provide a service, and can only expect to remain in business as long as this service is needed. They exist because using them allows buyers and sellers to reduce their costs of trading. Exchanges have to change with the times in order to survive, introducing new products, instruments and mechanisms, and targeting new users. UCE is likely to be confronted with this problem more rapidly and with greater intensity than more established exchanges. In effect, UCE, by introducing standard specifications, rules and regulations and strengthening the discipline of trade, will create conditions which make its original activities and services obsolete. In general, if UCE provides a well organized trading system for certain commodities, with well developed procedures, and a good intermediary structure, it will be able to build on these strengths to introduce new products and services.

[8] The UCE may be able to move surprisingly quickly to the trading of exchange certificates if the coffee sector's experience with warehouse receipts is favorable.

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C. Bringing Confidence To The Exchange Through Rules And Regulations

58. Revisiting the Counts of Champagne for a moment and their *courts of fair*, we find that these operated much the same as rules and regulations established by present day exchanges. These self-designed rules defined contract terms, established methods of sampling, inspecting, grading and specified location and date of commodity delivery. Importantly, the Counts and the traders regulated themselves based on traders' acceptance of the commonly understood rules of trade and behavior.

59. Just as UCE will likely develop in stages during the plan period, developing confidence in the exchange will likely pass through phases as well. The first would be establishing UCE's integrity and the second phase will focus on building volume and liquidity. As for the Counts of Champagne, each phase focuses on the self-interest of the exchange to reduce the likelihood of abuse and wrong use.

60. In this regard, Appendix C offers draft rules and regulations for UCE largely based on Zimace. The rules discuss members and selection of brokers. (It will be necessary for the exchange to vet applicants and that those wishing to become brokers meet some minimum net worth requirement.) The regulations also address the need for an arbitration committee to settle disputes, outline trading procedures and discuss elements of a standard contract.

1. Establishing the integrity of the exchange

61. The first phase, years one and two, concentrates on establishing the integrity of the exchange by drawing up a standard contract, fine tuning the selection of exchange traded commodities and developing enforcement tools.

a. Standardize the contract

62. Working with a local lawyer (to be selected), the UCE will develop a standard exchange contract compatible with those used elsewhere and acceptable regionally and internationally. The standard contract will also facilitate the growth within Uganda of regional exchanges. A standard contract will typically define trading unit, deliverable quality, delivery location and method. Again, one possible standard contract is depicted in Appendix B.

Notes / Questions

b. Focus commodities

63. In the beginning, the exchange may accept to trade everything and anything in which there are interested parties. Matooke and bales of used clothing could just as easily trade on the exchange as maize and beans. In time though, if UCE follows the norm, the products traded on the exchange will focus on those with significant volume. As this happens it will be time for the exchange to consider adopting proper, known, and accepted trading specifications (see paragraph 66).

c. Develop enforcement tools

64. The rules and regulations will establish generally accepted terms for transacting business. Rules and regulations will need to be accepted and implemented by the exchange governing body. From early, the exchange may choose to ensure contract performance and protect both parties to a trade against risk of default. This might be accomplished initially by requiring Letters of Credit from buyers, that commodities be delivered to Kampala within a day or two of a brokered trade by the seller and encouraging the buyer to then inspect the commodity upon delivery. The framework for arbitration, including selection of an arbitration body, will be set out in the rules and regulations and in the standard contract.

2. Building volume and liquidity

65. The next phase, years two and three, targets building exchange volume and liquidity by trading on samples, pressing for tax concessions, establishing a clearinghouse and improving price dissemination.

a. Specify and document grading standards

66. The ability of UCE to trade samples—rather than encouraging buyers to make full inspections—will contribute greatly to increased volume, and hence improve exchange liquidity.[9] To accomplish this, it will be necessary to establish widely accepted standards or grades for products traded. These standards may vary from buyer-to-buyer, e.g., buyers of maize for cattle feed will likely have different standards than those purchasing maize for human consumption, and for this reason should be established by the buyers.

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[9] The next large increase in volume can be expected from the addition of other commodities, the creation of a UCE clearinghouse and the move to trading grade certificates, like warehouse receipts.

Notes / Questions

b. Press for tax concessions

67. The concessions are less for the exchange and more for those using the exchange as an incentive. Though such will be sought from the beginning, it may not be feasible to carry out some of the economic analysis exercises necessary to demonstrate to Government the benefits of offering tax concessions—e.g., reduction or elimination of VAT (if applicable), elimination of withholding tax—to those doing business through the exchange.

c. Improve price dissemination

68. Widespread and rapid price dissemination will lead to increased exchange trade volume. It will be important to hammer out a common price reporting format and procedure, to explore alternative technologies to price dissemination and to negotiate access to some form of electronic distribution for overseas and domestic destinations.

d. Establish a clearinghouse

69. One of the main services of an exchange, regardless of its level of development, is to reduce the counter party risk of consummating a trade. To accomplish this, to ensure that contracts are enforced, it will be important that UCE establish a clearinghouse placing it between the parties to the contract. In this way, UCE places its own name against that of the original buyer or seller. Should one party default, the exchange makes good on the contract.[10] The credit risk that traders face is thus that of the exchange, not that of the counterpart. This added security is a key reason for trading on an exchange rather than privately.

70. However a clearinghouse implies a certain minimum capitalization level on the part of the exchange and brokers. This need for capital is one reason why few nascent exchanges offer a clearinghouse service. The lack of accepted and used grades also complicates the establishment of a clearinghouse function. Importantly, in the case of Uganda, the low degree to which contracts are consider inviolable would make the operation of a clearinghouse potentially very expensive.

[10]There is a high degree of risk to providing such protection on forward contracts given the unique, customized nature of each contract.

Notes / Questions

Function and Structure of a Clearinghouse

A clearinghouse is an institution that guarantees settlement of a trade by substituting itself as the buyer to any seller and as the seller to any buyer. The structure can take one of several forms.

As part of the exchange. The clearing function can be located within the exchange. Financial soundness of the clearinghouse necessarily depends on then the financial strength of the clearing members of the exchange, and the capital earmarked and set aside as a guarantee. The advantage is that all the earnings of the clearing operation remain within the exchange. On the other hand, this arrangement requires very sound clearing members or a sufficiently large capital guarantee fund. For new exchanges, this arrangement may not provide sufficient comfort, though it may be adequate in cases where the exchange provides only limited financial functions.

As an independent clearinghouse. Such clearinghouses usually consist of banks that undertake the clearing functions and ensure financial soundness of the market, for a fee. The advantage is the involvement of well capitalized institutions to ensure potential users that the market is sound. So as not to lose all the financial benefits of the clearing operation, an exchange may take a partial ownership in the clearinghouse.

Use an established clearinghouse. As a third alternative, using an established clearinghouse has the advantage that it already has a good reputation and already has systems needed for efficient clearing. The disadvantage is the loss of earnings from the clearing function.

Notes / Questions

SECTION IV
PROFILING COMMODITIES: WHICH ONES HAVE POTENTIAL?

Notes / Questions

71. Appendix D provides a long list of export commodities, their volume and values, that could move through an exchange[11] and additional analysis for a few select items. Add to this list, imported items like wheat and rice, as well as locally produced and principally locally consumed products, e.g., matooke, groundnuts, and the list of potential UCE traded commodities becomes quite long indeed.

72. As noted, UCE can open its floor to the trading of almost any commodity. In time though, perhaps very soon, the exchange will likely trade a narrow list of products based on the volume currently or potentially moving through Kampala, the use of grades or the existence—if not use—of known and acceptable quality standards / grades, the storage life of the commodity and the number of potential traders.

A. Selected Commodity Profiles

73. Maize, beans, soya beans, wheat, rice, and sesame are profiled here because of the likelihood that they will trade on the exchange. Coffee and cotton also hold some promise but only if the UCE can identify and offer the services required by traders of these commodities. Trading in these products is a bit more structured and, therefore, the services needed may be more advanced.

1. Maize[11]

74. Maize will likely be the largest volume commodity traded through UCE in the early years. Average of maize production from 1994-1996 is just over 900,000 metric tons. The three year average export volume for the same period is over 80,000 mt., with an average value of over $23 million. (Other sources show production of about one-third and exports at about one-tenth of these figures.)

75. Among the problems in marketing maize is the long producer to end-user (e.g., grain miller, exporter) chain and lack of production financing.

[11] All figures should be taken as indicative at best. In some instances the volumes are grossly exaggerated.

Notes / Questions

Standards for export are well known though not applied when purchasing.

76. Support for a commodity exchange appears to be strongest at the lower levels of the chain. Total fees, exchange and broker, that would appear to be acceptable range from .25 to 1 percent.

2. Beans

77. Over the last three years, from 1994-1996, bean production has averaged 400,000 mt. (Other sources are a fraction of this volume.) Price information was not available, but prices generally run at least $300 / mt to over $500 per metric ton.

78. About half of all bean production is consumed on the farm. Of the surplus, about 20 percent is marketed to consumers buying directly from the farm. Demand far exceeds supply, with an estimated demand in excess of 700,000 mt.

79. With more accurate price information and expedited trading, a commodity exchange could help reduce the shortfall that exist in production. Production financing is also an expressed problem. With margins for both middlemen and exporters small, the exchange commission and broker fees should not exceed 1 percent. Most exporters expressed willingness to pay this amount.

3. Soya Beans

80. Soyabean production has increased steadily over the years. From 1994 to 1996, average production reached nearly 78,000 metric tons annually. 1996 production totaled 80,000 mt. (Other sources put production at less than 15 percent of these figures.)

81. Export volumes fluctuate greatly from year to year. The three year average is 4700 mt, with a high of nearly 8500 mt in 1996 and a low of 1690 mt in 1994. The value of exports in 1996 was $2,816,000. The three year average value is approximately $1,800,000.

82. Soyabean marketing involves numerous parties, including private traders, cooperatives, wholesalers, exporters, processors, and retailers. Margins are estimated at 27 percent for farmers, just over 3 percent for buyers / suppliers, nearly 40 percent for wholesalers and almost 18 percent for retailers.

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83. Soyabean marketing suffers from inadequate information, like most crops, inadequate financing, lack of quality and grade differentiation and, as a result, lack of tiered pricing reflecting premium for high quality. A number of market participants expressed willingness to pay commissions and fees totaling .5 to 1.2 percent.

4. Simsim (Sesame)

84. Simsim production averaged nearly 72,000 metric tons from 1994-1996. 1996 production totaled 74,000 mt., bringing it back in line with 1993 production. Export volumes have increased each of the last three years, averaging nearly 8000 mt. Still far from the recent high in 1991 of almost 18,000 mt. The reported three year average export value is close to $5 million.

85. Approximately 60 percent of simsim production is sold off as surplus. Simsim marketing is very competitive. Traders buy from farmers and bulk the simsim and sell it to exporters and wholesalers. There may be as many as 60 active simsim exporters. Margins are estimated at 40 percent for farmers and 20 to 33 percent for exporters. The buyers / suppliers acting as middlemen may operate on as little as 2 percent margins.

86. Information and credit are two persistent marketing problems. Simsim is graded on the basis of colour and the grades are recognized through a price differential. A number of market participants expressed willingness to pay exchange-related commissions and fees of not more than 1 percent.

5. Wheat

87. Wheat is both produced locally and imported. Total local production in 1996 reached 13,000 mt. In 1994, the latest figure available, imports totaled 10,400 mt. Both wheat grain and wheat flour are imported.

88. Wheat grain is bought FAQ, fair average quality. The market is 95 percent domestic. The problems of wheat marketing are the same as for other commodities, with the addition of wheat smuggling into Uganda. Interested parties have indicated a willingness to pay 1 to 2 percent in fees and commission for trading through an exchange.

6. Rice

89. Rice production averaged 80,000 metric tons from 1994-1996. 1996 production equaled 83,000 mt. Rice has become a staple in Uganda,

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especially in urban areas. In addition to the local production, one of the major importers can bring in as much as 50,000 mt, some of which will be re-exported. Crop value figures were not obtained.

90. Rice marketing involves producers, traders / suppliers, wholesalers and retailers. Most farmers sell their rice to traders who bulk it and sell it to wholesalers. They in turn sell to retailers and they to the consumer. This channel handles about 71 percent of the rice sold in the country. Some producers sell their rice directly to retailers or consumers. Traders sometimes sell to institutions, e.g., hospitals, hotels, schools etc. Interestingly, some agents act as brokers bringing buyers and sellers together.

91. There would be much support in the sector for an exchange, especially among large producers and importers. Potential participants felt that exchange fees and commissions could range from 1 to 5 percent.

B. But What About Coffee, Cotton, Tea, Tobacco

92. There are any number of other commodities that could be traded through the exchange. Other products that hold promise include groundnuts and cocoa. Of particular interest would be the sale of aid-in-kind products such as the oil sold through USAID's PL480 program. Obviously the UCE would benefit greatly from trade in the big four—coffee, cotton, tea and tobacco.

93. Current exports of coffee, cotton, tea and tobacco in 1996 was 249,000 mt, 9400 mt, 14,600 mt, and 3000 mt., respectively. The respective export value was $389 million, $14.6 million, $17 million, and $7.4 million.

94. Trading these products would provide a tremendous boost to the exchange. Significant trading of them may be slowed because of the investment buyers have made in their current procurement methods. In fact, for some the exchange will threaten their livelihood. Still, the exchange is expected to trade in these commodities at some time, starting most likely with the smaller operator who has more serious financing issues that trading through UCE could help remedy.

SECTION V
THE GOVERNMENT'S ROLE: FINDING A BALANCE

A. Understanding The Government's Interest In UCE

Notes / Questions

95. Unlike in the past when the public sector was present in every facet of the economy, the state is now interested only in creating a conducive policy environment and investing in public infrastructure, leaving things that can be done best by the private sector to the private sector. As a result of this shift in economic policy, the public sector has drastically shrunk since the 1990s while the private sector has grown at a phenomenal rate.

96. For example, the agricultural sector—dominated until 1990 by state marketing agencies like the Lint Marketing Board, the Coffee Marketing Board, the Produce Marketing Board, the Uganda Tea Growers Corporation—is now largely under private sector control as many of these state companies have either been dissolved or fully or partially privatized. As a result of decontrol and deregulation, those parastatals as yet not privatized, like PMB and CMB, are now minor players in their respective sectors.

97. In spite of government efforts to liberalize markets and encourage the private sector to play a leading role, disorganized marketing systems especially in the non-traditional crop sector continue to limit growth and development, leading to frustration on the part of producers, traders and the Government alike. This frustration has given rise to the interest of private sector stakeholders in a commodity exchange.

98. So far the Government has given encouragement and support to these private efforts, including assigning one of its senior officials in the Ministry of Trade and Industry to the commodity exchange Task Force. In addition, the Minister of Planning has privately expressed support. The notion of an exchange is also supported by the Ministry of Agriculture, Animal Industry and Fisheries as well as the Ministry of Planning and Economic Development. Both agree that an agricultural commodity exchange will contribute to transforming and modernizing the agricultural sector, one of the major tasks which the Government has set for itself in its five year program.

B. The Role of Government

99. Given the apparent interest and support of the Government in the creation of an exchange, the task in organizing UCE is one of achieving a balance between the stated Government interest in facilitating private sector

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action and its natural inclination to heavily regulate a new, unknown financial service. The relationship should not be adversarial.[12] UCE can not operate without a legal framework created by the Government for the functioning of a commodity exchange. Once this framework is in place, however, UCE should seek to regulate itself strictly so as to avoid any desire on the part of Government to step in and do so.

100. In time, as the complexity of instruments traded on the exchange increases so may the need for additional regulation. For UCE, however, regulation will be minimal to start with, limited only to the enactment of the necessary legal underpinning for the creation of the exchange. Beyond this the Government should only seek to facilitate the work of the exchange.

101. The Government may facilitate the UCE in a number of ways:

- Special tax credits or deductions could be offered to companies selling both locally produced or imported commodities through the exchange as an incentive to use it.

- Tax breaks could be offered to brokerage firms operating on the exchange as a way to encourage them to bring more trade to the exchange.

- Joint public sensitization campaigns could be undertaken to educate the public regarding the UCE.

- Government entities and parastatals involved indirectly in commodity purchases and sales, e.g., army, hospitals, university, etc., can be encouraged to procure through the UCE.

- Aid-in-kind could be sold through the exchange, e.g., PL480 oil, with a tax break offered to buyers. This would encourage the buyers and the providers of the aid-in-kind, as it would accelerate their sales.

- Banking regulations which might constrain banks from engaging in commodity trading as brokers or packaging instruments, such as warehouse receipts, could be reviewed and modified, if necessary.

[12] To promote awareness and a cooperative relationship, the exchange may wish to offer a membership seat on the exchange to the Government.

SECTION VI
THE COST DEPENDS ON WHAT FORM UCE TAKES

A. Identifying The Costs

Notes / Questions

102. It is expensive to create and operate an exchange; research costs, infrastructure, promotional activities, management all add up. The problem of financing an exchange is compounded by the lead time required before an exchange is recovering its costs. The learning curve of users means it can take five years or more before there is sufficient volume on the exchange to earn its way.

103. Appendix E presents a draft budget for the Uganda Commodity Exchange. The budget follows the evolution describe previously. The notes to the budget explain the rationale / assumptions behind the figures. A few budget items are worth some additional commentary.

104. The success of the exchange to a great extent depends on management. Management needs to think, to plan ahead; to establish a mission statement, and implement growth plans. Management needs to balance the potential conflict between members' comfort in the status quo, responding to their wishes, and the need to evolve if the exchange is to lead and be innovative. Management needs to have an eye open to commercial possibilities, even outside its traditional clientele and product mix, yet remain conservative, not hasty or overly optimistic. How much will it take to find this kind of person? Are the appropriate skills available locally? Will it be necessary to look outside the commodity business?

105. Information dissemination is key, for the exchange will draw much of its strength from price gathering and dissemination. The cost need not be exorbitant but the process needs to be accurate and quick. A quotation board at the exchange, paper, radio, t.v., Internet, and faxes should all be used. A good phone system with plenty of access (dozen or more lines) is important. UCE might consider publishing for members and subscribers a daily fax sheet or weekly or monthly notice analyzing market developments. Someone at the exchange should be assigned to phone queries.

106. Marketing and training will be important throughout the life of the exchange, and especially early. Training needs to focus not only on those employed by the exchange but also on those who use the exchange, i.e., brokers, buyers and sellers, like commercial farmers and UNFA. It will

Notes / Questions

also be important to educate the general public as to the function of an exchange.

107. UCE's projected budget for the first year of operation is in excess of $350,000. This is divided between recurrent costs representing 90 percent of the budget and fixed costs the remainder. In subsequent years the budget runs at about $250,000 to $290,000, with recurrent costs over 90 percent of the total.

B. Balancing the Budget

108. It will be sometime before UCE is able to generate adequate income to cover its costs. To make up the shortfall, the exchange will have to consider donors, the Government, and / or assistance from established exchanges that are now reaching out to provide guidance to nascent exchanges.

109. There are several ways the exchange can contribute to its own budget. By far the most important is the fee the exchange will charge on each trade. At this juncture, it is proposed that UCE consider a .5 percent fee on each trade. At current budget levels and assuming a blended sales price of $200 / mt., UCE would need to trade around 300,000 metric tons to cover its estimated costs safely. On the surface, it would seem that this trade volume is very attainable in the five year development planning period.

110. UCE will also charge each broker a proposed $1000 annual fee. This fee mirrors that charged by the Kampala Stock Exchange. Another way to raise funds during the early years is through the sale of member seats on the exchange.

111. UCE will confer trading rights on the exchange, i.e., broker seats, on the basis of membership. Anyone who wants to be a broker must have a seat. Seats therefore confer trading rights to a select group. The number of seats will be limited initially but expanded annually. Those wishing to trade on the exchange will have to do so through member-brokers. Owning seats allows members, who wish to become brokers, to earn fees from such and to save fees when dealing on their own behalf. By selling a few seats annually, UCE will benefit from appreciation in seat value due to its success.

GLOSSARY

Bid	An offer to buy a commodity at a pre-stated price.
Broker	Person, or company, paid a commission for accepting or executing the buy and sell orders of a customer.
Clearinghouse	Institution that guarantees settlement of a trade by substituting itself as the buyer to any seller and as the seller to any buyer.
Commission	Fee paid to a broker for the execution of an order.
Commodity exchange	An organized market place that can serve as a forum for trade in spot commodities, warehouse receipts, forward contracts, or futures.
Counter party risk	Risk that a counter party will default on an obligation, e.g., fulfilling obligations under a physical trade contract.
Default	Failure to meet an obligation, such as delivering against a contract.
Floor broker	Person who executes customer orders on the trading floor of an exchange; can in addition trade on his own account.
Grading	Inspection of physical goods, necessary to ensure they are of a tenderable quality.
Liquidity	Indicates the ease at which orders can be executed without undue effects on price level.
Offer	An indication of the willingness to sell at a given price.
Open outcry	Method of sale where participants are together in one space and make bids and offers through open outcry, and through hand signals.
Price discovery	Process of determining the price of a commodity based on supply and demand factors.
Spot contracts	Contracts for immediate delivery, i.e., within a few days.

APPENDICES

Appendix A

TERMS OF REFERENCE FOR THE UGANDA COMMODITY EXCHANGE TASK FORCE

TERMS OF REFERENCE

The following are the Terms of Reference for the Task Force.

