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1. INTRODUCTION

This consultancy was mounted as a follow up of the EVALUATION OF IDRC-SUPPORTED PROJECTS AT SOKOINE UNIVERSITY OF AGRICULTURE, which was done in 1985.

It was assumed that the manuscript evaluation report had been widely discussed at all levels of SUA internally. SUA Senate Research and Publications Committee did discuss it in a meeting held on the 25/2/87. The relevant part of the minutes are found in Appendix 1. It is important to note that this sitting of the committee had minority of members. Further, as stated in Minute No. 56.1.1 " NOTED THAT THOUGH FACULTIES HAD BEEN REQUESTED IN OCTOBER 1986 TO SUBMIT THEIR VIEWS ON THE PAPER, ONLY THE FACULTY OF AGRICULTURE AND THE LIBRARY HAD SUBMITTED THEIR REACTIONS." (emphasis added). No evidence of subsequent discussions was presented to the consultant.

It was further assumed that those discussions would have resulted in SUA agreed areas for institutional support. The consultant was only supposed to be a facilitator in translating such SUA priorities into a proposal document which would be discussed between SUA and IDRC under his facilitation.

This did not happen for the SUA view was that the consultant was the person responsible for developing the funding proposal. Further, the consultant's view that there should be specific focus of applied research and the generation of end user materials, as the basic justification for an institutional support programme, did not sit well with those concerned. It is then out of this context that the balance of this report has to be seen. It suggests a structure of a possible institutional support programme. It further highlights the areas of different opinions which must be resolved within SUA before such a document is produced. An example is the costing of infrastructure and its relation to proposed applied research.

Since the IDRC evaluation, SUA has appointed a Director of Research and Post Graduate Studies. He is assisted by a secretary and one Manpower Management Officer who has no training in planning.

SUA, in the opinion of this consultant, has not worked out in the necessary detail applied research priorities nor developed agreement on all levels of the university so as to facilitate the writing of an institutional Support Programme Proposal.

Given the above, it is the consultants opinion that THE PLANNED MEETING BETWEEN SUA AND IDRC TO DISCUSS THE INSTITUTIONAL SUPPORT PROGRAMME BE POSTPONED UNTIL SUCH A DOCUMENT IS PREPARED BY SUA.

The agenda for the meeting should be:

- 1. TO DISCUSS THE SUA DOCUMENT ON APPLIED RESEARCH CONCENTRATION INCLUDING THE ROLE OF POSTGRADUATE TRAINING IN THE RESEARCH.
- 2. TO DISCUSS HOW SUCH APPLIED RESEARCH WOULD BE USED TO PRODUCE END USER MATERIALS.
- 3. TO DISCUSS THE BUDGETING FOR THE TWO ACTIVITIES.

Consequently the major recommendations of this consultancy are:

- 1. IF SUA PREFERS THE PROJECT BY PROJECT APPROACH, AS MADE CLEAR TO THE CONSULTANT, THERE IS NO REASON WHY FUTURE FUNDING CAN NOT BE SO ORGANIZED BUT THIS WILL BE AT SOME COST TO SUA FOR PROJECT SUPPORT DOES NOT LEAD TO FINANCING OF INSTITUTIONAL SUPPORT AUTOMATICALLY.
- 2. IF SUA IS INTERESTED IN INSTITUTIONAL SUPPORT, IT SHOULD WORK OUT DETAILED PROPOSALS TO BE SUBMITTED TO IDRC FOR CONSIDERATION.
- 3. THE STRUCTURE OF SUCH A PROPOSAL IS SUGGESTED IN THE SUBSEQUENT PARTS OF THIS REPORT.
- 4. THE CRITICAL ELEMENT IN ARRIVING AT SUCH A PROPOSAL IS TO USE EITHER AGRO-ECOLOGICAL, FARMING SYSTEMS, MARKET PENETRATION, RAINFALL OR LAND USE ZONATION, OR DISCIPLINE AREAS TO ARRIVE AT A NATIONAL OR SUA PRIORITIZATION AND TO USE THE PLANNED RESEARCH TO JUSTIFY THE SUA INSTITUTIONAL NEEDS.

The rest of the report is organized under FOUR themes which, in the consultant's opinion would be major elements in any programme of institutional support. The four themes are:

- 1. Medium and long term research concentration planning,
- 2. Research management,
- 3. Research capacity building
 - 4. Research utilization.

The consultant worked with the Director of Research and Postgraduate Studies and an ad hoc committee made up of the Chief Planning Officer, Mr. O.B. Mapunda; Head of Department of Forest Economics, Prof. G. S. Kowero and Prof. B. S. Kilonzo of the Department of Veterinary Microbiology and Parasitology.

The work schedule and the persons interviewed are found in appendices 2 and 3.

THEME 1. MEDIUM AND LONG TERM APPLIED RESEARCH CONCENTRATION

OBJECTIVE 1: TO DEVELOP APPLIED RESEARCH AND PRODUCTION OF END
USER MATERIALS RELEVANT TO TWO PRIORITY AGROECOLOGICAL ZONES.

JUSTIFICATION

. a. Introduction

The core of an institutional project is either a focus in a discipline or a focus on an area where many disciplines are brought to bear on problems which need solving. In this sense a project by project approach can not be an active carrier to an institutional support programme. This was pointed out by the consultant but, unfortunately, like the proverbial seed the idea fell on barren land.

In attempting to elicit discussion on agreement on an approach, the consultant offered the use of two areas of past and planned research activity concentration for consideration.

The first draft discussed high density and high rainfall mountainous areas in juxtaposition with low rainfall areas of recent settlement. This juxtaposition did not sit well with the Working Group appointed to work with the consultant.

The second draft attempted to describe the research concentration which has taken place in Uluguru mountains and the Morogoro lowlands/plains, a farming system driven classification. In some basic sense, this concentration of past and planned research, may well be driven by proximity variables, as argued in committee, and thus may not be of use in solving identified national problems.

What appears below then is the product of the consultant drafting and the Working Group editing. This approach reinforces the conclusion arrived at on closely studying the evaluation report, that is, there seems to be an intrinsic preference for the project by project approach within SUA. The lead consultant during the evaluation concurs with this consultant on this point. The Working Group made the argument that the project by project approach should lead to concentration of research on national problems catalogued under d. This may well be true but, it refuses to acknowledge that an institution wide plan of applied research would get to that objective more efficiently and at lower cost in manpower and other resources. Unprioritised research is expensive.

The challenge for SUA in developing a viable and fundable Institutional Support Programme, is to use whatever criteria are acceptable, agro-ecological, farming systems, land use, rainfall, market penetration zonation or discipline areas etc and prioritize applied research.

