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# ANIMAL HUSBANDRY LOAN PRODUCT PROPOSAL



**March, 2007**

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



# Rural SPEED

Rural Savings Promotion & Enhancement of Enterprise Development

## ANIMAL HUSBANDRY LOAN PRODUCT PROPOSAL

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

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## Executive Summary

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## **Uganda Microfinance Limited Proposal for Animal Husbandry Loan Product**

### **Background**

Uganda Microfinance Limited (UML) is a regulated Micro Deposit taking Institution (MDI) that has been operating in Uganda since 1997. UML was originally established as Uganda Microfinance Union (UMU) with a mission to provide quality financial services in a fair, reasonable, and transparent manner to entrepreneurs and low-income earners in the Republic of Uganda. From a modest beginning, UML has grown to where it now serves more than 40,000 borrowers and 60,000 savers through a network of 23 branches covering most of Uganda. UML is a profit driven institution with an underlying mission of social responsibility, and has been very innovative in developing financial service products in response to one of its operating pillars of tailoring microfinance services to the Ugandan setting, rather than directly importing models from other countries.

Rural Savings Promotion & Enhancement of Enterprise Development (Rural SPEED) is a USAID funded project designed to assist in the expansion of financial services to the rural areas of Uganda. As part of its mandate to encourage financial institutions to extend services to the rural areas, Rural SPEED has been helping them review, develop, and test existing and new financial products. UML, one of Rural SPEED's financial partners, has branch offices in Kiboga, Lyantonde, Rushere and Mityana that serve a diverse clientele of traders and farmers in areas economically dominated by livestock enterprises. Uganda Microfinance Limited is keen to introduce an animal husbandry loan product within their lending portfolio to meet the demand of their clients whose dominant agricultural activity is animal husbandry. Past experience has shown that when these clients take out conventional loans - i.e. with monthly payments - there is a high default rate in the early months but almost 100% repayment in the later months of the loan term. UML would like to address this anomaly by tailoring a product that will specifically meet the needs of these clients, ensure effective loan management and also conform to BOU regulations regarding provisioning for the loan portfolio.

The aim of this consultancy is to provide technical assistance for the development of an animal husbandry loan product for clients of Uganda Microfinance Limited

### ***Tasks***

- Conduct a brief survey of UML's clients around the branches of Kiboga, Lyantonde, Rushere and Mityana to determine the effective demand for an animal husbandry loan product. This will involve;
  - Interviewing a sample of potential clients provided by UML in the areas mentioned to better understand the different markets, client characteristics, needs and alternative sources of income
  - Interview UML's management and staff to obtain their best assessment of the number of requests already identified for such a product and assess the readiness of the institution to offer the proposed loan product

- Based on the qualified demand and potential viability from the survey findings, design an animal husbandry loan product for UML. The products features shall be underpinned by;
  - realistic costing/pricing and projections for volumes that ensures viable returns to the financial institutions;
  - feasible credit delivery strategies/methodologies that will ensure adequate and appropriate risk mitigation mechanisms; (for example, disbursements in sync with critical cash flow needs in the animal production cycle and incremental loan repayments)
  - recommended appropriate staff training strategies. Where possible the use of computer applications in the analysis and monitoring of the animal husbandry loans will be incorporated in the designed products;
- Make recommendations for the pilot-test and roll outplans, and a marketing strategy.

## ***Results***

### **Loan demand**

Three of the branches interviewed, Lyantode, Rushere, and Kiboga reported strong demand for loans to buy feeder cattle but only mild demand reported from Mityana. Farmers applying for loans typically sought financing for the purchase of thin cows at the beginning of the wet season, with repayment scheduled for the end of the season from the sale of the cows purchased and fed.

Most farmers maintain a core herd of cattle suitable for year round grazing on the land they control. During the wet season there is a strong growing flush of the pastures that can only be utilized by grazing with additional cattle, or by harvesting as hay or silage. The latter process is not well established in Uganda and most farmers prefer to graze; hence the demand for financing for feeder cattle. Seasonal rainfall patterns are well established in Uganda and are summarized in the following map. Please note however, this map is a summary of many years history and can only be used as a guide given the wide variances in rainfall that might be experienced from one year to another.