1. Make a selection of the commodities likely to be traded on the Commodity Exchange.

2. Form sub-task forces to undertake studies on:
   a) Selected locally produced commodities.
   b) Selected imported commodities.
   c) Market place.
   d) Business Plan for the Exchange.
   e) Rules and Regulations of the Exchange.
   f) Role of Government.

3. Periodically review reports by various persons assigned to carry out the studies and provide comments to improve or make them more complete and eventually make a decision on the feasibility.

4. Discuss and agree on the modalities to operationalise the proposed Commodity Information Centre.

5. Report regularly (monthly) to the Policy Committee and seek their guidance on key policy issues.

6. Maintain consultations with the VOCA staff and Volunteer Consultant.

7. Using the media, interest and attract new stakeholders.

8. Solicit for funding to facilitate the work of the Task Force.

9. Organize a stakeholders seminar at the conclusion of the feasibility studies to discuss the way forward.

10. Any other activity that may be agreed upon by the Task Force itself.

Appendix B

THE UGANDA COMMODITY EXCHANGE
SALES CONTRACT
(Draft, June 1997)

Notes / Questions

SALES CONTRACT NO: ....

1. SELLER'S NAME: (State whether Individual, Company, Partnership, Association, etc)

Represented by ....

2. SELLER'S PHYSICAL ADDRESS:

....
....

P.O. Box: ....

TEL:.................................. FAX:.................................
EMAIL:...

3. BUYER'S NAME: (State whether Individual, Company, Partnership Association, etc)

Represented by ....

4. BUYER'S PHYSICAL ADDRESS:

....
....

P.O. Box: ....

TEL:.................................. FAX:.................................
EMAIL:...

5. COMMODITY................................

Notes / Questions

6. CONTRACT QUANTITY: (Specify permitted variances, if any)
   ....
   ....

7. CONTRACT QUALITY: (Specify tolerances)
   ....
   ....

8. MOISTURE LIMITATIONS/REQUIREMENTS:
   ....
   ....

9. WEIGHT:
   ....
   ....

10. SPECIFY DELIVERY:
    ....
    ....
    a) TIME/TIMES ....
    b) PLACE/PLACES ....
    c) CONVEYANCE ....
    d) PACKAGING ....

11. REQUIRED CERTIFICATES/DOCUMENTS:
    ....
    ....

12. PRICE...........................

13. PAYMENT TERMS:
    ....
    ....

14. INSPECTION:
    ....
    ....

15. SPECIAL TERMS AND/OR CONDITIONS:
    ....
    ....

Notes / Questions

16. WARRANTIES: The parties acknowledge themselves to be bound by all the terms and conditions of this contract which shall, unless otherwise stated, be determined in accordance with the laws of Uganda, and the Rules and Regulations of UCE. The parties further acknowledge and warrant that the terms and conditions contained herein constitute the whole agreement between them and that no other representations, terms or conditions shall be binding unless committed to writing and signed by both parties. The parties further warrant that any indulgences granted by one to the other shall not constitute any waiver of any of the terms or conditions contained herein.

17. ARBITRATION: In the event of a dispute arising under this agreement, whether as to the interpretation of any of the terms and/or conditions of this agreement or as to the extent to which a party may be in breach of any term, condition or undertaking, such dispute shall be submitted to Arbitration for determination in accordance with the Rules and Regulations set for such Arbitration by the UCE Arbitration Committee and the parties specifically agree to be bound by such Rules and Regulations and by any decision or determination made by an Arbitrator or Arbitrators appointed in terms thereof.

THUS AGREED TO AT......................THIS DAY .... OF........., 199

FOR THE SELLER: NAME: ....
ADDRESS: P.O. Box ....

TEL:.................................... FAX:..................................
EMAIL:...

SIGNATURE:...

FOR THE BUYER: NAME: ....
ADDRESS: P.O. Box ....

TEL:.................................... FAX:..................................
EMAIL:...

SIGNATURE:...

REGISTERED BY UCE BY: AUTHORIZED SIGNATORY:

....

Appendix C

THE UGANDA COMMODITY EXCHANGE
RULES AND REGULATIONS OF THE EXCHANGE
(Draft, June 1997)

Chapter 1: Application

Notes / Questions

These Rules and Regulations shall apply to Members and participants of the Uganda Commodity Exchange (UCE), being commodity Buyers and Sellers and seekers of market information. They supersede any previously published Rules and Regulations of UCE.

1.10 Amendment

The Rules Committee set up by UCE is entitled to make amendments in accordance with the given order of procedure (Par. 1.72). If, in the course of enforcing these Rules and Regulations a court decision is issued, then this decision becomes immediately part of the Rules and Regulations.

1.11 Publication of amendments

Changes in the Rules and Regulations brought about by the Rules Committee shall be published by UCE by advising Members by post.

1.12 Termination of UCE

The activities of UCE will cease to exist if the Company is wound up as per provisions of its Articles of Association and the Companies Act. If UCE ceases to operate, the Rules and Regulations will remain in effect until all contracts have been fulfilled.

1.20 The Uganda Commodity Exchange

a) The Uganda Commodity Exchange Limited (UCE) is a corporate entity duly incorporated in accordance with the laws of Uganda under a Certificate of Registration. It will trade under the name and style of The Uganda Commodity Exchange (UCE) to the attainment of the following goal:-

   To provide market information and services to buyers and sellers of commodities by: establishing and operating a Commodity Exchange of the highest integrity, available to Uganda as well as regional and international buyers and sellers, based upon an open free market system for the

Notes / Questions

mutual benefit of the sellers and buyers; and facilitating the procurement and marketing of any commodity provided or desired by any consenting parties through the auspices of the Commodity Exchange specific objects of UCE are stated in its Memorandum and Articles of Association.

b) UCE warrants that it shall satisfy the operational requirements of a commodity exchange (referred to hereafter as the Exchange or (UCE) as devised above, and perform the administrative and financial duties in connection with it on a continuing basis.

1.21 Duties of UCE

a) To provide adequate premises and facilities necessary to perform the Exchange activities.

b) To provide for the smooth and transparent operations of the Trading Floor, and to enforce observance of these Rules and Regulations.

c) To perform registration of Members in conformity with the Rules and Regulations of the Exchange.

d) To guarantee the openness of the trading on the Exchange.

e) To represent the Exchange.

f) To acquire, collect, store, process, manage, analyze, transmit, disseminate, exchange and publish, data and information in all its forms, and to organise or to participate in meetings, training, lectures, courses, seminars, workshops, conferences, exhibitions and shows of any kind in order to inform and educate Members of the Exchange and the general public on the functions and activities of the Exchange and any related issues.

g) To perform, operate and conduct any other procedures, actions, activities and functions deemed necessary by the Board of Directors for the proper and efficient functioning of the Exchange.

1.22 Available means to perform tasks

In order to operate the Exchange and to carry out its duties and functions, UCE is entitled to levy fees on its Members, participants or clients, who are buyers and sellers of commodities and seekers of

Notes / Questions

market information. UCE is entitled to receive a fee from buyers and sellers of commodities based on each transaction conducted on the Trading Floor of the Exchange or through UCE. The amount or rate of fees charged shall be determined from time to time by the Board of Directors of UCE. UCE is entitled to sell its publications, data and information, and to charge for any other services it renders. UCE shall accept support from well-wishers to enhance its capacity to carry out its duties.

1.30 General Meeting

The General Meeting is the forum of UCE Members. The General Meeting shall be convened annually on a date determined by the Board of Directors of UCE which date shall be within four months of each financial year end. Special Meetings may be called by Members in accordance with the provisions of the Companies Act (Cap. 486), as amended from time to time. Members, being fully paid shareholders of UCE, shall each have one vote per share owned. Actions require a majority of votes cast at the voting. Suspended Members can participate at the General Meeting only as observers; they have no right to vote. The General Meeting has a quorum of at least 51 per cent of the total voting capacity, i.e. of the total votes, of all registered Members. The General Meeting and all other meetings shall be chaired by the Executive Chairman (hereafter called Chairman) of the Board of Directors or his appointee or representative. In case of a tie at voting in a meeting the chairman of the meeting shall cast the deciding vote.

1.40 Board of Directors

The governing and management of the Exchange and the establishment of UCE policies shall be vested in the Board of Directors, which shall consist of the number of Directors and with the powers as provided for by the Articles of Association of UCE. The Board shall meet quarterly or on the call of the Chairman.

1.50 Executive Committee

The Executive Committee shall consist of Directors elected by the Board plus the Chairman of the Board. The Executive Committee shall have full authority to act for the Board when the Board is not in session. The Executive Committee shall meet on the call of the Chairman.

Notes / Questions

1.60 Other Committees

When a sufficient number of Members has been admitted, the following committees of UCE each with not less than three Members, shall be appointed by the Board of Directors annually at the General Meeting from amongst the Members of UCE, excluding any suspended Member, and shall be posted for general viewing on the UCE information board:

- Membership Committee
- Rules Committee
- Operating, Promotion and Ethics Committee
- Arbitration Committee
- Investigation and Audit Committee

The Members of each committee shall elect a chairman and a vice-chairman. The Chairman shall chair all the meetings of the committee. The vice-chairman shall deputize for the chairman. All Committee decisions shall be subject to variation and or ratification by the Board of Directors. The chairman of each committee or his representative must give a written report to the Board of Directors, and a verbal presentation of the report to the General Meeting, on the activities of the committee at least once a year. A Member of a committee can only be an Exchange Member with valid membership or a duly elected Member of the UCE Board of Directors. The Executive Committee shall perform the functions of any of the above committees that is non-functional.

1.70 Jurisdiction of the Committees

1.71 Membership Committee

The authority of the Membership Committee is covered in Chapter 2 on Membership, and within it, it refers especially to the following issues:

a) to fix the number of Members
b) admission of new Members
c) suspension of Members
d) termination of suspension e) expulsion of Members

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1.72 Rules Committee

The Rules Committee is responsible for continuously reviewing the Rules and Regulations of the Exchange and of implementing required amendments and additions. The initiative for amendments may come from the Committee's review, proposals of UCE Members, other committees of UCE, or from the Board of Directors of UCE.

1.73 Operating, Promotion and Ethics Committee

The duty of this Committee is to ensure that each UCE Member, Broker and participants operates in accordance with UCE's Rules and Regulations. The Committee may launch an investigation and may initiate actions in each case in which the action(s) or the conduct of one or several Member(s), Brokers or participants disturb, or affect in a way not permitted by the Board of Directors, the normal operations and order of the Exchange established by UCE. The chairman of the Committee shall convene the Committee on the basis of a request submitted, at the earliest date possible.

The Committee may make the following decisions:

a) It may reject the submitted request or complaint

b) Warning

The Committee may issue a written warning to the party found at fault to inform the Member or participant about his/her conduct deemed as harmful to, or affecting adversely the trading on the Exchange, and call upon him/her to desist.

c) Fines

The Committee may impose fines it deems reasonable, subject to variation by the Board, for decorum offenses, including disorderly conduct, intentional physical abuse, profane language, notwithstanding the right or duty of the Committee to institute criminal or civil proceedings against an offending Member or participant.

d) Suspension

The Committee may, in case of repeated infractions by a Member or participant, or in case of an infraction committed by someone

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else and sanctioned by the Member or participant, recommend to the Membership Committee suspension of the Exchange Member's or participant's trading privileges for any appropriate period.

e) Suggestion to terminate trading privileges

In case of a Member or participant whose conduct has gravely endangered or disturbed the operations of the Exchange, the Committee may recommend to the Membership Committee termination of such a Member's or participant's trading privileges. In case of such a suggestion, the Committee can also initiate at the Membership Committee the suspension of the Member's or participant's trading privileges for the period of investigation.

f) Termination of suspension
(see para 2.63)

g) If the Committee does not arrive at a unanimous decision in accordance with a), b), c), d), e) and), then it shall refer to the Board of Directors of UCE.

1.74 Arbitration Committee

The Arbitration Committee has a duty to initiate arbitration in disputes arising out of trading on the Exchange, or between a Broker or Brokers and/or Client or Clients, or between participant and buyer or seller, or the application of these Rules and Regulations.

The Committee shall devise, publish and amend from time to time the rules applicable to arbitration proceedings. It shall further procure and maintain a list of experts who may each be suitable and available to serve as arbitrators. It shall supervise the arbitration process.

1.75 Investigation and Audit Committee

This Committee has the power to investigate any reported or suspected case of wrong doing on any Member, Broker or participant of UCE. It may also carry out routine checks on the trading activities of Members, Brokers or participants, including the auditing of payments due to UCE from trading transactions and annual levies. The Committee may require access to a Member's, Broker's or participant's trading records, data or information to enable it, to discharge its functions. It will liaise closely with other Committees, especially the Operations, Promotion and Ethics Committee in

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carrying out its functions and in making recommendations from its findings.

Chapter 2: Membership

2.10 Initial phase

In the initial phase of the Exchange, the Trading Floor shall be open to any participant buyer, seller or seeker of market information who abides by the Rules and Regulations and any other trading guidelines of UCE, until such time as the Board decides that trading activities shall be conducted only by and through the Members of the Exchange.

2.11 Brokers

A broker of the Exchange shall be a natural person who,

a) is either a member or a bonafide employee of a member of UCE.
b) is at least 18 years of age.
c) has no criminal record for at least 5 (five) years.
d) is ordinarily resident in Uganda.
e) is familiar with the Rules and Regulations and rules of trading of UCE.

2.12 Members

A legal person may be a Member of UCE and may trade on the Exchange through the appointment of its own Broker (par. 2.30) if:

a) it applies for membership to the Chairman of the Board of Directors of UCE and such application is accepted by the Board;

b) it buys a minimum of corporate shares in UCE at a number, nominal and a non-recoverable premium value per share to be determined by the Board of Directors of UCE;

c) it pays its annual or periodic dues to UCE as established by the Board of Directors of UCE;

d) it pays the transaction fee for each transaction of the Exchange;

e) it maintains the financial guarantees called for by the Exchange;

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f) it guarantees the financial security and is responsible for the trading activities of its Brokers; and,

g) it complies at all times with all the Rules and Regulations of the Exchange as established by UCE.

2.13 **A Member will have the following rights**

a) the right to trade on the Exchange either in its own name for its own account or as a commission agent for Clients or Customers;

b) the right to appoint any other Member of the Exchange to act in its behalf. The appointing Member bears full responsibility for the appointed Member's activities on behalf of the appointing Member;

c) the right to vote at the General Meeting, casting one vote for each share owned and fully paid for;

d) the right to sell its fully paid for shares with the approval of the Membership Committee;

e) the right to dividends in proportion to its fully paid for shares when profits are realized and supported by audited accounts.

2.20 Admission of new members

The Membership Committee decides on the admission of new members subject to ratification by the Board of Directors of UCE. (The Membership Agreement is set forth at the end of these rules and regulations). The number of admissible members is established by the Membership Committee and subject to ratification by the Board.

2.30 Brokers

When trading on the Trading Floor shall become limited to the Members, a transaction shall only be made on the Exchange by a Broker who must be a Member of UCE.

2.40 Capital requirement by Members

When the system of trading through Members becomes operational the following shall apply: In order to trade on the Exchange, a Member or Broker will be required to have at all times sufficient

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capital in the form and amount determined and verified from time to time by the Board of Directors. UCE shall reserve the right to change the minimum capital requirement at any time and to require prompt compliance with the new levels.

2.50 Transferring the right of membership

A new applicant may become a Member after the upper limit on membership is reached only if it buys membership rights and shares of an existing Member (2.51). The price of its membership and shares as a right representing asset value, changes with the supply and demand, and it may be set contractually by mutual agreement of due parties (see draft agreement at end of rules and regulations), subject always to the unfettered discretion of the Board of Directors of UCE to allow or refuse such transmission of shares and membership.

2.51 Rules for transfer of right

Notwithstanding anything to the contrary contained in these Rules and Regulations, any transfer of shares by any Member shall be strictly in accordance with the provisions of the Memorandum and Articles of Association of UCE.

2.52 Acquisition of membership rights

The sale of membership and shares terminates only the rights inherent in membership but not the obligations which will continue except for the payment of membership dues. UCE releases the seller of membership from the membership register only following a full satisfaction by it of all its outstanding obligations. UCE is entitled to retain a portion of the financial guarantee of the seller or of its membership sales price that is equal to its unpaid obligations and to pay only the remainder.

UCE will inform its Members about the transfer of membership rights via the press and bulletin. The buyer will have the rights and obligations of a Member from the moment the purchase price is paid.

2.60 Suspension

If a Member of UCE or a participant on the Exchange fails to fulfil one of his/her obligations as listed below. his/her trading privileges may be suspended at the discretion of the Membership Committee or the Chairman of UCE

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a) his/her capital requirements are not met and sustained;

b) he/she fails to pay any amount payable in terms of these Rules and Regulations timeously;

c) a Client, buyer or seller fails to perform a contract registered by the Exchange;

d) a Client, buyer or seller fails to conform to the ruling of the Arbitration Committee;

e) insolvency and/or entering into any scheme of judicial management or arrangement with creditors;

f) he/she engages in fraud, by acts such as specified in item 5.21 below;

g) violation of any of the Rules and Regulations of UCE.

On the basis of a decision brought by the Membership Committee, the trading privilege of those persons may be suspended, who violate other provisions of the Rules and Regulations and/or carry on activities or comfort themselves in ways that are incompatible with the Rules and Regulations as interpreted by the Operating, Promotions and Ethics Committee or the Executive Committee of UCE.

2.61 Notice on suspension

On the first trading day following suspension, UCE is obligated to orally announce, before opening, the fact of suspension, and then publish it in written form

2.62 The legal status of the suspended Member or participant

The suspended Member or participant shall continue to have the regular obligations of a Member or participant of UCE but his/her rights are limited;

a) he/she cannot trade on the Exchange either directly or indirectly as a Client or Customer;

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b) he/she cannot offer his/her membership and shares for sale except if he/she has fulfilled all his/her obligations other than paying membership dues.

2.63 Termination of suspension

A suspension may be terminated by UCE through the Membership Committee with ratification by the Executive Committee only if the Committee is satisfied beyond reasonable doubt that all the reasons for suspension have ceased to exist, and the Member or participant has fulfilled all his/her obligations, including any eventual claims for compensation. Members or participants of the Exchange shall be informed about the termination of the suspension in accordance with item 2.61.

2.64 Expulsion from trading

UCE through the Membership Committee, Chairman, Trading Floor Guide or Floor Host may exclude from the Exchange and from trading privileges:

a) by immediate action, a Member or participant who has seriously violated the Trading Floor Guidelines or these Rules and Regulations and, by his/her acts, has endangered the operations, reputation or goodwill of UCE;

b) any Member or participant who has not eliminated the reason for his/ her suspension within 90 days of its suspension.

In the case of expulsion, UCE provides for the conclusion of the Member's or participant's contractual obligations, if any. The forced conclusion is to be organised and administered by UCE without interfering with the normal operations of the Exchange, and upon completion it shall give information thereof to the Members. The entire financial responsibility is at all times with the Member or the participant. The enforcement of legal redress falls upon UCE.

2.65 Selling shares as a result of expulsion

The shares of the expelled Member should be sold as soon as reasonably possible, without specifying a limit price. A Member expelled on the basis of 2.64 cannot claim that part of the proceeds not encumbered by outstanding obligations.

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2.66 Publication of actions taken

In the event of actions taken by UCE through the Membership Committee resulting in either the issuance of a warning, a suspension, a reinstatement of a suspended Member or participant, or an expulsion, a notice shall be circulated to Members and posted on the Exchange information board.

Chapter 3: UCE Members and Participants as Agents

UCE Member or participant may accept orders from a third person (Client or Customer) to trade for a commission if the Client has given the financial guarantee required by the Member. The Member or participant should specify the terms of accepting and fulfilling the order in a UCE Contract of Agency with the Client. The terms of the Contract of Agency as stipulated by the Rules and Regulations are as follows, and should form the basis of a drawn up and signed contract between the Member or Broker and the Client, or between the participant and the Client (a draft Contract of Agency is attached at the end of these rules and regulations).

3.10 Rights and obligations of contracting parties

Save as may otherwise be agreed, the rights and obligations of the contracting parties shall be as follows:

3.11 Client

a) The Client or each buyer or seller has to declare in the Contract that he/ she is familiar with UCE's Rules and Regulations, and that he/she accepts them, and considers them binding in case of a dispute.

b) The Client or each buyer or seller further declares that he/she is aware of the fact that trading on the Exchange has its risks, and that he/she is undertaking the obligation to take upon him/herself all the effects of such risks. The UCE Member acting as an agent or UCE cannot be held liable for any eventual loss incurred, and he/she or UCE cannot be obligated to share the loss except, in the case of a Member, causes harm to the Client in an intentional manner by violating its obligations listed hereafter. The Client recognizes that even in this case, the extent of damage compensation cannot exceed the loss resulting from the Sales Contract. It is the duty of

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the Client to limit the extent of damages by a prompt disclosure of a dereliction of duty on the part of the Member

c) The Client or buyer or seller accepts the obligation of promptly executing and performing a Sales Contract with the other party to the transaction once he/she has received notice or documentation from the Member, participant or UCE that a deal has been concluded.

d) The Contract of Agency should contain the financial guarantees required by the UCE Member or participant.

e) The Client and the Member or participant agree in the Contract of Agency that in order to execute trading at the Exchange, the Client is to pay a commission to the Member or participant. The commission is payable as provided in the Contract, and its amount shall be subject to negotiation between the contracting parties. Such fees and commissions shall be in addition to the actual amount of the transaction for the commodity.

f) The Client understands and agrees that in order to execute trading at the Exchange, the Member or participant must pay to UCE a fee for each transaction concluded on the Trading Floor or subsequently. The fee is payable as soon as an Offer to sell or Bid to buy a commodity has been agreed upon or accepted between the buyer and the seller at the Exchange. The buyer and seller share the fee payment on 50 percent basis between them. The amount or rate of the fee shall be determined from time to time by the Board of Directors of UCE.

g) The Client or buyer or seller is to identify in writing those persons who are authorised to act on his/her behalf.