The logic of how such an institutional approach would work is simply that those researchers who participate in it would learn through planning, implementation and evaluation of coordinated activities. The applied research activity would be a development laboratory which would generate relevant teaching situations and materials, particularly for graduate students. It would contribute to the national agriculture programming efforts by clearly identifying intervention opportunities for individuals, social organizations and the state with its donor assistants. Clarified intervention opportunities should enable the transfer of technology from research to the production level to be organized more efficiently with significant impact on the production systems.

b. High Rainfall Zones

Considerable research has and is being done in the high rainfall, high density and mountainous areas of the country. More specifically there is considerable work being done on the Uluguru Mountains. Research work is afoot in the hilly areas of north, west and the south of the country.

On the whole most of the research has limited itself to one particular discipline or one faculty although there are cases where some coordination across disciplines has taken place informally.

Some of the subjects covered in past research have included studies on farming systems, food crops, dairy production, forestry and animal health and production.

The historical agricultural systems of the high rainfall areas are changing very fast driven by demographic explosion, reduction in soil fertility, increase in soil erosion, disorganization of marketing and inappropriate extension and technical packages.

c. Low Rainfall Zones

Historically, these areas have not received as much research as they were not important cash or food crops producing areas. Since a few donors started pushing for research in similar areas, the interest has concentrated on food crops. This is at the neglect of their historical and ecologically suited role of animal production.

Animal health and production problems have also been ignored by

these recent concerns as populations spilling into the plains push crop agriculture.

For the long term, there is need to develop a strategy of agricultural production for the semi-arid areas in which livestock is central and crop agriculture is supplementary. Also since the areas are receiving populations familiar with technologies more appropriate for the wetter areas, extending appropriate semiarid crop production techniques based on moisture conservation is an important issue for applied research.

Already there is some work done on the farming systems of the drier areas around Morogoro. Some of the breeding work relates to these areas. There is some applied research work on livestock health and production, especially with regard to small stock health and production.

Generally lacking are formal packages for extension to the farmers of the relatively dry zones which take into account systematic soil improvements within emergent farming systems.

d. Subject Areas of Applied Research Concentration

After reviewing the research priorities of the various departments, faculties and institutes, the SUA Working Group, appointed to assist the consultant, identified the following areas as priority concerns in each zone for an institutionally supported SUA MEDIUM AND LONG TERM APPLIED RESEARCH STRATEGY LEADING TO SUSTAINABLE AGRICULTURE.

- 1. Agroforestry
- 2. Water Conservation and Management
- 3. Land Use and Soil Management
- 4. Wood Energy
- 5. Utilization of Lesser Known Tree and Plants Species
- 6. Environmental Protection
- 7. Management of Natural Resources and Projects
- 8. Socio-Economic Studies of Various Production Systems
- 9. Livestock Production and Animal Health
- 10. Marketing and Price Studies
- 11. Food and Agricultural Policy Analysis
- 12. Technology Development
- 13. Post Harvest Handling
- 14. Technology Transfer
- 15. Management and Administration of Projects.

It was the Working Group's view that the areas of applied research should be weighted equally in terms of funding priorities. The consultant's view is that this listing does not provide a systematic framework setting out priorities for institutional support. It could be useful in evaluating an area based development project.

STRATEGY FOR REACHING OBJECTIVE I

1. CREATION OF TWO SPECIALIZED WORKING GROUPS

It is the consultant's opinion that the most efficacious manner for working out two detailed applied research proposals and detailed work plans is to constitute a cross faculty/institute Working Group to handle each of the priority agro-ecological zones.

This view was not shared by the Working Group assigned to work with the consultant. Their view was that there should not be a specific number of working groups and further that there could not be unified agro-ecological zone proposal. Rather they envisaged that the normal project approach would be used and whoever constituted a group would be left to individual interest mainly and to some extent departmental interests.

2. MEMBERSHIP OF WORKING GROUPS

Membership of each working group should be determined by each faculty/institute but will as far as possible encompass all researchers working in the two priority zones.

3. TWO GROUP COORDINATORS

Each working group should be allowed to determine its Coordinator, who shall be an acknowledged specialist in problems of the particular zone. The two Coordinators will liaise with the Director of Research and Post Graduate Studies on behalf of their group.

4. SECRETARIAT

A Secretariat should be provided by the Directorate of Research and Post Graduate Studies.

5. SUPERVISION

Policy, financial and professional supervision will be under the Senate Research and Publications Committee which will be responsible for distribution of the applied research institutional support funds and any other assets which it will hold centrally to begin to accumulate CENTRAL INSTITUTIONAL RESOURCES.

6. WORKING PROCEDURES AND DETAILED PROPOSALS

The two Working Groups will produce a proposal each, which will have to go through the usual University research procedures of

being discussed by the relevant Departments/Institutes and Faculties and ultimately the Research Committee of the Senate.

The consultant proposed that the two Working Groups produce a proposal before the scheduling of discussions of the IDRC Institutional Funding Mechanism one day seminar. This was seen as unrealistic.

7. CONTENT OF EACH PROPOSAL

The consultant proposed that each of the two proposals include as a minimum the following:

- a. Comprehensive review of past and current research.
- b. Identification of knowledge gaps in specific zones.
- c. Identification of the nature of and how end user materials were to be produced out of the research.
- d. Costing of the research in terms of human and physical resources.
- e. Identification of participant researchers and coordination/administrative procedures.

These criteria were not acceptable and it was argued that THE UNIVERSITY RESEARCH CRITERIA BE FOLLOWED. This decision contradicts one of the central outputs of the Evaluation ie that establishing of research priorities and developing a plan was a top priority as discussed on pages 42 and 43 of the Evaluation report.

INPUTS

- 1. Appointment of Two Working Groups.
 - Selection of Working Group Coordinators by researchers in the group.
 - Preparation of proposals before convening of the IDRC Institutional Support Workshop.
 - 4. Preparation of a research plan incorporating a PLAN FOR locating user terminals of the micro computers for research and teaching Local Area Network depending on:
 - a. projected applied research needs
 - b. graduate students training needs
 - c. desk top publishing of student and faculty research
 - d. desk top publishing of end user materials

5. Provision of Infrastructure

The following categories of infrastructure, text on them and the costing were supplied through the Directorate of Research and Post Graduate Studies. The text was approved by the Working Committee but since the budgets came at the last moment, they were not.

The consultant's view is that these can only be considered ONLY in relation to a detailed applied research plan showing how the infrastructure is to be used.

a. Seed laboratory

This is required to produce good quality seed for research which is essential for good quality crop research.

b. Cold Room

This is required for short to medium term storage of seed and germ plasm collections. Because of lack of this facility seed collections have to be grown each season which is very expensive; some seeds lose viability very fast and are hence lost or mixing occurs because of frequent handling. Required for good quality seed for high quality crop research.

c. Crops field building

Needed to handle crop harvests from the field for processing until good seed is obtained. This should be equipped with threshers, seed cleaners, seed drier, seed scales and moisture matter.