*Farmer B*

Mr. B is primarily a dairy farmer who operates family owned land. He has been a farmer all of his life and has no other business interests. In addition to cattle, Mr. B produces meat goats.

Mr. B also buys around 30 thin cows during the wet season, with many of those bought being in-calf and then calved out during the feeding program. Mr. B pulls the calves from their mothers and feeds them milk produced from his dairy herd. He has determined that feeding the calves the milk he produces is more profitable than selling it at today's price of UGX 200 per liter. The cows that calved then dry up and gain very efficiently.

*Farmer C*

Mr. C has a diversified livestock operation that includes dairy but emphasizes beef production with a cow and calf program. Like the others, he buys thin cows – usually 15 head - during the four month wet season and calves out the pregnant ones. However, rather than sell all of them at the end of the program, Mr. C introduces the most desirable pairs into his core herd and then culls from that herd to finish out his selling program.

Mr. C has found this program to benefit his overall operation by allowing him to follow a rigorous culling program while still maintaining his herd population through the use of the thin cow program.

These profiles are meant to illustrate not only a typical applicant UML might encounter, but to also point out different management styles and the resulting effect on repayment capacity. Specifically;

- Mr. A sells all of the cattle but has other income that could allow for monthly repayment
- Mr. B maximizes his return by drying up the cows so they will gain faster and then feeding their calves as a separate enterprise
- Mr. C improves his herd by keeping the top end of the calving cows and replaces those cows with culls – usually non calvers – form his core herd

**Livestock management/market considerations**

There is very little outside influence on the Ugandan livestock industry. Imports of all meat products are minimal, and there have been outright bans on the importation of fresh beef. Exports from Uganda are not significant and the Ugandan cow herd remains fairly static in numbers.

The major beef processors in Kampala report very little fluctuation in the prices they have paid for slaughter animals from one year to the next, but they do sense an increased demand for beef most likely due to a growing and more affluent population. The processors also report consistency in the number of animals they are able to buy month to month, with a slight increase in cattle offered for sale at the beginning of the school season and another slight increase at the end of the wet season. Demand for beef is strong, with surges around traditional holiday seasons.

Farmers interviewed were very consistent in their estimation of the cost of thin cows at the end of the dry season/beginning of the wet season. They reported ready availability of thin cows at the local markets, mainly offered by smallholders and nomadic herders with limited access to water and pasture. The classes of cattle generally sought by the farmers were native bred cattle with a strong Ankole influence. While the cattle are thin, they are not necessarily aged or in poor health. The native cattle are well suited to Ugandan conditions and respond quickly to flushes in grazing conditions.

Thin cattle are usually bought at local markets and then walked to the farmer's home place. The cattle are de-wormed and vaccinated on arrival, and are treated for ticks on a weekly basis. Costs to the farmer include the above cited procedures plus an y additional labor that may be incurred. At the end of the season cattle are either walked to the local market or are sold FOB the farm to cattle traders.

Overall, it can be concluded there is minimal market risk based on the information gathered for this report. Also, operating costs are quite low, and animal death loss is low so long as the farmer is knowledgeable when it comes to buying and managing the "right" kind of cattle; i.e. those suited to best utilize the pasture and water resources that are available for a particular farm.

## **Disease and quarantine issues**

### *Overview*

Ugandan livestock are susceptible to diseases that can bring about tremendous economic loss to the livestock industry if not held in check. This situation is not unique to Uganda as the potential for infection from these diseases can be found worldwide. North America, the EU, and some other parts of the world have imposed very strict controls and regulations governing obligatory vaccination programs, movement of livestock, and sanitation of holding, slaughter, and transport facilities. However, conditions in Africa are particularly difficult due to an abundance of free ranging wildlife that can harbor the diseases, migratory livestock herders, and loose borders. The only countries in Africa that currently meet EU standards for disease control, and therefore are awarded EU import allowances for fresh (uncooked) meat products, are Botswana, Namibia, and South Africa.