3.12 The Member or participant

a) The Member or participant is responsible for executing the instructions given to him/her by the Client as completely as possible.

b) The Member or participant is to notify the Client on the completion of the instructions.

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c) The Member or participant bears a financial responsibility for errors made in its capacity as broker to the extent of the actual damages caused by it.

d) The Member or participant has an obligation to pay a transaction fee or charge and to obtain an official UCE receipt for such payment for each transaction concluded to the Exchange at an amount or rate determined by the Board of Directors from time to time.

3.20 Selection of an Agent, Member, Broker

In the initial phase of the Exchange preceding trading by Members/Brokers, a buyer or seller may appoint an agent (as a participant) to trade on the Floor of the Exchange on his/her behalf or may request UCE for introduction to an agent or agents. The buyer or seller and the agent must sign UCE's Contract of Agency. When trading by Members/Brokers starts, a buyer or seller who does not have a Member/Broker may request an introduction from UCE. UCE will provide him/her with the current list of UCE Members/ Brokers, their names and addresses for a choice. The name of such a buyer or seller desirous of introduction to a Broker or Brokers may be posted, unless such posting is prohibited by him/ha in writing, on the information board on the Trading Floor or in UCE offices, or in UCE Commodity Directories, so that all UCE Brokers have access to him/her and may solicit.

3.30 Trading on the Exchange

Trading on the Exchange shall be conducted strictly in accordance with these Rules and Regulations, and such other directives or guidelines as may be given to Members, Brokers, participants or to the Exchange by the Board of Directors of UCE from time to time.

3.40 Termination of the Contract of Agency

A Client may terminate the Contract of Agency with a Member/Broker or participant without cause if the Client has fulfilled all his/her obligations to either the Member/Broker/ participant or a third party via the Member's/Broker's/participant's mediation. The Member/Broker/participant must return any bank guarantee deposited for it within 15 days following the valid notice and the final settlement. If the Client fails to fulfil his/her

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obligations, the Member/Broker/ participant has the right to terminate the Contract with at least a 14 day notice.

3.50 Arbitration

In case of a dispute between the contracting parties, they will submit their case to the Arbitration Committee of UCE if they cannot come to an agreement, and the dispute shall be determined in accordance with the rules for arbitration set by that Committee, or by interpretation of these Rules and Regulations by UCE.

Chapter 4: Exchange Floor Operations

4.10 Trading hours on the Exchange

The trading hours on the Exchange shall be determined by the Board of Directors of UCE and posted on the Exchange. The Board of Directors shall be entitled to change the trading hours, taking into consideration the decisions of the options and Ethics Committee. Trading activities of UCE Members, Brokers, participants, buyers and sellers shall only be pursued on the Trading Floor of the Exchange and during working hours. The Exchange shall be closed on public holidays and such other dates as the Board of Directors shall determine.

4.11 Trading procedures

In the event of more than one Member, Broker, participant, buyer or seller wishing to conduct business on the Exchange, the following shall apply:

a) Trading shall commence at 10.00 a.m. on each trading day, or any other hour as determined appropriate by Board of Director of UCE.

b) All trading shall be conducted under the auspices of a duly appointed UCE official (Trading Floor Host) who shall be responsible for recording all offers, bids and trading terms and prices negotiated on the Exchange, and responsible generally for the smooth and transparent trading operations on the Exchange.

c) All trading shall take place at a designated UCE Trading Floor or premises.

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d) All Members, Brokers, participants, buyers and sellers wishing to trade should be present at the Exchange Trading Floor by 10.00 a.m. on a trading day.

e) Each participant, buyer or seller wishing to enter the Trading Floor shall fill out a Trade Form and pay an established entry fee to the UCE official before entry. (UCE Members and Brokers are exempted from payment of the entry fee).

f) The Trading Floor Guide shall record all commodity offers and bids on the Trading Floor Board before the Floor is opened for trading.

g) On opening the Trading Floor the Guide shall systematically and clearly call out all offer one by one and then through all the bids on the Floor board.

h) Trading shall close at the discretion of the Floor Host once he/she is satisfied that there are no further offers, bids and/or transactions to be concluded for that day, or at 2 p.m. which ever is the earlier.

i) Each transaction concluded must be recorded in writing and signed, either by the parties to the transactions or their duly authorized agents, before the parties or agents exit the Trading Floor.

4.12 Ancillary rules relating to trading on the Exchange

a) UCE shall not recognize any trade dealings with parties other than its own Members, Brokers or participants on the Trading Floor of the Exchange. Every transaction conducted on the Exchange must therefore be in accordance with the Rules and Regulations of the Exchange and no Member, Broker, participant, seller or buyer shall bring any action at law against either UCE or any Member or participant thereof for the purpose of altering or rescinding any decision of UCE.

b) Any two of the Chairman, Vice-Chairman and/or Director of the UCE Board of Directors shall have the authority to interrupt or halt trading on the Floor of the Exchange in any commodity at any time and for any period. provided that any action t~ken in terms of this rule shall be circulated immediately to all Members and participants. The resumption of trading shall similarly be circularized.

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c) Orders for the account of clients shall have priority over all other orders executed by Members or participants of the Exchange.

d) A Member or participant having orders to buy and sell the same commodity may book-over the commodity or commodities concerned through another Broker or participant provided that

i) he/she shall first test the market by making a double price which in the prevailing market conditions is fair and equitable to both buyer and seller; if any Member or participant bids to purchase the commodities at a price higher or offers to sell commodities at a price lower than the proposed booking-over price, the book-over shall be concluded only in respect of the commodities not so bought or sold;

ii) the other Member, Broker or participant is satisfied that the price is fair and equitable;

iii) both parties shall be prepared at all times to justify the prices, the terms of the transaction and the genuineness thereof with the relevant committee of the Board of Directors of UCE.

e) Special bargains: A special bargain shall be a transaction in commodities which are beyond the capacity of the market at the prevailing price. Transactions in special bargains may be put through at such price as is agreed by both the buyer and the seller. Special bargains shall, as with all other deals, be transacted under the auspices of the appointed UCE official and details of all special bargains shall be marked and reported to the Board of Directors of UCE.

f) UCE shall publish and distribute brief Guidelines for entry to the Trading Floor of the Exchange and shall revise and up-date these from time to time. These Guidelines are part and not a replacement or substitution of these Rules and Regulations of UCE.

4.20 Public Auctions

From time to time, UCE may, at the discretion of the Board of Directors, conduct public auctions on the Trading Floor of property (for example, furniture, paintings, objects of art, collectibles, etc.) that ate small enough to be handled on the Floor. Such items auctioned will be sold on the conditions offered by the seller. The public will be allowed adequate time ahead of each auction to

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inspect the goods offered. The bidding procedure will be determined by UCE and announced at the beginning of the auction. A commission from each sale will go to UCE to support the overheads of KACE. The public auctions will be conducted by Brokers duly authorized by UCE.

Chapter 5: Contract Terms

This chapter should be read together with or in reference to Chapter 3 of these Rules and Regulations.

5.10 Types of transactions authorized

Only the following types of orders may be executed: selling and/or buying.

5.11 Conditions for prompt delivery of commodities

Transactions call for physical delivery of commodities on the basis of a Sales Contract signed between the buyer and seller or between UCE Brokers or between participants or agents when a price has been agreed. Transactions on the Exchange are concluded directly between the buyer and the seller (or his/her agent) or between Brokers or agents for seller and buyer, and the rights and obligations arising out of the Sales Contract are those of the buyer and the seller and their agents.

A Sales Contract should be signed immediately by authorized signatures on the basis of the standard UCE Sales Contract sample provided, and made in a written form (see Appendix 4). The signed Sales Contract is recorded by UCE on the Exchange.

5.12 Price of the commodity

The price of the commodity will be expressed in the way defined by the Sales Contract. The price is based on delivery at the premises of the seller or at a location mutually agreed upon between the buyer and the seller or their agents, loaded onto means of appropriate transport, unless otherwise agreed.

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5.13 Quantity and quality of the commodity

As to the quantity and quality of the commodity, the following procedure should be followed save as may otherwise be provided in terms of a written Sales Contract:

At the execution of the order, the seller or agent is to identify the place/ warehouse where the buyer or agent can inspect the commodity. Even though she retains the right to inspect again after execution of the order. If the buyer or agent does not inspect the commodity at this point or does not have anyone to represent him/her at inspection, the buyer or agent is liable to receive the commodity in quality as if the buyer or agent had been present at inspection. If there is any dispute regarding the findings of the inspection, the stipulations of the Sales Contract shall govern. Goods that are better than specified in quality by the Sales Contract shall not be refused.

5.14 Delivery of the commodity

The commodity is received on the premises of the buyer or agent or at a location mutually agreed upon by the seller and the buyer or their agents, loaded onto means of appropriate transport. The Sales Contract provides for guaranteeing the means of appropriate transportation (if not already loaded), unless otherwise agreed.

5.15 Terms of delivery

Delivery may be regarded as immediate, i.e. it may start on the day of the execution of the order and it should be completed within an agreed upon period. The parties may also make other agreements. Other Suggested forms:

- delivery within 10 days;

- first half of the month (from the first day of the month until the 15th day of the month);

- second half of the month (from the 16th day of the month until the last day of the month).

5.16 Payment for the Commodity

Save as may otherwise be provided in terms of a written Sales Contract, the buyer or agent must transfer 90 per cent of the price of

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the commodity to the account of the seller or agent within 8 days. The remaining 10 per cent should be settled within 30 days of delivery. Parties may however make other arrangements, which should be written into the Sales Contract.

5.20 Prohibitions

UCE Members, Brokers, participants, agents or anyone else should at all times act and behave in a way to promote free market conditions so that every buyer and seller can trade under competitive and transparent market conditions, until equal opportunity. It is forbidden to act or behave in such a way that violates these principles and/or may have an adverse effect on the reputation, integrity or goodwill of UCE as interpreted by the Operating, Promotions and Ethics Committee or the Board of Directors of UCE.

5.21 Specific Prohibitions

None of the acts listed hereunder may be reconciled with the requirements for ethical conduct by each Member, Broker, participant, agent, buyer and seller of UCE, or anyone else:

a) to trade in bad faith or fraudulently

b) to place or execute false or fictitious offers, bids or transactions;

c) to initiate or participate in a sell/buy transaction with the intention not to execute it;

d) to indicate or participate in a sell/buy transaction knowing that his/her Client does not intend to perform the contract;

e) to manipulate prices either by spreading rumours or by matching offer;

f) to strive at a market monopoly;

g) to refuse to carry out the decisions of the Arbitration Committee;

h) to provide false information to UCE, any committee of UCE, any UCE Member, Broker, participant, agent, buyer or seller;

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I) to carry out any buying or selling activities or negotiations outside, near, around or in the vicinity of the UCE Trading Floor and its precinct except on the Trading Floor;

j) to consciously and intentionally flaunt or break these Rules and Regulations or any other trading guidelines of UCE.

The above list is not exhaustive. The Operating, Promotions and Ethics Committee or the Executive Committee of UCE is entitled to take exception to the conduct of any UCE Member, Broker, participant, agent, buyer, seller or anyone else, and to call on him/her to cease such conduct.

5.30 Arbitration of disputes arising out of trade on the Exchange

In case of a dispute between the contracting parties, they will submit their case to the Arbitration Committee of UCE if they cannot come to an agreement, and the dispute shall be determined in accordance with the rules for arbitration set by that Committee, or by interpretation of these Rules and Regulations of UCE by the Committee. In case of conflict between the terms of the contract signed by the buyer and the seller or their agents and the terms of these Guidelines and the Rules and Regulations of UCE, the Sales Contract will prevail. If the Sales Contract is unclear on any point or there is any doubt, these Guidelines and the Rules and Regulations of UCE will prevail.

5.31 Liability

UCE is only a facilitator, serving to bring together sellers and buyers (or their agents) of commodities in trading and contract agreements. It shall therefore not be liable or responsible for any loss, injury or any other damage suffered by any party to any Sales Contract or agreement reached as a result of trading activities on the Exchange. Each party to a Contract bears his/her own risks involved in commodity trading.

Signed -------------------Executive Chairman, UCE Date-------

Notes / Questions

UCE
MEMBERSHIP AGREEMENT

Between UCE (hereafter: Exchange) and

----

applicant

(hereafter: Member) for Exchange membership

1. The Exchange states that the Member has submitted its application in accordance with the Rules and Regulations of the Exchange; that it has fulfilled its obligations set as the conditions of its acceptance. Therefore, the Exchange confers, by mutual signing of this agreement, the right of legal membership status on the Member and provides for its registration.

2. The Member states that it is thoroughly familiar with the current Rules and Regulations of the Exchange including the-appendices that are an integral part of the same, and that it accepts as binding all the provisions included herein for its activities in its capacity as a Member.

3. The Rules and Regulations of the Exchange are the internal Rules and Regulations for the operation and organization of the Exchange. The Exchange shall provide for effecting any amendments that are necessary for the operation or organization of the Exchange.

Executed at KAMPALA...................day of...............199

....	....
for UCE	Member

P.O Box................

Tel ....FAX...

by..	by....................................
Authorized Signature	Authorized Signature

Notes / Questions

Sale of Membership Rights and Shares

made between

....
....
(hereinafter: seller)

and

....
....
(hereinafter: buyer)

On the day indicated hereunder for the purchase and sale of membership registered with UCE (hereafter: Exchange)under the following conditions:

1. Seller sells and Buyer buys Seller's ....shares in the Exchange, and Sellers membership registered with Exchange together with the rights and obligation attached to membership.

2. Buyer herewith deposits Ushs........... that is the purchase to the Exchange's account.

3. In accordance with the Rules and Regulations of the Exchange is to deduct 5% commission from the amount transferred by Buyer as well as the amount of Seller's unpaid obligations to the Exchange and pay seller the remaining amount and /or transfer it to the account designated by Seller.

4. Buyer recognizes that the right of the membership and title to the shares will be conferred simultaneously with the payment of the purchase price.

5. Parties acknowledge that the validity of this contract is contingent upon the consent of the Board of Directors of UCE.

6. Buyer acknowledges that its legal relationship with the Exchange will take effect only if it satisfies all the requirements and financial provisions stipulated in the Rules and Regulations, with which the parties acknowledge themselves to be thoroughly familiar.

The parties, upon trading and understanding this contract, affix their authorized signatures to it a as an expression of their full approval.

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Executed at KAMPALA this..........day of..................199

Seller-Authorized Signature	Buyer-Authorized Signature
1. Name..............................	2. Name....................................
Address P. O. Box.................	Address P. O. Box ....

Signed and approved UCE by...
Authorized Signature

Notes / Questions

UCE CONTRACT OF AGENCY

made between

....
(hereafter : Client)

....
(hereafter: Agent/Member)

on the day indicated hereunder:

1. Client employs Member/Agent as its agent for trading on the Uganda Agricultural Commodity Exchange (hereinafter: Exchange). Client declares that he/she is thoroughly familiar with the normal operations of the Exchange, the Rules and Regulations and trading guidelines of the Exchange, and that he/she accepts those rules and guidelines and considers them binding in case of dispute.

2. Client and Member/Agent accept the terms of the Rules and Regulations of UCE especially Chapter 3 as controlling the relationship between them.

3. Client and Member/Agent agree to submit any dispute between them to the Arbitration Committee of the Exchange. Both parties will accept the decision of the Committee as binding and enforceable.

KAMPALA this day of...............199

....	....
Agent/Member	Client
by...	by ....
Authorized Signature	Authorized Signature

Appendix D

Export Commodities

QUANTITY OF UGANDA EXPORTS 1990-1996

COMMODITY	1990	1991	1992	1993	1994	1995	1996
TRADITIONAL EXPORTS (TE)							
Coffee (kgs)	140,845,370	109,435,328	129,292,646	137,131,172	180,323,100	167,565,120	248,928,180
Tourism(visits)	54,672	66,750	92,736	111,393	147,308	193,000	252,830
Tea (kgs)	4,475,364	7,206,698	7,853,877	11,051,100	10,971,539	10,681,687	14,609,911
Cotton (kgs)	18,685	7,014,149	7,815,104	8,463,635	3,820,789	5,577,000	9,386,345
Tobacco (kgs)	2,331,896	2,397,426	2,290,842	3,853,569	3,406,885	5,941,396	3,118,000
NON-TRADITIONAL EXPORTS (NTE)							
Fish and Fish Products (kgs)	1,689,534	4,750,986	4,812,975	6,037,051	6,563,726	12,970,862	44,413,657
Maize (kgs)	25,893,156	33,069,533	29,623,004	169,577,793	102,182,795	104,062,315	81,945,620
Gold (gms)	-	100,000	7,500	11,200	1,413	2,331,400	870,503
Cattle Hides (kgs)	2,611,010	2,736,202	3,560,707	5,259,272	6,736,839	4,665,533	5,091,508
Sesame Seeds (kgs)	9,211,978	17,804,925	12,862,640	8,371,569	4,141,612	8,948,799	10,431,114
Beans and Other Legumes (kgs)	8,751,111	14,514,586	9,326,682	47,590,369	37,514,264	27,408,903	11,445,863
Electric Current (kwh)	148,984,868	150,079,500	281,827,128	256,182	252,200,000	190,648,665	151,117,087
Soya Beans (kgs)	23,300	2,381,623	1,103,760	7,075,689	1,689,997	3,988,091	8,197,630
Soap (kgs)	2,500	128,477	597,361	2,596,719	2,411,841	3,999,920	3,559,906
Cocoa Beans (kgs)	1,396,058	702,464	623,160	1,313,058	623,022	509,060	1,412,926
Bananas (kgs)	582,401	1,814,406	1,951,516	2,912,023	2,534,918	1,474,100	1,732,146
Vanilla (kgs)	1,536	4,820	3,446	5,815	13,488	176	14,868
Cut Flowers (kgs)	16,483	7,078	-	32	51,868	508,322	223,760
Hoes and Hand Tools(Nos)	45,300	261,454	362,026	424,538	476,150	783,675	281,003
Roses (kgs)	-	-	-	96,941	241,292	137,095	162,155
Live Animals(Nos)	3,485	-	-	47,219	63,869	42,026	39,213
Pepper (kgs)	44,559	220,308	181,661	333,113	269,333	80,478	73,545
Ginger (kgs)	173,695	130,777	90,868	290,157	61,715	37,306	76,834
Pineapple (kgs)	274,459	137,483	27,207	36,016	28,653	29,331	11,629
Other Fruits (kgs)	62,277	227,768	94,356	136,329	168,586	306,371	8,531
Ground-nuts (kgs)	135,800	239,238	84,403	625,366	415,165	404,106	30,000
Goat and Sheep Skins (kgs)	92,241	55,705	118,154	486,047	218,106	15,918	-
Other	2,787,029	9,984,375	17,373,660	34,743,704	30,688,761	60,285,105	147,808,458

SOURCE: Statistics Department Entebbe, UCDA, UTB.
NOTE: 1996 figures are provisional
Complied by Uganda Export Promotion Board

VALUE(US$) OF UGANDA EXPORTS 1990-1996

COMMODITY	1990	1991	1992	1993	1994	1995	1996
TRADITIONAL EXPORTS (TE)							
Coffee	135,803,921	100,741,324	92,782,700	126,613,001	273,658,768	432,651,033	388,947,678
Tourism	26,789,280	32,707,500	45,440,640	54,582,570	72,180,920	94,570,000	123,886,700
Tea	2,805,382	5,319,053	5,672,393	9,354,101	11,801,661	8,745,057	17,057,860
Cotton	12,460	10,114,601	8,941,194	6,812,582	3,485,141	9,696,970	14,659,340
Tobacco	2,944,683	4,518,999	4,202,544	6,942,593	6,608,479	9,128,609	7,391,000
Sub-Total	**168,355,726**	**153,401,477**	**157,039,471**	**204,304,847**	**367,734,969**	**554,791,669**	**551,942,578**
% of total Exports	**87.50**	**77.86**	**83.27**	**73.71**	**78.90**	**79.20**	**73.55**
NON-TRADITIONAL EXPORTS (NTE)							
Fish and Fish Products	1,394,448	5,308,735	6,450,545	8,806,933	14,768,889	25,902,775	24,485,813
Maize	3,246,172	4,187,613	3,893,622	24,621,044	28,665,587	20,617,002	17,381,184
Gold	-	1,070,253	49,190	903,599	224,133	25,087,454	13,348,281
Cattle Hides	4,029,541	3,349,661	3,374,582	5,226,949	10,549,091	9,617,412	7,834,993
Sesame Seeds	5,047,294	10,517,096	6,478,367	2,776,474	1,547,876	5,696,092	7,392,208
Beans and Other Legumes	3,672,822	4,322,948	2,781,637	12,597,180	12,918,609	11,354,521	4,285,328
Electric Current	1,218,370	934,463	1,537,842	727,217	2,244,841	2,405,375	4,163,660
Soya Beans	9,785	467,898	270,026	2,056,383	755,784	1,738,518	2,515,607
Soap	926	45,908	302,693	1,300,713	1,739,473	2,722,379	2,246,748
Cocoa Beans	527,096	437,112	280,996	713,743	586,269	442,354	1,073,325
Bananas	308,443	161,786	207,663	339,510	1,529,750	277,890	974,877
Vanilla	39,717	177,738	171,440	391,170	674,000	7,587	808,692
Cut Flowers	17,994	5,620	-	50	236,561	2,082,545	745,646
Hoes and Hand Tools	111,042	444,726	462,421	569,949	1,020,063	2,196,515	572,001
Roses	-	-	-	207,625	530,949	484,155	405,304
Live Animals	106,379	-	-	285,249	150,211	43,055	90,891
Pepper	34,819	197,074	209,983	350,337	448,022	93,246	71,157
Ginger	82,445	121,201	104,678	131,956	19,570	32,438	30,649
Pineapple	174,622	72,966	18,265	29,473	43,810	27,669	22,050
Other Fruits	55,022	58,398	18,498	86,420	238,336	262,186	10,942
Ground-nuts	81,256	119,562	33,896	250,657	365,211	394,157	6,439
Goat and Sheep Skins	2,032,309	1,042,980	663,625	618,967	344,446	37,663	-
Other	1,854,406	10,566,418	4,240,885	9,861,069	18,731,649	34,179,058	109,997,279
Sub-Total	24,044,908	43,610,156	31,550,854	72,852,667	98,333,130	145,702,046	198,463,074
% of total Exports	12.50	22.14	16.73	26.29	21.10	20.80	26.45
TOTAL EXPORTS	192,400,634	197,011,633	188,590,325	277,157,514	466,068,099	700,493,715	750,405,652

SOURCE: Statistics Department Entebbe, UCDA, UTB.
NOTE: 1996 figures are provisional
Complied by Uganda Export Promotion Board

SELECTED COMMODITY PROFILES

WHEAT

Overview:
Wheat was first grown in Uganda on the slopes of Rwenzori in 1912 from importations of seed by missions and Government. A modest trade developed in the 1930s when small quantities were exported to Western Kenya for blending with Kenyan-grown wheat. A sizeable amount was also milled for home consumption and for sale locally. Wheat production gradually declined and the total area was estimated to be 500 acres by 1971.