N.B. The above three items can normally be combined in one structure (Crop Science and Soil Science and Forest Biology Departments to provide details).

Cost: US\$ 250,000

d. Level Land

To develop, level and fence at least 30 ha of land for good quality crop research with irrigation facility. Currently there is no land for field crop research with irrigation facility. This will eliminate loss of expensive experiments because of droughts or floods and also allow for experiments to be carried out all year round which reduces breeding time considerably.

Fencing is essential to reduce loss of experiments to pilferage and animals which is not uncommon despite having watchmen 24 hours a day.

Cost: US\$ 450,000

e. Screen or glass houses

Required for screening for resistance to pests and diseases under controlled conditions. No such facility is currently available.

Cost: US\$ 20,000

f. Farm shop, machinery and tools

To be located near the level field mentioned above for the storage and maintenance of crop research machinery.

The current farm shop services the University farm which has gone commercial. The estates department is too busy with general university services and has very little to do with research. There is a need to develop a purely research farm with its own farm shop and machinery and Farm Manager to service research ONLY.

The available field machinery (ploughs, tractors, harrows, seeders and other implements) gives priority to commercial farm activities and estate maintenance and little for research.

Costs: Farm shop US\$ 15,500
Machinery US\$ 1,000,000
Tools US\$ 20.000

g. Central Analytical Laboratory

Required for good chemical analysis of soils, plant tissues, pesticides, livestock products, etc. Such analysis are essential for good research results but are now scattered giving results which are not standardized and hence of doubtful quality.

Cost: US\$ 300,000

h. Research Laboratories

The available taboratories are essentially for teaching. With increasing student intakes there is no room left for research as the labs are fully occupied all the time. Some have even been turned into lecture

rooms. Five are proposed.

Cost: US\$ 1,000,000

i. Laboratory Apparatus

Required for all faculties SUA where there has been more than a decade of no purchase or servicing of apparatus. List of specific items to be worked out by individual departments.

Cost: US\$ 500,000

j. Transport

The Directorate of Research and Postgraduate Studies has proposed a transport pool of a. 5 Nissan/Toyota 4x4 Station wagons b. 3 pickups 4x4 c. 5 motor cycles d. one saloon car.

Cost: US\$ 170,000

OUTPUTS

- Applied research plan for two/specific zones.
- Conducting of applied research in a coordinated manner to produce end user materials.
- 3. More systematic management of research.
- Improved training of graduate students in research and computing use.
- Enhanced inhouse capability for desk top publishing of research outputs of faculty and students.
- Improved quality of knowledge transfer to end users by desk top publishing of assorted end user materials.
- 7. Improved quality of staff research
- 8. Development of sustainable agriculture and utilization of natural resources.
- 9. Overall improvement in the welfare of farmers.

THEME 2. RESEARCH MANAGEMENT

JUSTIFICATION

For SUA improve its research management there are needs of trained manpower to maintain the research infrastructure, to manage research funds and to administer processes related to applied research.

SUBPROJECT 1: LABORATORY AND ELECTRONIC EQUIPMENT SERVICING
AND MAINTENANCE

OBJECTIVE I:

BY TRAINING IN HOUSE CAPACITY THE OUTPUT OF THE EQUIPMENT WOULD BE ENHANCED SINCE NO SYSTEMATIC MAINTENANCE IS DONE BECAUSE THERE IS LITTLE QUALIFIED MAINTENANCE MANPOWER ON THE CAMPUS AND THUS THE NEED TO GET SERVICES AT DAR ES SALAAM WHICH IS MORE THAN TWO HUNDRED KILOMETERS AWAY.

OBJECTIVE II:

SINCE THE COMPUTING CAPABILITY WILL BE BUILT UP IN THE LONG TERM IT IS IMPORTANT TO UPGRADE THE TECHNICAL MAINTENANCE AND SOFTWARE CAPACITY ON CAMPUS BY RETRAINING TWO COMPUTER TECHNICIANS.

INPUTS:

- 1. NOMINATION OF PERSONNEL TO BE TRAINED.
- 2. SHORT TERM TRAINING MAINTENANCE SUPERVISOR/ TRAINERS
 - A. TWO ON INSTRUMENTATION
 - B. TWO ON COMPUTERS
 - C. IDENTIFICATION OF APPROPRIATE SHORT TERM EXTERNAL, REGIONAL AND LOCAL COURSES.
 - D. LOCAL/REGIONAL TRAINING OF 3
 TECHNICIANS IN GENERAL EQUIPMENT
 MAINTAINANCE

COST: US\$ 150,000

OUTPUT:

- 1. INHOUSE CAPACITY ON INSTRUMENTATION, COMPUTER HARDWARE AND SOFTWARE SERVICING AND MAINTENANCE SPECIALISTS MADE UP AS FOLLOWS:
 - A. TWO TECHNICIANS TRAINED IN LATEST
 - B. ONE COMPUTER HARDWARE TECHNICIAN
 TRAINED IN LATEST TECHNOLOGY
 - C. ONE SOFTWARE MAINTENANCE TECHNICIAN
 TRAINED IN LATEST TECHNOLOGY.
 - D. 3 TECHNICIANS TRAINED
 LOCALLY/REGIONALLY IN EQUIPMENT
 MAINTENANCE

SUBPROJECT 2: PLANNING AND MANAGING SUA RESEARCH PROGRAMMES

- OBJECTIVE I. SET UNIVERSITY WIDE ADMINISTRATIVE AND COORDINATION PROCEDURES FOR RESEARCH MANAGEMENT.
- OBJECTIVE II. SET INTERNAL SUA PROPOSAL COORDINATION
 AND ADMINISTRATIVE PROCEDURES FOR CROSS
 FACULTY/INSTITUTE REFERRING OF RELATED
 PROPOSALS.

INPUTS:

- 1. APPOINT AN EDUCATIONAL PLANNER FOR ON JOB TRAINING FOR A YEAR IN YEAR ONE.
- 2. SEND THIS PLANNER FOR A TWO YEAR OVERSEAS RESEARCH PLANNING COURSE AFTER ONE YEAR OF ON JOB TRAINING TO SPECIALIZE IN PLANNING.
- 3. APPOINT A SECOND RESEARCH PLANNER AT BEGINNING OF YEAR TWO FOR A TWO YEAR ON JOB TRAINING.
- 4. SEND PLANER TWO FOR OVERSEAS TRAINING IN RESEARCH PLANNING WITH SPECIALIZATION IN FINANCE AT END OF YEAR THREE WHEN PLANNER ONE RETURNS.
- 5. BIANNUAL TWO DAY INTERNAL SUA RESEARCH
 MEETINGS COSTS (TO INCLUDE WORD
 PROCESSING, PAPER AND REPRODUCTION OF
 PROCEEDINGS)

