A preliminary study of the maize marketing system in Uganda and the design of a market information system

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PRELIMINARY STUDY REPORT

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Executive Summary

Following an extensive privatisation programme, which dissolved the government controlled commodity-marketing boards, the government of Uganda is now embarking on a plan to modernise agriculture. A major component of this plan is to support the establishment of a decentralised market information service, which aims to support the fledgling commercial sector.

The International Institute of Tropical Agriculture has established the first phase of a market information service, which will replace the useful functions of the now defunct government service. This project will provide information needed by planners in government and development agencies, including agencies dealing with food security.

IITA wish to expand the scope of this service, however, to collect and disseminate information that is relevant and useful to the millions of other actors in Ugandan agriculture. Since the liberalisation of agricultural commodity markets in the early 1990s the function of the state-controlled marketing boards has been taken over by private traders.

This preliminary study has shown that agricultural markets in Uganda are characterised by long chains of transactions between farm gate and consumers, lack of competitiveness between traders, collusion at all levels of trader and poor access to appropriate market information.

Prices received by farmers for the sale of their goods are significantly less than the price they could have achieved if they had the means of transporting it themselves to assembly markets even after taking the cost of transport into account.

This study has concluded that, if farmers were more fully informed about the markets for their crops, their bargaining position with intermediate traders would be strengthened, their income would increase and less produce would go to waste. In addition, more transparent markets would help to lower transaction costs, increase the volume of trade, offer greater food security, increase import substitution and lower consumer prices leading to greater benefits for Ugandan traders and processors and the economy as a whole.

At present there is no service providing timely and relevant information needed by the many millions of actors in the Ugandan agricultural sector. There exists, however, the necessary institutional resources, communication systems, economic environment and legal framework to allow such a service to bring positive benefits.

Before this study was carried out IITA decided that, in order to gain the necessary experience to initiate a country-wide market information service, it would first establish a pilot project targeted at actors in the maize market in one location in Uganda. The findings of this study show, however, that no agricultural commodity can be considered in isolation in the context of Ugandan production and marketing systems. It is also clear that different groups of farmers differ markedly in their ability to make use of market information.

It is likely, therefore, that a pilot project will be established targeting groups of producers, traders and processors in more than one location and covering one or more commodities as well as maize. The design phase of this project is scheduled to begin with a stakeholders meeting in Uganda 1st December 1999, see agenda, page XX

Introduction

In May 1999 the International Institute of Tropical Agriculture embarked on a programme to establish a market information service for agricultural products in Uganda. The first phase of this programme is designed to provide information about the prices of for 17 crop products and 4 livestock products, from 17 markets in Uganda. Information from the main markets in Kampala are collected more intensely, for 28 commodities on a daily basis. This data is being analysed and channelled back to policy groups and to some of the larger trading houses. The information is required by agencies working to monitor the economy, develop medium and long-term strategies to improve agricultural performance and to ensure food security.

This preliminary study is concerned with the second phase of the programme which will be to design a process to supply market information to farmers, traders and processors which could be used by them to enhance their incomes and to reduce transaction costs.

In June 1999, the CTA agreed to participate in this programme by funding a preliminary study of the Ugandan agricultural market and to assist IITA to design a pilot project to establish a market information service for farmers, traders and processors of maize. The objective of the pilot project is to gain the necessary experience to expand the service to other commodities for the use of actors in the agricultural sector throughout Uganda.

This report covers the findings of the preliminary study. The design phase of the project will begin at the end of November 1999.

This study, which was carried out by Peter Robbins of CMIS and Shaun Ferris of IITA, began with a literature search together with the development of a work programme of interviews in Uganda. A series of non-structured interviews were carried out in Kampala with Ugandan government officials, agricultural development agency workers, academics, media and communication workers, bankers, NGO officers, farmers' Union officials, large-scale traders and market managers. A short visit to Jinja and Iganga was also arranged to meet small-scale traders, farmers and processors. Local market managers and local government officials were also interviewed.

The framework for agricultural market development in Uganda

The government of Uganda has provided the economic environment to permit a competitive market in agricultural commodities to flourish. After an exhaustive programme of research and dialogue, the Government is on the point of publishing its 'Plan for Modernisation of Agriculture' (PMA), which will provide the framework for agricultural development well into the next century.

The objectives of the PMA are based on the eradication of mass poverty and, hence, PMA preparation is deeply rooted in the Poverty Eradication Action Plan (PEAP).

The Government is also in the early stages of implementing a programme of decentralisation.

The British Department of International Development (DFID) and the Danish development organisation, DANIDA, have been instrumental in assisting the Ugandan Government with the development of the PMA. As part of this work DIFD commissioned a study, 'Community Access to Marketing Opportunities' (NRI) the findings of which form the basis for agricultural market reform under the PMA.

