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**CONSULTANCY REPORT ON
INFORMATION MANAGEMENT.**

For The Ministry of
Cooperatives and Marketing,
Government of Uganda

By
Kim G. Glenn

December 14, 1989

For the

**COOPERATIVE AGRICULTURE AND
AGRIBUSINESS SUPPORT (CAAS)
PROJECT**

Under USAID Contract No.
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Agricultural Cooperatives Development International (ACDI)

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Margaret Mugumbule, Assistant Cooperative Officer,
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Francis Lwanga, Computer Programmer, Uganda Cooperatives
Central Union

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1. LIST OF ACRONYMS

CAAS	-	Cooperative Agriculture and Agribusiness Support Project
ACDI	-	Agricultural Cooperative Development International
AGM	-	Annual General Meeting
ASPAP	-	Agricultural Sector Policy Agenda Programme
CHKDSK	-	Check Disk, a Disk Operating System Program for analysing conditions of harddisks
CMB	-	Coffee Marketing Board
dBASE	-	Registered trademark of Ashton-Tate, a popular database management software package for microcomputers
DOS	-	Disk Operating System, the host software for PC standard microcomputers
Lotus 123	-	A registered trademark of Lotus Development Corporation, a popular spreadsheet software package for microcomputers
MCM	-	Ministry of Cooperatives and Marketing
NCR	-	National Cash Register, Inc, a manufacturer of computers and accounting equipment
NICU	-	National Inputs Coordination Unit of the Agricultural Secretariat, Government of Uganda
RATS	-	Regression Analysis for Time Series, a statistical analysis software package developed by VAR Econometrics, Inc.
UCA	-	Uganda Cooperative Alliance
VP Planner	-	A spreadsheet software product of Paperback Software International
WordPerfect	-	A trademark of the WordPerfect Corporation

2. BACKGROUND OF ASSIGNMENT

CAAS is a multifaceted effort intended to strengthen four Ugandan institutions in three ways [see note 2 of Appendix C of this report]:

- 1) To develop the systems and structure to gather the information needed for improved policy analysis and formulation;
- 2) To improve the financial and management structure at all levels of the cooperative sector;
- 3) To assist cooperatives to diversify their operations into other agribusiness activities.

The key institutions are:

The Uganda Cooperative Alliance

- an apex organization of the entire cooperative movement in Uganda, established in 1961 [see note 3 in Appendix C of this report].

The Uganda Central Cooperative Union

- a trading organization established in 1961 designed to encourage the functions of distribution, production, manufacturing, marketing, housing, health, insurance, banking, credit and other services for its members [see note 4 of Appendix C of this report].

The Agricultural Secretariat of the Bank of Uganda

The Ministry of Cooperatives and Marketing, Government of Uganda

Obviously an important component of CAAS is to help these institutions improve their capability for managing information. This includes the use of microcomputers.

During April, May, June and July of 1989 Rick Pierce initiated work in this area. He provided basic orientation on information management to these institutions. He provided the hardware and software specifications. UCA Business Services Ltd is a subsidiary of the Uganda Cooperative Alliance. It specializes in computer hardware and software procurement, installation and application. Rick supported UCA Business Services Ltd in the

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actual procurement and installation of systems for the above institutions. He provided some basic training, and recommended further training through UCA Business Services Ltd.

The purpose of my assignment is to begin applying modern information management techniques in practical ways. We are building on the basic skills and technology now in place.

3. EXECUTIVE SUMMARY

The primary challenge now facing all institutions is to address personnel and training issues in regards to information management. Information is now the most important commodity to be managed. Information is the life blood of any organization. It flows through the body of the organization as blood flows through the body of a person. The organization's health depends on the quality of that information and the efficiency with which it flows.

Pierce emphasized repeatedly the need for Computer Systems Administrators. Other titles may include "Information Manager," "Data Processing Supervisor," or "System Supervisor." Pierce specifically recommended such a position for The Cooperative Development Department of the Ministry for Cooperatives and Marketing. This is one example [see note 5 of Appendix C of this Report].

I agree. This is the single most important recommendation that I can make. It applies to UCCU, all departments of the MCM, UCA and the CAAS Project itself. Managing information deserves professional full time attention. A trained individual must supervise and support the use of computers. Otherwise computer applications become a liability rather than an asset. Each organization must cultivate in-house resources for ongoing training and applications development.

I fully acknowledge the difficulty that accompanies the establishment of yet another staff position, especially when existing staff may be under-utilized. However, there is no other means for bringing to bear the full power of modern information management techniques. Organizations must recognize this as a valuable area of expertise and deploy personnel accordingly.

The alternative is to add responsibilities onto existing positions. This results in a shallow understanding of information management. Such individuals who gain some skill usually only apply them in isolated areas where they are held accountable. Other organizations, especially private industry, lure away these individuals, recognizing their true value.

Data stored on computers soon exceeds the value of the computers themselves. Organizations must assign responsibility to someone for managing and protecting this data.

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4. ACTIVITIES & FINDINGS

4.1 General Terms of Reference

During the first 2 weeks I developed work plans as noted in Appendix E, Terms of Reference. In some cases I began implementation of the work plans during this time.

For the remainder of the assignment I continued work according to the priorities of these work plans, and as described below.

Inevitably I was able to observe general use of computers in many areas of the CAAS Project. My recommendations have been included in section 5.1, 5.2 and 5.6. I helped install WordPerfect such that it would print correctly on A4 continuous form paper.

I met frequently, at least several times each week, with staff of UCA Business Services Ltd. We discussed problems and issues related to training, software, stock control systems, accounting systems, applications development, and hardware maintenance and servicing. I have provided recommendations regarding the type of Uninterruptible Power Supply that would be most effective in Uganda.

This report was drafted slightly ahead of schedule to permit greater time for review. I anticipate that during the last week of my assignment I will be concluding activities noted in the respective work plans discussed below.

Other duties included a number of visits to UCCU to observe data processing operations there. I assisted in drafting a proposal for continued CAAS support to the UCCU. I made one visit to the Agricultural Secretariat, National Inputs Coordination Unit to observe data processing work there and advise on backup procedures.

4.2 Cooperative Development Department Work Plan

We spent most of our time focussing on developing a Coffee Marketing Operations Report system based on Weekly Coffee Statistics submitted by individual cooperative factories. While I could have developed the system very quickly on my own, I felt it was more important to share every skill used in doing so with my counterparts. As a result, Caroline Asimo and Margaret Mugumbule, Cooperative Development Officers with whom I worked, now have significant skills and can proceed to other applications on their own.

We defined a database for this system based on a written statement of purpose. We entered data for July through October 1989. A number of reports and graphs were generated to achieve the stated purposes. See Appendix H for samples of these reports and for copies of the related documentation.

Caroline and Margaret took the initiative for beginning to enter data for the basic registration database. They have entered more than 1000 registrations. During this last week of my assignment we will be practicing the analysis, reporting and graph techniques using this data. We are also considering a set of standard codes suggested by the CAAS Project Coordinator to indicate the status of the registered society (eg. active, inactive due to security, and liquidated).

It is unlikely that we will be able to focus on any other applications.

I also provided guidance for preparing a major annual report using WordPerfect 5.0. The report is about 300 pages long. It requires advanced techniques in file management. I introduced the functions for automatic generation of tables of contents and indexes. In this way we are beginning to bring true data processing power to a wordprocessing application. This has been very useful for such a large document.

The annual report was not a part of the Work Plan, but nevertheless was a significant computer related task assigned to my counterparts.

4.3 Marketing Department Work Plan

My counterpart was Joseph Mwanja, Acting Senior Statistician. As per the Work Plan, Joseph and I designed and tested a new monthly report form for the Coffee Marketing Board. Joseph derived test data based on the CMB's Annual Report for 1986/87. We generated graphs and reports using this data. The CMB is preparing monthly reports for 1987/88 based on true data in order to further test the form and the data processing procedures. After this final testing, Joseph will propose that the form become an official report to be submitted monthly. Joseph now has the skills to see this process through on his own.

We designed similar streamlined reports for the Lint Marketing Board and the Produce Marketing Board. We felt that the Edible Oil and Soap Industry was not yet sufficiently active to provide meaningful data.

We applied the principles of information management noted in section 5.1.5 below to draft the monthly report of the entire Marketing Department to meet the specified guidelines of the Prime Minister. Based on the defined needs of this report, we determined data inputs and processing requirements.

See Appendix I for copies of these forms and sample reports from the CMB test data.

During the final week of my assignment we will be following up on CMB data processing and the Licensing Revenues Applications. We will focus on the general skills learned so that Joseph will be able to continue to develop these and other applications on his own.

4.4 Planning Unit Work Plan

As per the Work Plan I evaluated both Compran [see note 6 of Appendix C of this Report] and Harvard Project Manager [see note 7 of Appendix C of this Report]. I discussed my findings with Mr. Kaliisa.

At this time neither package can be useful in monitoring the projects currently under the Planning Units responsibility. These packages require that projects be extremely well defined by measurable objectives and specific tasks, each with an intended starting date, finishing date and resource. At this time, the projects I reviewed did not lend themselves to this type of monitoring.

These packages also require a high level of skill in managing data on the harddisk. At this time the Planning Unit does not have anyone with this level of skill.

Of the two packages, I would say the Harvard Project Manager is the most appropriate one to start with. It is written in a more general form and with a broader application in mind. Compran is much more technical and requires a clear set of material and financial inputs.

However, Harvard Project Manager is intolerably slow to run on any computers now available to the Planning Unit. To be truly effective, it should be run on an AT class computer with expanded memory.

Again, I emphasize that the projects now under consideration have not been developed and implemented in a way that lends themselves to computerized monitoring. Such projects need to first have very well-defined goals, tasks with clear durations, specific milestones and measurable resources. Use of computers in project management is not practical at this time.

This constitutes my written recommendation regarding project management software.

I also reviewed the Regression Analysis of Time Series (RATS) statistical software [see note 8 of Appendix C of this Report]. This is a highly sophisticated package which requires advanced knowledge of statistical analysis for effective use. Data currently available to the MCM does not seem adequate in quantity or quality to warrant the

heavy investment in training and expertise to use this or similar packages. Unless the user understands such phrases as "heteroscedasticity and weighted least squares", s/he will be lost using RATS. RATS uses such phrases without definition. I confess I would be lost.