COST: RESEARCH MEETING US\$ 24,000
TRAINING US\$ 60,000

OUTPUTS:

- 1. HOLD BIANNUAL UNIVERSITY WIDE SEMINAR ON RESEARCH PLANNING TO REVIEW AND ADOPT RESEARCH WORK POLICIES, STRATEGIES AND PLANS.
- 2. RESEARCH PLANNER IN PLACE YEAR 1 FOR ON JOB TRAINING FOR ONE YEAR.
- 3. RESEARCH PLANNER IN PLACE YEAR 2 FOR ON JOB TRAINING FOR TWO YEARS.
- 4. RESEARCH PLANNER IN OVERSEAS TRAINING TO SPECIALIZE IN PLANNING YEAR 2 AND 3.
 - 5. TRAINED RESEARCH PLANNER ON JOB YEAR 4
 AND 5.
 - 6. SECOND RESEARCH PLANNER UNDERGOING TRAINING WITH FINANCE SPECIALIZATION IN YEAR 4 AND 5.
 - 7. TWO TRAINED RESEARCH PLANNERS IN PLACE
 AT END OF YEAR 5.
 - 8. WORKING INTERNAL SUA RESEARCH PROPOSAL
 COORDINATION AND ADMINISTRATIVE
 PROCEDURES FOR CROSS FACULTY/INSTITUTE
 REFERRAL.
 - 9. SYSTEMATIC UNIVERSITY WIDE DISCUSSED RESEARCH POLICIES, STRATEGIES, PROPOSALS AND WORKPLANS BEING USED TO MANAGE RESEARCH OUTPUTS.
 - 10. IMPROVED PLANNING, ADMINISTRATION AND FINANCIAL MANAGEMENT OF RESEARCH.

SUBPROJECT 3: OPERATING SUPPORT TO THE DIRECTORATE OF
RESEARCH AND POST GRADUATE STUDIES

[A PROPOSAL IS ALREADY SUBMITTED TO THE IDRC FOR THIS AS A PROJECT. CONSULTANT WILL LIAISE WITH IDRC]

COST: US\$ 73,000

THEME 3. RESEARCH CAPACITY BUILDING

JUSTIFICATION

In the subprojects below the consultant has taken into account the need for more relevant data processing for researchers and administrators for these were identified as major bottlenecks in the IDRC Evaluation. The current SUA computing capacity is shown in Appendix 4. This capacity, is not by any stretch of imagination anywhere near enough. Infact the proposed capacity is just about as exists in one of the regions faculty of agriculture.

A related problem is the inordinate amount of time spent by researchers handling routine administrative chores. Such scientists could be used in more research if other cadre of staff can be trained to handle administrative routine. This is was acknowledged SUA when it created the posts of manpower management officers. It is proposed that their managerial skills be improved by short term training courses.

SUBPROJECT 1: PROVISION OF TWO LOCAL AREA NETWORKS IN SEQUENCED MODULES

OBJECTIVE:

TO IMPROVE DATA HANDLING CAPACITY BY RESEARCHERS, POST GRADUATE STUDENTS AND ADMINISTRATORS BY:

- A. ENHANCING COMPUTING CAPABILITY FOR RESEARCHERS.
- B. PROVIDING COMPUTING CAPACITY FOR TRAINING OF POST GRADUATE STUDENTS.
- C. PROVIDING COMPUTING CAPACITY FOR MANAGEMENT OF SUA RESEARCH, FINANCES, LOGISTICS AND RECORDS.

IMMEDIATE INPUT:

1. PROVIDE ONE 40 MB PC FOR BURSAR'S OFFICE
FOR HANDLING RESEARCH AND TRAINING
FUNDS.

(COST: US\$ 40.000)

SUBSEQUENT INPUT:

1. PROVIDE TWENTY 20 MB PCS, FIVE LETTER

QUALITY, FIVE NEAR LETTER QUALITY AND TEN ORDINARY PRINTERS FOR RESEARCH AND TRAINING NETWORK.

- 2. PROVIDE ONE 70 MB PC OR TWO 40 MB PC NETWORK WITH TEN 15 MB HARD DISK STAND ALONE TERMINALS, THREE LETTER QUALITY, THREE NEAR LETTER QUALITY AND FOUR ORDINARY PRINTERS.
- 3. UPS, NETWORKS EXTRAS/SOFTWARE
- 4. INSTALLATION AND TRAINING CONSULTANCY

COST: US\$ 480,000

(AVERAGE FROM 3 QUOTATIONS FROM NAIROBI
BASED COMPUTER FIRMS FOR INSTALLATION
AT MOROGORO INCLUSIVE OF SPECIFIED
PRINTER CONFIGURATION, UPS, SOFTWARE
NETWORK EXTRAS, INSTALLATION AND USER
TRAINING CONSULTANCY BUT EXCLUSIVE OF
SERVICE CONTRACT, THE COSTS ARE SPREAD
TO THE PCS AS FOLLOWS

- A. 20 MB PC US\$ 20,000
- B. 40 MB PC US\$ 40,000
 - C. 70 MB SYSTEM US\$ 60,000)

IMMEDIATE OUTPUT:

- 1. TO SET UP A MODULE OF THE ADMINISTRATION LAN.
- 2. TO SET UP A MODULE OF THE RESEARCH LAN
 (TAKING INTO ACCOUNT THE IDRC
 COMMUNICATION DIVISIONS PLANS FOR SUA)

INTERMEDIATE OUTPUT:

- 1. EXPANSION IN RESEARCH CAPACITY
- 2. IMPROVED GRADUATE STUDENTS RESEARCH
 - 3. INCREASED UTILIZATION OF RESEARCH RESULTS IN TEACHING.

ULTIMATE OUTPUT:

TO SET TO SET UP TWO LANS, ONE FOR ADMINISTRATION AND ANOTHER FOR RESEARCH AND POST GRADUATE STUDENT TRAINING. THE PATH TO THIS IS TO BE DETERMINED BY THE GENERATION BY SUA OF A APPLIED RESEARCH

PROPOSAL (INCORPORATING THE TRAINING OF GRADUATE STUDENTS) AND ITS IMPLEMENTATION PROCESS.

PERFORMANCE INDEX ON SEQUENCING COMPUTING MODULES:

- APPOINTMENT OF A PERSON FAMILIAR WITH COMPUTER BASED ACCOUNTING SYSTEM FOR THE BURSAR'S OFFICE.
- 2. APPOINTMENT OF A FORMALLY TRAINED RESEARCH PLANNER TO ASSIST THE DIRECTOR OF THE DIRECTORATE OF RESEARCH AND POST GRADUATE STUDIES.