### *Ugandan situation*

Uganda has not taken on the Herculean task of bringing the country's livestock industry up to international export standards of disease control. This is understandable as it would require controlling the movement of all susceptible animals, wild and domestic alike, as well as the eradication of infected animals, mandatory vaccination, etc., etc. The Government has, however, put in place certain mechanisms designed to control the spread of economically important diseases in order to provide some protection for Uganda's livestock farmers and ranchers.

Chief among these programs is the isolation and quarantine of livestock in districts where an outbreak of certain diseases are found. The most important of these diseases, foot-and-mouth (FMD) and contagious bovine pleuropneumonia (CBPP) are discussed in detail later on. The quarantine mechanism involves identifying the disease and the district in which it is located. Government officials then cause all livestock markets in the affected district to be closed and ban the movement of livestock, their carcasses, unprocessed milk, unprocessed hides and skins, and any other animal products out of – or in to – the district. The quarantine is mainly enforced through examination of trucker documents at police check points, and by monitoring livestock moving on hoof.

Once a diseases outbreak is identified, Government veterinary officers ask farmers to assemble their cattle for vaccination; the animals are immunized with vaccines supplied at no cost by government in the case of FMD, and at nominal cost for CBPP and others. After the vaccination program is complete the situation is monitored by the local GOU veterinary officers. When they – the local veterinary officers - determine there are no more outbreaks, the quarantine is lifted. Veterinary officers may also issue permits for movement of animals and products located in a quarantine area on a discretionary basis.

### ***Main diseases resulting in quarantine***

#### **Foot and mouth disease (FMD)**

Foot-and-mouth disease (FMD) is a severe, highly communicable viral disease of cattle and swine. It also affects sheep, goats, deer, and other cloven-hooved ruminants. The disease is characterized by fever and blister-like lesions followed by erosions on the tongue and lips, in the mouth, on the teats, and between the hooves. Many affected animals recover, but the disease leaves them debilitated. It causes severe losses in the production of meat and milk. Because it spreads widely and rapidly and because it has grave economic as well as clinical consequences, FMD is one of the animal diseases that livestock owners dread most.

The disease is caused by a virus. The virus survives in lymph nodes and bone marrow at neutral pH, but destroyed in muscle when in pH<6.0 i.e. after rigor mortis. The virus can persist in contaminated fodder and the environment for up to 1 month, depending on the temperature and pH conditions.

FMD viruses can be spread by animals, people, or materials that bring the virus into physical contact with susceptible animals. An outbreak can occur when:

- People wearing contaminated clothes or footwear or using contaminated equipment pass the virus to susceptible animals.
- Animals carrying the virus are introduced into susceptible herds
- Contaminated facilities are used to hold susceptible animals.
- Contaminated vehicles are used to move susceptible animals.
- Raw or improperly cooked garbage containing infected meat or animal products is fed to susceptible animals.
- Susceptible animals are exposed to materials such as hay, feedstuffs, hides, or biologics contaminated with the virus.
- Susceptible animals drink common source contaminated water.
- A susceptible cow is inseminated by semen from an infected bull.

#### **Contagious bovine pleuropneumonia (CBPP)**

Contagious bovine pleuropneumonia (CBPP) is a highly infectious acute, subacute, or chronic disease, primarily of cattle, affecting the lungs and occasionally the joints. Contagious bovine pleuropneumonia is predominantly a disease of the genus *Bos*; both bovine and zebu cattle are naturally infected. There are many reported breed differences with respect to susceptibility. In general, European breeds tend to be more susceptible than indigenous African breeds.

