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CONSULTANCY REPORT ON COMPUTER START-UP AND REQUIREMENTS FOR THE UGANDA RURAL ECONOMIC RECOVERY PROJECT

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INTRODUCTION/SCOPE OF WORK

The consultant arrived in Kampala, Uganda on October 11, 1987. The scope of work assigned was as follows:

1. Examine the computer requirements of the Uganda Commercial Bank, which presently will be the only intermediate credit institution handling RER funds, and make recommendations.

2. Review the computer requirements of the Cooperative Credit Scheme and make recommendations.

3. Assist the RER Project computer operation start-up, utilizing existing software (i.e. VP-Planner, Lotus 1-2-3, WordPerfect, dBase III Plus, and Reflex) to set up the following systems:
   a) Inventory Control
   b) Procurement and Commodity Distribution Tracking
   c) Survey Analysis
   d) Administration (i.e. Business Accounts, Payroll and Purchasing)
   e) Farmer Loan Accounting
   f) Dedicated Loan Fund Tracking

4. Other duties as may be assigned by Dennis Frederickson, Team Leader/Credit Advisor, which are consistent with the overall scope of this assignment.

5. Prepare a detailed draft technical report of your activities prior to departing from Uganda. The outline of this technical report should be agreed to by Dennis Frederickson prior to preparation.

During the consultancy some changes were made to the scope of work, with the agreement of the Team Leader. Computer requirements of the Uganda Commercial Bank (UCB), were reviewed based on the information available at the time of the consultancy. Detailed information regarding the responsibilities and resulting procedures and information requirements of the UCB were not available, but were in preliminary design, therefore limiting the identification of specific computer requirements of the UCB. A follow-up consultancy, which has been suggested, should include this task as a part of the terms of reference.

Some additions were made to the TOR. Those included a complete review of the software and its applicability to the projects' information needs, a complete reinstallation of application and operating system software on both hardware sys-

tems, and a reconfiguration of certain necessary system files. The consultant was also asked to make recommendations regarding computer training needs of the RER Project staff.

BACKGROUND

The goal of the Uganda Rural Economic Recovery (RER) Project is to provide residents of war-damaged areas of Uganda with the opportunity to reestablish their enterprises and resume economic growth and development. The potential of a country with such an enormous wealth of natural and human resources has been severely constrained over the past 10-15 years by social and political disturbances and uncertainty. Assuming that political stability can be maintained, providing opportunities is deemed the most important type of assistance and therefore the basis of the RER Project. Recent improvements have been noted in the progress of the rural Ugandan since the ending of major hostilities. The RER Project will continue to strive to attain continued improvement and development.

The purpose of the RER Project is to support the rehabilitation of rural income generating activities by making necessary commodities and credit available to residents of war-damaged areas. Eligible commodities for the project include directly productive goods, construction materials used in the building or rehabilitation of farm buildings, worksheds, etc., and small-sized tractors.

Many shops that were once in operation throughout the target area of the RER Project, (including the districts of Luwero, Mpigi and Mubende), are now closed with only exceptions in large trading centers. Shops that are open supply only a very small stock of inputs. Domestic production of agricultural inputs and other productive goods has been very low for many years. Imports have likewise been low due to the inability of firms to gain access to foreign exchange. Cash or credit are not readily available to small commercial farmers. Mechanized farm equipment, i.e. small tractors, have not been available to Ugandan farmers for many years. Besides providing for avenues of solution to some of the problems noted above, the RER Project includes the important element of institution-strengthening.

The RER Project has four major components:

1. Importation of commodities for use by small commercial farmers and other rural entrepreneurs.

2. Importation of tractors for sale through an established distributorship in Uganda.

3. Provision of credit to farmers and entrepreneurs to purchase necessary inputs.

4. Provision of technical assistance for the

management and monitoring of commodity procurement and distribution, and the credit scheme.

The life of the project will be four years. The first staff arrived in Kampala in late April, 1987. According to the cooperative agreement, project completion is scheduled for September 30, 1990. Shortly after the arrival of Dennis Frederickson, Team Leader/Credit Advisor, and Marshall Ferrin, Commodities Procurement & Distribution Advisor, staff was hired to implement the project. A list of the staff and their respective positions can be found in Appendix A.

During the life of the project it is expected to generate about 8,000 small commercial farm and rural enterprise loans. It will also provide for about $2.3 million worth of commodities for farms and rural enterprises, in addition to the $1.4 million of small-sized tractors, ancillary equipment and spare parts.

The project is expected to:

1. Reestablish the productive capability of small-scale commercial farmers, increasing their opportunity for income generation.

2. Rehabilitate non-farm productive enterprises, resulting in a growth of income earning opportunities.

3. Rehabilitate wholesale distribution and retail sales commercial trading channels, and expand the input delivery system.

4. Improve the institutional capacity of the participating Intermediate Credit Institution (ICI) for the administration of small-scale rural credit, and lay the foundation for the development of future credit.

PROCEDURE

Upon the consultant's arrival in Kampala, Uganda it became apparent that it would be necessary to prepare a work outline due the number of tasks that needed to be performed. The consultant's outline is noted below:

I. Determine project objectives
   A. Short term
   B. Long term

II. Determine project information needs
   A. Interview project management and staff
   B. Identify other information needs

III. Evaluate hardware/software purchased
   A. Determine capabilities of hardware/software
   B. Evaluate applicability of software to tasks
   C. Match software complexity to staff capabilities
      1. Review staff structure
      2. Determine staff computer responsibilities
      3. Select application packages for development
   D. Determine if am't of hardware/software is adequate

IV. Develop applic./operating system software configuration
   A. Design and create user-friendly menu
   B. Make necessary software modifications
      1. Computer configuration files
      2. Operating system upgrade (V3.1 to V3.2)
      3. Add/Delete applications software
   C. Upgrade office computer system consistent with Mbuya unit

V. Develop software utilizing selected applic. packages
   A. Commodity Tracking System
   B. Inventory Control
   C. Perpetual Inventory Control
   D. Commodity Pricing Mechanism
   E. Administrative Accounts Tracking System
   F. Farmer Loan Accounting
   G. Minimum Loan Security Analysis
   H. Credit Rating Analysis

VI. Plan and develop documentation

VII. Evaluate training needs and research local support
   A. Basic user training
   B. Application/development software training

VIII. Brief primary users on using software
   A. Utilize instruction modules
   B. Familiarize staff with applic. software tutorials

IX. Complete documentation and final report

FINDINGS

Although the purpose of the consultancy was not research related, certain major findings formed the basis for the consultant's approach. Those major findings are noted below:

1. The Uganda Commercial Bank (UCB) is expected to be the only intermediate credit institution handling RERP funds. The UCB has some computer capabilities, both in terms of hardware and staff knowledge. Credit information requirements of RERP are limited to the primary society level, and could likewise limit the needs of the UCB, if loans are made to farmers only through the primary societies; primary societies would be responsible for the accounting of individual farmer loans. The UCB is undertaking a Rural Farmer Scheme (RFS) in which they intend to make a substantial number of loans to individual farmers. Accounting information for RFS loans may be possible through an expansion of the RERP credit information system, utilizing Reflex software. A final determination of this application is dependent on the currently unknown number of loans and quantity of information that must be maintained.

2. The type of computer hardware purchased for the RER Project is adequate to perform the required information maintenance and analysis. An additional low-priced, IBM compatible computer system would free an existing system to be available to the entire staff for training and daily use.

3. Computer software purchased for the RER Project is adequate to perform the necessary data collection and analysis currently required and projected. Some of the software purchased provides capabilities far beyond the needs of the project; likewise the software is too complex to be used by the current staff. As the project expands and staff becomes trained and experienced, additional software packages may be utilized.