SUBPROJECT 2: TRAINING OF MANPOWER MANAGEMENT OFFICERS

- OBJECTIVE 1: TO IMPROVE THE ADMINISTRATIVE CAPACITY OF FACULTIES, INSTITUTES, BURSAR'S OFFICE, REGISTRAR'S OFFICE, DEPUTY VC'S OFFICE, DIRECTORATE OF RESEARCH AND POSTGRADUATE STUDENT'S OFFICE.
- OBJECTIVE 2: TO SHIFT MORE ADMINISTRATIVE RESPONSIBILITIES
 FROM ACADEMIC STAFF TO ADMINISTRATIVE STAFF
 AT THE LEVELS IDENTIFIED ABOVE AND IN
 DEPARTMENTAL OFFICES.

INPUTS:

- 1. AN INCOUNTRY TRAINING PLAN FOR TEN MANPOWER MANAGEMENT OFFICERS IN SUA ADMINISTRATION COVERING THE FOLLOWING:
 - A. OFFICE ROUTINES
 - B. PROCEDURES
 - C. MANAGEMENT AND RECORD KEEPING
 - D. LABOR LAWS
 - E. FINANCES
 - D. UTILIZATION OF MICROS IN OFFICE MANAGEMENT

COSTS: US\$ 30,000

OUTPUTS:

- 1. MORE EFFICIENT ADMINISTRATIVE PROCESSES.
- 2. RELEASE OF RESEARCH STAFF FROM ROUTINE ADMINISTRATION.

THEME 4. RESEARCH UTILIZATION

JUSTIFICATION

The end result of applied research is utilization of the findings by end users. Many research systems are very good in producing research but few are as good in translating such research to usable products by farmers, small scale industrialists and other consumers be they fellow scientists or policy makers. The rationale for emphasizing the theme of utilization is to focus on the end users in the planning and execution of applied research so as to increase the probability of such research being of use in the long term.

SUBPROJECT 1. DEVELOPMENT OF ENDUSER (FARMERS, SMALL SCALE INDUSTRIALISTS AND GENERAL CONSUMERS) MATERIALS ON VARIOUS AGRICULTURAL, FORESTRY AND VETERINARY SUBJECTS.

OBJECTIVE I:

TO REVIEW EXISTING APPLIED RESEARCH ON THE TWO
PRIORITY AGRO-ECOLOGICAL ZONES WITH A VIEW TO
PREPARING PILOT "HOW TO" BOOKLETS FOR FARMERS AND
SMALL SCALE INDUSTRIALISTS PRIMARILY AND OTHER
END USERS.

OBJECTIVE II:

TO DEVELOP A STRATEGY FOR WRITING AND PUBLISHING SUCH BOOKLETS, COMIC BOOKS, POLICY PAPERS ETC.

INPUTS:

- 1. PAST APPLIED RESEARCH RESULTS FROM ACADEMIC RESEARCHERS, POST GRADUATE STUDENTS AND UNDERGRADUATE RESEARCH PAPERS.
 - 2. EDITORS
 - 3. ONE OF THE TWENTY 20 MB COMPUTERS UNDER THEME 4 FULL TIME BUT ALL OTHER COMPUTING CAPACITY SOME OF THE TIME.
- 4. OPERATIONS BUDGET TO INCLUDE PRODUCTION AND DISTRIBUTION COSTS.

OUTPUTS:

1. A PILOT PLAN FOR WRITING END USER (FARMERS, SMALL SCALE INDUSTRIALISTS AND

OTHER CONSUMERS) MATERIALS.

- 2. A COSTING OF THE ELEMENTS OF PRODUCING SUCH MATERIALS IN TERMS OF PRODUCTION CATEGORIES OF WRITING, EDITORIAL, PRODUCTION AND DISTRIBUTION.
- 3. IN YEAR ONE TO PRODUCE AND DISTRIBUTE X NUMBERS ON PILOT BASIS.

BUDGET: TO BE DEVELOPED BY SUA

SUMMARY BUDGET

TOTAL

A budget is supposed to reflect an agreed plan of operations. This is not the case in the present circumstances. This summary includes all the costs identified both by SUA and the consultant. In the event of proceeding with generation of an Institutional Support Programme the rationale for some costing eg. 30 hectare land preparation will have to be scrutinised. All figures are in US\$.

THEME 1. MEDIUM AND LONG TERM APPLIED RESEARCH

1. Seed Lab, Cold Room, Crop Field Building US\$	250,000
2. 30 Hectare Level Land	450,000
3. Screen, Glass Houses	20,000
4. Farm shop, Machinery and Tools	1,036,000
5. Central Laboratory	300,000
6. Five Research Laboratories	500,000
7. Nine Vehicles and Five Motor Cycles	170,000
THEME 2. RESEARCH MANAGEMENT	
8. Technical Training	210,000
9. SUA Research Meetings	24,000
10. Directorate of Research Operating	73,000
THEME 3. RESEARCH CAPACITY BUILDING	
11. Computerization	480,000
12. Training MMOs	30,000
THEME 4. RESEARCH UTILIZATION	
13. Editorial, Production and Distribution	?

THE CONSULTANT WOULD LIKE TO POINT OUT THAT THE IF ONE TOOK ALL THE ELEMENTS UNDER THEME 2 AND 3 AND ASSUMED THAT THEME 4 COSTS WILL BE IN THE ORDER OF US\$ 150,000, THE TOTAL BUDGET FOR RESEARCH MANAGEMENT, RESEARCH CAPACITY BUILDING AND RESEARCH UTILIZATION WOULD BE JUST OVER CANADIAN DOLLARS 1,000,000.

3,543,000

Minutes of the Research and Publications Committee Appendix 1. Held on the 25/2/1987 at 2.35 pm in the CCE Meeting Room. (extracts)

PRESENT:

A. B. Lwoga - Deputy Vice-Chancellor (Chairman)

J. M. Teri - Faculty of Agriculture

G. C. Gera - Library

ABSENT WITH APOLOGY:

S. F. H. Jiwa - Faculty of Veterinary Medicine
M. M. Keregero - Faculty of Agriculture
G. S. Kowero - Faculty of Forestry R. E. L. Ole Meiludie - Faculty of Forestry

ABSENT:

B. M. Kessy - Faculty of Veterinary Medicine

IN ATTENDANCE

Z. M. Ryoba - Recorder

ITEM NO. 3 OF THE AGENDA; TO CONSIDER A PAPER ON RESEARCH GUIDELINES AND MANAGEMENT AT SUA AS

RECOMMENDED BY THE IDRC

WORKSHOP ON IDRC SUPPORTED PROJECT MINUTE NO. 56.0

56.1 RECEIVED and CONSIDERED a paper on research guidelines and management at SUA as recommended by the IDRC sponsored workshop projects.

56.1.1 NOTED that thought Faculties had been requested in October 1986 to submit their views on the paper, only the Faculty of Agriculture and the Library had submitted their reactions.

56.1.2 AGREED to make the following observations and recommendations to Senate (see Appendix Paper No. 10.1 attached).

OBSERVED that IDRC has not been involved in supporting installation of physical facilities for research at SUA.