The disease is spread by inhalation of droplets from an infected, coughing animal. Consequently, relatively close contact is required for transmission to occur. Outbreaks usually begin as the result of movement of an infected animal into a naive herd. It is widely believed that recovered animals harboring infectious organisms within a pulmonary sequestrum, may become active shedders when stressed.

Because CBPP is a chronic disease that may exist sub-clinically in carrier animals, it is important to maintain sufficient regulatory restrictions to prevent its introduction in

apparently healthy animals. Successful control of the spread of CBPP rests on removing susceptible animals from any possible contact with CBPP-infected animals, whether they are clinically affected or sub-clinical carriers only. On-farm quarantine of suspicious and contact animals would be very advantageous in stemming the spread of the disease. In an outbreak situation, testing, slaughter, and quarantine are the methods of choice.

### *Practical considerations for UML program*

The Government of Uganda (GOU) attempts to protect its farmers from disease outbreaks by controlling the movement of livestock and by instituting vaccination programs in areas where disease outbreaks have been identified. The GOU does not, however, have in place programs that will eliminate the diseases from specified areas -or the country as a whole - resulting in current measures only controlling major outbreaks for relatively short periods of time. Economic activity in districts heavily dependent upon livestock production will certainly slow down during quarantine periods, but historically quarantines have not been of long duration – more than six months – and there appear to be many allowances made for the sale and movement of livestock and animal products at the discretion of the local GOU Veterinary Officer. Examples cited by farmers include the transportation of raw milk to terminal markets, and the sale and transportation to slaughter of live cattle. In both cases the Veterinary Officer determined the herds of origin were disease free and that the farmer selling cattle could provide a truck load (20-25 head) all originating from one location. Reportedly, permits allowing for the legal transport of the milk and the animals were issued. While all of the farmers interviewed agreed quarantines were disruptive, none had experienced serious financial loss as a result of quarantine.

In conclusion, UML can expect outbreaks of disease subject to quarantine that will possibly disrupt the cash flow of their livestock-owning borrowers. Mitigation of this risk is only possible through careful selection of borrowers to make sure the farmers UML supports are very experienced in livestock husbandry, are well established, and have a history of operating through periods of quarantine.

## Product design considerations

### *Overview*

A successful loan product will have the following characteristics: of use to the borrower and therefore in demand; easily understood and readily implemented by the loan officer; profitable to the lending institution. Demand has been discussed earlier in this report but can be further defined to be limited to those branches located in areas strongly influenced economically by livestock operations. The next two issues – ease of use and profitability– will be addressed as *compatibility* with existing UML programs and *profitability* to the organization.

### *Compatibility*

While the financing of production agriculture can be a highly specialized field, the requests for support typical of UML applicants seeking thin cow feeder loans are quite simple and straight forward; basically, the applicant wants financing for cattle purchases for a period of 4-5 months with repayment to come from the sale of the cattle purchased with the loan funds. The existing UML Micro Corporate Loan product lends itself very well to this type of request. The following summation of the program is offered for review:

#### **Micro Corporate Loan**

The Micro Corporate Loan extends individual loans based on a financial and personal assessment made by the UMU Field staff.

This product targets the small and medium micro-enterprises who like some formal sector employees, do not qualify for loans from both the formal financial and microfinance sectors. Some form of collateral is required to cover the value of the loan.

- Designed for enterprising individuals that have an established business.
- Loan used for strictly business expansion/growth purposes.
- Loan size based on business needs and financial capacity.
- Loan term flexible
- Different forms of collateral may be required.