Product and production:
Wheat is only grown in Uganda above 1500 m mainly along the north-east slopes of Rwenzori, the southern slopes of Mt. Elgon and Kigezi. Production areas are in the districts of Kapchorwa, Kabale, Kabarole, Mbarara and Rukungiri.

Hectarage under wheat production was estimated to be 5000 ha. in 1996 with total wheat production amounting to 9000 metric tonnes in 1996/97. (Table 1)

Table 1: **Uganda wheat production 1990-1997.**

Year	Hectarage	Amount
1990	2,000	4,000/=
1991	5,000	9,000/=
1992	5,000	9,000/=
1993	5,000	9,000/=
1994	5,000	9,000/=
1995	5,000	9,000/=
1996	5,000	9,000/=
1997 (Projection)	5,000	9,000/=

Source: Statistical Abstract 1997.

Wheat is mainly produced by small holders. The farmers harvest the stems and take everything home for drying after which shelling is done to get the wheat grains. Grains are cleaned and sorted to remove any foreign matter and dust. Prior to storage the wheat grains are dried to about 15% moisture content. There are two harvesting seasons in the other growing districts except Kapchorwa which has one season. The first which is also the major season stretches from December to March while the second harvesting season runs from September to October. In the case of Kapchorwa the season runs from September to December.

Marketing and markets:
Marketing of wheat grain involves the producer, traders, cooperative societies and processors. In the case of Kabale and Kapchorwa, farmers sell their grains to co-operative societies which in turn sale to processors mainly Uganda Grain Milling Company (UGMC) and three other processors/millers in Kabale, Mbarara and Kabarole. In Mbarara, Kabarole and Rukungiri farmers mainly sell directly to UGMC which collects at farm gate or sell to traders who in turn sell to millers.

Wheat grain is stored at the farm, primary co-operative society stores, traders and millers. UGMC has storage facilities at its deport in Mbarara from where it transports the produce to Jinja where its stored in silos.

UGMC and the other millers add value to the product changing it into wheat flour which is used for human consumption as well as industrial use.

The millers sell to wholesalers, confectionery industries (Bakeries) and Hotels. UGMC sells wheat flour in bags of 100kg, and in cartons of 24 packets with each packet containing 2 kilograms.

Uganda is not self sufficient in wheat production and over the years it has been a net importer of wheat as table 2 depicts.

Table 2: **Uganda's wheat imports in metric tonnes 1990 - 1994:**

Year	quantity imported
1990	2,664
1991	17,385
1992	9,912
1993	8,970
1994	10,423

Source: Uganda, Country position paper on food security 1996.

Both wheat grain and wheat flour are imported into Uganda. UGMC is the main importer of wheat grain, also Photofocus (U) Limited an International Company imports both wheat grain and flour. Photofocus (U) Limited sells the grain to UGMC and the wheat flour is sold to Bakeries, and wholesalers in Kampala, Jinja and other major towns or its re-exported to Rwanda, Burundi, Tanzania and the Democratic Republic of Congo. ACDI - VOCA programme PL 480 also imports wheat which is sold through tenders. Several other small importers exist who mainly import Kenyan wheat and sell to wholesalers in Kikubo who in turn sell to retailers and Bakers including Hot Loaf (U) Ltd, Delico confectionery, Kudu confectionery, Ntake bakeries, Faisal Memorial bakeries, Copus and many others. Brokers do not exist in the marketing chain.

The wheat grain is bought on Fair Average Quality (FAQ) and the parameters considered include: Moisture content which should be less than 15% and foreign matter which should not exceed 1%.

The market is basically domestic oriented with over 95% of wheat consumed in the domestic market and only 5% re-exported to neighbouring countries.

Farmers sell directly to UGMC or cooperatives at market determined prices ranging between 200-270/=. Cooperative societies deliver to UGMC at 385/= per kg. This leaves margins of 15-180 to the cooperatives, UGMC and the few middlemen emerging especially in Kabale, Rukungiri and Bushenyi.

Prices are purely determined by supply and demand forces in the domestic market and the dynamics of the international market hence prices are not pre-determined. The government does not set prices nor control quantities at any level in the marketing chain. The government completely divested itself from controlling prices and liberalised the market completely.

Local producers do not have any formal way of knowing what prices may be in the future.

Problems in the present marketing mechanism include:-

- Inadequate market information mainly at the farm level.
- Poor storage facilities at the producer and co-operative society levels.
- Lack of market credit which at times impairs business of the primary societies.

- Poor communication (road network and transport).
- Smuggling of wheat into the country which creates unfair competition.

A commodity exchange would help to eliminate most of these problems as they fall under the domain of things a commodity exchange is geared to address.

There would be support in the industry for an exchange, this is based on the fact that key stakeholders like UGMC and Photofocus (U) Ltd expressed willingness to use the exchange. However, there is need to create awareness especially at the lower levels such as co-operative societies buying wheat, the other millers and wholesalers.

The market can bear the additional cost of a small commission to the exchange and a fee to a barker but these two should be in the order of 1-2% not to scare away the business men who naturally would not want additional costs.

List of people interviewed:

	Name	Enterprises
1.	Dr. Gad Tungumisiraza	Uganda Grain Milling Company
2.	Tarik Muhammed	Photofocus (U) Ltd.

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MAIZE

Overview:
Although the exact year when maize was first produced in Uganda is not known, its production has a long history. Maize productions was promoted by the then Department of Agriculture in Uganda prior to 1930. Acreage under maize trebled by 1943 because of the increase in demand for maize during world war II. By 1970 Uganda was producing 388,700 metric tonnes of maize, attaining a decade high of 673,700 metric tonnes in 1976. Thereafter production declined.

Product and production:
Maize is grown in nearly all parts of Uganda mainly by small holders and a few large holders (Institutions such as Prisons, Army and Schools). Major growing areas for maize are in the Lake Victoria Crescent area extending to the central plateau and the high altitude areas of Kigezi, the Rwenzori and the slopes of Mt. Elgon. That is Busoga, Buganda, Kabale, Kasese, Kabarole, Bundibugyo, Mbale, Kapchorwa, Tororo, Apac, Lira and Gulu.

Uganda produces only white maize and several improved varieties have been released through research, these include Kawanda Composite, Longe 1 and several hybrids 8556-6 and 8535-23. The improved varieties are likely to considerably increase production since they have potential yields in the region of 4000kgs/ha compared to present yields of 1570kgs/ha. Longe 1 is quick maturing with a gestation period of 75 days and its noted to be drought tolerant. The Uganda Seed Project is bent on multiplying and distributing/availing the high yielding seeds to farmers. Also USAID export diversification programme through the IDEA Project is promoting maize production among the other crops and these efforts are expected to increase production in the next few years leading to projected increase in surplus from the current level of 150,000 tons to over 1 million tons by year 2000/2001. The production of maize has been fluctuating with years of increased production intercepted by one or two years of decline. The hectarage under production is estimated to be 587,001 ha. giving an estimate of 938,996 tonnes in 1996.

Table 1 gives production figures for the last five years.

Table 1: **Maize production in Uganda 1992-1996:**

Year	Area (Ha)	Quantity
1992	438,203	656,999
1993	503,001	803,998
1994	563,002	850,000
1995	569,996	911,999
1996	587,001	938,996

Source: MPED, Agricultural Policy Secretariat 1997.

There are two growing seasons for maize in most parts of Uganda. The first season crops are planted in March/April and harvested between July and September in the Lake Crescent Area, Busoga, Northern, Eastern Uganda. This season gives the major crop in all the other production areas excepted Northern Uganda where the second cropping season gives the major crop with harvesting towards the end of November through December to January. The second season for September/October planting stretches from December to March. In the case of Kapchorwa, the crop takes 6 months to mature, planting is in March/April and there is only one harvesting season for maize which stretches from September to December. Farmers harvest the dry cobs, shell them and store the grain in old polythene/gunny bags.

About 35-43% of the total maize production in Uganda is consumed by the household on the farm and between 57-65% of the crop is sold. This means that maize is now mainly produced for sale. Originally maize was mostly used as a food crop for domestic consumption but after 1981 government started to promote it as an export crop in an effort to diversify Uganda's export base. Maize is now one of the major exports with exportable quantities varying with season and the year. According to statistics maize exports amounted to 86,552 metric tonnes earning Uganda US$ 17,823,000 in 1996. This represented 2.68% of the total exports in 1996.

Table 2: **Maize exports 1990-1996:**

Year	Quantity (Kgs)	Value (US$)	% of Total Exports
1990	25,893,156	3,246,172	1-69
1991	33,069,533	4,187,613	2-13
1992	29,623,004	3,893,622	2-06
1993	169,577,793	24,621,044	8.88
1994	102,182,795	28,665,587	6.15
1995	86,149,000	23,054,000	4.00
1996	86,552,000	17,823,000	2-68

Source: Background to Budget 1997 and Uganda Export Promotions Board.

Markets and marketing:

Prior to 1991, the government used 40 guarantee farmers with minimum prices for maize and export marketing was monopolised by the Produce Marketing Board (PMB). The liberalization policy saw government decontrol of prices and an end to the PMB monopoly thereby introducing private participants into the marketing of maize. The marketing of maize is todate essentially a private initiative where the private sector plays a dominant role. Right from the farm gate to export level the private sector participation is significant. The biggest percentage of maize sales is handled by middlemen/agents who buy from farmers at farm gate or in rural market centres and bulk it for the big maize traders and exporters (local and foreign). Traders and exporters bring their lorries and buy maize from the agents who are located in buying centres.

In Kampala, the private traders who buy from villages deliver to exporters, millers, other middlemen mainly located in Kisenyi and these include Mat Procurements, UMOJA Veterans Joint Association, Bataaka stores, Kafumbe Road Producer Buyers Association and Kisenyi Millers Association. The latter has an open membership with over 80 members and about 50 mills. The individual members buy the maize from suppliers but the association has guides who ensure that both parties (buyer and seller) do not take advantage of one another and these establish the weights record the amount and price for each transaction. Almost all the maize bought by members of the Kisenyi Millers Association members, but in case of excess supply, the surplus is sold to other millers outside Kisenyi and exporters through the association guides who in this case act as brokers linking buyers and sellers. Kisenyi area is the major centre for maize traders and these sell to most other buyers and end users.

The traders/suppliers sell to wholesalers, exporters, millers, institutions such as schools, Army, prisons and to international aid agencies such as World Food Programmes (WFP) International Committee of the Red Cross (ICRC) and other Non-Governmental Organisations. Uganda's maize has market in the regional market mainly Kenya, Rwanda, Tanzania, Zimbabwe and Zambia. Local exporters also sale to the relief agencies such as WFP and ICRC which export it to the famine and war prone countries like Sudan and Somalia. It is estimated that approximately 400.000 tons of maize are traded in Kampala both for domestic and export purposes.

Most maize exporters are located in Kampala, hence much of the product which is destined for export goes through Kampala. Exporters may sell FOT/FOR or FOB depending on particular contracts and key players here include Lira Millers, Magric Dev. (U) Ltd, Commodity Exporters International and Photo Focus (U) Ltd. The exporters are both local and foreign owned enterprises.

Maize grains are sold by Fair Average Quality (FAQ) and this includes the following quality elements/attributes.

Moisture content	12-14%
Split/broken	3%
Shrivelled/Diseased/Discoloured	5%
Insect damage	4%
Foreign damage	1%
Oil content	5%
Protein content	10%

In the domestic market wholesalers of maize sell to maize millers, and retailers who in turn sell to the consumers. The millers sell grade one and two maize flour in bags of 100kg, or in packets weighing 10kg, 5kg and 2kg. The flour in 100kg bags is sold by retailers.

Millers also supply to institutions such as the Army, tertiary institutions, schools and hospitals. Sometimes these institutions buy their maize grain and only take to millers who in turn charge milling charges.

This supply channel comprises about 62% of the maize sold in the major maize producing centres especially Kyazanga, Kamwenge, Kasese, Kigumba, Mityana, Mbale, Tororo, Kapchorwa, Apac, Lira and Gulu. A small percentage of maize is sold to traders in urban centres who sell it to other traders, millers, consumers or institutions.

Commission agents/brokers exist and at times exporters, wholesalers and millers get price information, and maize supply from these agents. The brokers include their charges to the selling price which is paid by the buyer.

Millers add form utility to the product processing the maize grains to maize flour for human consumption and maize bran used for maize animal feeds. Key players here include Uganda Maize Industries (UMI) in Kawempe a subsidiary of Uganda Grain Milling Company (UGMC), Lira Millers, Kisenyi Millers Association, Maganjo Grain Millers, Kayebe Sauce Parkers, Ugachick, Bulemezi Enterprises, Prisons Feed Mill and many other small millers within and around Kampala.

Maize is stored at the farm, village level mostly stores owned by local dealers who bulk it for traders, shops in major buying centres turned into stores during marketing season, at millers facilities and at export level. Storage is done before sales are effected and at the milling plants before milling is done. Big storage facilities in Kampala are at Lira millers in Ntinda, Kawempe owned by Uganda Maize Industries a subsidiary of Uganda grain millers. Most exporters rent warehouse space for storage.

The producer/exporter chain is long and the difference between the producer price and the consumer price may be as high as 40-50%. According to exporters and millers the marketing margins are in the order of 15-20% for producers, 10-30% for middlemen and 5-30% for exporters.

Farm gate prices vary depending on location and stage of market season with high prices recorded at the beginning of the season when supply is very low. Prices fluctuated from 100/= to just over 260/= in 1996 with higher prices recorded in Jinja and lower prices in Mbale. In 1997 due to the long dry spell farm gate prices were highest around June-July and prices were in the order of 300-380/=/kg. Currently the farm gate price is in the order of 100-150/=/kg. Private traders are offered between 190-200/=/kg while middle in Kampala sell between 210-230/=. The exporters sell at 310-450/=/kg.

Prices paid by exporters and millers has shoot up to 450/= around July 1997. The price structure leaves margins of 10-80/= to middle men and 80-120/= to exporters. Millers sell to retail at 600-700/=/kg.

Prices are currently determined by the domestic demand and supply levels. The government does not pre-determine or set prices but they are purely a reflection of market forces at all stages of the marketing chain.

Producers do not have any formal indicators of what prices will be in the future. Most farmers base their planning on the price at the end of the marketing season and through informal ways they gather some information through speculation by traders, newspapers and other forms of media.

Problems in the present marketing mechanism include:-

i) Lack of cheap sources of crop finance to the private sector.

ii) Lack of premium (price differentials) for better quality and graders at the farm level.

iii) Poor infrastructure in terms of storage (drying, cleaning and handling of produce at all levels) road network and transport.

iv) Shortage of supply with respect to quantity and seasonality.

v) Lack of market which depresses prices since a few large buyers actions can still influence prices.

A commodity exchange would help eliminate most of these problems. A commodity exchange coupled with the warehouse receipt system would provide improved storage of produce which will address the issue of post harvest losses, seasonality of supply and serve to provide marketing credit. By standardizing grades, the exchange may enhance price differentials for the produce at the different levels.

There would be support for the exchange more so at the lower levels of the chain mostly suppliers, millers and other middlemen who would be assured of find market/supply at all times, improve market information and market credit.

Since commission agents somehow already exist and the other market players do not have a clear idea as to what their charges are, yet the buyers still buy from them, the market can bear the additional cost which will streamline charges for commission agents. Both the exchange and broker fee should be in the order of 0.25-1%.

List of people interviewed:

	Name	Enterprise
1.	Mr. Opio Oming	Commodity Exporters International (CEI)
2.	Mr. Buluma James	Factory Manager, East African Basic Foods Ltd
3.	Mr. K. Mukasa	Mill Manager, Reliable Maize Mill, Kawempe
4.	Hajj Ali Serunjogi	Propreitor, Baguggwa Grain Millers, Kawempe

5.	Mr. Tarik Muhammed	General Manager. Photofocus (U) Ltd. 9th Floor Uganda House
6.	Mr. P.K. Sharma	Director Operations, Lira Millers Ltd
7.	Mr. Musisi	Maganjo Grain Millers
8.	Mr. H.H. Mukiibi	Kayebe Sauce Parkers
9.	Mr. C. Kintu Balikowa	Kisenyi Millers Association
10.	Mr. M. Kimbugwe	Kafumbe Road Produce Buyers Association
11.	Mr. Baguma Balinda	UMOJA Veterans Joint Association Tel: 272787
12.	Mr. Timothy Magaba	Kafumbe Road Produce Buyers Association
13	Mr. Oluka Moses	Mats procurements (U)
14	Mr. A Settenda	Marketing Manager, Uganda Maize Industries (UMI) Kawempe.

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BEANS

Overview:

Beans have a long history of production in Uganda. By the 1920s Uganda was producing 35,000 metric tonnes of beans per year. Beans are a major source of protein to many household families and institutions but they are also a source of foreign exchange to the country via exports and a source of household income to many rural families.

Product and production:

Beans are widely grown in Uganda, however, the major supply areas include Buganda, Busoga, Mbale, Kapchorwa, Kasese and other district in Western and Northern Uganda.

Hectarage is estimated to be 620,999 ha. in 1996 and its projected to increase to 762,000 ha. by the year 2000.

Beans are mainly produced on small holder farms with an average of 2.5 ha. of land. A sizeable portion of beans is harvested and consumed dry. The farmers harvest the dry beans, further drying is done at home before shelling to remove the grains from the pods. After shelling the grains are sorted and further dried before packing for storage.

The quantity of beans produced fluctuates with season and year as shown in Table 1.

Table 1: **Bean production 1992-1996:**

Year	Hectarage	Quantity produced
1992	536,001	401,998
1993	552,002	428,001
1994	574,000	378,000
1995	596,998	386,999
1996	620,999	434,000

Source: MPED Agricultural Policy Secretariat 1997.

Uganda grows beans either in pure local varieties or as mixtures. Varieties differ in colour with white, green, yellow, red, brown and grey all being common. Varieties include Nambale, K20, K131, K132, MCM 1015, MCM 2001, Kanyebwa and the haricots. These new improved varieties have been the out come of the CIAT funded National Bean Programme at Kawanda Agricultural Research Institute (KARI) and Namulonge Agricultural and Animal Research Institute (NAARI). These improved varieties have the potential to increase yields from the present 652 kgs/ha to an estimated 2500 kgs/ha. With NARO institutes set to initiate out reach programmes to improve technology adoption and Uganda Seed Project improving availability of improved seeds to farmers, increased bean production can be anticipated in the future. USAID through IDEA is promoting production of beans and supply is likely to increase in the coming years.

There are two harvesting seasons in most parts of Uganda. The first planting season is around March/April and harvesting stretches from June to September and the second harvesting season is from December to February for the August/September planting. In Northern Uganda the second planting provides the major crop which comes on market around December to February.