A more practical approach is to begin data collection and analysis using friendlier software such as VP Planner, Lotus 123 and dBASE IV. These packages can easily prepare data for further analysis with more powerful statistical software, including RATS.

Mr. Kaliisa and I discussed in detail the Work Programme for the Planning Unit from an Information Management point of view. I will be submitting written comments to Mr. Kaliisa based on our discussions.

I also reviewed and discussed with Mr. Kaliisa the Project Profile for the Agricultural Sector Policy Agenda Programme (ASPAP). This we discussed in terms of using computers to help monitor its progress. As noted above, I do not feel the project as it is presented can be so monitored.

5. RECOMMENDATIONS

I direct all general recommendations to the following individuals:

- The General Manager of the Uganda Cooperatives Central Union;
- The Principal Planning Economist of the Planning Unit of the Ministry for Cooperatives and Marketing (MCM);
- The Acting Assistant Commissioner/Development for the Cooperative Development Department of the MCM;
- The Deputy Commissioner for the Marketing Department of the MCM;
- The Director of the National Inputs Coordination Unit, of the Agricultural Secretariat;
- The CAAS Contractor's Representative.

All references hereafter to "institution" encompass these departments and organizations. All general recommendations are applicable for the functional areas under the responsibility of each of the above named six individuals.

5.1 General Recommendations - Personnel and Training

5.1.1 Create a new position of or convert an existing position to Information Manager within your Institution.

I consider this to be my single most important recommendation. All others are relatively insignificant. I also feel this may be the hardest one to accept.

If funding is a major obstacle, I suggest that the CAAS Project consider subsidizing these positions for an initial period, perhaps one year. Institutions may also need funding for training.

Another major obstacle will be finding qualified personnel. I recommend that personnel already employed be seriously considered for the position, and then trained. See appendix F for a list of suggested minimum qualifications in the job description. See recommendation 5.12 for training considerations.

It is easier to teach the necessary information management skills to someone than to teach the complex operations of an institution. Individuals who already understand their respective institutions will be able to apply what they learn more quickly. It will also be relatively easy to cover that individual's old responsibilities with other existing personnel, or to find a qualified replacement.

Institutions may be able to gradually re-deploy data processing staff as a result of improved data processing capability.

Appointments to the position of Information Manager should include an entirely new job description. See Appendix F for a sample job description.

Develop a strategy to prevent losing these key people to other higher paying jobs. Budget for higher salaries and benefits for these positions. If possible, an increase in pay should accompany the increased responsibilities and skills. You might consider promising a pay increase on condition that training is completed successfully. Consider the true value of respect, prestige, recognition and

improved working environment. Often employees value these as much or more than increased salaries.

Make it clear that his/her primary responsibility is to supervise and support the management of information for the institution. Other secondary job functions may be filled by this individual, provided they do not prevent his/her accomplishment of information management responsibilities.

Identify a second individual in each institution to receive virtually the same training. This individual should already have a position in the institution, and would continue in that position. However, as the need arises this second individual should be able to act in the capacity of Information Manager. In this sense, the person would be an Assistant or Deputy Information Manager. Apply a strategy to recognize this individual's increased value to the institution.

Ideally, the Information Manager should hold a senior level position and report to the overall head of the Institution. In the case of the UCCU, this would mean reporting to the General Manager. In the case of the Ministry, this would mean reporting to the heads of the various departments. A strategy to gradually move towards this ideal may be most practical.

The objective is to begin cultivating expertise within each institution, and to make that expertise available throughout the institution, not just within one department. This will reduce dependency on outside consultants. It will stimulate creative application of information technology to each institution.

The objective also is to assign clear authority and responsibility to an individual for managing the important data that is beginning to be stored and processed on computers. This data soon will exceed the value of the equipment.

5.1.2 Select and train two individuals in each institution according to the following guidelines.

Obviously if recommendation 5.1.1 is accepted then primary training consideration described herein will apply to those two designated individuals. These

individuals would then provide the training to other computer users in their respective institutions, also following these guidelines. However, all individuals whose job functions now or eventually will involve significant use of computers should receive this training, either from the in-house Information Manager or from outside sources.

Training should, wherever possible, take place on the same machines the trainees will be using, and in their own office environments. This may not be possible or practical. In this case, trainers should make follow-up visits to the trainees in the trainees' own offices.

Trainers should provide a ratio of at least one computer for every three individuals.

All users should have a thorough understanding of the fundamentals of the Disk Operating System (DOS), particularly managing files on a harddisk. Operations involving directories and sub-directories, copying files from the harddisk to diskettes, and deleting files from the DOS prompt are important. All users should know how to use DOS Backup and Restore commands. Users should have an understanding of how batch files work.

Trainers should include fundamental concepts of systems analysis and design and apply these concepts through one or more standard commercial software packages. This is necessary in order to make the transition from using computers as simply wordprocessors to powerful data processors.

Trainers should orient users to all software manuals, including the Disk Operating System manual. These manuals are important resources, and much more cost effective than expensive outside consultants. Give trainees time and opportunity to study these manuals. Trainees should be encouraged and rewarded for seeking answers to their questions in the manuals first. Obviously, these manuals must be readily available to be used.

Where individuals are provided significant formal training at no cost to them, require that they sign a statement of commitment to remain in their positions

for at least one year, or to reimburse the institution for the cost of training.

Require all trainees to pass a test to demonstrate that they meet minimum requirements of the training. The trainers are responsible for developing and administering the test. The test must be consistent with explicit and written objectives of the training program.

Similarly, require all trainees to provide written feedback on the training they receive. They should indicate what areas they felt were most useful, and what areas were least useful. Ask them how they think the training could have been improved. Submit all feedback first to the trainees' immediate supervisors. Supervisors should then share it with the trainers.

I understand that a form of "computer society" is in existence in Kampala. Its objectives could lead to increased sharing of skills among users. This would reduce dependency on outside consultants. Two individuals from each institution should be encouraged to participate and support such a society. The institution should provide the funds as a training expense.

5.1.3 Standardize on WordPerfect 5.0.

WordPerfect 5.0 is the easiest and most powerful wordprocessing package available. It is already widely in use in all institutions to whom these recommendations are directed.

However, Wordstar is also installed and in use, often on the same machine. As a result, neither WordStar nor WordPerfect are being used to their full potential. Therefore I consider this to be more of a training issue than an operations issue.

There is another difficulty in running both wordprocessing software packages. Printer configurations for one package are not always compatible with those for the other.

WordPerfect can easily convert WordStar files automatically to its own format. UCA Business Services or other qualified computer technician can

assist if needed.

Sometimes a diskette is to be sent to another institution who uses WordStar. WordPerfect 5.0 can convert its own files to WordStar if needed.

Delete WordStar from all computers and force all users to work with, and learn WordPerfect 5.0. Sell all WordStar manuals and original software disks. Purchase original WordPerfect 5.0 packages where needed.

WordPerfect 5.0 is significantly more powerful than version 4.2. However, it is not critical to upgrade to 5.0 unless there is a specifically identified need. WordPerfect 5.0 will automatically convert version 4.2 files to 5.0 upon retrieval. Files created or modified with 5.0 can be saved as version 4.2 documents by using CTRL F5 option 4.

5.1.4 Secure all original software disks and manuals for your institution.

Original software packages are valuable. Keep disks in a safe place. This place should be cool and dry. Assign someone with responsibility for keeping them.

If for some reason your software files on your harddisks are damaged or lost, you will need these original disks to re-install the software. Sometimes these disks contain valuable utility programs for advanced applications.

Manuals are essential in order to continue developing your computer skills. As a general policy, no software should be on a computer unless an original manual and disk for that software is immediately at hand.

Sometimes software is illegally copied onto a computer for a trial basis. If you feel the software is worth using, purchase an original package. This will provide you with the most up-to-date version of the software on an original disk, and an original manual. Otherwise, erase the software from your disks and harddisk.

5.1.5 Apply the following principles of information management to reporting procedures within your institutions.

Fundamental information management principles apply regardless of whether computers are used or not. Use the following principles for more efficient flow of better quality information.

- First determine your primary function within the institution. Focus on generating information that supports only that function. Consider secondary functions at a later time, when you are satisfied that your primary information needs are met.
- Collect only data that is needed to produce the needed information. Do not collect data simply because it is of casual interest, or might be needed later. This is wasteful and leads to information overload.
- Structure all reports like a pyramid. At the apex place an Executive Summary. This summary should be no more than one page long. It should contain all essential information, such that the purpose of the report can be achieved by reading this summary alone. The second layer of the pyramid should provide details to support the Executive Summary. The bottom layer of the pyramid should contain background information, or information of secondary importance.
- Reports should contain primarily information that will lead to or support a decision, recommendation, or action on the part of the reader. All other information should be avoided, or placed in a section clearly marked as "background information" (the bottom layer of the pyramid.)

5.1.6 Provide follow-up visit by a qualified Information Management Consultant

During this visit I worked primarily with the Ministry of Cooperatives and Marketing. A follow-up visit to the Ministry will be valuable to reinforce skills learned during this visit, and to introduce new

concepts and skills as may be appropriate. This will be particularly true if these institutions accept my recommendation 5.1.1.

The Uganda Cooperatives Central Union received little attention from me during this assignment. There is great opportunity there to introduce important applications of modern information technology. The hardware is in place and there are significant basic skills available among personnel there. Payroll and stock control applications will be an important next step in developing vastly improved information management capability.

See Appendix G for suggested terms of reference.

5.2 General Recommendations on Operational Issues

5.2.1 Standardize on 3.5" disks and disk drives.

There is now no reason to attempt to use both 3.5" disk and 5.25" disks. Software is universally available on 3.5" disks. Laptop and portable computers now all use 3.5" drives as a standard. If necessary you can easily convert files from 5.25" to 3.5" disks on one machine designated for this purpose. UCA Business Services, Ltd. can provide conversion services as needed.

There are several disadvantages to continuing to use 5.25" disks. 5.25" disks are far less reliable than 3.5" disks. They also hold only 1/2 the data. As skills increase, transfer of data from one machine to another will become more important. Accept one standard to facilitate this integration.

Copy all important information from 5.25" disks onto the harddisk. Remove all 5.25" drives and replace them with 3.5" drives. Then, backup important information and software from the harddisk onto 3.5" disks and label them appropriately. Sell or discard all old 5.25" disks.