4. Computer training for the project staff is the single most important element of an effective management information system. Training should be aggressively undertaken. Rank Consult (U) Ltd, a computer consulting firm in Kampala, appears to have the necessary staff to perform training for the RERP staff in all applications except Reflex. Their initial support regarding Reflex will likely be limited to technical support.

5. Management information requirements are minimal at this point in time but could increase substantially as the project progresses. The amount of information maintained in the database is small and will likely remain that way.

6. Internal accounting for the office is currently done effectively and efficiently by the project accountant without the use of a computer. Unless internal accounting information requirements increase substantially, the effort expended in training for the computerization of the internal accounting records would likely exceed the effort involved in manual record-keeping.

7. Additional consulting/systems development and training will be needed as the project develops. Modification of procedures and general expansion of the project responsibilities will increase information requirements.

ACCOMPLISHMENTS

Accomplishments of the consulting project are directly related to the procedure the consultant followed. Accomplishments are summarized below:

1. Project information needs were identified through discussions with project management and staff, and others involved with the project, and collection and analysis of existing management reports, accounting records, credit manuals and other related information. Appendix A of this report is a list of the consultant's contacts.

2. Computer hardware and software purchased by the RER Project was tested and evaluated for its' capabilities and applicability to the tasks that must be performed in order to make available the information that RER Project management and staff identified as necessary. A list of the project computer hardware and software and a description of the software is included as Appendix B in this report.

3. The staff structure and computer capabilities were evaluated in order to assist in the selection of computer software that would be used to develop the required systems. Care was taken to minimize the number of software applications utilized. This approach was taken in order to limit the amount of training that would be required by the staff and to facilitate the staff's ability to use the software by using the least complex software that would still perform the required tasks.

4. A user-friendly menu was installed and customized on both computer systems. The newly installed menu also provided the capability to automate many DOS commands, thereby assisting the new computer user. The existing menu came with no help screens or documentation for the user.

Necessary modifications were made to the system configuration files, which were not set up correctly during the initial installation of the equipment. The operating system was upgraded from MS-DOS version 3.1 to version 3.2. Application software that was not used to develop systems for the project was deleted from the fixed disk on both computers, with the exception of WordStar word processing software and dBase III Plus on the office computer. This allowed for additional disk space to be made available for data that would be input in the future. Both systems were configured almost identically to provide for consistency and compatibility.

Certain manuals and system software were left in Uganda by the consultant because MS-DOS manuals and software, and some application software manuals were not sent by the procuring

organization with the computers. Backups were made of the entire system including systems developed by the computer. All backups are stored at Mbuya Flats, where they are safe from loss or destruction.

5. Existing applications software was used to develop the required systems. In specific, the consultant developed:

A. Commodity Tracking System - Used to track commodities from the initial RERP order through delivery to the distribution point, whether it is a primary society, private trader, wholesaler, etc. Information regarding the commodities may be searched, sorted, cross-tabbed and reported using whatever criteria the user identifies. The system is flexible enough to allow for additional fields, or other modifications that may be necessary. A list of the commodities and expected quantities to be purchased and distributed is included as Appendix C. The commodity tracking input form and user instructions for the system are included as Appendices D and E.

B. Inventory/Perpetual Inventory Control System - The predesigned reports are to be used by warehouse and inventory personnel in order to provide current, summarized information regarding the inventory and perpetual inventory status of the commodities. The same information, and substantially more, is available through the commodity tracking system described above, but this system provides a summarized report format preferred by the commodities procurement and distribution advisor which is consistent with inventory information standards. Appendices F, G, H, and I are forms and user instructions for the systems. Only a portion of the forms are included in the Appendices to shorten the size of this report. The software left with the project does however provide forms for the entire commodity list currently established, plus room for expansion.

C. Pricing Mechanism - The purchase of commodities and subsequent sale involves a detailed analysis of the costs incurred and margins that may be taken. An electronic spreadsheet was developed to assist staff in analyzing the recommended price to the farmer for various commodities at various costs and margins. Appendices J and K are the pricing mechanism form and user instructions.

D. Administrative Accounts Tracking System - A suggested system for tracking the administrative accounts of the project was developed. It allows for the capability to obtain various management information that is needed by using the same Reflex database software used for the commodity tracking system. The system developed was designed by reviewing all the project's administrative accounts and providing for all of the information in administrative accounts

to be included in the database. The suggested input form and fields, and brief user instructions are included as Appendices L and M. It should be noted that the accounting requirements of the project are not comprehensive; only basic periodic accounting reports are required. The project is not required to produce complete financial statements, but only to summarize costs incurred in various accounts throughout the project's life.

E. Farmer Loan Accounting System - A method was needed to track the information related to loans made through the cooperative credit scheme. The project's information needs were limited to the loans and related information made at the primary society (distribution point) level. The database of information was identified as basically the same as that of the credit scheme in Uganda in the 1960's. Therefore, that earlier scheme was used as a guide to designing a system that included the necessary data fields. Appendices N and O display a suggested farmer loan accounting input form and brief user instructions. Additional informational items, such as the society names/serial numbers and branch banks/registration numbers will need to be added to the input form as they are identified. Again the application software used was Reflex.

F. RERP staff had specific tasks that they had identified previous to and during the consultancy. Some of those tasks were well suited to computer applications. Therefore, the consultant designed and completed some spreadsheets for the staff. In particular, the credit staff wished to do an objective analysis of the societies that would be selected to participate in the cooperative sector of the rural farmer scheme by quantifying the information they obtained during their surveys of the primary societies and having the computer tabulate and summarize the information. Also, they wished to record various financial information from the societies which was used to support the selection. Those spreadsheets are included as Appendices P and Q.

G. As mentioned in each of the above, the systems were developed and documented with user instructions. This report is meant to provide the users of the systems with a handbook that will be used as the systems are implemented. As employees are trained, they will wish to refer to the user instructions and forms that are in the appendices and use them as a guide to building their database and performing the necessary analysis and reporting.

6. The consultant obtained information regarding computer training for RERP staff.

7. Some of the key employees were briefed and given limited training on what had been developed and how it is to be used.

RECOMMENDATIONS

Recommendations made by the consultant as a result of his work on the RER Project computer start-up and development are listed below:

1. The RERP staff should begin using the commodity tracking system as soon as possible. Updating of the database is a prerequisite to producing meaningful reports. The administrative assistant should assume primary responsibility for the maintenance of the database and the production of reports. A second staff person should also be well trained in using the commodity tracking system, as a backup to the administrative assistant.

2. The warehousing specialist from Development Procurement International expected to begin a short term consultancy on November 23, 1987, should thoroughly review the commodity tracking system and evaluate its compliance with standard inventory control procedures.

3. Computer training for staff should be undertaken aggressively. The administrative assistant should be designated as the system administrator of the computer system and assigned the responsibility of managing the system. This person should be the most well trained in using the computer, with training in virtually every aspect, with particular emphasis on the operating system (using DOS commands), a thorough knowledge of the application software utilized for development (WordPerfect, Lotus 1-2-3 and Reflex), an understanding of the computer hardware, the efficient operation of the printer, and ever important backups.