During this study NRI organised a series of workshops in five Ugandan districts which were attended by about 20 local stakeholders – farmers, traders, local government officials and NGO representatives. Each was asked to identify the three most important constraints to agricultural marketing. Poor roads, inadequate market information and poor means of transportation were identified as the key constrains to market access. The report of the study goes on to state:-

'Given the limited impact and lack of sustainability of most centrally organised market information systems, decentralised systems should be developed, involving relevant local stakeholders. - Farmers and traders require other information in addition to prices, for example information on supply and demand, trade contacts, technical matters and new institutional arrangements brought about by decentralisation'.

This description of a market information service conforms exactly with the CTA's preferred model for such a service. The recognition of a need for this model and the high priority given to it in the PMA should ensure support for the implementation of the envisaged IITA/CTA project to establish, in the near future, a pilot market information service targeted at small-scale farmers, traders and processors.

Ugandan agriculture

Agriculture accounts for more than half of Uganda's GDP, about 90% of employment and 90% of export earnings. Small-scale farms, averaging 0.3 hectares, produce almost 100% of the country's food crops. Only tea and sugar are grown on large estates. The major food crop is matooke (boiling banana). Others are cassava, sweet potatoes, millet, maize, beans and Irish potatoes. Rice, groundnuts, sesame seed, soyabean and various peas are grown in smaller quantities. Meat, dairy products and fish are also important components of Ugandan food production.

Traditional export crops are coffee, cotton, tea and tobacco. Uganda has succeeded in boosting its exports of some non-traditional crops such as, maize, cut flowers and vegetables, in recent years.

Uganda's agricultural markets

The system of agricultural markets in Uganda follows the same pattern as in many other African countries.

Village markets function as outlets for local farmers, a retail market for local consumers and a bulking-up market for intermediary traders who tend to buy higher quality produce destined for district, urban or even export markets. There are about 3000 village markets in Uganda.

Assembly markets are usually based in towns or villages located on trunk roads. They function as retail markets but they are also important as assembly points for lorry loads (10 to 15 tons) of produce to be transported to the main urban centres and, if it is of a heterogeneous and high enough quality, may be sold directly for export. Many assembly markets are open every day.

Wholesale markets are based in the largest urban centres where produce from smaller markets is properly weighed and graded and sold to large-scale consumers, processors and for export.

In addition, **roadside retail markets** perform an important function. These markets are a common feature of the major roads and act as an additional outlet for farmers.

Direct trading also takes place where the largest traders and processors employ agents to purchase products directly from farmers or village markets for delivery to the buyers' warehouses and silos. In addition, farmers in some areas have the option to sell and deliver their products to traders who run local stores. These traders bulk up products just as traders do in formal markets.

Farmers' access to agricultural markets

During the colonial period Ugandan farmers were organised on a geographical basis into primary societies (based on individual parishes), district societies and regional societies. This was done partly for administrative purposes and partly as a means of distributing extension services and other inputs as well as purchasing agricultural production. These structures remained in place until the early 1990s and were supported by a government ministry for co-operatives. Since that time, however, the government has instituted a programme of market liberalisation and many farmers' societies have vanished or become dormant, often through mismanagement and dishonesty.

Some support for some remaining farmers' co-operatives has come from projects funded by NGOs in various parts of the country. Some of these projects have specialised in collective marketing programmes as well as pooling credit and input purchases. One group of 32 co-operatives supported by the Irish Foundation for Co-operative Development has successfully marketed beans, grown by members of the co-operatives and by farmers in the surrounding area, at considerably higher prices than could have been obtained from local traders. They intend to market their surplus maize as well as beans in the next season.

The Irish NGO offers assistance to the members of the co-operatives in many forms. Their main contribution is administrative but they also provide training and help with sorting, grading and packing the products as well as with negotiations with large-scale traders in Kampala. The cost of this work is not factored into the extra income farmers enjoy.

It is obvious, nevertheless, that collective marketing would be a successful strategy for farmers to follow if they wish to maximise their income. Indeed, the report on the recent NRI study, mentioned above, recommends that:- *'Farmers should be encouraged to organise so as to reduce their constraints to market access, while taking care to avoid past mistakes in co-operative building'.*

There are several other successful examples of farmers organising themselves to obtain the necessary economy of scale to sell output, purchase inputs and obtain credit at market rates. Some areas in the North of the country, where resettlement has taken place after disruption by war, are working well and benefit from larger units of production. It is true to say, however, that these examples form only a small percentage of total agricultural production.

In general, Ugandan farmers work independently of each other. Individually they produce only small quantities and have no access to credit. Several times, during this study, we were told that there is very little trust between Ugandans in the agricultural sector. J.R. Bibagambah, in his book *Marketing of Smallholder Crops in Uganda* (CTA 1996), identifies '*the lack of opaque trading practices and general mistrust among market participants'* as a significant restraint in the agricultural sector. The problem seems to have been caused by the many years of civil war in the country and, more recently, the failure of many banks, in particular most of those operating in rural areas.