Support for this process may be provided by a qualified computer resource, such as UCA Business Services, Ltd.

5.2.2 Provide 2 hour minimum backup power supplies to critical computer systems.

Determine which computer systems are critical. Job functions and data processing tasks which are important cannot be delayed due to frequent and extensive power outages. Such delays cost an institution significantly in lost productivity. These losses exceed the costs of even the most expensive backup power supply.

These critical computer systems should have backup power supplies that will permit continued operations for at least two hours during a power outage. I suggest that at least one computer system in each institution should be considered critical.

Other systems should have a 10 minute backup power supply to permit safe conservation of data. This protection also helps preserve harddisk integrity. Computers can be operated safely without backup power, but users must save their work frequently to disk and recognize the risk of interrupted processing during printing of long reports or other lengthy processing. Files stored on a harddisk where there is no backup power protection are subject to contamination and loss at any time.

5.2.3 Use Dust Covers on All Equipment.

Dust is a serious enemy to electronic equipment. It is slightly acidic and can corrode electronic components. By clogging vents it can lead to overheating.

If they are not already in use, begin using dust covers regularly. They do not need to be fancy plastic fitted covers. Cloth covers are adequate provided you shake them out regularly. Shake them outside, not in the room where the computers are located. Cover printers, monitors and system units.

Even with the use of dust covers, all machines should be cleaned internally on a quarterly basis. UCA Business Services Ltd can do this. Users can be trained to do this themselves.

5.2.4 Shade all windows in rooms where computers are used.

Glare on computer screens leads to eye strain and errors.

Ideally, provide curtains in all rooms where computers are installed. You should be able to close these curtains to block out light.

If you cannot provide curtains, block the windows with paper or other material to reduce direct light. Consider moving the position of the computer so that bright lights from windows are not shining directly onto monitors.

5.2.5 Park harddisks before turning off computers.

Harddisks can be damaged if they are not "parked" before turning off the computer. It is like turning off a record player and leaving the arm resting on the record. Eventually the needle may leave a worn spot on the record. If the record player is moved while the arm is resting on the record, the record will be scratched.

The analogy is not precisely correct. However, it is sufficiently correct to illustrate the need for parking the harddisk. This positions the harddisk head in a safe area. It helps prevent deterioration of the harddisk. It also prevents damage should you bump or move the computer.

Incidentally, never move a computer while it is turned on unless you park the harddisk first.

I have placed the "park" operation on most menus. I have discussed the procedure with UCA Business Services and they have agreed.

5.2.6 Run CHKDSK each time the computer is turned on.

CHKDSK will analyze the condition of your harddisk and display the results. If the results show "lost clusters" notify UCA Business Services Ltd or other qualified computer technician. Lost clusters may indicate serious deterioration of your harddisk, or contamination of software or data files.

In consultation with engineers at UCA Business Services Ltd I have included CHKDSK in the start-up routines of most computers in your institutions. You need take no action. If you acquire a new computer, request that this operation be installed for automatic execution each time the computer is turned on.

5.2.7 Seek Improved Electrical Environment

Computers and the data processing to which they are being applied now represent a significant investment for institutions using Farmers House. Costs related to lost data processing time, and damage to computer equipment will increase with the value of the data processing applications as they are developed.

The current power environment of Farmers House is a costly liability for electronic information management. Raise this issue with the management of Farmers House. If improvements are not feasible, consider alternatives that may be more cost effective. Develop a strategy to protect data processing systems.

Budget for costs that may be related to the poor power environment. Consider budgeting a standard figure of 25% of the purchase price per computer system for maintenance and repair each year under current conditions. Even under good power conditions, annual repair and maintenance budgets should be based on between 5 and 10% of the purchase price of computer equipment. For example, if one system, consisting of Power Backup Unit, Monitor, System Unit and printer cost a total of US\$5,000 then budget \$1,250 for repairs and maintenance during a single year. Under better power conditions, budget between \$250 and \$500 for repairs and maintenance in a single year.

5.3 Recommendations specifically to the Acting Assistant Commissioner/Development for the Cooperative Development Department of the MCM;

5.3.1 Manuals for dBASE IV

Secure a full set of original manuals for dBASE IV. Place them in Room 321 for reference by users of that computer system. [See note 9 in Appendix C of this Report for complete software reference.]

5.3.2 Training

Provide Caroline Asimo and Margaret Mugumbule with training in DOS and dBASE IV consistent with the guidelines presented in item 5.1.2. They are both already proficient in the use of WordPerfect 5.0 and VP Planner [See note 9 in Appendix C of this report for complete software references].

5.4 Recommendations specifically for Deputy Commissioner for the Marketing Department of the MCM;

5.4.1 Manuals for dBASE IV

Secure a full set of original manuals for dBASE IV. Place them with the other manuals in room 214 for use by anyone using the computer there.

5.4.2 Training

During my assignment here I worked closely with Joseph Mwanja, Acting Senior Statistician. He has gained considerable skill in using VP Planner, dBASE IV, and WordPerfect 5.0. Provide him with further training in DOS and dBASE IV consistent with the guidelines in item 5.1.2.

Provide Mwanja with a directive and opportunity to learn touch typing. He should reach an effective rate of at least 25 words per minute within three months. This he can do using the computer based typing tutor installed on the Department's computer. He can also use outside training resources if available. He is seriously handicapped in using the computer without this basic keyboard skill.

Select a second person in the Department to receive training in DOS, WordPerfect 5.0, dBASE IV and VP Planner according the guidelines in item 5.1.2 above.

Insure that two people are assigned to work with any future information management consultant. In this way, should one fall ill, be transferred, or be lured away from his position, the skills will remain available to the department.

5.5 Recommendations to the Uganda Cooperatives Central Union

5.5.1 Adopt recommendation 5.1.1 in preparation for follow-up visit.

A full time Information Manager as described in 5.1.1 above is important to take full advantage of future information management consulting visits.

Even if such a position cannot be created at this time, two individuals should be designated as the primary counterparts for the consultant.

5.5.2 Payroll Application

Immediately authorize and support Francis Lwanga and his colleagues to develop a simple spreadsheet application in VP Planner to perform a part of the payroll processing. The use of the old NCR accounting machines is appallingly inefficient in comparison to a very simple microcomputer application. The current payroll processing being done on the NCR machines does not require a sophisticated microcomputer application. It is well within the capability of skills now available in UCCU to develop a simple spreadsheet that can perform some or all of the payroll processing done on the NCR machines.

Later, a more sophisticated payroll application may be appropriate which can be integrated with the Hogia or other accounting application on the microcomputer. However, the opportunity to gain experience in using spreadsheets and to immediately benefit from their application should not be passed up.

Do not discontinue use of the NCR machines until all relevant personnel are confident in the spreadsheet application. I believe this confidence will be earned very soon.

(Note: I have already discussed this recommendation with the Chief Accountant and with Francis Lwanga. It has their support. I place it here for the record.)

5.5.3 Develop Stock Control Application

Stock control is the most important application to

develop next using modern information technology. Before proceeding, consider carefully whether a full featured, packaged software application (such as SCALA) is appropriate. It is possible that the system would be better developed in dBASE IV or similar database management system. Analyze this issue carefully before proceeding.

Stock control can be integrated into payroll and accounting software. However, this may cause more difficulty than it is worth at this time.

Consider the option of developing a very quick and easy application for stock control to gain experience and to test concepts. Accept the fact that after only a year or so you may want to develop an entirely new application based on what you have learned during the initial experience.

This could be a primary area of focus for a follow-up information management consultant. See recommendation 5.1.6 and Appendix G terms of reference.

5.6 Recommendations to the CAAS Contractor's Representative

5.6.1 Provide for Laptop Interface.

Many consultants assigned as part of the CAAS Project may bring their own laptop computer. This is a significant advantage to everyone.

Secure two sets of Brooklyn Bridge or LapLink. Keep one at the CAAS offices and one at the Mbuya Flats office. These packages include software and a sophisticated cable that can permit the easy transfer of data from any laptop computer to any desktop computer. This will remove all concern over disk drive incompatibilities.

5.6.2 Install a modem in at least one computer.

I have heard from two independent sources that direct distance dialing from Uganda may soon be available (within the next few weeks). This will make the use of modems practical for facilitating communications between Uganda and other countries, such as the USA.

In preparation for taking advantage of computer mediated communications capabilities, test the use of a modem for direct computer to computer links with the US. An inexpensive modem for test purposes would cost in the range of US\$300.

Recommend to ACDI Washington that they do the same.

6. APPENDICES

by Kim G. Glenn for ACDI - Uganda

Appendix A List of Individuals Interviewed

Ministry for Cooperatives and Marketing

Cooperative Development

Acting Assistant Commissioner for Cooperative
Development, John Kabubi

Assistant Cooperative Officer, Caroline Asimo

Assistant Cooperative Officer, Margaret Mugumbulo

Marketing Department

Acting Senior Statistician, Joseph Mwanja

Planning Unit

Principal Planning Economist, M. A. Kaliisa

Uganda Cooperative Alliance Business Services Ltd.

General Manager, Olle Otteby

Computer Manager, A. Makata

Uganda Cooperative Central Union

General Manager, William Okoroi

Chief Accountant, Y. Ococh

Chief Internal Auditor, Andrew Mbangi

Production Manager, Henry Onaba

Computer Programmer, Francis Lwanga

CAAS Advisors

Contractor's Representative and UCA Advisor, Thomas Carr

UCCU Input Advisor, Bill Verner

PL-480 Monetization Specialist, Ron Shaw

by Kim G. Glenn for ACDI - Uganda

Appendix B List of Locations Visited

The following organizations were all located at Farmers House, Parliament Avenue, Kampala:

Uganda Cooperative Alliance Business Services, Ltd.