Rank Consult (U) Ltd, a computer consulting firm in Kampala, should be used for training of the staff in computer operations, the operating system, limited systems analysis, database management principles, spreadsheet use (Lotus 1-2-3), and word processing (WordPerfect). The firm also appears to have the staff necessary to provide technical assistance for the Reflex software. They do not appear to currently have the necessary skills to teach Reflex. The Rank group has six full time employees on the training staff and are planning to open additional training facilities, including computers, in Kampala early in 1988. Staff classes are typically held to five or less, with two people working on each computer. The cost of training is quoted at $15.00 per hour or 1500/= U Shs per hour. The U Shs rate is likely to be increased in the near future.

Because of the variety of software products, it would be advisable to use a train the trainer approach to computer training whenever possible. Using internal staff for train-

ing provides customization of training as well as a more interested student. Training can be modified to apply to the actual tasks of the RERP. The person designated as the system administrator should assume the role of scheduling and keeping track of training.

In specific, staff training should include the following:

A. Credit Staff - computer operations, Reflex, Lotus 1-2-3

B. Procurement & Distribution - computer operations, Reflex, Lotus 1-2-3

C. Administration - computer operations, WordPerfect, Reflex, Lotus 1-2-3

The commodities procurement and distribution advisor should become familiar with the capabilities of the Reflex system and Lotus 1-2-3. Hands-on training is advisable whenever possible.

The pool stenographer/clerk typist should be trained in the use of WordPerfect word processing as soon as possible. This person should also have a good working knowledge of Lotus 1-2-3, which is often used in creating reports.

Training cannot be stressed enough. It is a necessary prerequisite for the successful implementation of a computerized office.

4. The entire staff should become familiar with the contents of this report as it relates to their area of responsibility. It is their first exposure to computerization of an area in which they are working and they should have an understanding of the systems that have been developed and the method of computerization.

5. An additional computer system should be purchased. A system providing complete compatibility and virtually the same capabilities can be purchased for about $2,200. This would free the system currently at Mbuya Flats to be moved to the office and be available for training and additional word processing. The new unit could be kept at Mbuya Flats and would provide an emergency backup unit as there is a generator there. In addition a third printer should be purchased. The printer should be a 24-pin, wide carriage printer which is capable of doing near letter quality print. Currently, both printers are IBM Proprinters, 9-pin narrow carriage printers capable of limited graphics, marginal near letter quality print and not able to print spreadsheets on 11X14 inch paper. The new printer should be sent to the RER Project office and the IBM Proprinter should remain at Mbuya

Flats. In addition, the project should buy several boxes of good quality white 11X14 inch computer paper and several boxes of good quality 8.5X11 inch computer paper. The paper they are currently using is unacceptable.

The only software which will need to be purchased is Lotus 1-2-3; it cannot be installed on more than one fixed disk. Other software will be available from existing systems.

A suggested system configuration and recently quoted prices are noted below:

Epson Equity 1+ computer	
640KB memory	
1 360KB floppy drive, 20MB hard disk	
graphics board	
MS-DOS, version 3.2 operating system	$1,350
Epson LQ1000 printer	525
Lotus 1-2-3 software	300

6. The farmer loan accounting system developed during the consultancy and the related applications software should be used by the RERP and made available to the UCB for their use. The UCB's information needs may far exceed those of the RERP. Therefore, the RERP should rely on their own developed systems and not expand their software development to suit the needs of UCB unless RERP's information needs expand to approximate those of the UCB.

7. The administrative accounts tracking system should not be considered for implementation at this time. The current manual method of maintaining the accounts is currently effective and efficient. As the accountant becomes trained on the computer and the accounting transactions increase in size and complexity, implementation of the system should be evaluated again.

8. Password protection, which has been installed in the office computer system, should be utilized for Reflex and Lotus 1-2-3 files. This is necessary in order to insure that the database is not destroyed by unaware users of the system. In addition, faithful backups are a necessity. Passwords should be changed every 2-4 weeks and should be written and kept in a safe place. The team leader should be aware of passwords at all times.

9. The Carinet communications currently being used by the ACDI/Washington office should be further evaluated and tested for use on the RER Project.

10. A follow-up visit should be scheduled for the February-March, 1988 time period. The purpose of the follow-up consultancy should include the following:

A. Additional software systems development and modifications, especially in the area of loan accounting.

B. Insure that the new computer system is correctly installed and configured, consistent with the two existing systems.

C. Work with project staff in answering technical questions, doing specific training and general assistance in computer operations.

D. Develop procedures for backups, utilities and other necessary computer maintenance.

Appendix A

LIST OF CONTACTS

Rural Economic Recovery Project Management Staff

Dennis Frederickson	Team Leader/Credit Advisor
Marshall Ferrin	Commodities Procurement & Distribution Advisor

Rural Economic Recovery Project Staff List

1.	Donat Mubalya	Credit Advisor/Counterpart
2.	O. B. Katalikawe	Credit Officer
3.	Tom Kiwanuka-Mayega	Credit Officer
4.	George W. K. Bamugye	Purchasing Manager
5.	Livingstone Mukibi	Warehouse Manager
6.	Margaret Banura	Assistant Warehouse Manager
7.	Sarah Nsibirwa	Admin. Assistant\Secretary
8.	Joseph Katumbula	Accountant
9.	Amos Okiria	Pool Stenographer/Clerk Typist
10.	Titus Auku	Clerical Assistant
11.	Sunday Balugahale	Transport Officer/Driver
12.	Regina Zimula	Entertainment Assistant

Others

Katikanyonyi Primary Society, Mpigi District
Kiwenda Primary District, Mpigi District
Patrick J. Mangheni, Rank Consult (U) Ltd
S. V. Othieno-Kiracho, Uganda Commercial Bank
A. S. Kayondo, Uganda Commercial Bank

RURAL ECONOMIC RECOVERY PROJECT
COMPUTER HARDWARE AND SOFTWARE

Hardware:

(2) IBM Personal Computer XT, Model 286
640KB Memory
(1) 1.2MB high density floppy drive
(1) 360KB floppy drive
20MB hard disk
graphics board
monochrome monitor

(2) IBM Proprinter
narrow carriage (10")

(2) Knapco Ez Uninterruptible Power Source, 350 watt

Software:

(2) MS-DOS, version 3.1 (operating system)
(2) Lotus 1-2-3, version 2.01 (spreadsheet)
(2) VP-Planner (spreadsheet)
(2) dBase III Plus (relational database)
(2) Reflex, version 1.14 (analytical database)
(2) SPSS/PC+ (statistical and information analysis)
(2) WordPerfect, version 4.2 (word processing)

Notes: MS-DOS, version 3.1 (operating system) was upgraded to version 3.2 by the consultant. Menu software and utility programs to simplify and further automate DOS commands were also installed on both computer systems

DESCRIPTION OF RERP SOFTWARE

Menu Maker

The Menu Maker assists the user in accessing application software without actually having to remember the directories and run file names that application software resides in. It automates the selection of application software and provides flexibility in changing the menu. In addition, it provides the user with automation of all the basic DOS utility functions. This is an extremely useful feature.

Learning DOS

This should be the first interaction a new computer user has with the computer. The well written program takes the new computer user through the basic DOS commands and how one learns to "talk to" the computer.

DOS Quick Reference

Most of the DOS commands and how to write them are covered in detail. The program provides a quick reference for those questions that often arise while working with DOS. The quick reference saves time in not having to locate the needed information in a reference manual.

Disk Utility

The disk utility program assists the user in just a few of the often used DOS commands, such as formatting disks and disk copying. The commands are automated, not requiring the user to remember the structure that the commands must be written in.

FASTBACK Backup/Restore

The program is designed assist the user in backing up files in a quick and efficient manner. Care should be taken to read the instructions completely before attempting to use. The program is very functional after it is learned.

WordPerfect

One of the most popular and best selling word processing packages. It is very good and includes merging files and a dictionary and thesaurus.