Markets and marketing:

About 50% of total bean production is consumed on the farm leaving 50% as the marketable surplus. About 20% of the marketable surplus is sold to consumers who buy directly from the farm, 38% is sold through traders in rural and urban markets. About 20% is sold directly to consumers through rural markets while about 18% is sold through daily urban markets and 4% sold to PMB.

Marketing of beans is basically a private sector initiative. The marketing chain involves producers who sell to local traders at the farm gate or in rural markets. Traders/suppliers sell to exporters, wholesalers and retailers. The producers may sell directly to any of the participants in the chain. The market for Uganda beans has been increased since the early 1980s and market outlets include Rwanda, the Democratic Republic of Congo, Kenya and the Sudan. The relief agencies especially World Food Programme (WFP) and ICRC play a big role in buying of produce at the export level. Beans are sold by Fair Average Quality (FAQ) and by grades depending on whether they are single coloured or mixed coloured. The quality parameters which has to be met by the beans are shown in Table 2 below.

Table 2: **Fair average quality parameters for beans.**

Attribute	Single coloured	Mixed beans
Moisture content	14%	14%
Insect damage	2%	2%
Broken/split	2%	2%
Shriveled/diseased	5%	5%
Foreign matter	1%	1%
Other varieties	5%	-

Source: National Agricultural Forum, 1997 and survey data.

Although these quality specifications exist they are not adhered to at the lower levels of the marketing chain.

Domestically private traders buy in small quantities from producers at farm gate or in rural markets, the local dealers then sell to other big traders. Exporters and wholesalers who collect the produce from the producing areas or the local dealers supply and deliver to the buyer's facility. In Kampala most of the beans are bought by Lira millers, Commodity Exporters International, Magric Dev. (U) Ltd, UMOJA Veterans Joint Association and Kafumbe Road Produce buyers Association as well as several other buyers located in Kisenyi. These associations are composed of several individual buyers who buy from local dealers. The Association's members sell to the exporters; consumers; other wholesalers; supply government institutions such as Police, Prisons, Army and Ministry of Health (MOH) through the Central Tender Board; schools and other institutions of higher learning. It is estimated that well over 100,000 tonnes of beans go through Kampala destined for both domestic and export market. The exporters buy directly from local traders at source or from suppliers in Kisenyi and brokers exist especially in Kisenyi linking buyers and sellers. The brokers include their charges to the final price paid by the buyer and their charge is not fixed hence these help to inflate the prices.

Beans are stored at the farm level, trader's stores and at the export level. The government has storage facilities at Kyazanga, Jinja, Kampala and Kasese. The regional storage facilities are in most cases under utilised.

Exporters sort and clean the beans to internationally required specifications before exporting them but the product hardly undergoes any change of form. The market is both domestic and export oriented. About 90% of total production is consumed in the local market and 10% exported mainly in the regional trade after maize. However, demand (both domestic and regional) for Uganda beans far outstrips supply and its estimated that in the 1996/97 demand amounts to 711,000 metric tonnes as compared to supply of 468,000 metric tonnes leaving a deficit of 243,000 tonnes (MPED, 1997). Nevertheless beans have over the years contributed to Uganda's export base earning the country an estimated 16,104,000 US$ in 1996.

Table 3: **Beans export 1990-1996.**

Year	Quantity (Ton)	Value
1990	9,278	4,150
1991	14,419	4,274
1992	9,327	2,782
1993	47,532	12,580
1994	37,477	12,900
1995	38,758	16,147
1996	40,308	16,104

1 Exports include other legumes.
Source: Statistical Abstract 1997.

The margins of the different market participants were in the order of 33% for farmers, 3% for buyer (agent), 29% wholesalers, 20% for retail and about 10-15% for exporters (marketing of smallholder crops in Uganda by Bibagambah, 1996). Farm gate prices for beans were in the order of 125-600/= per kg during 1996 but prices varied depending on location with lower prices recorded in Mbale and higher prices recorded in Kasesse. Farm gate prices are currently in the range of 400-450/=, suppliers in Kisenyyi are offerd between 480-550/= per kg. Traders then sell off the beans at prices ranging between 560-600/= per kg. Average market prices in Kampala have tended to increase over the last five years (Table 4).

Table 4: **Average retail market prices, Kampala 1992-1996.**

Year	Price on quarterly basis			
	1st	2nd	3rd	4th
1992	306.2	386.6	546.0	601.7
1993	330.0	346.1	356.7	416.2
1994	553.3	762.8	513.3	526.7
1995	733.3	791.7	571.7	511.3
1996	538.7	606.7	683.0	861.0

Source: MPED, Statistical Abstract 1997.

Prices are determined by the market forces of supply and demand as well developments in the international market, hence there are no fixed prices at any stage of the marketing chain.

Government does not set prices at any level in the market chain or control quantities. But the Export Promotions Board (UEPB), Agribusiness Development Centre (ADC) of the IDEA project gives indicative prices in the export market on weekly basis. These prices serve as a bench mark for scrutinising export contracts and guiding farmers, middlemen and exporters on local and international price trends.

Just like other agricultural products producers do not have any formal indicators of next season's prices and they base their price expectations on the ruling price at the end of the market season.

Problems in the present marketing mechanism include:-

i) Poor storage facilities, farm storage. At regional levels sizeable storage capacities of over 500,000 tonnes exist but these are grossly under utilised.

ii) Shortage of supply with respect to quantity, quality, graders and seasonality. Producers mix their beans yet the international market prefers single coloured beans. Quick sales of the product during season of plenty coupled with post harvest losses lead to shortage in off season times.

iii) Lack of marketing credit.

iv) Inadequate market information which creates unfair competition and exploitation of producers by traders and exporters.

v) Poor communication systems (transport and road network) lead to increased transport costs.

vi) Developed taxes charged at district revenue centre increase the marketing costs.

An exchange would help to eliminate most of these problems since it will improve on the quality and amount of market information, storage, encourage quality enhancement and ensure a good grading mechanism. It will also serve the function of providing market credit one of the limiting factors to the traders.

There would be support for the exchange in the industry however there is need to create more awareness among the market participants to ensure that the exchange meets minimal resistance from the large exporters who may look at it as away of reducing their hold on market information and releasing it to all their competitors. The big buyers who are inclined on taking advantage of the uniformed sellers are not likely to fully welcome the idea of an exchange.

The market would bear the cost for broker fee and small commission for exchange. Already some middlemen act as brokers between buyers and sellers only that they include their charges in the final price paid by the buyer who can not tell how big that charge is for that transaction. Since margins for middlemen and exporters are small, the commission and broker should not exceed 1% and most exporters expressed willingness to pay that.

List of people interviewed:

	Name	Interprise
1.	Mr. Opio Oming	Commodity Exporters International (CEI)
2.	Mr. P.K. Sharma	Director Operations, Lira Millers Ltd
3.	Mr. Baguma Balinda	UMOJA, Veterans Joint Association
4.	Mr. Medi Kimbugwe	Kafumbe Road Produce Buyers Association
5.	Mr. S. Kasoozi	"
6.	Mr. T. Magaba	"
7.	Mr. M. Luyimbazi	"
8.	Mrs Oliver Ntale	"
9	Mr. Oluka Moses	Mats procurements (U)

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RICE

Overview:
Rice production has been active in Uganda since the early 1920s when swamp rice cultivation without controlled water was taking place in several areas in Northern, Eastern and Western Uganda on a small scale. Rain fed upland rice and swamp rice varieties have been grown in Uganda since the early 20th century by Indian traders who introduced it in Uganda. Rice production was however intensified by the colonial administration in the 1940s.

Rice has become one of the staples in Uganda especially in urban areas and Eastern Uganda where it is mainly grown. It is an important import substitution crop which saves Uganda considerable foreign exchange.

Product and production:
Rice is produced on an estimated 59,000 ha. of land in the Eastern, Western and Northern parts of Uganda. The main growing areas are in the districts of Iganga, Kumi, Kamuli, Pallisa, Tororo, Soroti, Mbale, Jinja, Gulu, Arua, Moyo, Bundibugyo, Kibaale, Lira and Kitgum. By 1943, Uganda produced 4000 tonnes of rice and acreage had clocked 59,000 acres in 1945 in the then districts of Busoga, Bukedi, Teso and Lango using flood irrigation. Acreage had however fallen to 2500 acres in 1953 due to disease (blast).

Rice is produced by several thousand small holders with some under outgrower arrangements and three large establishments:- Kibimba Rice Scheme (556.8ha.); Doho Rice Scheme (697.6ha.) and Olweny Rice Scheme (about 1000ha.) with the participation of 500 farmers operating as outgrowers with the scheme as a nucleus. Uganda produces several varieties of rice among which the most common are Sindano, Bungalla and Ganuti. The amount of rice produced in Uganda meets most of the domestic requirements. According to the FAO Year Book of 1990, Uganda did not import rice in 1988 and 1990 and the amounts imported into the country have remained relatively low (Table 1).

Table 1: **Rice imports into Uganda in metric tonnes 1990-1994**

Year	Quantity
1990	0
1991	1,034
1992	868
1993	2,134
1994	7,294

Source: Uganda, country position paper on food security November, 1996.

Over the years rice production has increase from 68,000 tonnes in 1992 to an estimated 83,002 tonnes in 1996 as shown in table 2.

Table 2: **Rice production 1992-1996**

Year	Hectarage (Ha.)	Quantity (Tonnes)
1992	50,002	68,000
1993	53,001	73,999
1994	55,001	77,000
1995	57,000	80,001
1996	59,002	83,002

Source: MPED, Agricultural Policy Secretariat 1996.

Markets and marketing:
About 27% of the rice that is produced in Uganda is consumed on the farm which leaves over 70% of domestic production destined for the market. The harvesting season runs from August to October.

Rice marketing in the domestic market involves producers, traders/suppliers, wholesalers and retailers. Most farmers sell their rice to traders who bulk it and sell to wholesalers who in turn sell to retailers - Retailers sell to final consumers and this channel handles about 71% of the rice sold in the country. Some producers sell their rice directly to retailers or consumers. Traders sometime sell to institutions such as hospitals, hotels, schools etc. Some agents act as brokers bringing buyers and sellers together.

The import market involves importers (both foreign and local) who import and sell to wholesalers, institutions and other participants in the chain. Photofocus (U) Ltd an international company is one of the major importers of rice importing up to 50,000 tonnes of rice in a year some of which is re-exported. Lira Millers alone handled 590 MT in 1996 and overall it is estimated that well over 100,000 tons of rice go through Kampala annually.

Most of the locally produced rice is consumed in the domestic market. In addition most imported rice is geared to meet domestic market demand however a small portion of this may be re-exported to neighbouring countries such as Rwanda, Burundi and the Democratic Republic of Congo depending on the developments in the local market.

Marketing margins greatly fluctuate with season but on average the different markets participants receive margins in the order of 56% for producers, 11% for traders/suppliers, 7% for wholesalers, 18% for retailers and 10-15% for importers.

Rice is stored at the farm level, the village level mainly in homes or stores of traders, at wholesale level and importers. Most of the importers as well as large local buyers are in Kampala hence a fairly large quantity of rice goes through Kampala and is consequently storage in and around Kampala.

With the implementation of market liberalization policy, the market is now subjected to free market forces hence prices at any one time are determined by demand and supply as well as developments in the global market. Neither the government does set prices nor control quantities at any level in the marketing chain. Average market prices have tend to increase over the last five years as shown in table 3 below.

Table 3: **Average market prices, Kampala 1992-1996.**

Year	Price (Ushs/kg) on quarterly basic			
	1st	2nd	3rd	4th
1992	551.6	659.3	817.7	903.3
1993	820.0	820.3	720.0	733.3
1994	796.7	843.3	706.7	656.7
1995	700.0	810.0	733.3	780.7
1996	861.0	987.7	878.0	911.0

Source: MPED, Statistical Abstract 1997.

Just like other agricultural products produced in Uganda, rice producers do not have formal ways to base on their future price expectation. However, prices of food items are published in the New Vision on weekly basis and this information in a way trickles down to the producers. Producers mainly use the price received at the end of the market season as an indicator of what prices are likely to be in the next season.

Problems experienced in the present market mechanism include:-

- Lack of crop finance which aggravated by lack of easy access to market credit.
- Bureaucratic delays in the clearing of imported merchandise which results in high holding costs.
- High import taxes
- Poor storage facilities.
- Poor post harvest handling especially at the farm level which leads to low quality product (a lot of stones in the rice).

An exchange would help eliminate some of these problems. Coupled with a ware house receipt system, an exchange will help to provide cheap and easy access to market credit, help in standardization of quality, improve on storage and may be reduce on the Bureaucratic delays.

Yes, there would be much support for an exchange in the industry especially the large producers and importers who would be assured of finding market for their product at all times and good storage as well as improving information available to all market participants.

The exchange will not displace the market but enhance the marketing mechanism.

The market can bear the additional cost of a small commission to the exchange and a fee to a broker and according to the market participants interviewed is should be in the order of 1-5%.

List of people interviewed:

	Name	Enterprise
1.	Mr. Tarik Muhammed	General Manager, Photofocus (U) Ltd. 9th Floor Uganda House
2.	Mr. P.K. Sharma	Director Operations, Lira Millers Ltd

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SOYA BEAN

Overview:
Soyabeans are an important source of protein and have a high nutritional value of calcium, iron and vitamins. It has a low oil content but products a high quality animal cake for use in animal feed especially for poultry, diary and piggery.

Production and production trend:
Soyabean production was not significant until the 1940s when the cultivated area reached about 15,000 ha. Following record exports in 1950, production was minimal by the early 1980s when only 5-6000 ha. were grown. Since 1985, in response to higher prices from edible oil industry and promotional campaigns to meet barter trade agreements, production has expanded and planted area is now about 73,999 ha. mainly in Busoga, Apac and Lira districts.

Production is largely by small holders usually with less than 2 ha. of land. Medium and large commercial scale production is practised by a minority fraction (less than 10%) major one being research institutions, the army and prisons farms and Uganda Seed Project. The crop is widely grown in Uganda and several improved varieties have been released but these have not been widely distributed, the varieties include NAM I and NAM II. There is lack of natural rhizobia which necessitates inoculation known to increase yield by about 25%, but which most farmers do not do. In the soils to facilitate no dilution and nitrogen fixation have caused yields to remain low, although the simple technique of inoculation would allow immediate farm yield elevation by 25-45%. Soyabean is one of the oil crops targeted in the proposed IFAD funded Vegetable Oils Development Support Project which is geared to increase farm production and support adaptive research. There are two production seasons the first running from July to September and the second stretching from December to January for crop planted in March/April and August/September respectively.

Soyabean production has been increasing over the last five years and the current annual production is about 80,000 metric tonnes. The table below shows production trends.

Table 1: **Soyabean production in Uganda 1990-1996**

Year	Hectarage	Amount (Metric tonnes)
1990	37,000	37,000
1991	54,000	54,000
1992	59,000	53,000
1993	65,001	67,000
1994	67,999	75,000
1995	70,999	78,000
1996	73,999	80,000

Source: MPED, Agricultural Policy Secretariat and Background to budget several years.

Markets and marketing:
Until recently, the Produce Marketing Board (PMB) had monopoly for export marketing of soyabeans. The liberalisation of export trade in 1991 abolished this monopoly and there are now several private (local and foreign) traders and exporters and processors. Soyabean marketing currently involves farmers, private traders, co-operative societies, wholesalers, exporters, processor/millers, retailers.

Farmers sell directly to private traders at farm gate or through rural markets. Farmers may also deliver to co-operative store in small quantities. Farmers also sell direct to Mukwano Industries outlets located in towns and trading centres in the growing areas. The buyer bags it in weights of 70-100kg and sells to either wholesalers, exporters or processors/millers. The wholesaler sells to retailers or millers or exporters including PMB. The village traders supply the produce to produce buyers in Kisenyi and these include Mats Procurements (U) and those under Umbrella associations such as UMOJA Veterans Joint Association and Kafumbe Road Produce Buyers Association. The middlemen in Kisenyi sell to food processors including East African Basic Foods, Kayebe Sauce Packers, Maganjo Grain Millers etc and Animal feed manufactures including Ugachick, Bulemezi Enterprises, Prison Feed Mill, EGGBRO farmers Ltd and others. Brokers exist in Kisenyi and these do not normally allow buyers to directly deal with sellers, thereby inflating the final price paid by the buyer (miller/processor).

Soyabean is stored at the farm, village level in private or co-operative stores used to buy and store soyabean along side other crops. The product is also stored by processors, wholesalers and exporters before processing or selling is done. Several importers, wholesalers and processors (feed mills) are found in and around Kampala hence a lot of the produce goes through and is stored in Kampala. Major exporters of soyabean include Lira Millers, Commodity Exporters International (CEI) and Magric Uganda Ltd.

Processors include the oil millers and feed mills. Processors buy the dried soyabeans and add value by changing its form to soya flour, cake, bread, edible oil and in animal feeds. Hence its demand is hinged on demand for fortified human food and livestock feed. Key players here include Maganjo grain millers, East African basic foods, Ugachick, Kayebe sauce packers and many others.

Soyabean is produced for both domestic and export market. About 90% of the marketable surplus is exported to South Africa, Kenya and European Union countries. About 10% is consumed as soya flour, milk, sauce and in animal feeds. Soyabean earns Uganda foreign exchange amounting to US$ 2,816,000 in 1996 (Table 2).

Table 2: **Uganda's soyabean exports 1990-1996**

Year	Quantity (Kgs)	Value (US$)	% of total exports
1990	23,300	9,785	0.01
1991	2,381,623	467,898	0.24
1992	1,103,760	270,026	0.14
1993	7,075,689	2,056,383	0.74
1994	1,689,997	755,784	0.37
1995	3,988,091	1,826,000	0.32
1996	8,493,000	2,816,000	0.41

Source: Background to the Budget, several years.

Marketing margins: There is a wide difference between the final price and what the producer receives. The margins were estimated to be in the order of 27.0% for farmers, 3.3% for buyers/suppliers, 39.0% for wholesalers and 17.7% for retailers (marketing of small holder crops in Uganda, by J.R. Bibangambah, 1996). Producers prices are in the order of 300-400/=. Then traders who bulk it sell to other middlemen in Kisenyi or supply exporters at prices ranging between 450-470/= per kg. The middlemen sell mainly to millers/processors and retailers at prices in the order of 600-650/= per kg. Over the years rural market prices in real terms have fluctuated as shown in table 3 below.

Table 3: **Rural market prices in real terms.**

Period	Price
Nov. 1990	150/=
Nov. 1991	88/=
Nov. 1992	96/=

May 1993	80/=
July 1994	125/=
July 1995	229/=
July 1996	168/=

Source: National Agricultural Forum, 1997.

The prices received by participants in soyabean marketing are determined by free market forces. This has always been the case for producer prices, prior to liberalisation government intervention was only affecting the export aspect of the commodity and this has long ceased. Hence currently government does not set prices or control quantities at any level in the marketing chain and traders are free to move the commodity from one region to another.

Problems in the present marketing mechanism include:-

- Lack of premium for good quality product at the farm level.
- Inadequate market information between buyers and producers which makes some groups in the marketing chain take advantage of others.
- Lack of quality and grade differentiation.
- Irregular supply of the product which impairs the operations of large oil millers.
- Lack of crop finance and easy access to cheap market credit.
- Poor infrastructure in terms of storage, roads and transport which leads high post harvest losses and high marketing costs.

A commodity exchange would help eliminate most of these problems since they fall within the range of things an exchange can rightly address.

There is likely to be ample support in the industry for an exchange especially with the large oil millers who would like to secure large and regular supplies of the product but are currently leaked by information gaps. Since the exchange will link exporters and millers the later may be able to buy large quantities locally. Also the other participants are likely to support the exchange since they will reap benefits from the improved flow of market information, storage, price discovery and market credit.

The market can bear the additional cost of a small commission to the exchange and a fee to a broker. However, given the nature of the marketing margins the fee should be small. A number of sampled market participants expressed willingness to bear the additional cost provided its in the order of 0.5 - 1.2%.

List of people interviewed:

	Name	Enterprise
1.	Mr. Tom Opio Oming	CEI
2.	Mr. Buluma James	East African Basic Foods Ltd
3.	Mr. P.K. Sharma	Lira Millers Ltd
4.	Mr. Surjit Singh	GURU NANAK Oil Mills
5.	Mr. R.K. Thapar	Madhvani Oil Industries (1989) Ltd
6.	Mr. H.H. Mukiibi	Kayebe Sauce Packers (U) Ltd.
7.	Mr. Wottima	Mukwano Industries Ltd.

8.	Mr. Venket	General Manager Finance, Mukwano Industries Ltd.
9	Mr. Oluka Moses	Mats procurements (U)

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SIMSIM

Overview:
Simsim which is also known as Sesame has been grown in Uganda for along time although it is not known when it was introduced in Uganda. By 1960 Uganda had 99,000 ha. of simsim and until recently it was mainly grown for home consumption. The crop gained importance as an export crop in the early 1990s, this stimulated expanded production and in some areas simsim has taken the place of cotton as the opening crop in the rotation.