Ministry of Cooperatives and Marketing (all Departments with whom I worked)

CAAS Project Offices

Other Locations:

Agricultural Secretariat, Bank of Uganda
Old Building, Kampala Road, Kampala

Uganda Cooperative Central Union
East African Development Bank Bldg, 4th Floor
Kampala Road, Kampala

Appendix C List of Reference Reports and Publications

- [1] Consultancy Report on Management Information Systems Assessment for the Cooperative Agriculture and Agribusiness Project, by Rick Pierce, for Agricultural Cooperative Development International, Inc. 50 F. Street, N.W. Suite 900, Washington, DC. 20001. July 1989.
- [2] Cooperative Agriculture Agribusiness Support Project (CAAS) Technical Proposal, RFP No. Uganda-88-001 by ACDI and Ronco Consulting Corporation. August, 1988. Page 8 "B. CAAS Implementation Plan".
- [3] A History of the Uganda Cooperative Movement, 1913 - 1988, by A. R. Kyamulesire, C.S.D. copyright 1988 by the Uganda Cooperative Alliance. Page 186.
- [4] Kyamulesire, page 168.
- [5] Pierce, page 49.
- [6] Compran: The Project Analysis Package for Developing Countries. The Ohio State University, Dept. of Agricultural Economics & Rural Sociology. Columbus, Ohio. Copyright 1985
- [7] Harvard Project Manager (tm) version 3.0, Software Publishing Corporation, P.O. Box 7210, 1901 Landings Drive., Mountain View, CA 94039-7210
- [8] Regression Analysis of Time Series version 3.00. VAR Econometrics Inc., 1800 Sherman Avenue, Suite #612, Evanston, IL 60201, Tel 312-864-8772. Copyright by VAR Econometrics Inc., author Thomas Doran.
- [9] Software references:

dBASE IV is a registered trademark of Ashton-Tate, 2010 Hamilton Avenue, Torrance, CA 90502-1319.

WordPerfect is a trademark of the WordPerfect Corporation, 288 West Center Street, Orem, Utah 84057.

Lotus 1-2-3 is a trademark of the Lotus Development Corporation, Boston, MA.

VP Planner is a spreadsheet software product of Paperback Software International, 2830 Ninth Street, Berkeley, CA 94710.

**Appendix D Original Terms of Reference for this Assignment
(From Appendix F of Consultancy Report by Pierce, July/89)**

Terms of Reference - Computer Development Specialist/Coordinator

Length of Consultancy: 3 months

1. Work with the Uganda Central Cooperative Union and the UCA/Business Services, Ltd. subsidiary to:
 - a. Review the current stage of development regarding the Hogia general ledger accounting system and the inventory/stock control system, and make recommendations.
 - b. Perform a complete review and make recommendations for streamlining the procedural flow of information within the organization, including the inventory/stock control system, the accounting system, and other internal reporting, from the source documents to the final MIS reports.
 - c. Prioritize and make recommendations regarding the assignment of computer program development of the UCCU. Work with UCA - Business Services Ltd. in the initiation of development of those programs identified in the recent MIS needs assessment.
 - d. Evaluate specific staff computer training requirements to support the proposed MIS.
2. Coordinate and supervise the activities of the Computer Systems Analyst/Programmer working with the Agricultural Secretariat/NICU.
3. Coordinate the activities of the computer program development necessary in the MCM/Marketing Department, MCM/Cooperative Development Department, and MCM Planning Unit, working with UCA's Business Services Ltd. to insure that computer development is initiated.
4. Prepare a brief written description of accomplishments.
5. Other duties that may be assigned by the team leader, CAAS Project, which are consistent with the overall scope of this assignment.

by Kim G. Glenn for ACDI - Uganda

Appendix E Terms of Reference

I arrived on 1 November and am scheduled to leave on 20 December, '89.

The original terms of reference for this assignment were drafted by Rick Pierce. He included them in Appendix F of his Consultancy Report dated July 1989 [see note 1 in Appendix C of this report]. See Appendix D of this report for a copy of this document.

The CAAS Contractor's Representative, Thomas H. Carr, and myself agreed to the following revised terms of reference on 7 November '89. Signed original copies are on file at the CAAS office, Kampala.

1. Identify one or two achievable data processing applications or related activities (within the time frame of this assignment) for each of the following departments of the Ministry of Cooperatives and Marketing (in order of priority):

Cooperative Development
Marketing
Planning

2. On approval from the Team Leader and the appropriate representatives of the respective departments, work toward the achievement of the selected applications or activities. This will constitute the work plan, and will be documented in the final Consultancy Report.
3. Observe general operations and use of the computer systems throughout the CAAS project and submit recommendations for their optimization. These recommendations will be included in the final Consultancy Report.
4. Provide support as needed to Uganda Cooperative Alliance, Business Services Ltd. in regards to computer hardware installations, servicing and applications development.
5. Submit a draft Consultancy Report one week prior to departure from Uganda to the CAAS Team Leader. If time permits, finalize the report prior to departure.
6. Perform other duties that may be assigned by the CAAS Project Team Leader which are consistent with the overall scope of this assignment.

by Kim G. Glenn for ACDI - Uganda

Cooperative Development Department Work Plan

1. Develop and implement a Coffee Marketing Operations Report systems based on Weekly Coffee Statistics submitted by individual factories, or on monthly consolidated statistics submitted by District Unions. System reports will include monthly, quarterly and annual consolidated figures for coffee purchased, processed and sold to the CMB by grade and type. System will be capable of breaking down figures by district. Estimated time frame, six sessions, 1/2 day each.
2. Develop report and graph capability for current registration database file containing basic information only. Reports and graphs will include analysis by type of society, by district and nationally. It will also include analysis of total number of societies by district. Estimated time frame: six 1/2 day sessions.
3. Time permitting, design report(s) based on current database file now being used for monitoring CV information on Union Committee Members. Estimated time frame: two 1/2 day sessions.
4. Time permitting, help initiate process for developing a similar system to item #1 above for Cotton industry. Estimated time frame: two 1/2 day sessions.
5. Time permitting, review the current grading system and offer suggestions for its improvement. Estimated time frame: two 1/2 day sessions.

NOTE: *I worked directly with Caroline Asimo and Margaret Mugumbule, Assistant Cooperative Officers, in the drafting and accomplishment of this Work Plan. John Kabubi, Acting Assistant Commissioner for Cooperative Development approved the Work Plan. A signed copy is on file at the CAAS Project office, Kampala.*

Marketing Department Work Plan

1. **Monthly Reporting from Coffee Marketing Board [Weeks 1&2]**
Design CMB Monthly Report
Conduct deep analysis of test data
Develop standard report application, including graphs
2. **Monthly Reports for other Marketing Boards [Week 3]**
Draft Monthly Reports similar to CMB Report, for all other boards including Produce Marketing Board, Lint Marketing Board and Edible Oil and Soap Industry.
3. **Licensing Revenues Application [Week 3 & 4]**
Develop Licensing Revenues application, to monitor existing licensing revenues and project future revenues.
4. **Other Objectives, Time Permitting [Week 4]**
Conduct deep analysis of test data and develop standard report applications, including graphs, for the three boards mentioned in item 2 above.

NOTE: *I worked directly with Joseph Mwanja, Acting Senior Statistician, in the drafting and accomplishment of this Work Plan. Emmanuel Busingye, Deputy Commissioner for Marketing, approved the Work Plan. A signed copy is on file at the CAAS Project office, Kampala.*

Planning Unit Work Plan

The Planning Unit has a lot of work to do during this time period. Therefore, this Work Plan is more limited compared with Plans for other Departments in the Ministry.

1. Evaluate both Harvard Project Manager and Compran project management software packages. Rate them for ease of learning, ease of use, and appropriateness for the type of projects being managed, or to be managed by the Planning Unit. Estimated time frame: Four 1/2 day sessions.

Recommend which package should be first used by the Planning Unit.

2. Review in detail the Work Programme for the Planning Unit Ministry of Cooperatives and Marketing, for the Financial Year 1989/90. A copy has been provided by Mr. Kaliisa. Estimated time frame: 1/4 day.
3. Review in detail the draft of the Project Profile for the Agricultural Sector Policy Agenda Programme (ASPAP) as submitted by Mr. Kaliisa. Estimated time frame: 1/4 day.
4. To whatever extent is practical and useful, begin implementation of the project management system using the software recommended in item 1 above. Estimated time frame: two 1/2 day sessions.
5. Draft a written set of recommendations for the Planning Unit in the use of project management software for the future. Estimated time frame: one 1/2 day session.
6. Time permitting, train the Planning Unit staff in the use of WordPerfect for effective quarterly report preparation.

NOTE: *I worked directly with M. A. Kaliisa, Principal Planning Economist, in the drafting of this Work Plan. He approved the Work Plan. A signed copy is on file at the CAAS Project office, Kampala.*

Appendix F Sample Job Description - Information Manager

Reports to Deputy Commissioner, General Manager, or similar position. The Information Manager should be a senior level position in an institution, or ministerial department.

May supervise an Assistant Information Manager. Needs no clerical staff. Depending on scope of data processing operations may have additional subordinates (such as data entry operators and programmers). Most data entry should be done by the departments for whom the data is being entered (eg accounting data should be entered by accounting clerks.)

Minimum Qualifications:

Experience with administrative systems, not necessarily computerized systems;

Ability to type at least 25 words per minute with reasonable accuracy;

Aptitude for math, such as in bookkeeping;

Good problems solving skills;

Read and write English proficiently;

Demonstrated ability to teach others.

Desirable Qualifications and/or training goals:

Advanced skills and understanding of microcomputer operations, including Disk Operating System;

Advanced skills and understanding in WordPerfect 5.0, dBASE IV, Lotus 123 or VP Planner or an equivalent spreadsheet package;

Demonstrated ability to analyze a manual data processing system and develop an efficient computerized system;

Demonstrated ability to teach others fundamental information management skills and concepts;

Formal education and practical experience in applied systems theory.

Responsibilities:

Protect all data, whether stored in computers, on computer media such as diskettes, or in traditional paper format, from unintentional loss or contamination;

Regularly review and assess the information needs of the organization in the context of the function of each department;

Monitor the flow of all data and information within the organization and seek to improve its quality and timeliness;

Review all data being stored, both on computer media and in traditional files, and recommend schedule for archiving or destroying it;

Develop or supervise the development of new data processing systems as they are identified;

Maintain a registry of all forms used by the organization, describing their use, origin and destination;

Review and submit recommendations on any new form being proposed for use in the organization;

Supervise the use of any computer system on which a critical data processing application is being run;

Make all necessary arrangements to maintain and repair computer equipment in a cost effective manner;

Submit a monthly written report to your supervisor on the state of information management in the organization;

Perform other such duties as may be assigned by your supervisor from time to time that are related to the management of information.