Lotus 1-2-3

The best selling electronic spreadsheet package that performs automatic calculations and can be used for many tasks. The program also includes a good graphics package and a limited database program. Lotus software has been utilized to develop spreadsheets which are used to maintain commodities inventory information on the RER Project.

Sideways printing

A program mostly used with Lotus 1-2-3 to provide the capability to print spreadsheets sideways, allowing for more information to fit on the page. The program is very versatile and flexible, providing many capabilities to alter the format of the printing.

Reflex and Reflex Report

An analytical database program that permits analysis of business information by sorting, crosstabbing, searching and reporting the information in a format that meets user specified criteria. Reflex also has a graphics package. This software is the main software used to track commodities for the RER Project. General ledger information (administrative accounts) can also be maintained and reported on the Reflex system. The software will also be utilized to keep certain credit information for the RER Project. Reflex allows analysis of only one database at a time whereas dBase III Plus is a relational database program and allows analysis of numerous databases concurrently.

FormTool

A specific application software that provides the user with the capability to develop customized forms for various uses.

dBase III Plus

A very powerful relational database program that allows maintenance and analysis of very large databases. Because of its power and capabilities, dBase III Plus is somewhat hard to

learn and use. It has not been used thus far in the RER Project because its capabilities are far beyond the current information needs of the project.

VP-Planner

An electronic spreadsheet designed to copy the Lotus 1-2-3 software, with some enhancements and database capabilities. The software will also create and read dBase files directly from the worksheet.

SPSS/PC+

A powerful statistical and information analysis system.

LIST OF COMMODITIES

1. Bicycles, with spares kit	16,700	
2. Axes - roundeye, without handles	22,500	
3. Spray Pumps	1,600	
4. Hoes - roundeye, without handles	40,000	
5. Slashers	40,000	
6. Wheel Barrows	3,750	
7. Machetes, wooden handle	5,500	
8. Shovels, curved	1,900	
9. Shovels, straight	1,850	
10. Corrugated iron sheets	9,000	
11. Roofing nails	5	tons
12. Wire nails, 6"	2	tons
13. Wire nails, 5"	2.5	tons
14. Wire nails, 4"	4	tons
15. Wire nails, 3"	1.5	tons
16. Cement	100	tons
17. Roof Ridges	2,000	
18. Gunny Bags	140,000	

RURAL ECONOMIC RECOVERY PROJECT
COMMODITY TRACKING INPUT SCREEN

Action Code	
RER Order	RO
Wh.,Trader,PS Order	DO
Deliv to RER Warehouse	RD
Deliv to Wh.,Trader,PS	DD

District Code	
Luwero	LU
Mpigi	MP
Mubende	MB

Commodity Type	
Bicycles	BC
Axes	AX
Spray Pumps	SP
Hoes	HO
Slashers	SL
Wheel Barrows	WB
Machetes	MC
Curved Shovels	CS
Straight Shovels	SS
Iron Sheets	IS
Roofing Nails	RN
Wire Nails 3"	NA
Wire Nails 4"	NB
Wire Nails 5"	NC
Wire Nails 6"	ND
Cement	CM
Ridges	RD
Gunny Bags	GB

Wholesaler Code	
Kampala Wholesale	W1

Trader Code	
Smith	T1
Jones	T2

Primary Society Code	
Buruli	A1
Masindi	A2
Jinja	A3
Kasese	A4

(e.g. mm/dd/yy) Date:

Action:

Commodity:

(Wh.,Trader,PS) Dist'b Pt.:

District:

UPrice:

Total:

(all are per unit except nails are per kilo and cement is per bag) Quantity:

COMMODITY TRACKING SYSTEM INSTRUCTIONS

The commodity tracking and inventory control system utilizes the Reflex database software which provides the capability for many business analysis functions.

By entering information on a predesigned form input screen named ctrack2, which refers to commodity tracking, you will be creating records which will be a continually growing database of information relating to the purchasing, pricing, stockpiling, delivery and distribution of commodities involved in the RER Project.

Following are brief instructions on accessing the data input screen as well as analyzing the data through such means as sorting, searching based on specific criteria, crosstabbing, printing and reporting through a predesigned form. Although the instructions are designed for the beginner, they are brief in nature and there is no better source of complete information than the two manuals available to the RER Project staff. The program manual published by Borland, titled Reflex: The Database Manager is written from a technical viewpoint and is quite complete. It also provides a beginning and advanced tutorial to help the beginner learn the capabilities of Reflex. Using Reflex published by Que is written from the users viewpoint and may be more helpful to the staff in learning the Reflex software and answering their initial questions. The manuals should be referred to whenever instructions provided here are not complete enough to accomplish the step you wish to perform. Step-by-step instructions are provided in both manuals. It is suggested that you start with the Using Reflex manual to answer your questions.

Specific instructions on Reflex are also available by pressing F1 (the Help key) and following the menu to access information regarding the subject you are confused about.

The Form Input Screen:

1. Turn on the computer and wait for the main menu screen to appear.

2. Select the number corresponding to the Reflex software and press enter.

3. After the initial Reflex screen appears press the / key.

This will bring down a "pull-down" menu which will list several options from which you can choose.

4. You will notice that there are several main headings at the top of the screen which are main headings of menus. The "Print/File" heading is the one you are now concerned with; it can be accessed by pressing the right arrow key three times.

5. Within this menu you will be selecting "Retrieve File" which is the first option below the "Print/File" heading. "Retrieve File" is selected by pressing the down arrow key until it is highlighted and then pressing enter.

6. The next screen that appears will ask you for the file name that you wish to retrieve. You may either type ctrack2 or press F10, which will list all of the files that are stored on the drive c within the Reflex directory. If you choose to use the F10 option of accessing ctrack2 and there are a number of files saved in the Reflex directory, you may have to use the down arrow key to locate the file name you wish to retrieve.

7. Once you have selected ctrack2 by pressing enter after the filename is highlighted, the form screen for commodity tracking data input will appear. When the form screen appears, at the top of the screen you will see "Rural Economic Recovery Project, Commodity Tracking Input Screen."

8. On the right hand side of the screen you will notice all the field names, or items of information that can be entered. The list currently consists of the date, action (order or delivery), commodity, distribution point (primary society or trader), district, currency, unit price, total price and quantity.

9. On the left side of the screen you will see codes relating to the action you are recording, the primary society or trader, the district involved and the commodity. These are the appropriate codes which will be used for data entry on the right side of the screen. The entire left side of the screen is only for your information, to help you in inputting the correct codes on the right side of the screen. The only information that affects the database and the subsequent analysis of commodity tracking and inventory is that information that is input on the right side of the screen, beside the field names.

The Form Design Screen:

10. As additional commodities are added to the list of those dealt with by the RER Project, you will likely wish to add those to the input form for your convenience in locating the

appropriate codes for input. Likewise, additional traders, primary societies, and possibly districts may be added to the list. The form you see on the screen is actually much larger than the screen itself, more than large enough to accommodate all the information (codes) which you wish to maintain. Editing of the data input form is done by pressing the / key to access a pull-down menu, pressing the right arrow key until you reach the "Form" heading, pressing the down arrow key until you reach the "Design" option, and pressing enter to access the form.