Maize production and marketing

Although maize is regarded as a non-traditional crop in Uganda it has been grown there since before 1930. Almost all maize is grown in small-scale units, together with other crops. There are a few larger-scale maize farms in Uganda but the largest (known to those interviewed) was 150 acres. Maize is grown all over the country but the main producing areas are in the West and in the far North and East of Uganda. Maize is eaten in many areas of the country green or roasted on the cob or as a paste made from the flour called posho. Cassava is preferred as a staple in many Northern areas. Matooke is preferred in the South but it is usually more expensive than maize and has significantly less nutritional value.

Production increased significantly during World War II and again in the last decade. There is some dispute over the total quantity of maize produced. Official and FAO figures put production in the last few years at almost a million tons. Local experts, however, including the Ugandan Agribusiness Development Centre, put the figure at nearer 300,000 tons of which half is exported. Annual export sales figures, of between US$ 19 and 25 million seem to confirm these figures (at 250 Ush. per kilo).

The main market for Uganda's maize exports is Kenya. Kenyan traders travel freely in Uganda searching for supplies. The current Kenyan shortage of maize, of approximately 800,000 tons, has stimulated Kenyan purchases and driven up the local price in Uganda. Other important purchases are made by the World Food Programme, the Red Cross and the UN High Commission for Refugees for food aid programmes in nearby African countries. These purchases are sometimes made directly from the larger Ugandan grain merchants but more often through multinational grain conglomerates such as André in Switzerland and Cargill. Large, domestic purchases are made by government-controlled Tender Boards who supply the army, police, schools and hospitals and by local millers and processors.

Although, about 43% of maize produced in Uganda is consumed by households on the farm, its importance to most farmers is as a cash crop. It has the advantage of being relatively non-perishable (if properly dried) and relatively easy to store and transport in bags.

The maize market is structured in the same way as most other agricultural markets in the country. Most farmers produce only small quantities (often less than a 100 kilo bag at a time). Farmers have several marketing options. They can deliver (usually by bicycle) to a local 'store' (small sedentary trader), if they are near one. Alternatively, they can sell to traders at the local village or district market. This can be done in two ways. They can deliver it themselves or take a sample to the market, agree a price with the trader and then allow the trader to arrange transport. Payment is rarely made until the trader has taken delivery of the goods.

Very few farmers have the equipment to weigh or test the quality of their grain. Traders have scales (although it is widely believed by farmers that traders' scales are doctored). Traders lack sophisticated equipment for testing the moisture content of the grain but, where available have resorted to using popcorn machines to get a rough idea of moisture content. Traders will sometimes dry the product themselves to increase the value.

The largest wholesale maize market is in Kampala but large-scale traders and millers have their own silos in, for instance, Kampala and Jinja and often purchase directly from village and district markets. There is a shortage of suitable storage space for maize in Uganda which tends to exacerbate any market fluctuations.

Almost all grain dealers, large and small, deal in other dry products – especially beans. And beans are also grown by maize farmers in the main maize-growing areas.

The role of traders in the Ugandan agricultural sector

Since the liberalisation of agricultural commodity markets in the early 1990s the function of the state-controlled marketing boards has been taken over by private traders. There are many traders operating in the country, from the many thousands of individual retail stall-holders to a few large-scale merchant-houses.

The prices of commodities are, in general, set by the forces of supply and demand. Certain aid programmes have the effect of distorting markets, however, by supplying cheap or free agricultural inputs and food.

It is fully accepted that retail traders in any particular market at any given time collude with each other and post identical retail prices. These prices are based on the price of the last batch of the product to arrive at the market. Generally speaking, products are purchased and transported to the market by traders after prior negotiations with farmers. Alternatively, products may be delivered to the market by itinerant traders who then haggle with sedentary traders, whom are probably known to them, based at the market site, to arrive at an agreed price. The sedentary traders then parcel out the produce to a large number of retailers at a fixed price. Whilst this fixing of prices may be seen as a means to reduce risk, it clearly represents a major barrier to entry into the market and probably acts as a strong braking mechanism in the marketing channel.

Bargaining between traders for medium and larger scale parcels of goods is relatively competitive. However, many traders in the privatised market places have a conflict of interest. Over the last decade the management of market places has passed from local government to private companies. These companies are required to compete with each other by public tender to win the management contract. Once appointed they are required to pay the local council a fixed fee. The management company recovers the fee by collecting market dues from stall-holders and from traders delivering produce to the market. The company is also responsible for keeping the market tidy and providing security.

Typically, these private companies have been formed by a consortium of the largest traders in the market. This consortium is often also engaged in trading as a group and in transportation. The combination of a market management role and a trading role gives the company considerable power if not a monopolistic position in the market. They are likely to be able to set prices not only for retailers but also for incoming produce. Some commentators have also complained that these consortia have no incentive to invest in improving the market site. There is also a high likelihood that fees, which may have been available to improve the market are required to pay higher government officials in order to retain the marketing contract.