Appendix G Terms of Reference - Follow-up Visit

1. Investigate stock control data processing needs of the Uganda Cooperatives Central Union. Draft written specifications. Recommend software/hardware and resources for computerizing stock control system. Include estimate of costs. Investigate feasibility and recommend action regarding linking stock control data processing to accounting. If time permits and UCCU management approves, initiate implementation.
2. Investigate and streamline paper flow for all business activities of UCCU.
3. Investigate Personnel and Training issues to improve data processing reliability and capability. Address the issues of accountability and responsibility for data processing. Draft written specifications for information management in support of organizational development. If time permits and UCCU management approves, initiate implementation.
4. Review all UCCU computer installations and provide written recommendations (if any) to improve protection against heat, dust, humidity, power fluctuations and contamination of data.
5. No later than 7 days prior to departure submit to UCCU General Manager and CAAS Contractor's Representative written report on activities performed and final recommendations.
6. Perform any other duties assigned by the CAAS Contractor's Representative which fall within the general context of these terms of reference, including support to the Ministry of Cooperatives and Marketing.

**Appendix H Sample Documentation Cooperative Development Dept.
MINISTRY OF COOPERATIVES AND MARKETING**

by Kim G. Glenn for ACDI - Uganda

COFFEE MARKETING OPERATIONS INFORMATION SYSTEM
November 10, 1989

STATEMENT OF PURPOSE:

To identify which cooperatives should receive assistance from the Ministry and from the Government in general. Assistance includes crop financing, training and technical support. Cooperatives which process relatively larger amounts of coffee would be more likely to receive crop financing assistance. Smaller processors would receive more technical support and training.

To identify problem areas on the factory level or District Union level in the processing of coffee. For example, if stocks increase significantly, this may indicate a problem with transport to the District Unions and the CMB.

To calculate total coffee production and processing on a month by month and year by year basis, at the factory and District levels for the information of and incentive of the farmers and District Unions.

SYSTEM INPUTS:

From the Weekly Coffee Statistics reports of the individual coffee processing cooperative factories. These reports are collected by the District Unions and submitted to the Ministry's Commissioner for Cooperative Development, District Agricultural Officer (of the Ministry of Agriculture), and the District Cooperative Officer (of the Ministry for Cooperatives and Marketing, Development Department.)

Account Number, assigned by District Union.

Week ending, day/month/year.

Factory Name.

District Name.

District Union Name.

Season, year to year (yy/yy)

Robusta Kiboko Coffee Purchased in Kgs.

Robusta Rough Hulled Coffee Purchased in Kgs.

Arabica Kiboko Coffee Purchased in Kgs.

Arabica Rough Hulled Coffee Purchased in Kgs.

Fair Average Quality Robusta Coffee processed in
Metric Tons.

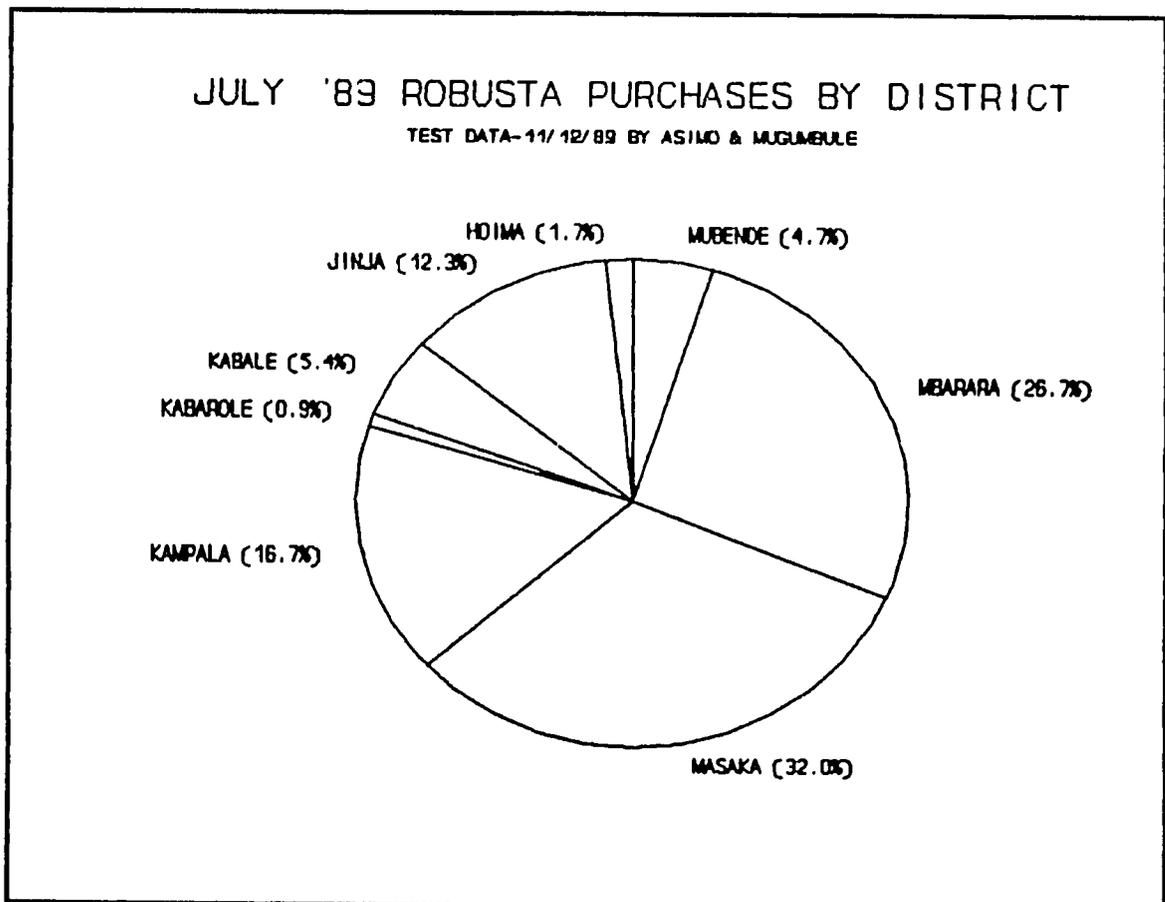
Grade 10 Arabica processed in Metric Tons.

Grade 20 Arabica processed in Metric Tons.

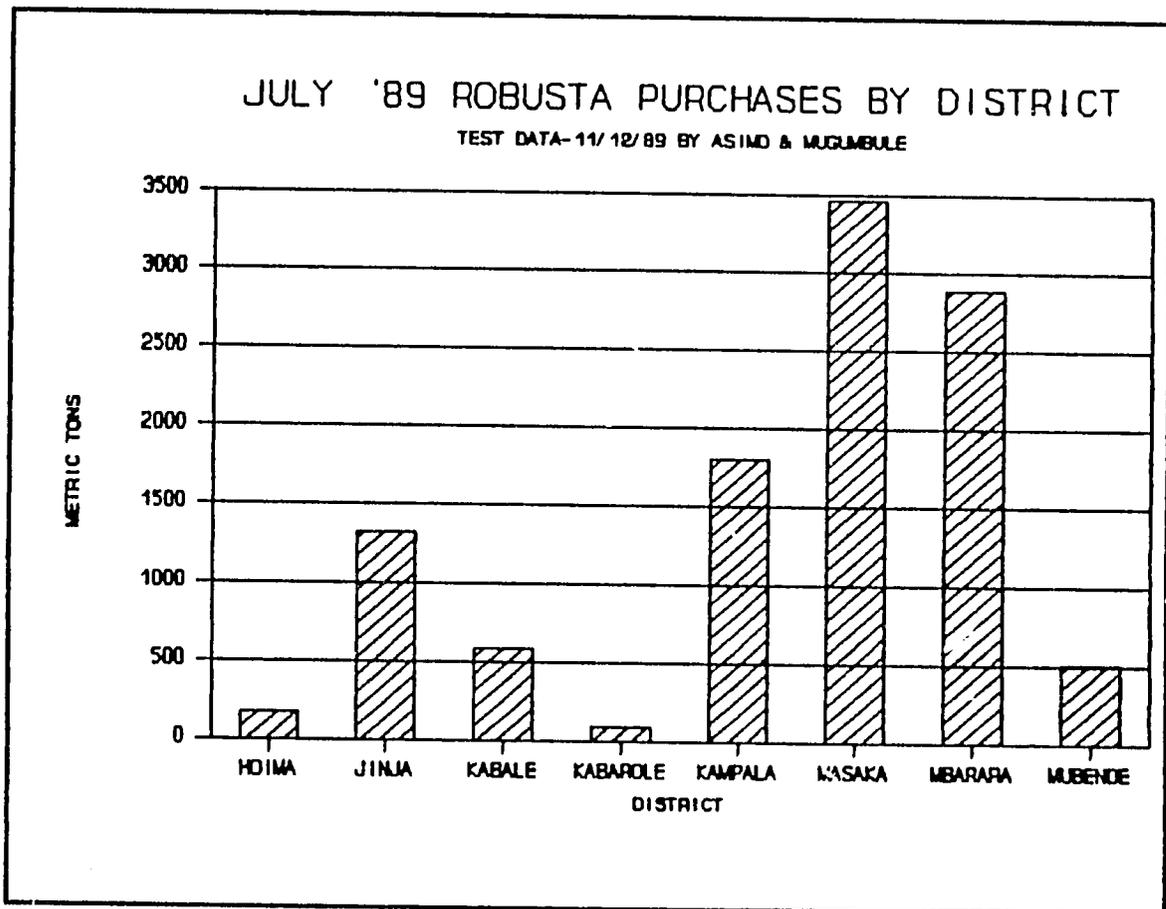
Fair Average Quality Robusta Coffee sold to CMB in
Metric Tons.

Grade 10 Arabica sold to CMB in Metric Tons.