11. You will notice that the form, in design mode, appears slightly different than the input form. This is because the design mode allows you to change the design of the form and see what items are input through a word processing method (those with ' preceding them), and those that are input as fields (without '), which allows for information to be input after them when in the data input mode. Editing the form is simple. For example, if you wish to add another primary society to the list in the middle of the form, move the cursor with the arrow keys to just below the ' preceding the last primary society name and type another '. Follow the ' by typing the name of the primary society you wish to add, and then press the space bar until the cursor is just below the first letter of the code of the primary society above. Type the code of the primary society you just added, following the sequence that has been established for the other primary society codes. Some of the codes that have already been added to the form when you begin using it are undoubtedly primary societies you will not deal with in the life of the RER Project. To edit those codes you may either type over them using the method above or move the cursor to highlight them and then press F2 to access the edit mode for the area you have highlighted. **WARNING!!!**-Never change the code of a primary society, trader, action, district, or commodity after you have used that code for data entry. If you do, information that has previously been input and added to the database of information relating to say, a particular primary society, would not be associated to the same primary society if a different code were used for additional transactions. In order to move information already input on the form simply press /, press the right arrow key to the "Form" heading, press the down arrow key to "Move," and press enter. You will then be able to move the information by pressing the appropriate arrow keys and pressing enter when the desired location is indicated on the screen. Field names, such as the ones on the right side of the screen, can be added by following the same procedure as adding information was done above, with the exception of the ' preceding the name. The ' is what tells the Reflex software to distinguish between field names and just information on the data input screen for the user's information and convenience. To exit the form design screen press /, use the

arrow keys to get to the "Form" heading, and get to "Exit" and press return.

12. To record information (add to the database) whenever activity occurs, such as the ordering of bicycles, first access the heading "Records" by using the / and the arrow keys. Use the down arrow key to highlight "Add Record," and press enter. You will now be in the mode to enter additional transactions which will be added to the database of information already input. Simply insert the information in the area indicated by inputting the appropriate codes or following the instructions noted to the left of the field. If you make a mistake type over it or return to the field and input the information again.

13. Once field values are entered they can be displayed by the Form/View command. The F7 and F8 keys will allow you to move from one record to another; F7 for the previous record and F8 for the next record.

14. To access a list of the records use the List/View command. If the width of some of the columns are not wide enough to read the information you can widen the column by using the Edit/Column Width command.

15. Remember to use the Print/File Save command to insure that you have saved all of the information that you have added to the database through entering records. If you do not save the file then you will lose all of the information you have added whenever you exit the Reflex software.

Record Sorting:

16. Records may be sorted by using the Records/Field & Sort Settings command. This will allow you the capability to sort the records by whatever means you desire. For example, if you wish to see the transactions that took place for each commodity, separated by commodity type, you can use this command to specify the software to list the commodities alphabetically, so they are displayed in groups rather than in the order that they were recorded. The Records/Perform Sort command is used to view the list after the sort parameters have been set.

Record Searching:

17. The search capability of Reflex is one of the most useful tools for the RER Project. Records may be searched based on complex criteria and listed to provide management information. It is likely that there will be occasions when there will be a need for determining specific information. For example, management may wish to know how many hoes were delivered to primary societies in the months of January

through March in quantities of 200 or more and at a price of 2.50 per unit or less. This is possible by identifying the specific criteria through writing formulas into the Search/Set Conditions command. Specific instructions on how to enter the formulas can be found in either of the Reflex manuals; the procedure is fairly simple in nature. It is suggested that you start with the area titled "How To Write Search Conditions" located on p. 155 in the Using Reflex manual.

18. After entering the search criteria it is necessary to apply a filter which filters out the records meeting the specific criteria you have identified. This is done through the Search/Apply Filter command.

19. Be careful not to use the Search/Keep Records command unless you wish to delete all of the records you have in the database which do not meet the criteria you have specified in the search. It is unlikely that this would ever be the case in RER as all the database will be needed to perform ongoing searches of information based on all the records entered from the first commodity transaction.

Graphics:

20. Graphing is another capability of Reflex. It is accessed by using the Views/Graph command. It is expected that this feature will not be fully utilized by the RER Project. There may be occasion when management wishes to present some information in graphic form for some reports. Chapter 9 (p. 235) of the Using Reflex manual covers graphics with the Reflex system. It is not particularly difficult to create graphics. It should be noted that the IBM Proprinter purchased by RER is not well suited to do quality graphics. It is a 9-pin printer which does not provide the density of a 24-pin printer and will therefore produce somewhat inferior graphics.

Crosstabbing:

Crosstabbing is a feature that RER will likely utilize. It is accessed by the Views/Xtab command. Crosstabbing will allow the user to, for example, sum all of the bicycle orders by a particular society. It could also be used to calculate the percentage of all or individual commodity type orders by primary societies, or by district. Crosstabbing is covered in Chapter 10 (p. 273) of the Using Reflex manual.

Reporting:

Reports will be a useful function for RER. Report formats can be saved for later use, similar to Crosstab formats. Chapter 12, beginning on p. 341 of the Using Reflex manual

covers reporting in detail.

However, as part of the development of the RER commodity tracking system and inventory control, a report has been predesigned and saved under the name of qrpt1. The report is designed to report information regarding the number of units ordered (cumulative) for each commodity by each of the three districts during the quarter.

The first step in designing a report is to select Reflex Report from the main menu. Press enter when the Report box is highlighted. The Report menu is very similar in operation to the Reflex menu. As always, press the / key to access the pull-down menus and then use the arrow keys to move from menu to menu, and within the menu. The predesigned report for quarterly reporting of commodities orders is accessed by using the Print/File/Retrieve command and then pressing F10 for a choice of files; qrpt1 is the file name.

Design of the Report Reflex Report is done in the same way as design of the Form in Reflex. Attributes are available to the user to accumulate totals and perform many other arithmetic calculations. Titles may be added to print only at the top of the first report page, or at the top of every report page. Printing can be done in compressed or normal mode through the Print/File menu using the Print command. Page number, date, and time can be automatically entered when the report is printed.

RURAL ECONOMIC RECOVERY PROJECT
INVENTORY

Date: Location: Priced by:
Checked by:
Page: Extended by:
Checked by:
Dept: Examined by:

Instructions: Input data for individual entries in columns indicated by an *.

Item No.	Quantity *	Unit *	Description *	Unit Price *	Extension	Total
1			Bicycles		0.00	0.00
2					0.00	0.00
3					0.00	0.00
4					0.00	0.00
5					0.00	0.00

Date: Location: Priced by:
Checked by:
Page: Extended by:
Checked by:
Dept: Examined by:

Instructions: Input data for individual entries in columns indicated by an *.

Item No.	Quantity *	Unit *	Description *	Unit Price *	Extension	Total
1			Axes		0.00	0.00
2					0.00	0.00
3					0.00	0.00
4					0.00	0.00
5					0.00	0.00

Date: Location: Priced by:
Checked by:
Page: Extended by:
Checked by:
Dept: Examined by:

Instructions: Input data for individual entries in columns indicated by an *.