More importantly, traders offer poor prices to farmers especially at the height of the harvest season. It is clear that, from the farmers' point of view, the agricultural markets in Uganda are not competitive enough to offer them a fair price. Reports have been received of farmers obtaining only between 50% and 80% of the prevailing wholesale price for their maize after transport and handing charges have been taken into account. Bean farmers in Rakai District were offered by traders only between 54% and 60% of the true value of their product. A 1997 case study showed that traders were purchasing sesame seed in Lira, Apac and Soroti Districts at only half the price they could have obtained if farmers had the means of exporting it themselves.

[Perversely the fact that very little credit is available to farmers means that traders are not able to use the farmer's debt to them as a means of reducing the prices they offer as is the case in many other African countries, that practise this system of interlocking markets.]

The market system in Uganda suffers from degree of collusion amongst traders facilitated sometimes by the lack of competition, especially in isolated areas. The trading business is also highly fragmented with up to five separate transactions taking place between different intermediaries to bring a farmer's product to the wholesale market.

Although small and medium-sized traders have organised themselves within local markets into traders associations, they are poorly organised at a national level. The largest traders are organised into associations representing traders in several commodity sectors (e.g. coffee, tea, oilseeds), however.

Ugandan commodity traders fulfil a vital role in the economy of Uganda. The free market system is a comparatively new concept in the agricultural sector, however, and it has not yet evolved the degree of transparency or competitiveness that would ensure fair prices for both suppliers and consumers.

Existing market information systems

The Government MIS

The Ugandan economy was liberalised in the early 1990s and state-controlled marketing boards lost their monopolies.

A government-run market information service was established at that time with funding from FAO. Funding was taken over by US-AID in 1993 when the collection of data on weather and road conditions was added to data collected on the retail prices of agricultural products. Throughout its existence the service suffered from the same general problems. Information arrived late at the central collating office and payments to reporters were late and sometimes went astray causing disruptions in the flow of information. The information provided was of some use to planning institutions but of little use to farmers. Traders were, apparently, reluctant to give prices to the government-employed reporters as they suspected them of passing information to the tax authorities. The service was discontinued in May 1999.

UNFA market information service

The Uganda National Farmers' Association (UNFA) has a market information service funded by DANIDA.

Information is collected once every two weeks by the UNFA district co-ordinator in six districts (out of 22 in Uganda). Farm gate and wholesale prices are collected for maize, millet, sorghum, rice, peanuts, one colour beans, cassava chips, soya and beef. Prices are broadcast by Uganda Radio in four languages on 'The Rural Farm Programme'. Uganda Radio charge the union 4,320,000 sh. (US$ 2880) per quarter for air time and the union also has to pay a radio producer to package the programme.

The Association recognises that farmers can receive a very poor price for their products. Farmers, they say, part with maize for as little as 90 Ush. per kilo in Masindi District at harvest time when the wholesale price has been 250 Ush.

The Association also publishes 2000 copies of a 'production and marketing bulletin' in English twice a year. The latest edition (August 1999), however, reports commodity prices from June 1997. The bulletin also carries a list of 37 merchants based in consuming countries who trade in some of the products produced in Uganda. It also carries prices of farm chemicals, machinery and bags but no mention is made of how up to date these are. There are also some snippets of advice in the bulletin designed to help farmers market their products more efficiently. The text in this section is as follows:-

Middle men offer unattractive and very often very low prices to farmers who have little or no negotiation skills/power. The farmers are easily exploited due to lack of unity.

Farmers are advised to adopt the UNFA marketing strategy whereby the farmers get together, and participate in the drying, bagging and storage of the crops collectively. All the records must be kept. Once this is done, the unit costs of marketing is reduced. You can negotiate with the buyer on a good price. The basic idea behind collective marketing is to reduce the costs involved to the minimum and maximise profit. Both parties benefit from this arrangement. The buyer can be maintained (sic*). The farmers can themselves form a marketing company to oversee the selling of the crops and ensure that the profits are evenly distributed.*

The UNFA are also training 50 extension-link farmers (again, funded by Danida) in each of ten districts to obtain prices and report them to the Associations' district co-ordinators.

Price information offered to farmers only once every two weeks cannot be very useful as market prices can change significantly in a single day and are likely to become more volatile as the local and regional market becomes more liberalised. The Association's production and marketing bulletin would also appear to have very limited use as the price information contained is only of historic interest.

The IITA Market Information Service

In May 1999 IITA successfully applied for funding from Agricultural Co-operative Development International (ACDI) to establish an agricultural market information service in Uganda. ACDI is a Washington-based, non-profit-making organisation that administrates funding from the US Agency for International Development (US-AID). The funding for this project came from US-AID's PL-480 project.

The objectives of IITA's market information project are:-

A) to provide information about the markets for agricultural commodities produced in Uganda for planning and food security purposes.