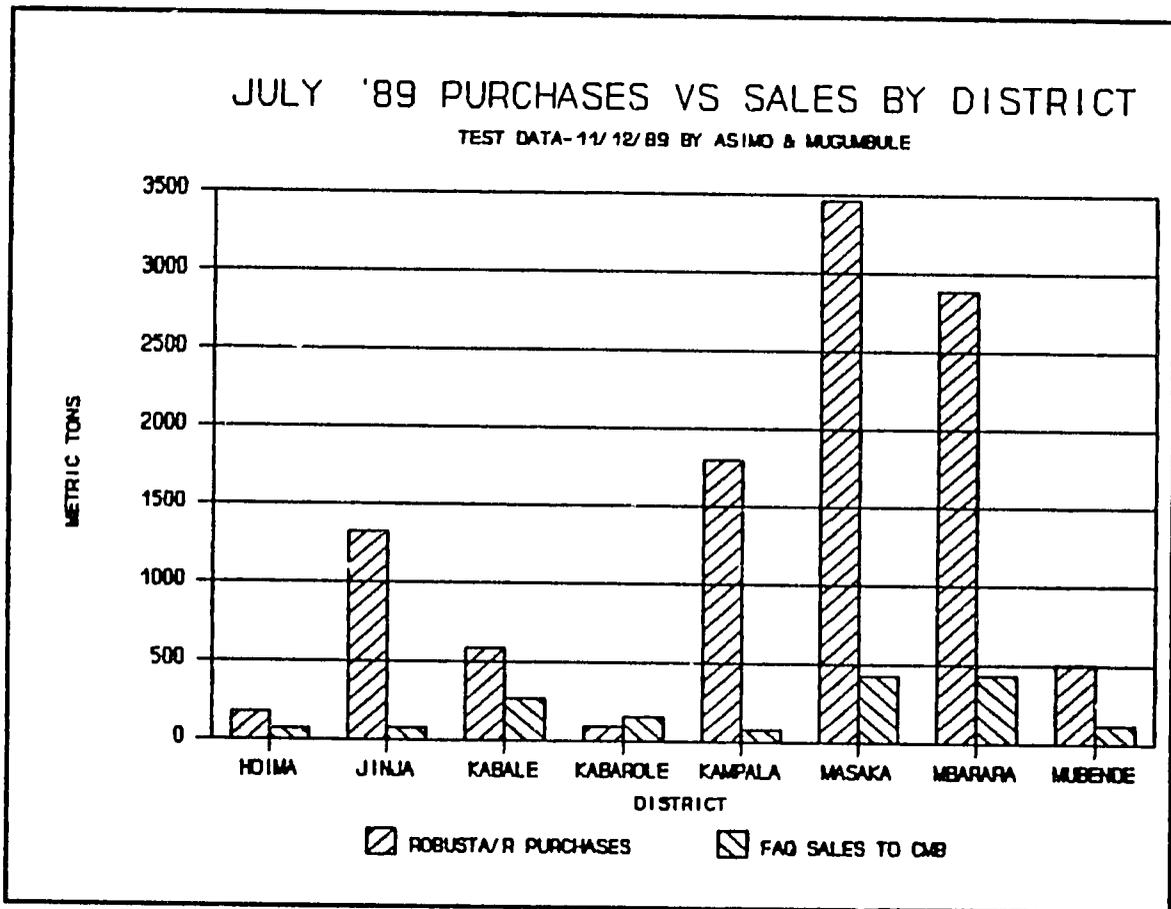
Grade 20 Arabica sold to CMB in Metric Tons.



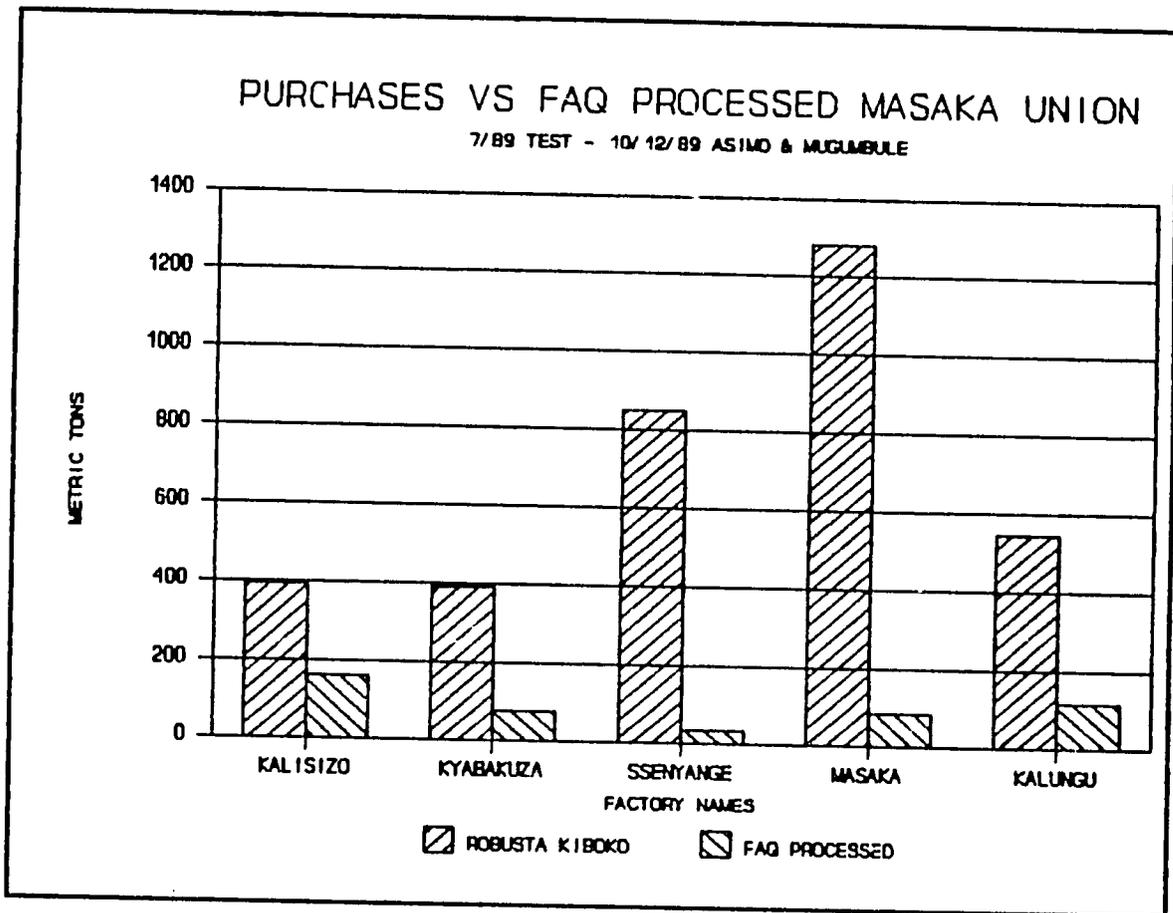
by Kim G. Glenn for ACDI - Uganda



by Kim G. Glenn for ACDI - Uganda



by Kim G. Glenn for ACDI - Uganda



by Kim G. Glenn for ACDI - Uganda

**Appendix I Sample Documentation from the Marketing Department
MINISTRY OF COOPERATIVES AND MARKETING**

by Kim G. Glenn for ACDI - Uganda

MONTHLY REPORT (OUTLINE)

(draft 2/12/89 by J. Mwanja & K. Glenn)

1. EXECUTIVE SUMMARY (one page)
 - A. General Comments on marketing activities:-
 - (1) One Major accomplishment (positive point)
 - (2) One Major problem experienced during the month (negative point)
 - B. Summary of Achievements:-
 - (1) Total number of licenses and revenue
 - (2) Staff position
 - a. Total Vacancies at end of month
 - b. Total new Employees hired during month
 - c. Total losses of employees during month
 - (3) Marketing Boards
 - a. PMB - one statement highlighting comparison of open market price vs PMB minimum price. Eg "No significant difference between PMB minimum price and open market price." Or, "Groundnut open market price is 15% higher than PMB minimum price."
 - b. CMB - total potential revenue assuming full ICO price received for all coffee exports this month.
 - c. LMB - total potential revenue received assuming full COI price received for all Lint exports (if any) this month.

{ends one page Executive Summary}

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{begins main body of the report}

2. GENERAL COMMENTS ON MARKETING ACTIVITIES. - Expand briefly on Executive Summary points 1.A.(1) and (2).
3. DETAILED ACHIEVEMENTS.
 - A. Licence operations and market surveys.
 - (1) Stacked bar graph of the number of each type of licence - by Regions.
 - (2) Stacked bar graph of Revenue from each type of licence by regions.
 - (3) Comparative bar graph of minimum prices of PMB - controlled produce versus their Kampala open market prices.
 - (4) Prices of other key food crops in Kampala (as reported by various agencies to be identified by Mwanja and approved by the Commissioner.)
Eg. Matoke, Pineapple, Cassava, Sweet Potato, Passion Fruits.
 - B. Major Achievements by each of the 3 divisions of the Department during the month (one page each maximum prepared by the head of each division, submitted to the Commissioner no later than the last business day of the month.)
 - (1) Licensing and Field Operations
 - (2) Commodity Analysis
 - (3) Statistics and Research
 - C. Marketing Boards:-
 - (1) Coffee Marketing Board
 - a. Total exports for robusta and arabica vs monthly target.
 - b. ICO indicator price for robusta and arabica.
 - c. Stock position of processed coffee at end

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of the month.

(2) Lint Marketing Board:-

- a. Cotton purchases
- b. Cotton sales (exports and local sales).
- c. Stock at end of month.
- d. Cotton outlook indicator price US cents\lb. CIF Europe.
- e. Quantity of cotton seeds in stock.

(3) Produce Marketing Board:-

- a. Total monthly purchases in kilograms of the following crops:-
maize, beans, simsim, g/nuts and soybeans.
- b. Total local sales for each of the above crops in kilograms of the above crops.
- c. Total exports for each of the above crops in kilograms.
- d. Stock position for each crop in Kilograms.
- e. Comparative Bar Graphs of Current international market price of the above crops versus Kampala open market price in US cents\Kg.
- f. Out of total PMB storage capacity, what per cent is in use?

4. Problems left over.

A. The 3 Departmental Divisions.

- (1) Licensing and Field Operations
- (2) Commodity Analysis
- (3) Statistics and Research

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B. Marketing Boards.

- (1) Coffee Marketing Board
- (2) Produce Marketing Board
- (3) Lint Marketing Board

5. Future plans (next month)

A. - B. as in case of (4) above.

For: Ag.COMMISSIONER FOR MARKETING

by Kim G. Glenn for ACDI - Uganda

Monthly Reporting from Coffee Marketing Board

System Application Notes

November 10, 1989

Statement of Purpose (system output):

To project Government revenues from Coffee Production and Sales.