Item No.	Quantity *	Unit *	Description *	Unit Price *	Extension	Total
1			Spray Pumps		0.00	0.00
2					0.00	0.00
3					0.00	0.00
4					0.00	0.00
5					0.00	0.00

INVENTORY CONTROL SYSTEM INSTRUCTIONS

The Inventory control information recording incoming quantities for each of the commodities handled by the RER Project is maintained in an electronic spreadsheet form in a file named inv.wk1 maintained in the Lotus directory of drive c. The following instructions should be followed while updating the inventory information file:

1. Select Lotus 1-2-3 from the main menu.

2. Press enter to select 1-2-3 from the Lotus main menu.

3. Press the / in order to access Lotus 1-2-3 commands.

4. Press the right arrow key four times to highlight the File command.

5. Press enter to select File.

6. Press enter to select Retrieve.

7. Press the right arrow key until inv.wk1 is highlighted. This is the file you are retrieving.

8. Press enter to retrieve the inv file.

9. A preformatted spreadsheet has been created for your use. There is an identical information area (except for the commodity name) for each of the commodities that the RER Project was expected to handle at the time the spreadsheet was created. As additional commodities are added to the list it will be necessary to copy the information area, creating additional areas for information to be input. This is done through the Copy command. In addition to the eighteen different commodities that the spreadsheet provides for are two extra information areas that are not labeled as to commodity. You may use them for expansion. Each of the twenty information areas are located directly beneath each other. Following is a list of the twenty information areas and what order they are in:

Bicycles
Axes
Spray Pumps
Hoes
Slashers

Wheel Barrows
Machetes
Curved Shovels
Straight Shovels
Iron Sheets
Roofing Nails
Wire Nails 3"
Wire Nails 4"
Wire Nails 5"
Wire Nails 6"
Cement
Ridges
Gunny Bags
no commodity assigned yet
no commodity assigned yet

10. Information should be input into the different areas in the cell just to the right of the item name. The only calculated cells in the spreadsheet are the extension and total columns. All other information must be input for each transaction that occurs.

11. If additional lines are required for one of the information areas, they may be added through the copy command mentioned earlier. However, before copying additional lines beyond the five that are provided, care should be taken to make room for the lines by using the Worksheet/Insert/Row command to make more rows available. This prevents writing information over the existing information area for the commodity directly below the one you are working with.

12. Printing the information area you are concerned with is more practical than printing all twenty information areas. You are likely not posting transactions for all twenty commodities at one time. Printing an individual area can be accomplished through using the Print/Range/Go command.

13. Remember to save the file to record your latest changes. You may wish to save it under a separate sequential name so you have the previous file (before changes) and the new file (after changes) available to you.

14. As always remember to backup the files you saved on drive c to a floppy disk. This can be accomplished by exiting to DOS and typing the following after c\>

```
copy c:\lotus\inv*.wk1 b:
```

This assumes that you have saved and named the file inv2, or inv3, or inv4, and so on depending on how many different versions you have kept on the disk. Saving and naming the files in this fashion allows you to quickly tell which version is the latest, which is probably the one you will want to work with and to update with the latest transactions.

RURAL ECONOMIC RECOVERY PROJECT
PERPETUAL INVENTORY

Instructions: Input commodity name to the right of commodity.
Input appropriate information for individual entries
in columns marked by an *.

Commodity:Bicycles

ORDERED				RECEIVED			SOLD			
*	*	*	*	*	*	*	*	*	*	
Date	Ord. No.	Quantity	Due Date	Date	Ord. No.	Quantity	Date	Ord. No.	Quantity	Balance
---	---	---	---	---	---	---	---	---	---	---

PERPETUAL INVENTORY CONTROL SYSTEM INSTRUCTIONS

The perpetual inventory control information which keeps an ongoing balance for each of the commodities handled by the RER Project is maintained in an electronic spreadsheet form in a file named pinv.wk1 maintained in the Lotus directory of drive c. The following instructions should be followed while updating the perpetual inventory information file:

1. Select Lotus 1-2-3 from the main menu.

2. Press enter to select 1-2-3 from the Lotus main menu.

3. Press the / in order to access Lotus 1-2-3 commands.

4. Press the right arrow key four times to highlight the File command.

5. Press enter to select File.

6. Press enter to select Retrieve.

7. Press the right arrow key until pinv.wk1 is highlighted. This is the file you are retrieving.

8. Press enter to retrieve the pinv file.

9. A preformatted spreadsheet has been created for your use. There is an identical information area (except for the commodity name) for each of the commodities that the RER Project was expected to handle at the time the spreadsheet was created. As additional commodities are added to the list it will be necessary to copy the information area, creating additional areas for information to be input. This is done through the Copy command. In addition to the eighteen different commodities that the spreadsheet provides for are two extra information areas that are not labeled as to commodity. You may use them for expansion. Each of the twenty information areas are located directly beneath each other. Following is a list of the twenty information areas and what order they are in:

Bicycles
Axes
Spray Pumps
Hoes
Slashers

Wheel Barrows
Machetes
Curved Shovel
Straight Shovels
Iron Sheets
Roofing Nails
Wire Nails 3"
Wire Nails 4"
Wire Nails 5"
Wire Nails 6"
Cement
Ridges
Gunny Bags
no commodity assigned yet
no commodity assigned yet

10. Information should be input into the different areas in the cell just to the right of the item name. The only calculated cell in the spreadsheet is the balance column to the far right side of the spreadsheet. All other information must be input for each transaction that occurs.

11. If additional lines are required for one of the information areas, they may be added through the copy command mentioned earlier. However, before copying additional lines beyond the five that are provided, care should be taken to make room for the lines by using the Worksheet/Insert/Row command to make more rows available. This prevents writing information over the existing information area for the commodity directly below the one you are working with.

12. Printing the information area you are concerned with is more practical than printing all twenty information areas. You are likely not posting transactions for all twenty commodities at one time. Printing an individual area can be accomplished through using the Print/Range/Go command.

13. Remember to save the file to record your latest changes. You may wish to save it under a separate sequential name so you have the previous file (before changes) and the new file (after changes) available to you.

14. As always remember to backup the files you saved on drive c to a floppy disk. This can be accomplished by exiting to DOS and typing the following after c\>

```
copy c:\lotus\pinv*.wk1 b:
```

This assumes that you have saved and named the file pinv2, or pinv3, or pinv4, and so on depending on how many different versions you have kept on the disk. Saving and naming the files in this fashion allows you to quickly tell which version is the latest, which is probably the one you will want to work with and to update with the latest transactions.

RURAL ECONOMIC RECOVERY PROJECT
PRICING MECHANISM

Instructions: Input appropriate values in the table below.
Input appropriate amounts for individual entries in columns marked by an *.

Input Amounts

Transport.	=	15.00%
Wholes. Marg.	=	15.00%
Retail Margin	=	20.00%
Whol/Ret Mar.	=	38.00%
U Exch Rate	=	60.00
K Exch Rate	=	16.70

* Commodity	* C.I.F. Kampala Per Unit $	Transport Cost 15.00%	RER Cost P/U $	* Sale Code W=Wholesale R=Retail WR=Wh/Retail	Wholesale Margin 15.00%	Retail Margin 20.00%	Wh/Retail Margin 38.00%	Value U.S. $ Per Unit	Recommend. Price to Farmer U Shs
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00
		0.00	0.00		0.00	0.00	0.00	0.00	0.00

PRICING MECHANISM INSTRUCTIONS

The pricing mechanism is developed to assist RER Project staff in calculating the recommended price to be charged to the farmer for the commodities. The pricing mechanism is developed in Lotus 1-2-3, an electronic spreadsheet that performs automatic calculations.