B) to assist Uganda's farmers and other actors in the agricultural sector by providing them with the information they need to sell, trade and obtain Ugandan agricultural products more successfully.

The need for such a service has become more acute since the government's own market information service was discontinued in May 1999.

Objective A is well on the way to full implementation. In this objective IITA is working closely with two Uganda-based organisations, the Agribusiness Development Centre (ADC) and the Famine Early Warning Service (FEWS) based in Uganda. ADC and FEWS are also closely associated with US-AID. One of ADC's main objectives is to increase Uganda's export performance in non traditional agricultural products. Under its Investment in Developing Export Agriculture (IDEA) project, ADC has concentrated on assisting producers to export maize, beans, cut flowers and vegetables. The organisation has acted as a clearing house for information about Ugandan agricultural markets and regularly brings together traders, farmers' union representatives and government agencies to exchange information. They also broadcast agricultural extension information to farmers all over Uganda.

FEWS also needs detailed information about current supply, predicted yields, weather reports and the price of available stocks of food products.

IITA has for some time been linking its work in Uganda to market conditions, concentrating research on products for which a market has been established
and assessing the relative cost of competing food products.

All three organisations, therefore, share an interest in gathering information about market conditions for use in their work. It is also likely that many other organisations could make use of market information gathered by the IITA project including government agencies, academic institutions, planners, donors, NGOs, large scale traders and processors and regional bodies.

IITA has started to employ agents in 15 of the 22 Ugandan districts to gather price information on 21 different commodities from village, district and wholesale markets. Some of these agents were once employed by the government MIS.

Ugandans most in need of market information, however, are small-scale, isolated farmers, traders and processors. IITA's second objective is to provide a service for these groups.

This preliminary study is focused on this objective but will involve an investigation of how market information is gathered already and what changes or additions to this information will be needed for use in this objective.

Other sources of market information

National responsibility for extension services is supervised by a two agencies, a semi-independent body, the National Agricultural Research Board (NARO) and the extension services of the Ministry of Agriculture, Fisheries and Forestry. These organisations have no capacity to deliver information on the markets of agricultural products, however.

The Ministry of Agriculture employed Marketing Officers in each district of Uganda. People holding this post were responsible for supplying market information to a central office as part of the structure of the now defunct government MIS. This job was usually part-time and those functions of the work that remain are grossly understaffed and underfunded.

The exchange of information about the markets for agricultural commodities takes place relatively efficiently between the largest traders and exporters. This is especially true in the case of information relating to the markets for tea and sugar, the only two products grown in Uganda on a large scale, and for coffee, Uganda's main export item. These larger traders are able to employ local agents throughout the country and to communicate with them by using the growing network of cellular telephone systems. At the village level too farmers, retail traders and small-scale processors are able to bargain freely to establish a market price for their immediate location.

The exchange of information between market participants at the local level and the wholesale level, however, is poor. Farmers do not have the means or resources to travel widely to seek better markets for their goods. The main conduits of information are the highways of the country. Lorry drivers involved in the transportation of agricultural goods travel around the country from market to market exchanging information as they go. The lorry drivers are, however, almost invariably, employed by traders or are traders themselves. They have no vested interest in informing producers or customers of the true state of the market.

The use of radio for the dissemination of market information

English is the official language in Uganda but over twenty other languages are spoken. Most of these fall into three language groups which can be understood by many people speaking other languages in that group. Private and publicly owned radio stations broadcast in eight languages plus English.

Uganda Radio is the state-controlled service for radio and television. It has three AM stations and two FM stations. The FM stations are funded by selling advertising and carry mostly light entertainment. The three AM stations carry 80% public broadcasting topics such as health, women, environment, career guidance, etc. and farmers' programmes. There are at least three farmers' programmes on each of the three channels every day. Some of this public broadcasting is paid for by development agencies promoting the particular project which a given radio programme covers.

The three channels are:-

The Red Channel – broadcast in English and languages spoken in Northern Uganda.
The Blue Channel – broadcast in Central and Western Ugandan languages.
The Butebo Channel – broadcast in Eastern Ugandan languages.

Each channel is on air for 18 hours a day.

A market information service is likely to have to pay for airtime on any of the state services, although this may be kept to cost price with government support. The estimated cost of airtime for a fifteen-minute broadcast on one of the AM channels would be Ush. 100,000 (US$ 66) and a further Ush. 40,000 (US$ 26) for production costs. Daily 30 broadcasts in 8 languages would be 20,000 x 8 x 365 = 58,400,000 Uganda shillings = ($40,000)

In addition to the Uganda Radio service there are about ten commercial FM radio stations as well as some limited range community stations run by NGOs. The commercial stations cover most of the country (see map) although some have a larger broadcast area (footprint) than others. Each commercial station specialises in broadcasting in a particular location in the language used in that location. They earn their income from advertising and for broadcasting messages (funerals, weddings, etc.). They also charge for airtime for public broadcasting programmes – the charge for a fifteen minute programme is about Ush. 450,000 (US$ 300).