Product and Production:
Simsim is a small holder crop where production is concentrated in the northern and eastern areas of Uganda. Growing areas are mainly in the districts of Apac, Gulu, Kitgum, Lira, Arua, Soroti, Tororo, Nebbi, Moyo, Kotido, Iganga, Kamuli, Hoima, Masindi and Pallisa. Mukono, Mubende, Mpigi, Luwero, Kumi, Kibaale and Kasese are minor producing areas. There has been very limited research work on the crop and no improved cultivars are available and the varieties planted are mixed, with low-yield (300-500kgs/ha) although with high oil content of 45-55%. Simsim from the north-west is dark brown to black and higher in oil content (over 50%), than the white seeded types from the north-east and north-cental areas. Some assistance for sesame research at Serere Agricultural and Animal Research Institute (SAARI) provided under the Action Research Program supported by IDA through ASAC (now closed) have lead to new varieties including SERRA, S and EM-14 which are still on restricted release. These high yielding varieties will enhance increased production once they are adequately adopted by the farmers.

The crop can be grown twice a year with harvesting starting in July to September/October for the first season and December to April for the second market season. The first crop is planted in March/April and harvested around July - September in all the growing areas. The second crop which is also the main crop in Northern Uganda is planted around mid August to September and harvested in December - January. In Masindi Luwero and Kasese the second crop is planted September and harvested towards the end of November up to January. Farmers cut the stems which are dried before threshing is done to get the seeds.

With the opportunities for export in the early 1990s, simsim production has expanded, and in some areas has taken the place of cotton as the opening crop in the rotation.

Simsim production has increased over the past 5 years with current production trend since 1990-1996 is given in table 1 below.

Table 1: **Simsim production 1990-1996**

Year	Hectarage	Amount
1990	124,000	62,000
1991	130,000	61,000
1992	142,999	71,550
1993	150,000	74,998
1994	158,000	70,000
1995	166,000	70,998
1996	172,005	74,000

Source: Statistics Unit - MAAIF

Markets and marketing:
About 40% of the simsim produced in Uganda is consumed directly on the farm and 60% is sold off as the marketable surplus. Farmers thresh and clean the seeds at their farms. The threshed and cleaned

seeds are then taken to the rural markets in small quantities in baskets, tins and bags. The marketing in production areas is very competitive characterised by very many produce traders who buy from farmers in rural markets. The traders bulk the simsim and sell to exporters and wholesalers in towns. The wholesalers in turn sell to retailers, exporters or both.

Some farmers sell through co-operatives for export by their association known as Unions Export Services (UNEX). Sometimes exporters are linked to suppliers (traders) by brokers/commission agents who add their charges to the final selling price.

Simsim has been the main exported crop of all oil seeds for foreign exchange earning with the 1996 figure standing at 11,462 tonnes earning Uganda an estimated US$ 7,372,000 (Table 2)

Table 2: Uganda's Simsim Exports 1990-1996

Year	Quantity (Tonnes)	Amount ("000" US$)
1990	9,207	5,234
1991	17,805	10,517
1992	12,863	6,478
1993	8,372	2,776
1994	4,142	1,548
1995	9,314	5,899
1996	11,462	7,372

Source: MPED, Statistical Abstract, 1997.

The exporters (both local and foreign) are themselves in excess of 60, which includes Commodity Exporters International (CEI), Cofftea Trading Company, Lira Millers, Photofocus (U) Ltd., Katren Company Ltd., Foods and Beverages, etc who bulk it and clean it prior to exporting it. Sesame seed are currently graded on the basis of their colour which include white, whitish, mixed and black. There is a price differential of about 200 Ushs per kilogram of the different grade. The main external markets include Japan, Switzerland, U.K, Sudan, Kenya, Saudi Arabia, Canada, Greece, Turkey, Hongkong, United Arab Emirates, Egypt and South Korea.

Millers add value to the product by crushing the seeds to yield a high quality Oil which is odourless and does not easily go rancid. However only a small fraction of Sesame seeds (About 5%) goes into extraction process in Uganda with majority being eaten directly or exported although there is ample crushing capacity in the country. The millers also get simsim seed meal which is used in animal feeds.

Simsim storage involves a large number of small produce stores private or belonging to co-operatives distributed in rural areas in trading centres. Wholesalers and Exporters also store the seeds in warehouses (rented or owned) before selling is effected. Several Simsim Exporters are in Kampala, hence much of the product destined to the Export market is stored in and goes through Kampala.

Market margins fluctuate but all the same the retailer is the main beneficiary enjoying up to 53%, of the final price. Farmers get about 40% while wholesalers/Exporters margins are in the order of 20-33%. The middle men receives as low as 2% (Marketing small holder crops in Uganda, by J.R. Bibangambo, 1996). Rural market prices are in the order of 300-400. The traders sell to exporters or millers at prices in the order of 325 to 450/= depending on grade. By August 21, 1997 the price for white simsim was 425/=, black 350/=, Lira simsim white 400/= and Lira simsim black 325/=. The exporter receives prices in the order of 600-700 Ushs. Hence exporters have the biggest margins in the range of 150-250 Ushs. However, both the export and domestic markets are volatile and have limited consumption ceilings, so that over supply can rapidly cause price drops. The export prices have fluctuated over the years as shown in table 3 below.

Table 3: Average simsim export prices 1992-1996

Year	Average export price per ton (US $)
1992	503.6
1993	331.6
1994	373.7
1995	641.4
1996	643.2

Source: Calculated from Statistical Abstract 1996 and 1997.

Prices are determined by free market forces without any Government intervention. The traders are free to move to the product from one area to another and the Government does not control quantities at any level in the market chain.

Problems in the present marketing mechanism include:

- Lack of adequate market information to all market participants.
- Lack of consistency of supply in terms of quantity and quality.
- Poor infrastructure in terms of storage, roads and transport.
- Lack of crop finance which is aggravated by lack of easy and cheap access to the market credit.

An Exchange would help improve the situation through improving the quality and amount of information reaching majority of the market participants which will enable fair competition. Coupled with a warehouse receipt system the exchange will improve storage and serve the function of market credit as sell will be able to sell goods in advance to be delivered at some future periods.

There would be support for the exchange, this is based on the fact that almost all the sampled market participants expressed support to the idea of its formation and they indicated that they would bear the additional cost of a small commission to the exchange and a fee to a broker which should not exceed 1%.

List of people interviewed:

	Name	Enterprise
1.	Mr. Salim Ahmed	Coffeetea Trading Co.
2.	Mr. Opio Oming	CEI
3.	Mr. Tarik Mohammed	Photofocus (U) Ltd
4.	Mr. P.K. Sharma	Lira Millers Ltd
5.	Mr. Surjit Singh	Director, GURU NANAK Oil Mills
6.	Mr. R.K. Thapar	General Manager, Madhvani Oil Industries (1989) Ltd
7.	Mr. Wottima	Mukwano Industries Ltd.
8.	Mr. Venket	General Manager Finance, Mukwano Industries Ltd.
9.	Mr. M. Kimbugwe	Kafumbe Road Producer buyers Association.

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SUNFLOWER

Overview:

Sunflower is a fairly new crop which increased in predominance as an oil seed during the 1970s when cotton seed production declined. Sunflower is grown solely as a cash crop. Rapid interest in the crop has been observed in the 1990s and it is now the main crop for edible il extraction in Uganda especially at the village level.

Product and production:

Sunflower is well adapted to the drier areas of northern and eastern Uganda. Major growing districts include Lira, Apac, Kitgum, Gulu, Kotido, Kapchorwa, Moroto, Kasese, Kumi and Masindi.

Hectarage was estimated to be 56,993 ha. in 1996 and the crop is mainly produced on small holder farms although large scale mechanism production is also gaining ground. The crop is grown twice a year and harvested after 90-120 days. Farmers cut the heads which are then threshed to get the seeds. Seeds are cleaned and dried further until they attain a moisture content of 10-20%. Research at NAARI and SARI released the sunfola with a 10-20% yield advantage over the original striped varieties and the improved seeds have and will lead to increase production.

Institutions such as Uganda Oil Seeds Processors Association (UOSPA), Appropriate Technology Uganda (ATU) and Uganda Co-operative Alliance (UCA) are promoting production of the crop. UOSPA is involved in the area of seeds supply for the sunfola variety as well as offering other services to traders and processors. This is likely to improve on the production of the crop. AT Uganda is implementing the USAID funded U-Press project, introducing the small ram press for sunflower processing in northern Uganda and promoting the growing of sunfola as a small farmer crop. Religious organisations like KOLPING SOCIETY LTD are also promoting production of sunflower. These efforts have resulted in a high rate of adoption for the NEW SUNFOLA variety ranging from 214 ha in 1990 to an estimated 100,000 ha in 1995. Production is also expected to be enhanced by the IFAD funded Vegetable Oil Development Project (VODP) which is in the offing and set to target all traditional oilseed production and research but with sunflower as the lead crop.

Current production in Uganda is estimated to be in the order of 50,000-60,000 metric tonnes per year and has more than doubled since 1990 as seen in table 1 below.

Table 1: **Sunflower production 1990-1994**

Year	Amount (Mt)
1990	25,000
1991	30,421
1992	31,421
1993	11,780
1994	55,000

Source: Status report of oil crop sub-sector in Uganda, MAAIF 1995.

The first crop is planted in March/April and harvested around July - August in all the growing areas. The second crop which is also the main crop in Northern Uganda is planted around mid August to September and harvested in December - January. In Masindi Luwero and Kasese the second crop is planted September and harvested towards the end of November up to January. Shortages of sunflower seeds are experienced in July to December before harvesting of the main crop is done in the major producing areas of Northern and Eastern Uganda.

Markets and marketing:
The product moves from the farmer to the miller either directly or through traders. Farmers may sell directly to small millers which are widely dispersed in the oilseeds area and these buyers are mainly associated with cooperatives, churches and NGOs. Some of the crop is sold through cooperatives basically primary societies in the village. The traders or primary societies sell to either medium processors in the districts of Kampala, Jinja, Lira, Gulu, Kitgum, Masindi, Kasese, Masaka and Soroti or to processors concentrated in Kampala, Jinja, Mbale and Tororo. Farmers also sell directly to Mukwano Industries outlets located in all major towns and other trading centres in the growing districts. At these outlets any quantity is bought. The industry also buys from suppliers who deliver at the factory but in this case quantities less than a tonne are not dealt with. A sizeable portion of the marketable surplus is sold to Kenyans who buy directly from farmers and other private traders and this is exported to Kenya.

The large oil millers such as Mukwano and Madhivani buy most of the product. The oil millers add form utility to the product by crushing the sunflower seeds to produce edible vegetable oil and sunflower cake used in animal feeds.

Sunflower is stored at the farm level, village level (mainly stores of primary cooperative societies) and or private traders before the product is sold off and by the oil millers before processing is done.

Sunflower is essentially grown for the domestic market and a very small portion of total production is exported. The product is sold by grades on the basis of colour and oil content, grades include Black, White, Sunfora. Other quality parameters include moisture content which should not exceed 10-12%, insect damage, dust and whether the seeds are broken.

Prices received by the producer vary depending on location but in general the farm gate price is in the order of 200-220/= UShs. The private trader or co-operative society then sells to millers at price ranging between 230-250/= UShs. Hence the price structure leaves a margin of 10-50 UShs to the middlemen who connect millers to producers.

Prices received by the different market participants are determined by free market forces of demand and supply with out any government intervention.

Problems in the present marketing mechanism include:

- Lack of premium for superior quality product as buyers do not pay price differential for better quality.

- In adequate market information to all market participants which results in big price differential between one production area and another.

- Lack of consistency of supply in terms of quantity and quality.

- Poor infrastructure in terms of storage which results into quantitative and qualitative losses, roads and transport.

- Shortage of capital especially with the small scale oil millers and traders, this is aggravated by lack of easy and cheap access to the market credit.

An Exchange would help eliminate most of these problems through improving the quality and amount of information reaching majority of the market participants on market statistics and prices thereby enhancing fair competition. Coupled with a warehouse receipt system the exchange will improve storage and serve the function of market credit as sellers will be able to sell goods in advance to be delivered at some future periods.

There would be support for the exchange, especially at big processor who will be assured of consistent supplies and small processors and traders who will reap most of the benefits. This is based on the fact that almost all the sampled market participants expressed support to the idea of its formation and they indicated that they would bear the additional cost of a small commission to the exchange and a fee to a broker which should be in the order of 0.5- 1%.

List of people interviewed:

	Name	Enterprise
1.	Mr. Salim Ahmed	Coffeetea Trading Co.
2.	Mr. Opio Oming	CEI
3.	Mr. Tarik Mohammed	Photofocus (U) Ltd
4.	Mr. P.K. Sharma	Lira Millers Ltd
5.	Mr. Surjit Singh	Director, GURU NANAK Oil Mills
6.	Mr. R.K. Thapar	General Manager, Madhvani Oil industries (1989) Ltd
7.	Mr. Wottima	Mukwano Industries Ltd.
8.	Mr. Venket	General Manager Finance, Mukwano Industries Ltd.
9.	Mr. Musisi	Maganjo Grain Millers

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COCOA

OVERVIEW

Cocoa was introduced in Uganda by the colonists way back in 1901 from the Key Gardens in Britain and planted in Entebbe Botanical Gardens. By 1917, commercial exports of cocoa started and the crop was grown on plantation scale by Europeans and Asians. However estate production of cocoa was rendered uneconomical due to poor management of estates, pests and disease infestation as well as lack of foresight and planning.

The crop was abandoned around 1924 when world prices fell to a low level. It was re-introduced in 1958 by small farmers specifically to diversify foreign exchange earnings and farmer incomes in robusta coffee growing areas.

A total of 461 hectares had already been planted in Mukono, Bundibugyo and the then Hoima districts by 1965. The Cocoa Development Project (CDP) was established and became fully operational in 1972. It was charged with the responsibility of promoting the cocoa industry in terms of increased production and improved quality for the successful penetration of cocoa on the world market.

By 1978 a total of 14,000 hectares had already been planted on small holdings in the Robusta coffee growing districts of Mukono, Jinja, Kamuli, Iganga, Hoima, Masindi, Bundibugyo, Kibale, Mpigi and Luwero. However, the instabilities of the late 1970s and early 1980s drastically affected the steady progress of the cocoa industry such that all processing facilities broke down and farmers' payments were irregular. This resulted in the abandonment and the subsequent reduction in the hectarage of cocoa and by 1986 hectarage had fallen to 10,000 ha .

Product and Production:

As highlighted above, there are about 10 production districts mainly in the Robusta coffee growing areas of the country and the hectarage under production is about 12,000 hectares.

Production is mainly on smallholder farms between 0.5 - 2 hectares on average. The farmers carry out the initial processing. Ripe pods are harvested, broken and the wet beans fermented in canoes, wooden boxes, Pits lined with banana leaves, or in heaps for about 7 days turning them once or twice in the process. The pods are then sun dried on pauline, papyrus mats, mats or polythene material laid on the ground or on a raised platform for another 7 days. If these two processes are handled properly, they result into quality brown dry beans which are free from mould.

According to Cocoa Development Project, production has been increasing. There is a marked increase in production especially after liberalization. Further increases in production are expected given the support geared to promote cocoa production provided to the cocoa sector by the IDEA project of USAID through the Cocoa Development Project (CDP).

Table 1: Cocoa's Slow and Steady Growth

Year	Production (tons)
1991/92	1396
1992/93	1300
1993/94	1500
1994/95	1800
1995/96 (est.)	2200

Source: Cocoa Development Project

There are two peak harvesting seasons, the main one stretching from September to January constitutes about 70% of total production. The Fly season runs from May to August and constitutes about 30 % of total production. However it should be noted that harvesting is all year round and there is some cocoa to harvest at all times of the year.

Table 2: Cocoa distribution in Uganda (1995)

DISTRICT	SUITABLE AREA(Ha)	AREA UNDER PRODUCTION(Ha)	UTILISATION UNDER COCOA %
MUKONO	54,000	5,510	10
BUNDIBUGYO	5,600	2,300	41.1
IGANGA	8,000	870	10.8
HOIMA	4,900	776	15.8
JINJA	4,500	700	15.6
KAMULI	3,100	370	12.0
MPIGI	1,600	445	27.8
MASINDI	1,100	356	32.4
LUWERO	800	224	28.0
TOTAL	93,600	11,451	12.2

Source: Cocoa Development Project Report.

Markets and Marketing

Cocoa marketing has gone through several stages, during the 1970s all aspects of cocoa production, marketing and exports were carried out by CDP on the ten fermentaries and driers established in all growing areas. In 1983 cocoa processing and marketing functions were transferred to the Coffee Marketing Board (CMB currently CMBL). There was a positive impact realised in the short-run but in due course CMB become very inefficient and the farmer payments were no longer prompt. With market liberalisation in 1991, farmers now process their cocoa and sell dry beans to local dealers/traders who by from the farm gate at negotiable prices, the traders in turn sell to private exporters who export the beans to either Germany, Belgium, Switzerland, Netherlands or the United Kingdom which are the major markets for Uganda's cocoa. Almost all regular exporters are found in and around Kampala hence most of the product goes through kampala. Cocoa is one of the crops expected to broaden Uganda' export base and over the years it has contributed to the country' foreign exchange earnings with the 1996 value standing at US $ 1,073,000 (Table 2).

Table 3: Cocoa exports 1990 - 1996

Year	Quantity (Tonnes)	Value in 000 US $
1990	1,396	504
1991	492	374
1992	623	281
1993	1,313	714
1994	623	586
1995	552	479
1996	1,414	1073

Source: MPED 1996 and 1997.

Cocoa producers are mainly smallholder farmers with two large estates:- Kijjude estates and Magulu estates both found in Mukono district and owned by Rwenzoli tea estates Ltd and the Sembule group respectively. The exporting enterprises are owned by both local and foreign business men while importers are foreign owned companies.

The exporters re-dry the beans to a moisture content of 7%, then they sort, clean, fumigate, bag and stitch before they export. All of them use manual labour to hand pick and sort the cocoa beans. Some hand cleaned the beans on sieves while others used a machine to blow off the dust and other foreign materials. No grading was carried out by the exporters. They sell their cocoa on the fair average quality system which implies that Ugandan cocoa is not sold by grades yet there is a price differential for cocoa of different grades on the world market. It should however be noted that grading standards exist although they are not applied at present and these include grade 1, 2 and substandard 3 based on grading parameters below.

Table 4: Making the Grade(s)

PARAMETER PER 300 BEANS	GRADE I	GRADE II	GRADE III
1) Moisture Content	Max 7%	Same	Same
2) Mouldy Beans	0.3%	3 - 4%	5 - 10%
3) Slatey Beans	0 - 3%	3 - 8%	8 - 10%
4) Flat Beans	0 - 3%	3% - 6%	7% - 10%
5) Insect Damage	"	"	"
6) Germinated Beans	"	"	"
7) Fully Fermented Beans	MIN 90%	80 - 90%	Below 80%

Note: For export Grade I and II are the ones considered.

Source: Cocoa Development Project

Storage: After drying the cocoa beans are stored. In Uganda today, cocoa storage takes place at various stages on the commercial line namely: the producer's home, local buyer's store and in the exporter's warehouse in Kampala. Most of the producers do not store cocoa beans for long after drying as many of them immediately sell off the beans. However, if buyers do not come immediately, the beans are stored in the residential houses. Most local buyers in the villages store cocoa in gunny bags in their homes and in most cases on the floor.

Cocoa is basically produced for the formal export market and since no further processing is done to the dry beans in Uganda almost every thing which comes to the market is exported and it all passes through Kampala.

The cost of cocoa production was estimated to be Ushs 507/kg and producer price is in the order of Ushs 600/Kg which leaves a profit margin to producers of Ushs 93/kg profit margin to exporters of Ushs.99/Kg exported (Kayobyo 1997).

As already mentioned prices are determined by market dynamics in both the domestic and international markets. The government neither sets prices nor controls quantities at any level in the marketing chain.

Producers do not have formal ways of knowing what future prices may be. However the Agribusiness Development Centre of the IDEA project gives indicative global prices on a weekly basis and this information may trickle down to the producers through informal ways.

Problems in the present marketing mechanism include:

- Lack of good storage facilities which leads to product loss and quality deterioration.
- Lack of a premium for high quality beans at the farm level
- Lack of grading enforcement since CDP which was responsible for this is more less sidelined by the exporters.
- Lack of market information especially at the lower levels hence exporters may take advantage of the uninformed traders and producers.
- Lack of cheap and easy access to crop fiance.
- Poor transport and roads.
- Inadequate supplies during sometimes of the year.

A commodity exchange would go a long way in eliminating most of these problems since it will improve on storage, encourage quality enhancement and enforcement of grades. Coupled with a warehouse receipt system, an exchange will serve the function of accessing market credit as well as discover prices for the benefit of all market participants.
There would be support for the exchange in the industry more so at the lower levels where most benefits will be realised. However a cautious approach should be followed and there is need to create more awareness among the stakeholders.

The market can bear the additional cost of a small commission to the exchange and a fee to a broker. Going by the margins to producers and exporters, the fee should be in the order of 1-2%.