Instructions are to simply input amounts into the table to the upper left hand side of the form. These are the variables and can be changed to meet the actual exchange rates and transport costs and the desired margins. Changing these amounts will automatically update any calculations in the table below the input amounts. The table that performs the calculations, on the bottom half of the spreadsheet requires input for only three columns. Those columns are the commodity name, the C.I.F. Kampala per unit amount for the commodity, and the sale code, which indicates whether the commodity will be marketed through a wholesaler, retailer, or wholesaler/retailer. The spreadsheet will automatically calculate the correct margin column, based on the code that you input, ignoring the other margins not applicable to the marketing of the commodity. For example, if bicycles are to be the commodity you are dealing with and you wish to market them through a retailer at 15% margin with the Uganda official exchange rate at 60:1, transport costs are 14% and your C.I.F. Kampala per unit cost is $55.15, you would do the following to calculate the recommended price to the farmer, in Uganda shillings:

1. Input the following values in the cell to the right of the items in the Input Amounts table:

Transport. =	14.00% (input by typing .14)
Wholes. Marg.=	leave this as is; it will not calculate since you are not dealing with a wholesaler
Retail Margin=	20.00% (input by typing .20)
Whol/Ret Mar.=	leave this as is; it will not calculate since you are not dealing with a wholes./retailer
U Exch Rate=	60
K Exch Rate=	This is for informational purposes only and does not affect the calculations below

2. Input bicycles in the column titled Commodity.

3. Input 55.15 in the column titled C.I.F. Kampala Per Unit $.

4. Input the code R in the column titled Sale Code.

The recommended price to the farmer will now be automatically calculated in the cell to the far right under the column heading of Recommend. Price to Farmer U Shs.

Fifteen lines have been provided for in the table so you may input other commodities to calculate, based on the same input costs, margins and sale code. It should be noted however that if you wish to use various input values they should be done on separate spreadsheets as changing the input values will recalculate every commodity on the spreadsheet based on the variables you have input.

It is suggested that if you wish to run several different options that you save and/or print each of the options so they may be compared.

Printing the pricing mechanism spreadsheet must be done through the Sideways software which allows printing of the spreadsheet to be done at a 90 degree angle from what it normally is. This is necessary on the pricing mechanism because it is too wide to fit on an 8.5 inch wide paper. Printing sideways provides for 11 inches to be available for printing. The file must be saved as is normally in Lotus 1-2-3, through the File/Save command. The next step is to exit Lotus 1-2-3 and Lotus and return to the main menu. Select Sideways from the main menu and press / to access the commands. From the command list, which is similar to that in Lotus 1-2-3, select File/Retrieve and use the arrow key to highlight the pricing.wk1 file. Press return to retrieve the file and select the Print/Range command to highlight the spreadsheet, indicating you wish to print the spreadsheet (or highlight a smaller portion of the spreadsheet if you wish to print only a portion of it). Select Go from the Print command and the spreadsheet will print.

RURAL ECONOMIC RECOVERY PROJECT
ADMINISTRATIVE ACCOUNTS TRACKING INPUT FORM

Activity Type Codes

Salaries/Allowances	SA
Office Expenses	OE
Travelling & Subsis	TS
Vehicle Maintenance	
Mitsubishi UXW109	V1
Mitsubishi UXW051	V2
Pajero UXZ297	V3
Suzuki	V4
Suzuki	V5
Tata Lorry	V6
Other	V7
Other	
Mbuya Flat Exp	OM
Represent Allow	OR
Mack Cl Exp	OC

Employee Code

M Banura	MB
R Zimula	RZ
D Mubalya	DM
T Kiwanuka-Mayega	TM
G W K Bamugye	GB
A Okiria	AO
O B Katalikawe	OK
L Mukibi	LM
S Balugahale	SB
T Auku	TA
S Nsibirwa	SN
J Katumbula	JK
E K Tumubweine	ET

Date:
(mm/dd/yy)
Action Type:
(Code)
Amount:

Item No:

Employee:
(Code)
Salary:
COLA:
Oth Allow:
Gross Pay:
Advance:
Adv Repay:
PAYE:
PAYE Rebate:
Net Pay:
Voucher No:

Appendix M

ADMINISTRATIVE ACCOUNTS TRACKING SYSTEM INFORMATION

The administrative accounts tracking system is developed in Reflex, a database management system. The purpose of the tracking system is to provide management with the capability to extract specific management information regarding the administrative accounts of the project. For example, it is possible to summarize all the costs of a particular vehicle for a specified time period.

The administrative accounts tracking system input form is Appendix L. The fields on the input form were selected by identifying all the administrative accounts of the project, which are currently maintained manually.

Instructions on using Reflex can be found in both the commodity tracking system instructions and throughout the Reflex manuals.

Although the system may not be used in the near future, a structure for the system is now provided, with the flexibility to modify as the need arises.

RURAL ECONOMIC RECOVERY PROJECT
FARMER LOAN ACCOUNTING INFORMATION INPUT FORM

Society Name/Registr No.		Branch Bank/Location/Ser No.		
Buruli	999999	UCB	Fort Portal	111111
Masindi	999998	UCB	Gulu	111112
Jinja	999997	UCB	Lira	111113
Kasese	999996	UCB	Masindi	111114

Pr Society:
(reg no)

District:
(code)

Branch Bank:
(ser no)

Date:
(mm/yy)

Type of Fund:
(code)

Amount Appr:

Withdrawls:

Repayments:

Interest:

Amount Outst: Withdrawls - Repayments + Interest

District Code

Luwero	LU
Mpigi	MP
Mubende	MB

Type of Fund

BOU Sp Acct	B

FARMER LOAN ACCOUNTING SYSTEM INFORMATION

The farmer loan accounting system is designed to provide the information required by the credit staff. Information maintained is limited to the primary society level. It is anticipated that the individual farmer loan data will be kept at the primary society and the society will be reporting summarized information monthly.

This monthly information will be input into the Reflex created farmer loan accounting system and will build a database of information on approximately forty loans. As the database is built, all information regarding the loans is recorded in the appropriate fields and can later be sorted, searched and reported in the desired fashion by using the capabilities of the Reflex software. Specific instructions on using the Reflex software can be found in the commodity tracking system instructions, which is Appendix E.

It should be noted that the right hand side of the input form, shown as Appendix N, is the field input section, and the left hand side of the form is for informational purposes for the data entry operator. The left hand side of the form should be modified by using the Form/Design command in Reflex to provide updated information regarding the primary societies, their registration numbers, and the branch banks and their serial numbers as the societies and banks are selected for participation in the program.

MINIMUM LOAN SECURITY
By Members Funds in Primary Society

Society	Membership	Surplus (mil)	Turnover (TKG)	Total No. of Savers RSS	Total Current Deposits RSS	Average Rural Savings per Member	Average Surplus per Member	Avg Annual Sales per Member-KGs	Avg Annual Sales per Member-USh
Kisalizi	344	6.100		21	765,000	36,429	17,733	0	
Kazwama	304	0.990		12		0	3,257	0	
Nakasongola	426	1.000		0	80,000		2,347	0	
Wobulenzi	302	0.710	280.0	0			2,351	927	22,25
Luwero Kezimbira	908	22.900	1.8	279	5,193,700	18,615	25,220	2	4
Butuntumula	850	0.220	450.0	70		0	259	529	12,70
Bukatira	242	0.300	320.0	18	20,000	1,111	1,240	1,322	31,73
Basiima Bageya	150		200.0	70		0		1,333	32,00
Semuto	357			0				0	
Wabusana	301			43		0		0	
Bukimo	300	6.000	370.0	61	3,135,700	51,405	20,000	1,233	29,60
Buto Kichwa	558	7.000	450.0	87	5,000,000	57,471	12,545	806	19,35
Kaswa Budoma	690	1.650		11		0	2,391	0	
Kigali Kiribedda	470			5		0		0	
Akateyanira Consumer	130	0.003		0			23	0	
Busunju	320		134.0	0				419	10,05
Kassanda Kiwegatta	1,520	6.140	86.0	74		0	4,039	57	1,35
Kijungute	42	0.040	83.0	0			952	1,976	47,42
Batono	99			5		0		0	
Kanziira	295			0				0	
Muyobozi	684	37.000		39		0	54,094	0	
Kiwenda	575		241.0	317	22,400	71		419	10,05
Apollo Kaggwa	464	3.300		12	32,007	2,667	7,112	0	
Bukweba	199			0				0	
Luwampanga Fishing	264	1.098	991.0	264	1,684,036	6,379	4,159	3,754	90,09
Nakasongola Transport	123	0.024	1280.0	0			195	10,407	249,75
Degeya	397	0.036	134.0	26	364,400	14,015	91	338	8,10
Bamunanika	473	7.000	162.0	0			14,799	342	8,22
Abafuba Kalagala	405	0	11.8	98	1,500,000	15,306		29	69
Nakitoma	317	0.743	6.0	61		0	2,344	19	45
Mbukiro	405		80.0	0				198	4,74
Kibose Batankulu	310	0.003	45.0	0			10	145	3,48
Kasagga	368	0	56.0	37	1,000,000	27,027		152	3,65
Mubende Tuegatte Multi.	164	0	229.0	164	1,200,000	7,317		1,396	33,51
Kaweri Vvamutulo	500	2.400	69.0	51	1,034,263	20,280	4,800	138	3,31
Kirangira	405	n.a.	184.0	0				454	10,90
Kiboga	520	n.a.	218.0	0				419	10,06
Baganda Wawu	400	0	9.0	100		0		23	54
Bujubi	1,560	9.100	300.0	282	11,960,895	42,415	5,833	192	4,61
Kungu Dairy	200			0				0	
Katikanyonyi	550	1.200	95.0	0			2,182	173	4,14