A high proportion of Ugandans own radio sets. There is likely to be at least one in every village.

Other forms of communication

Several newspapers are published in the country, mainly in English but also in one or two other languages. The adult illiteracy rate is about 50%, however, with lower rates of literacy in rural areas. Distribution of newspapers outside major towns is poor. This means that newspapers are unlikely to be of use to disseminate up to date market information to the population in rural areas.

There are, at present, only 2.27 telephone lines per thousand of the population of Uganda. Mobile telephone transmitters are being installed, mainly in the more densely populated (and wealthiest areas). The cost of these phones (even without call charges) at US$ 200, however, is almost one year’s income for the average Ugandan. It is still cheaper to deliver a message using public transport in Kampala than using the public telephone system.

Uganda has 0.5 computers per 1000 people. These are owned almost exclusively by development agencies and state and public enterprises. There are 0.03 per 10,000 Internet users in the country.

Uganda’s postal service is too slow and variable to be of use for a market information service.

Transport

Roads

Of the 8832 kms. of primary, secondary and tertiary roads in Uganda only 2105 kms. are paved. In addition, Uganda has approximately 20,000 kms. of feeder roads and 30,000 kms. of community roads. Almost all of these roads are unpaved. About 30% of all unpaved roads are unusable in wet weather. The level of maintenance on all roads is poor. The only means of transporting goods from many farms is by human porterage, bicycle or by tractor-drawn trailers. The use of pack animals is increasing but they are not yet a common sight in many parts of the country.

Transport vehicles

Two railway lines cross the country to meet in Tororo in the east of the country from where the main railway export route to Mombasa begins. One line passes through the country diagonally from Arua in the extreme north-west. The other passes from the far south-east and through Kampala.

Almost all deliveries of domestically produced goods are made to assembly and wholesale markets by lorry.

Most commercial vehicles, except buses, are owned by private operators. Most lorries are imported second-hand from outside Africa. Many of the country's vehicles are old and in a poor condition and must be repaired regularly especially as the road system is so poor.

Many of the large and medium-sized traders and processors of agricultural produce own their own fleet of lorries – usually of a ten ton capacity. There are also many small transport companies in the country – some hire out a single vehicle.

The cost of loading and transporting 10 ton loads of beans from Rakai to Kampala – a journey of approximately 200 kms. – is, at present, 30 Ush. (2 US cents) per kilo.

Finance and credit

The mainstream banking system is reluctant to extend credit to anyone other than the largest agricultural producers, traders and processors.

Sources of credit have been made available to the agricultural sector by at least a score of foreign governments, aid agencies and foreign NGOs. Most of these finance projects could be classified as micro-credit schemes. The funds are usually administered by foreign-controlled agencies and channelled through Ugandan banks to Ugandan-controlled micro-finance institutions (MFIs). Most MFIs are private companies operating on a not-for-profit basis.

Many foreign agencies administrating micro-credit schemes offer training to MFIs.

The Ugandan bank most favoured by credit donors was, until its recent collapse, the Co-operative Bank. The demise of this and several other banks in recent months has reduced the already low level of trust in the domestic banking system. Some other Ugandan banks have now been selected for channelling funds to borrowers and these banks are subject to much stricter levels of control and supervision.

Access to micro-credit is patchy across the country. In some towns several MFIs are in operation while in others there are none. A typical loan amounts to only 120,000 Ush. (US$ 80) for repayment over several months. Interest rates are high at between 25% and 40% p.a. given that the currency is relatively stable, although the shilling has devalued by 50% over the past 2 years. High interest charges are attributable to the cost of administrating many very small sums.

Many of these schemes lend only to women who are seen as most in need of credit and as more credit-worthy.

Producers, generally have only limited access to even these sources of credit as some collateral is required to borrow funds. The group that appears to be able to make most use of these sources of credit are small-scale retailers who are predominantly women. They are not only in a position to turnover loans quickly but also to offer some collateral – their market stalls.

For medium-sized traders the sums of credit available are too small to finance anything other than the small quantities of produce.

Almost all trades in agricultural goods in Uganda are transacted in cash.

Conclusions

General overview

The evolution of marketing structures for agricultural produce in most African countries has not yet achieved the necessary degree of competitiveness and transparency to ensure fair market prices for small-scale farmers, processors and consumers. This causes a net drag on the system leading to high prices are lack of growth. These conditions will make Uganda an ideal market for cheap imports in the future if, the current round of increased free trade from WTO comes into effect.

There is a growing recognition among development agencies and governments that, if farmers were more fully informed about the markets for their crops, their bargaining position with intermediate traders would be strengthened, their income would increase and less produce would go to waste. In addition, more transparent markets would help to lower transaction costs, increase the volume of trade, offer greater food security, increase import substitution and lower consumer prices leading to greater benefits for the economy as a whole.