System Inputs:

· Monthly coffee production (delivered to the CMB, and to the Bugisu Union before processing), total processed for Export, total processed for local sales, stock position of processed coffee, breakdown by type of coffee (robusta, arabica). Monthly International Coffee Organization (ICO) prices for each type. Total Government expenditures for coffee processing and marketing by month.

Source Documents for above Inputs:

Monthly report from the CMB.

**CMB MONTHLY REPORT
TO THE MINISTRY OF COOPERATIVES AND MARKETING**

This report must be submitted to the Minister for Cooperatives and Marketing by the fifteenth day of the following month, for the attention of the Commissioner of Marketing.

All units in 60 KG Bags/for ICO prices in US Dollars.

Report for the Month of: _____ Year: _____

{write in the months} _____

	Previous Month	Current Month
DESCRIPTION		
ROBUSTA RECEIVED	<input type="checkbox"/>	<input type="checkbox"/>
R/ PROCESSED	<input type="checkbox"/>	<input type="checkbox"/>
R/ EXPORTED	<input type="checkbox"/>	<input type="checkbox"/>
R/ EXP. TARGET		
R/ LOCAL SALES	<input type="checkbox"/>	<input type="checkbox"/>
R/STOCK POSITION	<input type="checkbox"/>	<input type="checkbox"/>
CMB EXPENDITURE	<input type="checkbox"/>	<input type="checkbox"/>
ICO INDIC.PRICES	<input type="checkbox"/>	<input type="checkbox"/>
ARABICA RECEIVED	<input type="checkbox"/>	<input type="checkbox"/>
A/ EXPORTED	<input type="checkbox"/>	<input type="checkbox"/>
A/ EXP. TARGET		
A/ LOCAL SALES	<input type="checkbox"/>	<input type="checkbox"/>
A/STOCK POSITION	<input type="checkbox"/>	<input type="checkbox"/>
ICO INDIC.PRICES	<input type="checkbox"/>	<input type="checkbox"/>

Enter all final figures available, and tick the small boxes to indicate that these are final figures. Enter all remaining provisional figures available, but do not tick the small boxes.

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Remarks: _____

Describe briefly problems left unresolved from the previous month and plans for next month. Use separate paper.

Signature Chairman/Manager _____ Date: _____

PMB MONTHLY REPORT TO THE
MINISTRY OF COOPERATIVES AND
MARKETING

This report must be submitted to the Minister for Cooperatives and Marketing by the fifteenth day of the following month, for the attention of the Commissioner of Marketing.

Please specify all currencies and units being reported.

Report for the Month of: _____ Year: _____

Enter all final figures available, and tick the small boxes to indicate that these are final figures. Enter all remaining provisional figures available, but do not tick the small boxes.

1. Current Month _____

Crop	Total Purchases	Total Local Sales	Total Exports	Stock* Position
MIXED MAIZE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WHITE MAIZE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GROUNDNUTS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MIXED BEANS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
O/COLOR BEAN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SIMSIM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SOYA BEANS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

by Kim G. Glenn for ACDI - Uganda

2. Previous Month _____

Crop	Total Purchases	Total Local Sales	Total Exports	Stock* Position
MIXED MAIZE				
WHITE MAIZE				
GROUNDNUTS				
MIXED BEANS				
O/COLOR BEAN				
SIMSIM				
SOYA BEANS				

* Note: Stock Positions should be as of the end of the month.

3. Monthly Average International Commodity Price versus PMB minimum prices. Specify each currency and unit being reported.

Crop	International commodity price	PMB Minimum Price
WHITE MAIZE		
GROUNDNUTS		
O/COLOR BEAN		
SIMSIM		
SOYA BEANS		

4. Estimate total storage space used at end of month: _____ %
(EG 100% used equals full to capacity.)

by Kim G. Glenn for ACDI - Uganda

5. PMB Monthly Expenditure:

(a) Current Month: _____ (Final Figure? Y/N) []

(b) Previous Month: _____ (Final Figure? Y/N) []

Remarks: _____

Describe briefly problems left unresolved from the previous month and plans for next month. Use separate paper.

Signature Chairman/Manager _____ Date: _____

LMB MONTHLY REPORT
TO THE
MINISTRY OF COOPERATIVES AND
MARKETING

This report must be submitted to the Minister for Cooperatives and Marketing by the fifteenth day of the following month, for the attention of the Commissioner of Marketing.

Please specify all currencies and units being reported.

Report for the Month of: _____ Year: _____

Enter all final figures available, and tick the small boxes to indicate that these are final figures. Enter all remaining provisional figures available, but do not tick the small boxes.

Description	Previous Month		Current Month	
	AR	BR	AR	BR
Cotton Purchases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local Sales	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stock at end of the Month	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cotton Seeds in Stock	<input type="checkbox"/>		<input type="checkbox"/>	
Cotton Exports (combined)	<input type="checkbox"/>		<input type="checkbox"/>	
COI*				
LMB Expend.	<input type="checkbox"/>		<input type="checkbox"/>	

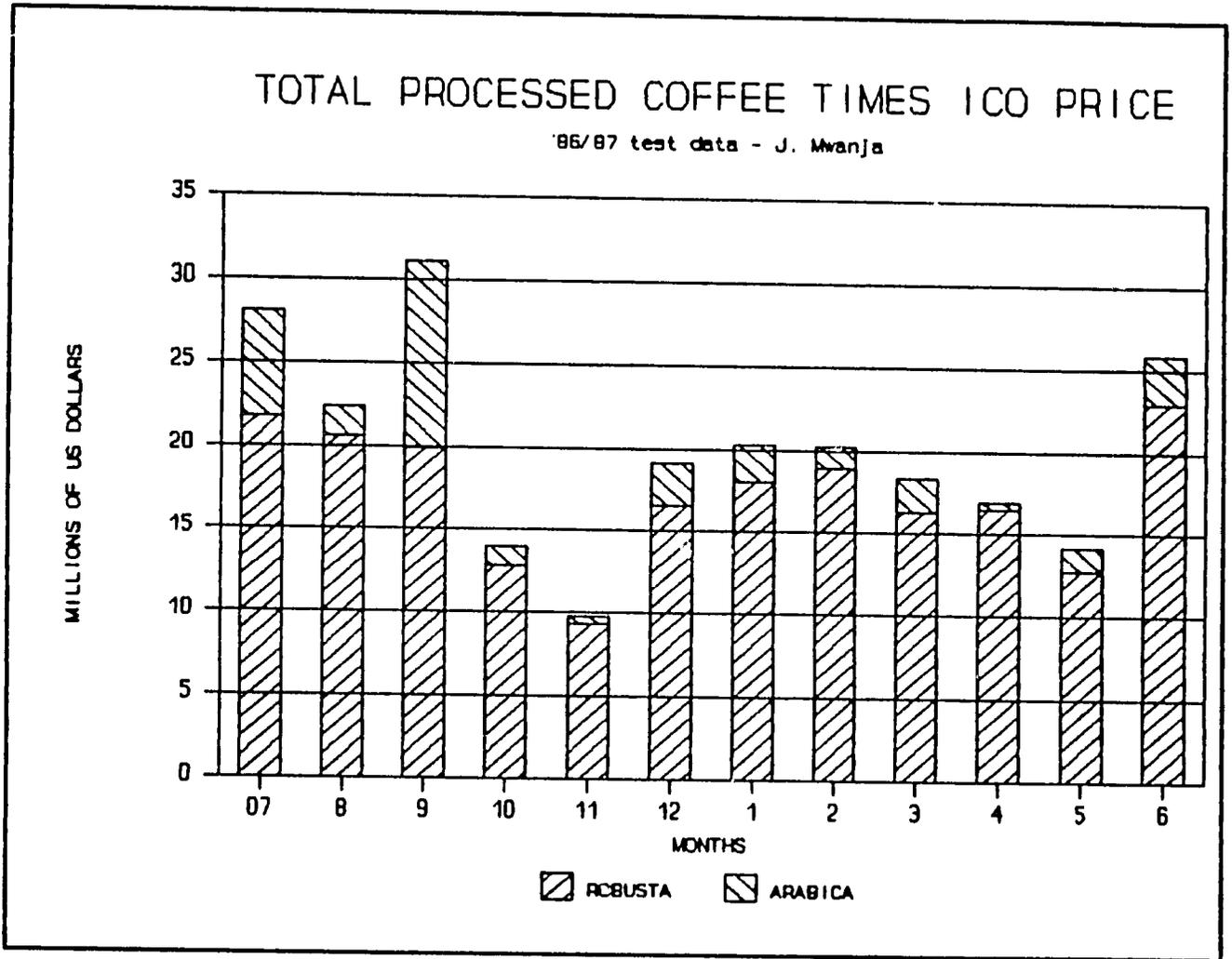
* Note: Cotton outlook indicator price (COI) CIF Europe.