All of the conditions needed for a thin cow feeder program are found in this program; to wit:

- *“Designed for enterprising individuals that have an established business.”*
  - Livestock buying and feeding knowledge is best gained through lifetime experience with farm animals

- Experience in the industry, including working through quarantine periods, will greatly enhance the potential for success
- *“Loan used for strictly business expansion/growth purposes.”*
  - The loan funds should be restricted to just the purchase of the feeder cattle
- *“Loan size based on business needs and financial capacity.”*
  - Monthly payments of interest and, possibly, principal may be required
- *“Loan term flexible.”*
  - Feeding periods may vary according to rainfall
  - As identified with the farmer profiles above, repayment may come from cattle sold other than those purchased with the loan funds
  - Repayment should be tied to cash flow projections of business operations
- *“Different forms of collateral may be required.”*
  - In addition to livestock owned, consideration can be given to securing real estate

The importance of experience and knowledge as essential to a livestock production program cannot be over emphasized; this is simply not a business for the uninformed. It is unlikely UML borrowers will have the financial capacity to hire required expertise, so loan/field officers must assure themselves that applicants have both the management and the financial capacity to successfully accomplish the task. This will require enhanced skills of the loan/field officers to adequately assess the experience and knowledge of the borrowers. Loan/field officers with strong on-farm background, especially with livestock activities, if available will be most valuable for this loan product.

### ***Cash flow considerations***

Given the proposed lending structure for the loan product and the fact that it is the outset of the rainy season which will trigger the demand for this loan among multiple borrowers in one locality, it is expected that there will be pressure on the liquidity in the branches offering this product both at the beginning and during the feeding season. This is because savings inflows will be constrained as cattle keepers invest in their operations and the demand for loans will be increased as cattle keepers borrow to enhance their operations. This will warrant judicious decision by UML on the timing and availability of loan funds at the participating branches.

### ***Profitability***

As with any lending program, the expenses to be considered here are the cost of money, delivery costs, and provisioning for loan losses. Cost of money is beyond the scope of this consultancy but we will address delivery cost and provisioning.

Applications for cattle feeding loans will require more analysis than, say, a salary loan or a typical micro loan based on monthly payments and past history. The loan officer will not only need to assess the character and credit worthiness of the applicant, but also his/her history and experience in livestock production. New applicants will need to be screened carefully, possibly by checking references. Farm visits before the loan application is considered will be required for new applicants, and periodic farm visits will be required after the loan is approved. There may also be a need for follow up visits for loan collection. Clearly, all of this effort costs money that may only be partially justified by the relatively large size of a typical loan for this program. UML may want to charge borrowers a fee for field visits beyond, say, an initial appraisal and one progress check.

Loan loss provisioning, or actual charge offs, is a potential cost risk that can only be mitigated by careful client selection. Beyond the standard selection criteria of good character and credit worthiness, close attention must be given to knowledge, experience, management capacity and suitability of the farm for the program under consideration. Factors that cannot be controlled are weather, markets, and the possibility of marketing disruption as a result of quarantine. However, once again, mitigation of these risks can be enhanced through careful client selection that restricts the use of this product to experienced and knowledgeable borrowers.

### ***Suggested product***

A typical scenario for an acceptable loan for a thin cow feeding program would be:

- Farmer applicant
  - Life time experience
  - Owns farm or has free use of pasture, thereby providing risk capital
  - Well regarded by UML and the community
- Feeding program
  - Purchase thin cows at the beginning of the wet season
  - Farmer provides feed, supplements, and parasite control from own funds
- Loan facility
  - UML provides funds for thin cow purchase
  - Loan is scheduled for repayment at end of feeding period – typically 4 months
  - Security is taken over all livestock
- Repayment program
  - As cattle are sold – requires close communication with borrower
  - At least interest paid monthly

In summation, the recommended **loan product** would be:

Minimum loan of UGX 500,000 (For viability, the loan should be in an amount adequate to purchase no less than 10 feeder cows at an estimated UGX 225,000 per head.)

Four months maturity, with flexibility up to a maximum of 24 months to allow mitigation of disease outbreaks and quarantine.

Monthly payment of interest in every case.

Monthly payment of principal when indicated by

- a) repayment capacity
- b) need for risk mitigation

Full principal and outstanding interest payment within 10 days of maturity.

Loan to be priced at 3% per month plus UGX 50,000 for every field visit

The basic loan product defined in this box is recommended for use during the initial rollout of the program. However, interaction with branch and head office personnel at UML has left no doubt that these people definitely have the capacity to – with apologies - think outside the box and modify the program to fit the specific needs of their customers.