- 56.2.1 AGREED that IDRC be requested to support provision of physical facilities for research at SUA e.g. cold storage, research laboratories and field laboratories for processing the harvest and storage of plant materials, green houses.
- 56.3. OBSERVED that there was lack of problem oriented research at SUA.
- 56.3.1 AGREED that lack of problem oriented research was due to the fact that SUA has no system of giving research funds to tackle certain research problems to its staff members.
- 56.3.2 AGREED that SUA should start with a system and that money could be allocated to departments for that purpose.

ITEM NO. 4 OF THE AGENDA; ANY OTHER BUSINESS

There being no other business, the Chairman closed the meeting at 6.08 p.m.

APPROVED FOR ISSUE

CHAIRMAN	DATE	Z.M. Ryoba RECORDER
CONFIRMED	AT THE NEXT MEETING	
1		
CHAIRMAN		DATE

- For transmission to Senate
- ** For action by the Secretariat

Appendix RPC 10.1

SOKOINE UNIVERSITY OF AGRICULTURE

RESEARCH POLICY GUIDELINES AND MANAGEMENT AT SOKOINE UNIVERSITY OF AGRICULTURE

On 25th February 1987 the Research and Publications Committee considered recommendations on "Research Policy Guidelines and Management at SUA" made by the Workshop on "Evaluation of IDRC-supported Projects at Sokoine University of Agriculture, Tanzania" held in August 1985. The Committee also considered

reactions on those recommendations from the Faculty of Agriculture and the Library.

The following is a summary of the Committee's observations and recommendations:

1. RECOMMENDATIONS ON POLICY AND GUIDELINES AT SUA

Recommendation (1):

SUA should establish a work plan and a set of priorities for the short, medium and long term taking into account manpower, funds and infrastructure. This would be within the context of a similar national plan (if one exists) and provide a framework for donors to respond to. Research project should be based on a plan which is designed to meet defined development needs of the country. Plans should be formulated and documented at University, Faculty and Department level, taking into consideration national agricultural policies.

Observations:

- i. The absence of a national agricultural research policy (along with a set of national priorities in agricultural research) is an obstacle to the establishment of a research plan and research priorities at SUA.
- ii. The Tanzania National Commission for Science and Technology is to be launched soon (the Act to establish the Commission was passed by Parliament in August 1986). Its functions will include formulation of policy on the development of science and technology as well as advising Government on priorities in scientific research (including agricultural research) nationally.
- iii. The Ministry of Agriculture and Livestock Development has initiated action to review the structure of agricultural research and extension in the country.

Recommendations:

The observations above, notwithstanding, SUA should formulate and document its own research plans and priorities in the following order of levels: Department, Faculty and University level.

Recommendation (2):

SUA should establish internal procedures for the control, monitoring and supervision of research projects, based on an

appropriate mechanism such as Directorate of Research.

Observation:

The Directorate of Postgraduate Studies and Research is at an advanced stage of establishment.

Recommendation (3):

SUA should establish clear cut procedures for heads of departments, researchers and support staff working on projects, including lines of responsibility, reporting requirements, incentives and remuneration. Incentives should be geared to performance. SUA should establish a mechanism for this which could also be a function of the monitoring body.

Recommendations:

Endorsed the recommendation and further recommended that :

- i. A field allowance, payable to research staff when in the field undertaking research tasks, should be included in research project budgets. This allowance would be an incentive for researchers to go out in the field where the farmers are.
- ii. Vehicles for research projects should be used for project work only.
- iii. Recognition should be given to researchers who have been able to score substantial amounts of research funds for the University (.e.g. citation in the University newsletter).
- iv. Research project budgets should include a component for administration costs as is the case in other Universities.
- v. The University should find a way of renumerating good researchers for their performance in research.

Recommendation (4):

SUA should establish centralized co-ordination of research supplies and equipment (such as commonly used chemicals), fertilizers, herbicides, insecticides, fuel spares, sprayers, etc.), and of research support staff such as those dealing with equipment servicing and maintenance.

Recommendations:

- An inventory of expensive research equipment should be prepared and up-dated regularly by the Directorate of Postgraduate Studies and Research.
- ii. There should be centralized coordination, through the Directorate, of expensive research equipment for expendable research supplies, coordination should be done by Departments which should also be given revolving funds for purchasing the items.
- iii. The Estate's Department should revert to servicing equipment and supporting research activities as in the past. At the same time, there is need to strengthen the support staff whose task it is to service equipment.

2. RECOMMENDATIONS ON RESEARCH MANAGEMENT AT SUA

Recommendation (1):

Administrative and technical support staff should be recruited with care and attention. They should be able to benefit from a well-defined carrier structured, training programme and being informed of research progress and achievement. Where necessary, IDRC and other donors should consider support for appropriate training programmes for research support staff.

Recommendation:

Endorsed the recommendation and further recommended that training of administrative or support staff should be part and parcel of research projects.

Recommendation (2):

SUA should study the creation of a Directorate of Research or similar body. See Recommendation 1(2) above).

Recommendation (3):

SUA should develop minimum standards for submission, approval and implementation of research projects. These should satisfy its own and most funding agency requirements.

Observation:

SUA has standards for internally funded projects (i.e. funded by RPC) but none for externally funded ones.

Recommendation:

The Post graduate Studies and Research Directorate should examine the issue and propose standards to satisfy requirements for both internally and externally funded projects.

Recommendation (4):

SUA should review the experience of other institutions in the region which have overcome difficulties in research management through introduction of effective procedures and controls. SUA should seek donor assistance for educational visits in this respect.

Recommendation:

SUPPORTED the recommendation and recommended further that SUA should take advantage of donor assistance for such educational visits.

Recommendation (5):

The general research guidelines of SUA should be assembled by SRPC and made available to researchers.

Recommendation:

SUPPORTED the recommendation and further recommended that the research guidelines should be made available to all academic staff members.

Recommendation (6):

Reasons for delay in the preparation and submission of progress reports should be looked at Monitoring the progress of research projects could minimize some of the problems that lead to such delays.

Observation:

The establishment of the Directorate of Postgraduate Studies and Research would take care of this need.

Recommendation (7):

Short term technical support staff should be employed on contract terms, or employed as a pool of research technicians who are trained and available within the department.

Observation:

The recommendation may not be implementable because

employment of short term technical support staff on contract terms is neither attractive nor in line with the national labor policy.

Recommendation:

SUA should look into the possibility of establishing purely research positions for technical support staff.

Recommendation (8):

The problem of transport for field staff should be addressed through management procedures, co-ordination of transport facilities and improved collaboration between researchers and departments.

Observation:

The recommendation is an administrative issue and should be tackled administratively.

Recommendation (9):

SUA should develop a policy for incentives for all research work including externally funded projects - see Recommendation 2(3).