List of people interviewed:

	Name	Enterprise
1.	Mr. Salim Ahmed	Export Manager, Cofftea Trading Co. 7th Floor, Uganda House
2.	Mr. Tom Opio Oming	Commodity Exporters International (CEI) Plot 5 Nyondo Close
3.	Mr. Harry Lwanga	Local dealer/trader, Kasawo

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VANILLA

Overview:
Vanilla was first introduced in Uganda around 1912 by the colonialists from Ceylon (Sri Lanka) and planted at Entebbe. Experimental work continued during the 1920s and commercial production on a limited scale was developed in the 1930s mainly in the lake crescent area. There was considerable increase in planting during the 1950s with production ranging between 1300 to 6400 lb per year. However, vanilla production was more less abandoned during the civil strife of the 1970s and only picked up again in the 1980s. Vanilla is one of the agricultural products which have been identified for targeted growth with a view to diversifying the export base and encouraging farmers to increase their incomes.

Product and production:
Vanilla is produced in about 8 districts including Mukono, Bundibugyo, Iganga, Kabarole, Luwero, Masaka, Mpigi and Jinja. Vanilla is mainly a small holder enterprise with a few commercial systems. Vanilla farmers consist of both registered and unregistered growers. The total number of vanilla growers is estimated to be in excess of 6000. Most vanilla growers are organised into associations and these include:-

- Budondo Vanilla Farmers Association
- UVAN Ltd
- Bundibugyo Vanilla growers Association
- Iganga Green Ladder Vanilla Coop
- Tuliraba Women Development Vanilla Association
- Kyanja Estates Ltd
- Luwero Vanilla Farmers Association
- Kabarole Vanilla Group
- Buwenge Vanilla Group
- Bukunja Vanilla Farmers Association
- Jinja Vanilla Farmers
- Mukono Spices

These association represent several thousand smallholders and vanilla outgrowers.

Vanilla is "bourbon" type and products include whole cured beans and cut (rapid cured) beans. Vanilla beans are ready for harvest 7-9 months after pollination. In Uganda there are two harvesting seasons. The main one season from the September to October flowering stretches from June to August and the minor season from the March/May flowering runs from January to February. Vanilla beans are harvested by hand, accumulated and sold on the basis of state of maturity, length etc.

Markets and marketing:
Fresh vanilla beans are procured by designated agents from small holders or their associations, then cured and stored followed by direct sales at negotiated prices to exporters involved in the trade. UVAN Ltd is the major established processor and exporter of high quality cured vanilla in Uganda. UVAN has its own agents in the field who are given money to buy the fresh vanilla beans from farmers on UVAN's behalf. The agents then deliver to the UVAN processing plant. Farmers also sell directly to UVAN buying centre located on Plot 18 Namirembe Road where they are paid cash on delivery and each kilogram goes for 2500/=. After processing the vanilla, UVAN sales all its product to McCormicks of the USA (the largest spice purchasing/retailing company in the world and the largest buyer of high quality vanilla). McCormicks provides UVAN with crop finance and the former is bound by contract to supply all the vanilla to McCormicks at a pre-negotiated price. Exports of vanilla are growing rapidly 1 ton in 1990 to an estimated existing levels of 15-20 tons/year worthy over US$ 808,000 (Table 1).

Table 1: **Uganda vanilla exports 1990-1996**

Year	Quantity (kgs)	Value (US$)	% of total exports
1990	1,536	39,717	0.02
1991	4,820	177,738	0.09
1992	3,446	171,440	0.09
1993	5,815	391,170	0.14
1994	13,488	674,000	0.14
1995	176	7,588	0.0004
1996	14,868	808,692	0.11

Sources: Uganda Export Promotion Statistics 1997.

Generally vanilla marketing involves a large number of small holders, a number of farmer associations, traders, one main processor and export a few (about 2) other minor exporters. The vanilla exporters are mainly in Kampala and all the product destined the export market goes through Kampala.

Vanilla storage is mainly at the exporter level as the producers sell the fresh beans which are cured by the exporters. Vanilla is largely produced for the formal export market and the product has quality requirements but there are no set grades in Uganda.

There is very limited information available on marketing margins, however, there is about a 6:1 conversion between fresh and processed (dried) vanilla.

Prices are not pre-determined in any way and they are mainly free market determined prices. The government does not set prices and it does not control the flow of vanilla quantities at any level in the market chain. However, the government through the export promotions board gives indicative world prices which can be used by local exporters to monitor and scrutinize contracts as well as making informed decisions.

List of people interviewed:

Name	Enterprise
Mr. Aga Sekalala Snr	Managing Director, UVAN Ltd.

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CHILIES

Overview:

Chilies were gown in Uganda in a semi-naturalized state as early as 1890. In 1921 small observation plots of bird chilies were grown at Serere, Bukalasa and Kakumiro; and seeds distributed to Acholi, Masaka, Mubende and Ankole districts. In 1934 at introduction of Japanese chilies was made into the country. Samples of Japanese chilies produced in Uganda, received a better valuation in England than the local type; but today the possible distinction is between large and small types.

Product and production:

Chilies can be grown in all districts of the country. Exports from Uganda started in 1903, however due to violent price fluctuations there have been corresponding ups and downs in the amounts produced and exported. In 1923 exports reached 900 tons, declining to only 44 tons in 1938. Exports rose to an all time record of about 2000 tons in 1947, declining to between 150-560 tons during the 1950s. During the 1960s and 1970s about 400 tons of chilies were exported a year. Exports continue to decline through the 1980s when trade was minimal. However, recently a number of exporters have been organising production and annual exports are now estimated in the order 300 metric tonnes.

Bird's eye chilies are grown by several thousand small holders, some under out growers arrangements and a few large farms. There are about 30,000 chili growers found in the districts of Mukono, Iganga, Luwero, Mpigi, Masaka, Kibale, Kasese, Kabale, Mbarara, Kabarole, Lira, Apac and Hoima. Depending on area land allocated to growing chilies is very small. Producers grow from 50-500 plants though in Kibale the range is from 100-500 plants. In Mbarara district there are about 500 farmers who have 20-100 plants. Large farms include Anifarm produce and commodities Limited and Kibale Chili Development Project with outgrowers in Kibale Resettlement Scheme.

Markets and marketing:

Bird's eye chilies are bought from the open market by private buyers who sell to exporters. The largest enterprises involved in chili production are also involved in export marketing of the product.

The private buyers also sell to local end users mainly food industries, the major one being RECO Industries Ltd in Kasese which uses 6 MT per year in production of chili sauce and Elgonia Industries Ltd based in Tororo. Exporters include both locally owned and foreign owned enterprises eg. Alimpex (U) Ltd, (Joseph Matovu and Co.), Anifarm Produce and Commodities Ltd and El Nasr Export and Importers Company. Exporters consign the product to agents in Europe who either buy on a fixed contract or sell on consignment with an agrees minimum price.

Farmers harvest the ripe chilies by hand and place them in baskets or sacks. They are then placed on racks and sun dried. The product is then sorted for colour and absence from damage and packed in hessian sacks. Full container (20 feet container) loads are bulked and then transported mainly from Kampala where almost all the exporters are located to their final destination.

Bird's eye chilies have quality requirements but there are no set grades in Uganda. However, Ugandan chilies have an excellent reputation on the world because of their high capsicum content and normally command premium premises.

Chilies are grown for local marketing, export and for home consumption. Tonnage for locally marketed chilies is not covered however most of the product is exported to European Union countries.

Government does not set price and price are determined by market forces on supply and demand on the local market and price movements in the Global market.

Producers do not have formal indicators of what prices will be in future. However through informal ways producers get some information from speculations of traders and international market prices via Newspapers and other types of media.

Present problems in the marketing mechanism include:-

- Lack of consistency of suppliers which does nor ensure regular supplies. Hence exporters find it difficult to fill up a container in reasonable time.

- Lack of proper storage before export.

- Lack of consistency of local buyers who want too large margins and do not respect quantities and delays.

- Poor roads and transport.

An exchange coupled with a warehouse receipt system would to an extent help to eliminate these problems through improved storage and ample information on availability and demand of the product at all times which may eliminate the unnecessary delays.

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COTTON

Overview

Prior to the establishment of Cotton Development Organization (CDO), the Lint Marketing Board (LMB) was empowered to sell cotton lint and cotton seed, and among other functions and duties, make such arrangements as appropriate for the lint cotton purchased by it to be examined, tested, sampled or inspected. Seed cotton was previously sold through societies and unions which owned ginneries. Ginned cotton would be sold to LMB which would sell it to textile mills and the rest exported. Prices were set by government at the beginning of the season. Farmers all over the country would receive uniform prices. LMB would issue tenders on world market for purchase of cotton lint.

The CDO was latter established as a regulatory body created to oversee the cotton sector, including: seed procurement dressing and distribution; set standards; inspect ginneries; approves seeds for planting; license cotton buyers, ginners and exporters; announce indicative prices; represent government on cotton bodies worldwide. The CDO is funded by World Bank, IDA, IFAD and the government of Uganda. Other sources of funds include: a levy of 2 percent cess on ginners and fees for registration and $3000 export licence for every exporter. The 2% cess is very high in relation to the margins and other industries such as coffee with export licence of $1500 and 1% cess.

Product and Production

Production of cotton in Uganda is still low and the quality needs improvement. In some areas in the East, the fertility of the soils are low leading to low yields. Increase of production by farmers will heavily depend on pricing policies, prompt availability of inputs and prices of other competing products.

Cotton in Uganda is cultivated at attitudes varying from 3,500 feet to 4,500 feet and is entirely rain grown. The crop is mainly produced by small holders with acreage ranging between 1-2 acres. However, in some areas like Kasese, farmers have started group farming of about 50 acres. There are mainly two types of varieties grown in Uganda: **BPA**, with medium-long staple, produced in the south near Lake Victoria, and **SATU**, which used to be grown the north and is now phasing out, a shorter staple cotton grown in the northern region, of good quality but not as good as the BPA produced around Lake Victoria.

Currently 99.5%of the crop produced in the country is BPA.e.g 1996/97 out of 100,000 bales only about 200 bales will be STAU grown at Serere Research Station. Given that SATU is produced in small quantities, its marketing is becoming very difficult. Small quantities are difficult to integrate in commodity exchange.

In the northern areas where the pattern of rainfall tends to be unimodal, cotton planting starts at the beginning of the rains in April - June. In the south, where there is bi-modal rainfall pattern, planting occurs later in June - July. Harvesting of the crop starts roughly five-six months after planting and should coincide with an expected period of dry weather. Harvesting occurs around October to December in Northern Uganda and around December - February in the other parts of the country.

With proper farm management, yields would improve from 200 kg to 400 kg of seed cotton per hectare. In some fertile areas like Kasese, yields can go up to 700 kg per hectare. Since increase in acreage is difficult, it is only increase in productivity that can improve production and this can be anticipated from research which is developing improved varieties. The IFAD funded Smallholder cotton rehabilitation programme is also expected to lead to increased production.

Markets and Marketing

The distribution channel for Cotton involves farmers selling to either a private company, an individual or a Co-operative Society. Individuals may in turn sell the purchased cotton to a private company or direct to an exporter/processor. Private companies that are not processors may choose to sell to a processor/exporter or to the export market. Co-op Societies will do the same. Some private companies and Co-op Societies are also processors/exporters.

The farmers harvest their cotton and hand sort the it hence all Ugandan cotton is hand-picked and sorted (HPS) which ensures maximum sorting. When 40 kg. have been collected and sorted, it is sold to an agent or cooperative society. The main attributes of Uganda's cotton in the market is that it is still hand picked and roller ginned. These attributes still attract an additional 4-5 cts/LB as premium.

The lint is sold by grades and Cotton Development Organization (CDO) is responsible for the classification of the crop and for preparation of classification statistics to internationally recognized standards. CDO has graded cotton into six categories namely: UCNO, UCOB, UCOP, UCOA, UCOM, UCOG. The grades are determined by appearance, micronnaire and staple length and strength. These were recognized and accepted by both Liverpool Cotton Association and Bremen Cotton Exchange in June 1995. All exporters are required to market Ugandan cotton basing on these grades. However, some of these standards are still difficult to enforce and the commodity exchange can play a role to streamline the standard requirements.

95 percent of cotton is sold in its raw form after ginning. Lint cotton is produced for both the export and domestic market with the export market currently taking the bigger share of over 90% of total production. Uganda's cotton finds market in United Kingdom, Kenya, Switzerland, Taiwan, Japan, Singapore and others. United Kingdom being Uganda's traditional partner in trade remains the major single export country and accounted for 47.22 percent of established export destination followed by Switzerland, Kenya and others.

Table 1: Cotton Exports by destination

Country	Quantity (bales)
U.K.	17,499
Switzerland	6,899
Kenya	6,728
Singapore	2,779
Taiwan	892
Japan	848
All others (8 countries)	1,414
Total	37,059

Table 2: Cotton Exports

	1991/92	1992/93	1993/94	1994/95	1995/96
Volume bales	8.99	40,000	50,000	55,000	65,000
Value US $million	11.48	5.34	8.0	10.5	12.16

Source: Background to the Budget 1995/96

Cotton is one of the traditional export crops and proceeds earned from cotton exports recovered from the low levels of the late 1970s. Exprots have been increasing quantitatively for the last five years with the 1995/96 figure standing at 65,000 bales. Domestic demand for lint cotton is still low and was 6 percent in 1995/96. However, it is anticipated that this will increase to 20 percent in 1996/97 as the demand for lint cotton increases in the textile mills which have recently been privatized—i.e., NYTIL Picfare, African Textile Mill (ATM), Rayon Textiles.

Cotton is stored on the farm, Cooperative society stores in villages, ginneries before it is processed and at the export level before its sold off. At the cooperative or private stores seed cotton is inspected, further sorted, and then taken to the ginnery for ginning. Most ginneries use double rolling ginning. During this process, lint is separated from the seed. The majority of ginneries are owned by cooperative unions. Some of them have been sold off to private companies or individuals. Some investors are still not willing to invest in high capital investment of ginneries with the current low levels of production. After ginning of seed cotton, lint is bundled in bales weighing 185 kg, wrapped in hessian cloth stapled and ready for shipment.

Ginning companies add form utility to the cotton by separating cotton seeds from the lint and then bale the lint. Cotton seeds are sold to vegetable oil millers who process it to cooking oil and cotton seed cake used for animal feeds. Key players here include Mukwano industries, Madhvani oil industries, Maganjo Grain millers, GuluNanak Oil mills and several other small one located in the production areas.

The government does not set prices or control movement of the crop at any level in the marketing chain. However CDO has a mandate to announce an indicative price at the beginning of every marketing season. Nevertheless farmers are very often paid more or less depending on the following factors: quantity of available crop and its demand by ginneries; proximity to export terminal (Tororo inland port); degree of competition amongst buyers; period in the season. However, with the commodity exchange in a liberalized market environment, the forces of demand and supply will overrule price announcements which are political rather than market motivated.

Farmers' share of the world market earnings ranged between 73.7 percent in 1970 to 14.9 percent in 1986. Since 1994, there has been a steady rise in the earnings to the farmer. This has been influenced further by the liberalization policies. The farmers share of world market has been reinstated to over 70%. As competition increases with perfect competition, they should increase.

Domestic lint prices ranged between shs.1,350 per kg. and shs.1,500 per kg. of lint in 1995/96 compared to shs.1,450 - 1,800 per kg. in 1994/95. Producers base their expectations for next year's prices on the previous years prices which keep on fluctuating since exporters are not guaranteed of cotton they cannot benefit from long forward selling contract.

Problems:

- Cotton being rain fed still limits prediction and sure estimates in production a key factor in commodity exchange and forward sales.

- Poor quality of cotton seeds supplied to millers.

- Fluctuating international prices

- Lack of cash on delivery to farmers is still a big factor and a disincentives to farmers.

- Liquid cash to be paid to farmers all at same time is a problem due to lack of easy and cheap access to marketing credit.

- Impact of many buyers struggling to secure lint crop reduced the quality leading to purchase of low grade cotton. Many ginners are still disorganized and many lack experience in cotton ginning and export leading to export of low quality cotton.

- Sensitization of ginners/exporters in the dynamics of international trade by Uganda Export Promoting Board and CDO will be required. Emphasis should be put on the improvement of lint grades to enable them fetch a higher premium. The commodity exchange can play a significant role in enforcement of standards for cotton lint through differentials in prices offered to the commodity

An exchange would help eliminate some of the problems in present marketing approach as exporters would now have access to market information, required standards and with warehouse contracts. Commodity exchange and warehouse receipt system are key to mobilization of cotton crop finance.

The would be support for the exchange in the industry especially as it would help to streamline the current system. Ginners and exports would mainly benefit from the exchange

The market can bear the additional cost of a small commission to the exchange and a fee to a broker so long as it facilitates the process and smoothens the marketing chain. Given the fact that CDO already charges a levy of 2 percent cess on ginners and fees for registration and $3000 export licence for every exporter, these charges are high in relation to the margins hence the commission fee for the exchange and the broker should not exceed 1%.

COFFEE

Overview

Like other cash crops, coffee industry traces its roots with colonisation of Uganda by the British. It was introduced in Uganda in the 1900s. In the 1950s there was a conscious effort to develop small holder hectarage. By 1960s coffee production had increased to about 2 million bags and 4.2 in the 1970s. The marketing was controlled by Government as a monopoly. Coffee production also suffered from the 1978/9 war and the civil strive of 1981-86. The industry in 1990 saw liberalization of marketing which introduced competition. Coffee Marketing Board (CMB) lost its monopoly and other private exporters sufficed. This situation coupled with other international factors has led to a revival of the industry. In order to guide the industry, Uganda Coffee Development Authority (UCDA) was created by Government Statute.

Product and Production

Coffee is grown mainly around Lake Victoria crescent covering the south and stretching south west. Other areas include higher altitudes around Mt. Elgon and Okoro areas in Nebbi, West Nile. Total hectarage under production is estimated to be 272,000 ha.

Most farmers growing coffee are very small holders, as 44 percent cultivate fields with less than 2 ha, 33 percent from 2-4 ha, 20 percent from 4-20 ha and 3 percent from fields of over 20 ha.

Uganda grows both Robusta and Arabica. There are two types of Robusta: 1) Ng'anda and 2) Erecta. The Arabica, Nyasaland, grows and performs better on highland areas and the SL 14 variety of Arabica yields better and is resistant to diseases, irrespective of altitude.

Government policy on coffee production and investment at the farm level is to encourage rapid replacement of the old Robusta coffee trees with the improved Clonal coffee variety, without necessarily expanding acreage. In the case of Arabica coffee, it is increasing productivity through good husbandry and expansion of area under SL 14 variety.

The current coffee production level is estimated at 3.7 million 60-kg bags or 220,000 MT of clean coffee, 3.4 million bags (92 percent) are Robusta and 0.3 million bags are Arabica. Production is projected to reach 4.5 million 60-kg bags or 270,000 MT by the year 2000.

There are two coffee market seasons in Uganda. These are the main crop season and the fly crop season. The main one is spread over 4-6 months accounting for 80 percent of production and the fly one 3 months accounting for 20 percent. This pattern affects the exports in the same manner.

There two harvesting seasons in Uganda and these vary depending on location. In the districts south of the equator, ie Masaka, Rakai, Ntungamo, Kabale, Mbarara, Runkugiri and Busenyi the main season stretches from May to August while the fly season runs from November to January. In case of the districts north of the Equator, ie Mpigi, Luwero, Mubende, Kiboga, Masindi, Hoima, Kasese, Bundibugyo, Mbale. Kapchorwa, Nebbi, Mukono, Kamuli, Iganga, Jinja and Kibale, the main harvesting season runs from May to September while the fly season falls between November and January.

Markets and Marketing

In 1990/91, government liberalized both the internal and external marketing of coffee. Below is the structure of marketing.

Export Market

UNEX

CMBL

Private Exporters/
Processors

Processors

Co-op
Unions
Processors

Private Agents

Primary
Cooperative
Societies

Coffee Farmers

Based on the above, the following can be noted.

- There is no monopoly. Estimates are that no one trader has more than 20% share and the top position changes with some frequency among about a dozen private companies.

- Liberalization has led to investments being attracted in the industry - most export operations are joint-venture results.

- Negatively, since coffee became scarce, malpractices surfaced by harvesting unripe coffee. This started affecting coffee quality.

Processing and Storage

After picking, the coffee is sun dried. It is then sorted and ready for dry processing which is common with Robusta coffee. The coffee is sold as FAIR AVERAGE QUALITY (FAQ) to exporters who reprocess, clean it and export.

Arabica berries are also picked when ripe and wet, then hulled, washed and sun dried. It is sorted then marketed as sun dried Uganda Arabica. This wet processed coffee is mainly from Bugishu Highlands (Mbale/Kapchorwa) and is marketed in grades AA, A, B and PB. The one from West Nile Plateaux is exported ungraded as wet Uganda Arabica (WUGAR). Some dry processing is done as in Robusta above and after hulling it is marketed as sun dried Uganda Arabica (DRUGAR).

There are 17 export processing plants in Uganda located in different parts of the country, with the major one in Kampala and owned by CMBL. Over 50% of the coffee goes through this processing plant to the export market via Mombassa. Coffee processed elsewhere is exported directly without moving through Kamapala.

Coffee processors and form utility to the product and they often participate in forward and backward linkages:

- Some are traders/dealers
- Some are agents of exporters
- Some broker between buyers and sellers for a commission
- Some finance traders
- They disseminate information
- Provide transport to move coffee from field to processing plant

Coffee is stored at the farm, village level, processing factories, buying centres of exporters, and shops in urban centres that are turned into stores during the marketing seasons. The biggest stores are in Kampala at the CMBL owned processing plant.