The issue of animal identification, by either branding or ear tagging, has come up during this consultancy. While it may provide UML with some comfort level to have the cattle they finance marked for identification, such marking provides no real protection as Uganda does not have laws that regulate animal identification.

UML should consider holding induction and refresher seminars for staff potentially involved in implementation of this program for familiarization, as well as for agreeing on the target market and, the establishment and review of implementation guidelines.

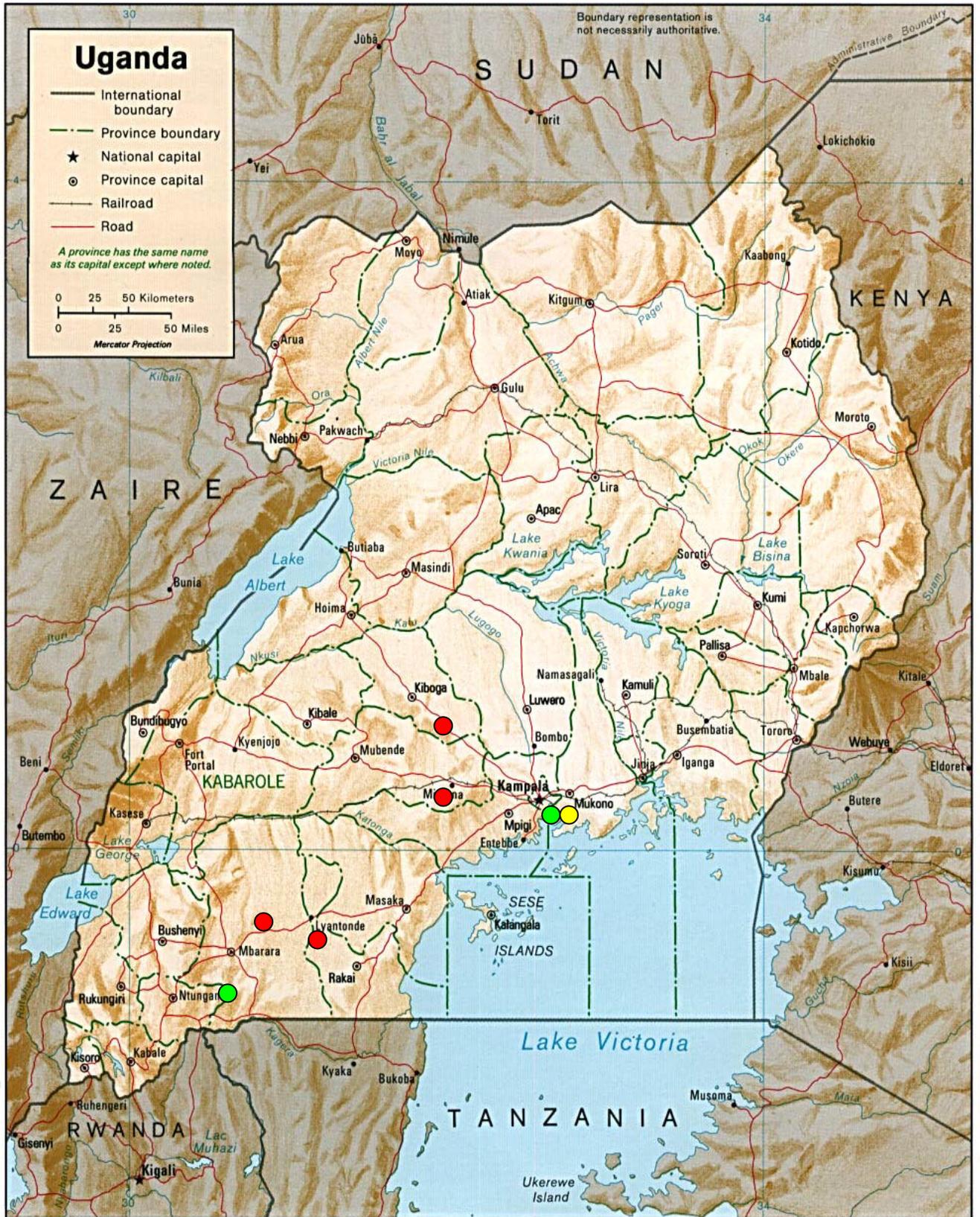
*Note:* UML occasionally lends money for “bull fattening” programs where male feeder cattle are fed on pasture for up to one year. UML has structured repayment for these loans with equal quarterly payments of interest and principal. While this loan structure is not necessarily in keeping with cash flow based lending practices, it is likely the most suitable for UML given the conditions under which they operate.