Recommendation (10):

SUA should request the Government to review its remuneration scales and constraints on alternative incentives with a view to:

- a. improving the quality of Tanzanian agricultural research.
- b. Adequately staffing the library.

Recommendation:

AGREED with the recommendation and further RECOMMENDED that SUA should take the lead in trying to influence the Government in those matters.

RECOMMENDED further that serious efforts should be made to improve the staffing situation in the library.

Recommendation (11):

The supplies section of the Bursar's office should be reorganized and equipped with competent manpower. Procedures on procurement and issuance of supplies should be

documented to avoid misappropriation and losses. Assistance in manpower training should be sought from IDRC and other donors.

Observation:

The above recommendation should be tackled administratively

Recommendation (12):

SUA should review its current financial regulations to reflect realities as well as the activities of SUA.

Observation:

SUA now has its own financial regulations.

Recommendation (13):

SUA should conduct orientation courses for researchers on budget formulation and accounting procedures.

Recommendation:

Endorsed the recommendation but recommended, further that the Bursar's office should prepare a manual for guidelines on budget formulation and accounting procedures to be make available to all researchers.

Recommendation (14):

SUA should continue with the effort of recruiting the appropriate trained manpower to fill the vacant accounting posts including the recruitment of a Bursar. Existing staff should also be trained as necessary.

Observation:

ENDORSED the recommendation.

Recommendation (15):

SUA should review its system of issuing research imprests in one instalment where not necessary. Different installments could be one way of controlling research funds.

Observation:

The recommendation does not apply to Sokoine University of Agriculture.

Recommendation (16):

The Deputy Vice-Chancellor should require that financial reports be prepared for all funds approved. This should include analysis of planned versus actual expenditures in relation to actual stage of completion.

OBSERVED that the above recommendation is presently being implemented at SUA and could be improved upon with the establishment of the Directorate of Postgraduate Studies and Research.

Recommendation (17):

SUA should carry out a feasibility study for computerizing the research funds accounting system.

Recommendation:

AGREED with the recommendation and RECOMMENDED further that SUA requests IDRC and/or other donor agencies for a central computer systems to handle administrative, financial and research activities.

Recommendation (18):

SUA should open a separate bank account for research grants to enhance control of research funds.

Observation:

Endorsed the recommendation.

Recommendation (19):

SUA could continue looking for a solution on how expatriates salaries can be remitted overseas.

Observation:

Endorsed the recommendation.

Recommendation (20):

The Bursar's office should continue its efforts to ensure that funds remitted through NBC Morogoro from External donors are processed by the bank on research time.

3. RECOMMENDATIONS ON RESEARCH SUPPORT SERVICES AT SUA

Recommendation (1):

Project assets should be administered by project leader as

at present but responsible departments should also monitor them.

Observation:

The recommendation is a non-issue.

Recommendations:

- The administration of project assets should be taken care of by the Directorate of Postgraduate Studies Research once fully established.
- The Directorate should maintain a register of all research equipment.

Recommendation (2):

Donors should require project assets to remain University property at the end of projects. Division of assets at the end of inter departmental projects should be decided by SRPC at the start of such projects.

Observation:

The recommendation is a non-issue.

Recommendation (3):

When requesting IDRC and other donors to procure assets on their behalf, researchers should provide sufficiently detailed information.

Observation:

The recommendation is obvious.

Recommendation (4):

SUA should have a clear procedure for appointing successors to project leaders who leave and for appropriate handing over.

Observation:

The above recommendation is the normal procedure followed at SUA. Normally the Head of Department in collaboration with the out-going project leader, would recommend a successor for appointment.

Recommendation (5):

SUA should prepare a proposal for adequately staffing and equipping the library as national data bank as a basis for seeking funds.

Observation:

The recommendation is presently being implemented though no formal proposal has been prepared for IDRC consideration.

Recommendation:

IDRC and other donors should be requested to provide necessary support to the library.

Recommendation (6):

SUA should enforce proper research record keeping. Assistance should be sought for financing the typing of student research reports.

Observation:

The aspect of proper research record keeping in the above recommendation would be one of the functions of the Directorate of Postgraduate Studies and Research. NOTED that the matter is very much overdue and should be given priority in implementation.

Recommendation:

SUA should seek funds from IDRC and other donors to get these reports typed and properly bound.

Recommendation (7):

The Library should be adequately staffed with sufficient trained manpower, including training of existing staff where necessary.

Recommendation:

The Library work out a comprehensive plan in its new status as a national agricultural library.

Recommendation (8):

SUA should continue with its efforts to improve efficiency in the vehicle maintenance workshop. This should include:

- a. hiring procedures
- b. driver and mechanic training

- c. inventory and stock control supervision
- d. shop management and supervision
- e. procurement of supplies.

Observation:

The recommendation is an administrative matter.

Recommendation (9):

SUA should enforce proper vehicle care and maintenance orientation to researchers and assistants so that they can assist in driver supervision.

Observation:

Endorsed the recommendation.

Recommendation (10):

These recommendations on vehicles should also be applied as appropriate to another scientific equipment used at SUA.

Recommendation:

AGREED with the recommendation and further recommended that researchers should be able to drive themselves.

Recommendation (11):

SUA should have standard specifications for procurement, spares and maintenance.

Observation:

AGREED to support the recommendation.

NOTED in addition, that the recommendation would solve a lot of problems if it could be implemented properly.

4. RECOMMENDATIONS ON AGRICULTURAL RESEARCH WITH FARMERS

Observation:

All the recommendations under this section— are highly specific and should refer to section (1) Recommendation on Policy and Guidelines at SUA.

5. RECOMMENDATIONS ON PROBLEM ORIENTED RESEARCH

Observation:

All the recommendations under this section have been dealt with under section (1) Recommendation on Policy and Guidelines at SUA.

6. GENERAL

Research Physical Facilities:

NOTED that one of the most pressing needs for research at SUA is physical facilities; i.e. research laboratories, green houses, storage facilities (cold rooms) and filed laboratories (for processing and storage of bulky materials).

RECOMMENDED that IDRC and other donors should be requested to give support in this area.

- Appendix 2. Schedule of Work February - April 1989
- Feb 24 Finalization of terms of reference and work schedule
- Mar 7 Briefing discussion with IDRC regional office staff
- Mar 8 Briefing discussion with D. Lee-Smith on evaluation
- Mar 9 Travel to Morogoro
- Mar 10 Briefing at Morogoro
- Mar II Reading documents and informal meetings
- Mar 12 Continued
- Mar 13
- 17 Meetings with SUA personnel to develop draft outline
- Mar 18 Work on draft outline
- Mar 19 Continued
- Mar 20 Discussion of draft outline with deputy VC
- Mar 21 Travel to Nairobi
- Mar 22 Consultations with D. Lee-Smith and IDRC staff
- Mar 23
- 25 Finalizing draft document
- Mar 28 Review of document with IDRC and finalization of arrangements for workshop
- Apr 20 Travel to Morogoro
- Apr 21 One day workshop at Morogoro
- Apr 22 Travel to Nairobi
- May 9
- 12 Finalizing outline project proposal with editorial input from D. Lee-Smith.