The Ugandan Government has provided a framework to support the transition towards a liberalised economy. It has also decided to embark on a plan to modernise the agricultural sector in an effort to address the problems of rural poverty. Within this plan, the Government has recognised the importance of improving access to market opportunities for its rural community and to encourage the development of market information systems.

The justification for establishing a market information service for all stakeholders in the Ugandan agricultural sector is clear. In their recent study of the access to marketing opportunities, the NRI recorded the findings of stakeholder workshops in five Ugandan districts. These included:-

* Farmers in Rukungiri lack knowledge of prices in Kampala and in neighbouring countries like Congo and Rwanda. They also lacked knowledge on quality requirements of the various commodities.

* In Lira participants said they needed information on the price of produce and the quantity and quality of products available.

* In Kapchorwa farmers in remote areas are generally ignorant of prices prevailing in Kapchorwa Town, Mbale, Soroti, and Kumi, let alone Kampala. Traders tend to dictate the price due to farmers' ignorance.

* Participants in Katakwi workshop complained about the lack of telephone and fax connections and noted that the only source of information was by people travelling from place to place.

This preliminary study has shown that agricultural markets in Uganda are characterised by long chains of transactions between farm gate and consumers, lack of competitiveness between traders and poor access to appropriate market information.

Prices received by farmers for the sale of their goods are significantly less than the price they could have achieved if they had the means of transporting it themselves to assembly markets even after taking the cost of transport into account.

Small-scale traders have also recognised that they could improve their income if they had better means of communication with market centres. Even the largest traders and processors complain of a lack of information about regional markets.

Some efforts have been made to offer access to relevant and timely market information to the bulk of stakeholders in Ugandan agriculture. It is clear, however, that these systems are inadequate and do not help in the day to day problem of making commercial transactions in agricultural goods. It is likely, however, that any new system would be more successful if it worked closely with other market information providers.

<u>Establishing a market information service in Uganda</u>

The overall objective of this project is to establish a market information service for actors in the Ugandan maize market.

The preliminary study has established a need for such a service for all actors in the agricultural sector and especially for small-scale farmers, traders and processors in remote areas.

The recently established IITA market information service is replacing the useful functions of the, now terminated, government-run MIS. It is likely to be able to provide information needed by planners in government and development agencies, including agencies dealing with food security. The information is also likely to be of use to large private sector traders and the state-controlled Tender Boards who procure supplies for government institutions.

IITA wish to expand the scope of this service to collect and disseminate information that is relevant and useful to the millions of other actors in Ugandan agriculture.

Fortunately, much of the apparatus for achieving this second component of a market information service is in place or could be put in place with very little additional cost. The main expenditure for this expanded service would be in collecting additional information and providing a means of dissemination.

IITA have decided that a pilot scheme of the new service should first be established before committing the necessary resources to a full-scale project. In this respect they have come to the same conclusions as NRI researchers who have concluded in their recent report that '*a pilot project is required to identify how a system should be set up at a District level.'*

Prior to this preliminary study, IITA had decided that a pilot project designed to serve the market information needs of maize farmers in a single district of Uganda would provide the experience and feed-back data required to develop the service to other commodity sectors and other geographical locations. This limited pilot project could be funded without difficulty and managed without a strain on existing resources.

Maize was chosen because it is an important Ugandan agricultural product. It is consumed both in its raw form and as a processed product. A significant proportion of maize production is consumed within the country but it is also providing an increasingly important contribution to export revenues. It has been chosen by the local Agribusiness Development Centre as a commodity to be developed for export. As a staple food, it is also important from a food security perspective.

This study has, however, revealed that maize farmers differ markedly in their capacity to market their goods successfully. Most farmers have not developed structures which would enable them to work with each other to market their products or obtain credit or inputs. They are, nevertheless, in great need of information about the prevailing market price for their goods, the grades of product needed by the market and the sources of assistance that may be available to them. A minority of farmers have formed themselves into collective marketing associations, however. These farmers too need appropriate market information but are better organised to take advantage of the information they are given.

This study has also shown that the markets of agricultural commodities in Uganda cannot be considered in isolation. All farmers grow maize as one of a mix of crops partly to provide a mixed diet for themselves, partly to provide food in different growing seasons and partly as a security measure to ensure they have production if one crop fails. In addition, traders do not specialise in just one product. Traders in maize also deal in beans and sometimes other pulses, grains and other dry products.
When the price of one food product increases, consumers switch, in whole or in part, to other food products.

It may well be, therefore, that the pilot project envisaged by IITA may expand slightly to include a product other than maize but one closely linked to the maize market. It may also need to serve more than one discrete community of stakeholders with differing marketing opportunities. In this way the experiences gained from establishing the pilot scheme, the development of the relationship between IITA and stakeholders and the feed-back of the targeted beneficiaries may be of more use than the original limited proposal.