#### ***Marketing of the loan product***

Though there is satisfactory potential demand for the proposed loan product as established during the discussions with the branches and the farmers, UML should consider investing in promotion of the product both at launch and during the roll out. Given the attractive profitability of the cattle feeding venture, it is probable that many other financial institutions may be contemplating entering this market, indeed Centenary Bank is already lending for cattle fattening. Thus promoting the loan product through printed materials and radio will help UML to carve out and maintain a sustainable market share. The promotional activity should be targeted through the branches providing the loan product.

#### ***Summary***

UML has shown remarkable foresight by locating branches in remote areas that are economically dependent on agricultural production. UML is providing comprehensive financial services to the people in these areas through a variety of deposit and loan products tailored to suit local conditions. A properly structured loan product repaid from the sale of fed cattle at the end of the wet season can stimulate economic activity in the areas served by UML, resulting in benefits to the company as well as the local populace. There is no doubt the flush of grass during the wet season provides economic opportunity for farmers positioned to capitalize on this phenomenon. There is little market risk, and finished cattle will be in demand. However; the loan product discussed here can only be effective if it is judiciously offered to knowledgeable and experienced borrowers that have the management and financial capacity to successfully complete the program.



- UML Branches visited
- Milk Processing Centers
- Beef Processing Centers

*Persons interviewed*

Adrian Ngarukiye, Field Officer, UML, Lyantonde  
 Agnes Atyang, Program Assistant, FEWSNET  
 Alex Mulindwa, Branch Manager, UML, Rushere  
 Andrew Rwakishaija, farmer, Lyantonde  
 Apollo Barungi, farmer, Kiboga  
 Asaph Besigye, Rural Finance Specialist, Rural SPEED  
 Charles Aisu, Senior Veterinary Inspector, Ministry of Agriculture  
 Emanuel Kibira, Head Field Officer, UML, Mityana  
 Francis Mwesigye, Plant Manager, Uganda Meat Industries  
 George Kiwuuwa, Head Field Officer, UML, Kiboga  
 Haji Haruna Matusa, farmer, Kiboga  
 Henry Bashaija, farmer, Lyantonde  
 Israh Asiimwe, farmer, Lyantonde  
 James Leka, Branch Manager, UML, Kiboga  
 James Mugambi, Head of Business Development, UML  
 John Manyawera, farmer, Kiboga  
 Martin Wilson, Loan Officer, Centenary Bank, Mbarara  
 Moses Bainamatsito, farmer, Rushere  
 Moses Malinga, Head Office, UML  
 Paddy Kabija, farmer, Kiboga  
 Paul Kimbugwe, Manager – Field Activities, Land O’ Lakes  
 Percy Lubega, Head Office, UML  
 Richard Pelrine, Rural Finance Advisor, Rural Speed  
 Robert Mugambe, Branch Manager, UML, Mityana  
 Robert Oketi, Head Office, UML  
 Robinah Baluka, Branch Manager, UML, Lyantonde  
 Roland Ssebuwufu, Head Office, UML  
 Salim Ukan, General Manager, Fresh Cuts Meats  
 Steven Mutebi, FEWSNET  
 Todd Thompson, Country Manager, Land O’ Lakes