Coffee accounts for the largest percentage of Ugandan exports. 1990 - 80.3 percent, 1991 - 64.2 percent, 1992 - 65.0 percent, 1993 - 53.1 percent, 1994 - 74.5 percent, 1995 69.3 percent.

The number of exporters has increased from one state monopoly (CMB) in 1990 to about 100 registered exporters in 1995/96 coffee year. The market share by CMB Ltd., UNEX (Union of Exporting Services), private exporters has steadily been favouring the private exporter. The trend below explains. 13 foreign companies control about 80% of the market.

Table 1: The Dominance of Private Traders

Exporters	1991/2	1992/3	1993/4	1994/5	1995/6
CMB Ltd.	83.7%	39.3%	16.1%	9.7%	3.9%
UNEX	11.9%	11.9%	11.3%	11.2%	4%
Private Exporters	4.4%	44.7%	72.6%	79.1%	92.1%
Total	100%	100%	100%	100%	100%

Most Ugandan coffee exports go to Europe over 70 percent, others to USA, Canada, Asia, Oceania and others. In the coffee exporting community, it is believed most coffee destined to European Union finds its way to Eastern Europe/former Soviet States.

Farmers now receive about 60-65% of the export price. Among the best farmgate to export price ratios in the world.

Exporter margins are around 9.5% for vertically integrated operations controlling coffee right from farm and about 5% for those who purchase FAQ green coffee from traders or factories. However, these margins may not always apply because of stiff competition which forces the profits or the margin to the farmer/exporter to be bigger. There are distortions and imperfections within the internal coffee pricing system as a result of vertical integration and aggregation of costs in the coffee trade chain. Marketing cost is estimated at 12.5% and profit to a huller at nearly 16% of the export price for processors who sell to exporters.

Prices are pure determined by market forces bur UCDA gives indicative prices which help traders to scrutinize contracts. Producers do not have any formal indication of what price will be in the future.

It has been suggested that a warehouse receipt system be established to ease the current risk management in the sector and that a coffee auction market be established.

Problems in the current marketing mechanism include:

- Contracts sometimes not honoured in time, with no guarantee of supplies in volume due to stiff competition.

- Little value added. No quality control over roasted and packed coffee.

- Internal transport a problem

- Lack of premium for better quality coffee at farm level.
- Quality deterioration due to poor storage in rural areas.
- Much price fluctuations coupled with lack of risk management tools.

A commodity Exchange may help to address some of these problems, especially if coupled with a warehouse receipt system.

There would be industry support for a commodity exchange, which would enhance present marketing system.

Given current profit margins, total commission and broker fees should not exceed 0.5%, especially as UCDA is already taxing 1% cess on coffee exports.

TOBACCO

Overview

In 1994, tobacco accounted for about 2% of Uganda's exports, fetched US $8.3 million, contributed over US $20 million in tax revenue and employed 400,000 people.

Product and Production

Tobacco is grown in the districts of Arua, Apac, Gulu, part of Moyo, Hoima, Masindi, Mubende and Rukungiri. It is a smallholder cash crop and the three varieties grown are : heavy western, white gold, and burley.

Peak production of 5,000 metric tonnes was reached in 1972 after which it declined to 500 metric tonnes in the late 1970s under the monopoly marketing arrangement of National Tobacco Corporation.

With the divesture of the industry to British American Tobacco (BAT) as s single buyer and seller in 1984, tobacco production has recovered to 6,654mt.

Table 1: Tobacco Production and Export Trends

Year	Amount Produced (MTS)	Amount Exported (MTS)
1987	940	-
1988	1200	39
1989	3500	490
1990	3796	2020
1991	4467	2037
1992	7492	4229
1993	5141	3327
1994	6557	4084
1995	6654	4137
1996 (Est)	6392	3700

Source: Bank of Uganda and BAT

Tobacco is grown from seedlings raised in Nurseries owned by cooperative societies. Farmers plant in the field around mid March and harvesting of the first leaves starts towards the end of May. The harvesting season in a year stretches from May up to October. Farmers cure the leaves in their homes and marketing of the product begins around June stretching all the way to December.

Markets and Marketing

Since 1984, farmers have sold their tobacco to BAT through cooperatives under a 10 year management agreement (now expired). Due to the inefficiencies of this system, many farmers were underpaid or not at all. In 1995 many farmers elected to deal directly with BAT. So now farmers are contracted to BAT which supplies them with all the necessary inputs on a loan scheme. At marketing time, BAT makes payments directly to individual farmers.

In 1995, the tobacco sub-sector was opened to other players besides BAT. So far one company, Mastermind Tobacco Ltd. has joined in the competition. Mastermind (U) Ltd. uses the old system of buying tobacco through cooperatives. Tobacco leaf is sold in grades following international standards. There are 16 grades for flue-cured, and 11 grades for fire-cured tobacco.

BAT, in consultation with the Agricultural Secretariat, adjusts the producer prices periodically to provide incentives to tobacco growers. BAT sets the price once a year and this price prevails, Mastermind does not pay a different price. Producer prices for flue-cured declined by 1.5% between 1989 and 1994 and increased by 21% for fire-cured.

Table 2: Quality Pays a Better Price

Fire Cured		Flue cured	
Grade	U shs/kg	Grade	U shs/kg
UF I	1600/=	TO 12	1700/=
UF II	1400/=	TL 12	1400/=
UF III	1100/=	TO 3	1400/=
UF IV	890/=	BO 12	1400/=
USC	760/=	TL 3	1200/=
ULG	540/=	BL 12	1200/=
USG	460/=	B 1	1020/=
USG	450/=	B 2	930/=
UV	360/=	BL 3	770/=
UVI	300/=	TSOK	690/=
DSC	100/=	BD	680/=
		TSK	610/=
		TND	430/=
		D	290/=
		N	290/=
		GR	220/=

Source: Mastermind (U) Ltd.

As shown in Table 1, nearly two-thirds of purchases are exported, mostly by BAT, which also manufactures cigarettes in Uganda. Since Mastermind started its operations in Uganda in July 1995, it has exported 870 metric tonnes and 150 metric tonnes of flue and fire-cured tobacco leaf, respectively.

After picking the leaves, farmers fire or flue cure the leaves which are then stored at the farm for a short period as bulking takes place. Cooperative societies store most of the tobacco before its sold off. BAT runs stores formerly owned by the National Tobacco Corporation. The fire cured or flue cured leaves are the sold to BAT or Mastermind which store the product in their stores located in the growing areas before its transported to the processing plants in Kampala and Jinja. BAT manufactures part of the flue cured tobacco into brands of Rex, Sportsman, Safari and Crescent Star is produced from fire cured tobacco. These brands are sold on the local market. Much of the remaining processed leaf is exported.

Mastermind exports the cure leaf to its sister company in Kenya for processing, since it does not operate a plant in Uganda. Plans are underway to install one by the end of 1997. The branch in Kenya manufactures cigarette brands of Supermatch King size from flue cured tobacco and re-exports to the Ugandan market.

Tobacco is exported packed in plywood cases, cardboard cases or Hessian bags of 500 kg., with an underlying polythene paper to protect the leaves from gaining moisture.

TEA

Overview

Tea was probably introduced in the early 20th Century, but commercial production is said to have started in the 1940s. Today the tea industry has some 20,500 hectares of production. The peak of the Uganda tea industry was 1972, when the production reached 23,000 tonnes, with approximately 20,000 tonnes exported. Thereafter, years of neglect set in and the industry deteriorated to pitiful levels.

Product and Production

Tea in Uganda is grown in plantations and also in small acreages by small outgrowers. Approximately 46% (or 9,440 hectares) of production is by outgrowers selling to a tea estate. The remaining area (or 11,060 hectares) is shared by four large, privately held tea estates and several smaller ones. Harvesting is throughout the year and tea leaves are picked after every 7 - 10 days. Table 1 reviews the role of the estates in production and exports. All production effectively moves through them.

Table 1: Estates Control on the Industry

a. Production, Local Sales, and Exports by All

Year	Production (tons)	Local Sales	Exports	Export Value $000
1991	8,878	1,220	7,049	6,934
1992	9,164	1,093	7,816	7,762
1993	12,228	1,249	10,250	10,565
1994	13,461	1,567	10,971	11,765
1995	12,690	1,639	10,682	8,698
1996	13,000(est.)	1,690	10,840	9,214

Source: Uganda Tea Authority

b. Production By and Through Estates (tons)

Group	1991	1992	1993	1994	1995	1996(est)
Tamteca	2,005	1,611	2,322	3,205	2,807	2,800
UTGC	3,060	3,174	3,955	3,968	3,445	3,200
UTC	1,861	2,267	2,406	2,907	1,962	2,000
RHTC	1,248	1,475	1,716	1,575	3,260	3,500
Others	704	637	1,829	1,807	1,218	1,500
Total	8,878	9,164	12,228	13,461	12,692	13,000

Source: Uganda Tea Authority

There are two prominent varieties. Assams or China, small leaf or large leaf. It costs approximately Ushs.1.8 million (US $1,800) to establish one hectare of tea.

Rehabilitation of tea estates and the use of outgrowers has resulted in increased production, reaching an estimated 13,000 tonnes in 1996. Table below considers Uganda's ranking.

Table 2: Uganda's Place in World Production
('000 of metric tons)

Country	1991	1992	1993	1994	1995
India	754.2	732.3	758.1	745.0	753.9
China	563.0	580.5	620.3	610.4	na
Sri Lanka	241.6	178.9	231.9	242.2	246.0
Kenya	203.6	188.1	211.2	209.4	244.5
Indonesia	133.4	145.7	142.3	129.8	123.9
Bangladesh	45.0	48.9	50.5	51.7	47.3
Argentina	43.7	44.0	46.0	42.0	na
Malawi	40.5	28.1	39.5	35.1	34.5
Tanzania	19.3	18.4	23.2	23.8	na
Rwanda	13.5	13.6	9.5	13.9	na
Zimbabwe	15.6	7.8	14.1	13.4	na
Uganda	**8.9**	**9.1**	**12.3**	**13.5**	**12.7**
Brazil	9.5	9.0	10.0	10.0	na
South Africa	12.1	9.7	10.9	11.7	na
Burundi	5.3	5.9	5.5	6.9	na
Mauritius	5.9	5.8	5.9	5.1	3.3
Zaire	3.0	3.0	3.0	3.0	na
Others	457.1	424.1	370.4	374.8	na
World Total	2575.2	2452.9	2564.6	2541.7	na

Source: FAO Reports on Tea Market Developments, April 1996

Markets and Marketing

Uganda produces entirely black CTC teas, most of which is marketed at the Mombasa Auction. Other markets for Uganda tea are UK (London Auction) and direct exports to various destinations. The tables that follow show Uganda's ranking in the world as a tea exporter and the concentration of exports through the estates.

For a number of reasons—including quality, labour output, costs of transport and communication, duties on spares and inputs—tea production and marketing is largely a losing proposition without improvements in quality and labour output.

Table 3: Uganda's Place in the World Exports
('000 of metric tons)

Country	1991	1992	1993	1994	1995
India	201.7	173.4	173.7	150.6	163.7
China	190.2	180.8	206.5	184.1	na
Sri Lanka	210.8	177.8	210.7	225.1	235.7
Kenya	175.6	166.5	188.4	183.1	217.1
Indonesia	110.2	121.2	123.9	84.9	53.5*
Bangladesh	25.4	27.2	31.9	23.6	19.5*
Argentina	36.0	36.5	43.5	43.2	na
Malawi	37.0	35.4	35.3	38.7	na
Tanzania	17.5	17.8	19.4	18.6	na
Rwanda	11.0	13.0	7.0	7.2	na
Zimbabwe	11.3	6.1	8.1	9.5	na
Uganda	**7.0**	**7.8**	**10.2**	**11.0**	**10.6**
Brazil	6.6	7.0	7.0	8.4	na
South Africa	-	-	-	-	-
Burundi	4.8	5.7	5.8	6.0	na
Mauritius	4.5	5.5	4.4	4.0	2.9
Zaire	2.0	1.5	1.5	2.0	na
Others	21.6	31.4	62.7	30.2	na
World Total	1076.2	1014.6	1140.0	1030.2	

*** Nine months**
Source: FAO Reports on Tea Market Developments, April 1996

Table 4: Concentration of Exports through Estates
(tons)

Group	1991	1992	1993	1994	1995	1996(est)
Tamteca	1,496	1,553	2,315	8,024	2,724	2,716
UTGC	2,319	2,704	3,422	3,333	3,033	2,816
UTC	1,848	2,106	2,349	2,749	1,474	1,500
RHTC	913	996	956	769	2,689	2,870
Others	473	457	1,210	1,097	762	938
Total	7,049	7,816	10,250	10,972	10,682	10,840

Source: Uganda Tea Authority

- It is felt by some that there is an overreliance on the Kenyan auction market. As the country strives to diversify the export products, this should be matched by market diversification.

Table 5: The Mombassa Auction Dominates Export Sales

a. In Terms of Tonnage

	1993	%	1994	%	1995	%
Mombasa Auction	6,055	50	8,745	65	9,362	73.8
London Auction	381	3	983	7	664	5.2
Direct export-growers	1,404	11	140	1	616	4.9
Direct export-others	2,410	20	1,103	8	40	0.3
Local consumption	1,249	10	1,567	12	1,639	12.9
Stocks	729	6	923	7	370	2.9
Total	**12,228**		**13,461**		**12,692**	

Source: Uganda Tea Authority

b. In Terms of Value

Destination	Quantity (Tons) 1993	1994	1995	Value (US $'000) 1993	1994	1995
Mombasa Auction	6,055	8,745	9,362	7,266	9,620	7,583
London Auction	380	983	664	618	1,376	764
Kenya	2,106	1,179	562	1,263	707	281
United Kingdom	215	-	-	215	-	-
USA	50	10	-	61	12	-
Sudan	1,262	20	-	883	10	-
Holland	72	-	-	101	-	-
Russia	15	-	-	75	-	-
Somalia	37	-	-	19	-	-
Bulgaria	26	-	-	22	-	-
Pakistan	31	22	-	40	26	-
Ireland	-	11	-	-	14	-
Poland	-	-	19	-	-	25
Dubai	-	-	75	-	-	45
Total	10,250	10,971	10,682	10,565	11,765	8,698

Source: Uganda Tea Authority

- Due to quality differences, Uganda tea performs relatively poorly in comparison to some of its neighbours at the auctions.

Table 6: Quality Keeps Prices Down at the Auctions

a. *At the Mombassa Auction* (price per kg.)

Country	1993 (US$)	1994 (US$)	1995 (US$)
Uganda	**1.23**	**1.10**	**0.81**
Kenya	1.58	1.63	1.34
Tanzania	1.27	1.21	0.95
Rwanda	1.38	1.18	1.13
Burundi	1.56	1.58	1.30
Zaire	1.22	0.94	0.80
Zambia	0.75	-	-
Malawi	-	-	0.98
Total	1.55	1.21	1.04

Source: Uganda Tea Authority

b. *At the London Auction* (price per kg.)

Country	1993 (US$)	1994 (US$)	1995 (US$)
Uganda	1.62	1.40	1.15
Kenya	1.86	1.84	1.62
Tanzania	1.64	1.44	1.32
Rwanda	2.17	2.39	1.32
Burundi	2.02	1.95	1.72
Malawi	-	-	1.32
Total	1.86	1.80	1.40

Source: Uganda Tea Authority

When the tea is picked (green leaf), it is promptly taken to the factory for conditioning. Each tea estate has its own factory. When the leaf has attained 68 - 70 percent moisture, it is taken to the Rotoven for pre-cutting (into big pieces) and thereafter to CTC machine (cut tear curl). The tea is then oxidized to allow for the formation of colour and flavour. The tea is then dried using hot air. After drying, It is sorted according to sizes and grades, packed in 4 ply paper packs lined with aluminium foil or poly-lined P/P bags ready for marketing.

Depending on the processing three district types of tea are possible—green, oolong and black tea. Uganda produces entirely black tea, which according to the processing method is allowed to oxidize longest.

Appendix E

UGANDA COMMODITY EXCHANGE

Feasibility Review

Preliminary Budget

(all figures are US $)

A = "Coffee Shop" Exchange bringing buyers and sellers together to transact trade without use of grades or inspection by UCE.

B = Spot Exchange trading commodities based on samples under UCE supervision and using standard contracts.

C = Cash Exchange trading spot and forward contracts based on paper.

Exchange Type →	each or per year	notes	A Mo. 1-6	A-B Mo. 7-12	A-B Year 2	B Year 3	B-C Year 4	B-C Year 5
I. Recurrent Costs								
A. Staff								
1. Manager	25000		12500	12500	25000	25000	25000	25000
2. Admin. Assist./Bookkeeper	12000		6000	6000	12000	12000	12000	12000
3. Pit Boss	15000	1	0	0	7500	15000	15000	15000
4. Warehouse Manager	20000	1	0	0	10000	20000	20000	20000
5. Quality Control	18000	1	0	0	9000	18000	18000	18000
6. Crew(x5)	2000	1	0	0	5000	10000	10000	10000
3. Sub-total			18,500	18,500	68,500	100,000	100,000	100,000
B. Services								
1. Acctg./Auditing	3000	2	1500	1500	3000	3000	3000	3000
2. Legal	5000	3	10000	8000	5000	5000	5000	5000
3. Training		4	15000	15000	20000	10000	10000	5000
4. Marketing		5	20000	30000	40000	40000	25000	25000
5. Sub-total			46,500	54,500	68,000	58,000	43,000	38,000
C. Facilities								
1. Office Rent	12000	6	6000	6000	12000	12000	12000	12000
2. Office Renovation			10000					
3. Warehouse Rent		7		6000	12000	12000	12000	12000
4. Warehouse Renovation				30000				
5. Sub-total			16,000	42,000	24,000	24,000	24,000	24,000
D. Operations								
1. Telephone / fax	20400		10200	10200	20400	20400	20400	20400
2. Supplies	8000	8	6000	4000	8000	8000	8000	8000
4. Travel		9	15000	5000	5000	15000	5000	5000
5. Utilities	12000		6000	6000	12000	12000	12000	12000
6. Vehicle operations	12000		6000	6000	12000	12000	12000	12000
7. Miscellaneous	0.15	10	17130	17430	32685	37410	33660	32910
8. Sub-total			60,330	48,630	90,085	104,810	91,060	90,310
Total			141,330	163,630	250,585	286,810	258,060	252,310

		Exchange Type → each or per year	notes	A Mo. 1-6	A-B Mo. 7-12	A-B Year 2	B Year 3	B-C Year 4	B-C Year 5
II. Fixed Costs									
A. Furniture / Equipment									
1. Switchboard, phones (x 6), cellular				7000					
2. Fax				1000					
3. Computer (x2)			11	3100			3100		
4. Printer				1500					
5. Copier			12	5000				20000	
6. Software				1000			1000		
7. Desks (x3)		300		900					
8. Executive chairs (x3)		200		600					
9. Chairs (x6)		125		750					
10. Bookcases (x2)		300		600					
11. Tables (x2)		300		600					
12. Board room table		1000	13	1000					
13. Board room chairs (x20)		50		1000					
14. Filing cabinet (x2)		300		600					
15. Display boards (x2)									
16. Computer table									
17. Work stations (x3)			14	500	500	500			
18. Vehicle				30000					
19. Sub-total				55,150	500	500	4,100	20,000	0
B. Quality Control Equipment			15						
1. Platform scale	4	1000			2000	2000			
2. Sampling spears and screens					500				
3. Moisture Metre	6	300			900	900			
4. Bean balance scale	2	1000			1000	1000			
5. Sub-total					4,400	3,900			
C. Total				55,150	4,900	4,400	4,100	20,000	0
III. Total Operating Costs				196,480	168,530	254,985	290,910	278,060	252,310

notes

1 Commence job half way through year 2.

2 To set up bookkeeping system, quarterly review, annual audit

3 E.g., establishing not for profit NGO, drafting standard contract, review rules and regulations, assist arbitrate (perhaps) etc.

4 For commodity exchange personnel and brokers on the exchange. The latter would be on cost share basis only.

5 Newsletter, internet access / use, brochures, posters, awareness / education campaign

6 Ideally would have two room, ground floor office with street side exposure so that exchange board can be displayed. Street side room should be large enough to hold three or four cubicles for brokers, display board, admintistrative assistant, bookcases, etc.

7 Rent of 5,000 to 10,000 mt warehouse. Idea is not to encourage storage but to move product in for same day or next day trade. Some fee system would need to be established for holding inventory.

8 Expended at rate of $665/month plus $2000 in opening stock for the first period.

9 Covers travel both locally and abroad for training and marketing purposes. More travel is envisioned during the first period and in year three when the UCE may be switching from one type of exchange to another.

10 Calculated at 15 percent of total recurrent costs.

11 Includes monitor, UPS, multi-media kit, modem

12 Small, desk top copier is envisioned initially, later to be replaced by large volume copier after trade volume picks up

13 To seat 20.

14 A workstation is for a broker and includes partitions, table, desk, two chairs, outlet and phone. Computer, bookcase, file cabinet etc. will be provided by the broker if desired.

15 The equipment idicated should allow for quality control of many commodities, though different size screens will be required for different commodities.