An expansion of the original idea to this limited extent should not increase costs unduly. Price information for more than one product can be obtained from the same group of traders and farmers and dissemination of information on more than one product can be carried out at the same time. Dissemination of information to more than one group of stakeholders is likely to increase costs, however.

The feasibility of pilot market information service

This study has established that there is a clear and perceived need in Uganda for information about commodity markets. It is also clear that the legal and economic environment are suitable for the development of more transparency in agricultural markets. Market information provision forms part of the Government's plan to modernise agriculture.

Much of the mechanism for collecting price and other market data relevant to small-scale operators in agriculture is already in place. The means of communication of collected data, land-line and mobile telephones, and the dissemination of information, radio, is available.

The institution that would be responsible for the establishment of the pilot scheme, IITA, is committed to the project and works closely with other institutions which will give support to the work.

For these reasons, this study has concluded that the establishment of a pilot market information service targeted at actors in Uganda's maize market is both feasible and desirable. It has also concluded that some modification to the original concept of a pilot service targeted at only maize farmers, traders and processors in one Ugandan district. This concept could be expanded to a limited number of other products and to more than one geographical group with different abilities to make use of market information. A change of this kind in the concept model could be made without a significant strain on resources. This modification may offer better output data for use in expanding the service further. Three basic models are being considered, for different crops in different ecological and political regions. Maize farmers in Iganga, which has strong production but little evidence of market associations, Bean farmers in Rakai, which are lower producers but have market associations and Cassava in the north, where farmers are growing in large blocks of land but have low production and no marketing associations.

The design stage of a pilot market information service

The design stage of this project will begin 1st December 1999 with a stakeholders meeting in Kampala. Participants in the meeting will include farmers, traders, processors and their representatives, senior government officials, development agencies, NGOs, media and communications organisations and regional MISs.

Among the subjects discussed at this meeting will be:-

- The type of information most needed by stakeholders that can be provided within the likely resources available.
- The expected impact of such a service.
- The most appropriate method of dissemination.
- The target group of beneficiaries for the service.
- The mechanism of decision-making to be employed in establishing and managing the project.
- Potential partners in the project.
- Sources of funding for the project and its expansion.
- Methods of measuring the success or otherwise of the project.

Before a final design can be completed discussions and negotiations will need to take place with government agencies, communication companies and potential partners and donors.

Abbreviations

ADC	Agribusiness Development Centre (Uganda)
AM	Amplitude modulated
CTA	Technical Centre for Agricultural and Rural Co-operation
DFID	Department of International Development (UK)
FAO	Food and Agriculture Organisation
FEWS	Famine Early Warning Service
FM	Frequency modulated
GDP	Gross national product
IDEA	Investment in Developing Exports Agency
IITA	International Institute of Tropical Agriculture
Kms.	Kilometres
MFI	Micro-finance institutions
MIS	Market information service
NARO	National Agricultural Research Board
NGO	Non-Governmental Organisation
NRI	Natural Resources Institute
PEAP	Poverty Eradication Action Plan
PMA	Plan to Modernise Agriculture
UNFA	Uganda National Farmers' Association
US-AID	United States Agency for International Development
Ush.	Uganda Shilling

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Strengthening the Market Information Service for Uganda
Venue: American Recreation Association: Date: December 1, 1999
Agenda

9:00 am Meeting opens (Chairperson Clive Drew / Dr. Odwongo)

9.10 **Overview of Market Information Systems in Africa**
P. Robbins

9.30 **The role of market information within the Plan for Modernisation of Agriculture in Uganda**
Dr P Ngategize

10.00 **Outline of the market information service being developed in Uganda**
The role of market information in food security evaluation in Uganda – R. Rose
Description of IDEA project's market information / traders linkage – M. Wood
Description of the current macro information system in Uganda – S Ferris
Outline of the plan to develop a service for small-scale stakeholders – P Robbins

11:00 **Round table discussions (Each topic @15 mins)**
* What market information is available to small-scale stakeholders?
* Evidence that market information is needed.
* The type of information is required.
* What kind of benefits can be expected from an MIS?
* Impact on traders.
* How can the required information be gathered?
* By what method should information be disseminated?
* How do we include stakeholders in decision-making?
* How do we assess quality (usefulness) of information?

13.00 – 14.00 **Lunch**

14:00 **Summary of round table discussions**

14.15 **The need for an initial pilot market information project – outline of options.**
P Robbins

14.30 **Round table discussions continue**
Sustainability of the service
* Who is supporting the service?
* Who should support the service?
* Can we spread buy-in for this service
* Managing the service – the importance of openness and simplicity.
* Likely cost of service – cutting our coat according to our cloth.
* How do we assure funding over the next two or three years?

15.00 **Coffee**

15.15 **Regional information systems**
Tanzanian Market Information – overview – Fred Mashamba
Rwandan PASAR project for market information.
Kenyan MIS
Discussion

17.00 Meeting closes

List of invitees

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