CREDIT RATING
By Points

Society	Sec/Man? Yes=1	Years of Education	Education (Points)	Training? Yes=1	Years of Exper	Exper (Points)	Permanent Storage? Yes=1	Safe Yes=1	Surplus per Member (mil)	Surplus per Member (Points)	S per (
Kisalizi	1	9	2	1	15	3	1	1	17,733	1	
Kazwama	1	9	2	1	3	1	1	1	3,257	(1)	
Nakasongola	1	8	2	1	11	3			2,347	(1)	
Wobulenzi	1	7	1	1	2	1	1	1	2,351	(1)	
Luwero Kezimbira	1	12	2		0	0			25,220	1	
Butuntumula	1	9	2	1	16	4			259	(1)	
Bukatira	1	12	2		1	1	1	1	1,240	(1)	
Basiima Bageya	1	11	2	1	15	3				(1)	
Semuto	1	8	2	1	10	2				(1)	
Wabusana	1	7	1	1	13	3	1			(1)	
Bukimo	1	12	2		1	1	1	1	20,000	1	
Buto Kichwa	1	9	2	1	18	4	1	1	12,545	1	
Kaswa Budoma	1	8	2	1	8	2	1	1	2,391	(1)	
Kigali Kiribedda	1	0	0	1	12	3				(1)	
Akateyanira Consumer	1	9	2	1	15	3			23	(1)	
Busunju	1	9	2	1	4	1				(1)	
Kassanda Kiwegatta	1	12	2	1	15	3	1	1	4,039	(1)	
Kijungute	1	9	2	1	5	1	1		952	(1)	
Batono		0	0	1	0	0				(1)	
Kanziira	1	0	0	1	0	0		1		(1)	
Muyobozi	1	0	0	1	12	3	1		54,094	1	
Kiwenda		0	0	1	1	1	1	1		(1)	
Apollo Kaggwa	1	12	2	1	2	1	1	1	7,112	(1)	
Bukweba		0	0		0	0	1			(1)	
Lwampanga Fishing		0	0		0	0	1	1	4,159	(1)	
Nakasongola Transport	1	12	2	1	4	1			195	(1)	2
Degeya	1	8	2	1	20	4	1		91	(1)	
Bamunanika	1	5	1	1	11	3	1	1	14,799	1	
Abafuba Kalagala	1	11	2	1	17	4	1	1		(1)	
Nakitoma	1	7	1	1	3	1		1	2,344	(1)	
Mbukiro	1	11	2	1	12	3				(1)	
Kibose Batankulu	1	8	2	1	17	4			10	(1)	
Kasagga	1	8	2	1	16	4	1			(1)	
Mubende Twegatte Multi.	1	12	2	1	1	1				(1)	
Kaweri Yvamutulo	1	6	1	1	10	2	1	1	4,800	(1)	
Kirangira	1	12	2	1	3	1				(1)	
Kiboga	1	12	2	1	1	1				(1)	
Baganda Wawu		0	0		0	0				(1)	
Bujubi	1	8	2	1	15	3	1	1	5,833	(1)	
Kungu Dairy	1	8	2		6	2				(1)	
Katikanyonyi	1	14	3	1	6	2	1		2,182	(1)	

s ber)	Sales per Member (Points)	Years in CCS	Years in CCS (Points)	Defaults? Yes = -1	Years in RSS	Years in RSS (Points)	Savings per Member	Savings per Member (Points)	Partic in CCS? Yes=1	Partic in RSS? Yes=1	TOTAL POINTS
0	(1)	9	2	(1)	6	2	36,429	1	1	1	15
0	(1)	9	2	(1)	2	1	0	(1)	1	1	8
0	(1)	7	2	(1)	24	4	0	(1)	1	1	11
252	(1)	15	3		0	0	0	(1)	1		7
48	(1)	15	3		16	4	18,615	(1)	1	1	11
706	(1)	6	2	(1)	3	1	0	(1)	1	1	9
736	1	7	2		13	3	1,111	(1)	1	1	12
000	1	7	2		7	2	0	(1)	1	1	12
0	(1)	0	0		0	0	0	(1)	1		4
0	(1)	18	4		4	1	0	(1)	1	1	11
600	1	5	1		1	1	51,405	1	1	1	13
355	(1)	7	2		11	3	57,471	1	1	1	18
0	(1)	4	1	(1)	2	1	0	(1)	1	1	8
0	(1)	0	0		0	0	0	(1)			2
0	(1)	0	0		0	0	0	(1)			4
050	(1)	3	1		5	1	0	(1)	1	1	6
358	(1)	3	1		8	2	0	(1)	1	1	11
429	1	0	0		0	0	0	(1)			5
0	(1)	0	0		0	0	0	(1)		1	(1)
0	(1)	2	1		0	0	0	(1)	1	1	3
0	(1)	0	0		9	2	0	(1)		1	8
059	(1)	6	2	(1)	14	3	71	(1)	1	1	7
0	(1)	12	3		15	3	2,667	(1)	1	1	12
0	(1)	0	0		0	0	0	(1)			(2)
091	1	0	0		6	2	6,379	(1)		1	4
756	1	0	0		0	0	0	(1)		1	5
101	(1)	3	1		4	1	14,015	(1)	1	1	10
220	(1)	16	4	(1)	0	0	0	(1)	1		11
699	(1)	3	1		11	3	15,306	(1)	1	1	13
454	(1)	9	2		1	1	0	(1)	1	1	7
741	(1)	7	2		0	0	0	(1)	1		7
484	(1)	5	1	(1)	0	0	0	(1)	1		6
652	(1)	10	2		10	2	27,027	1	1	1	14
512	1	0	0		0	0	7,317	(1)		1	5
312	(1)	2	1		16	4	20,280	(1)	1	1	11
904	(1)	0	0		0	0	0	(1)	1		3
062	(1)	1	1		0	0	0	(1)	1	1	5
540	(1)	4	1	(1)	6	2	0	(1)	1	1	1
615	(1)	7	2	(1)	14	3	42,415	1	1	1	14
0	(1)	0	0		3	0	0	(1)			2
145	(1)	5	1		4	1	0	(1)	1	1	9