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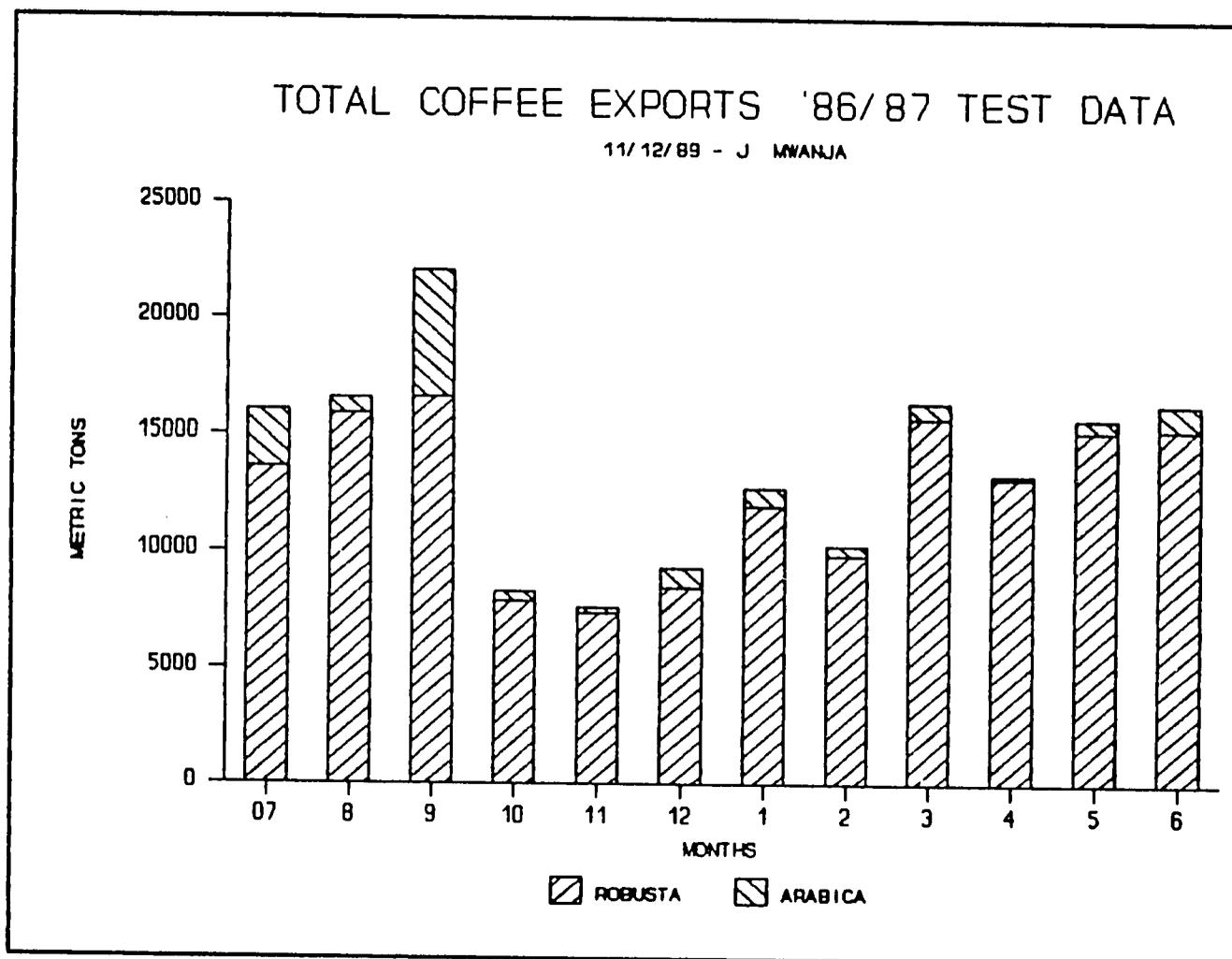
Remarks: _____

Describe briefly problems left unresolved from the previous month and plans for next month. Use separate paper.

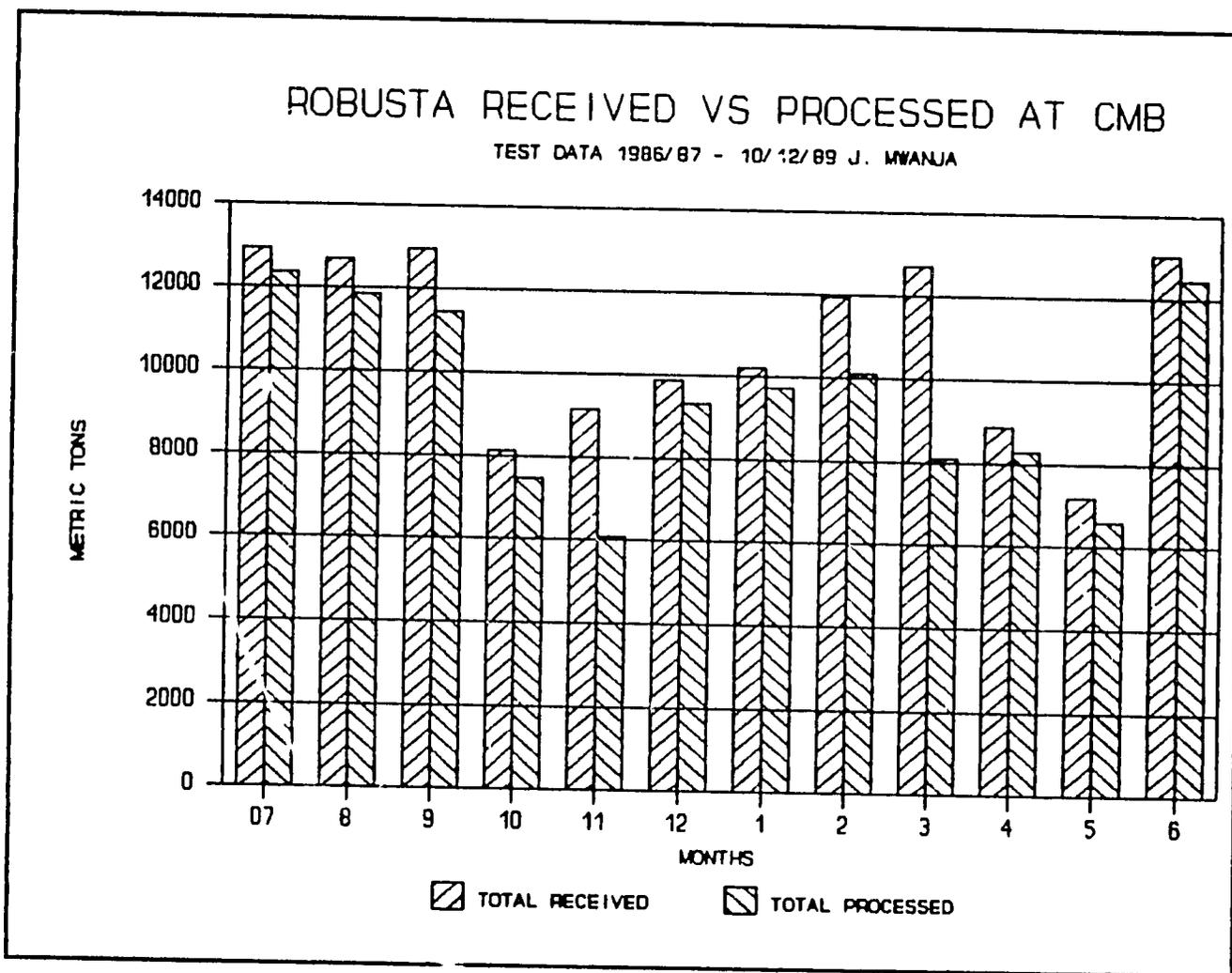
Signature Chairman/Manager _____ Date: _____



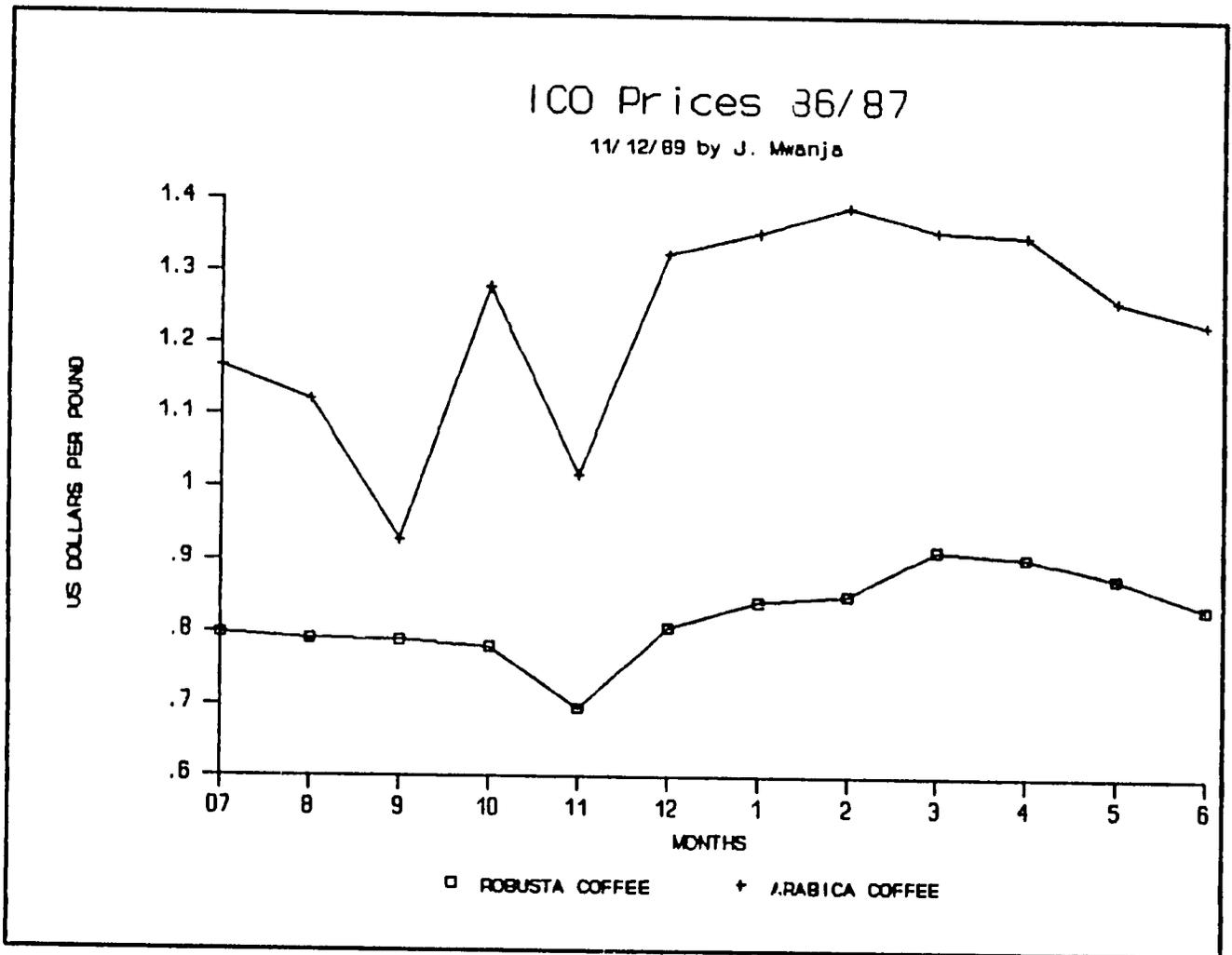
by Kim G. Glenn for ACDI - Uganda



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by Kim G. Glenn for ACDI - Uganda



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