Appendix 3. Persons Interviewed and Meetings

6/3/89 IDRC Meeting

Prof. D. A. Bekoe Regional Director IDRC
R. D. Ayling Forestry Program

Ozzie Schmidt Post Production Systems Program

J. A. Kategile Animal Production Systems

J. P. Joly Regional Controller

A. D. Ker Crops I. M. Omari FAD

D. Lee Smith Consultant G-C. M. Mutiso Consultant

6/3/89

D. Lee Smith

7/3/89 IDRC Meeting

Ozzie Schmidt

R. D. Ayling

J. A. Kategile

A. D. Ker

I. M. Omari

D. Lee Smith

G-C. M. Mutiso

9/3/89

M. Teri Director, Directorate of Research and Post Graduate Studies.

10/3/89 SUA Meeting

A. B. Lwoga Vice Chancellor

A. N. Mphuru Acting DVC

J. M. Teri

B. L. M. Bakobi Public Relations Officer

10/3/89

J. M. Teri

10/3/89

H.O. Dihenga Head of Department of Agricultural Engineering and Land Planning. Chairman of Computer Committee.

R. E. L. Ole-Meiludie Dean, Faculty of Forestry

I. J. Lupanga Associate Dean, Faculty of Agriculture

10/3/89

G. I. Mlay Acting Head, Department of Rural Economy

I. J. Minde Senior Lecturer, Department of Rural Economy

M. E. Mlambiti Head of Department, Department of Rural Economy

11/3/89

M. R. S. Mlozi

Assistant Lecturer, Department of Agricultural Education and Extension.

J. M. Teri

? Evers Team Leader, Franco Tanzanian Project

11/3/89

Field Visit to Mgeta

13/3/89

I. Kawa Director, Development Studies Institute

K. J. B. Keregero Director, Institute of Continuing Education

P. M. Msolla Acting Dean, Faculty of Veterinary Medicine

13/3/89 SUA Meeting

A. B. Lwoga

R. R. Ntuah Registrar

B. M. Kessy Acting DVC

J. M. Teri

B. L. M. Bakobi

D. A. Bekoe

14/3/89

J. M. Teri

S. S. Mbwana Head of Library

D. Mutambuko Computer Technician

SUA Working Group Meeting

J. M. Teri

G. S. Kowero Head, Department of Forest Economics

B. S. Kilonæsociate Research Professor, Department of Veterinary Microbiology and Parasitology

O. B. Mapunda Chief Planning Officer

15/3/89

A. N. Minjas Head of Department of Crop Science and Production
A.F. Lana Professor, Department of Crop Science and
Production

?? Mambo Computer Technician
D. Mutambuko Computer Technician

15/3/89 SUA Working Group Meeting

J. M. Teri G. S. Kowero B. S. Kilonzo

16/3/89 SUA Working Group Meeting

J. M. Teri G. S. Kowero B. S. Kilonzo

17/3/89

Consultant Drafting

18/3/89 SUA Working Group Meeting

J. M. Teri G. S. Kowero O. B. Mapunda

M. Mgheni Head, Department of Animal Science and Production s.a. Shayo Senior Lecturer, Department of Rural Economy

20/3/89

H.O. Dihenga J. M. Teri

I. J. Lupanga

R. R. Ntuah

P. M. Msolla Deputy Vice Chancellor

Appendix 4. Current SUA Computing Capacity

Faculty/Institute Department	Computer type Make (Quantity)	Projector/ Donor	Available Hardware/ Software
l. Institute of Continuing Education	Apple IIe(1)	USAID	Printer okidata ML92 (110V M a i n s) Wordstar, Mailmerge Supercalc, Milestone
2. Faculty of Forestry	Hewlett Packard 85(1) COMPAQ (1)	NORAD	Wordstar, Statistical Package, Professional Dynamo, LP Package
3. Rural Economy	IBM PC (3) 640 Kbytes (RAM)	1. Ford Foundation 2. IDRC 3. British Council	Printers NLQ(2) Graphics Adopter, Supercalc III, DBASE II, Statistical Package, Word Perfect
4. Food Science & Technology	IBM PC XT	ODA	MSTAT, Supercalc, Knowledgeman, Statgraphics, Microsoft, Lotus 1, 2, 3.
5. Crop Science Crop Science		Bean Project Kellogg Project	Epson 1000 Printer (1) Microsoft Word LQ 1000
6. Faculty of Veterinary Medicine	1 PC	DANIDA	-
7. Development Studies Institute	IBM PC (1)	ODA	
8. Agric. Engineering	Olivetti M24 (1)	IDRC	Lotus, Microsoft DBASE, Fortran.

Appendix 5. Documents Consulted

- Evaluation of IDRC Supported Projects at Sokoine University of Agriculture, 1985.
- 2. Summary of IDRC Projects in Tanzania, September 1988.
- 3. IDRC Crop and Animal Production Systems Program, June 1988.
- 4. IDRC Post Production Systems Program, June 1988.
- 5. IDRC Fisheries Program, June 1988.
- 6. IDRC Agricultural Economics Program, June 1988.
- 7. IDRC Forestry Program, June 1988.
- 8. Proposals for Strengthening Research and Postgraduate Studies at SUA, January 1989.
- 9. Mlozi, M.R.S., Vegetable Production in Nyandira and Tchenzema Villages: Constraints and Strategies for Improvement, January 1988.
- 10. Mlozi, M.R.S. and Paul, J.L. Maize Cultivation and Land Shortage in Mgeta Area: An Example of an (sic) FSR/E program based at a University, October 1986.
- 11. Paul, Jean-Luc. Farming Systems in the Upper Mgeta, January 1988.
- A Strategy and Infrastructural Plan to the Year 2000 -Sokoine University of Agriculture, August 1988.
- 13. Proceedings of Donor's Meeting Held in the Conference
 Chamber of the Institute for Continuing Education at SUA.
 29th January 1988.
- 14. Report of Study Team on the SUA, October 1984.
- 15. The Mission of Sokoine University of Agriculture, April 1985.
- 16. SUA Prospectus, 1989
- Approaches to Strengthening Research Institutions IDRC, October 1987.
- 18. IDRC Institutional Support to SUA (Presentation to EARO).

- Diana Lee-Smith. Evaluation of IDRC Supported Projects at SUA: IDRC Guidelines. October 1985.
- Mende, J.J. Manpower Requirements for Agricultural and Livestock Research in Tanzania, July 1988.
- 21. SUA; Faculty of Veterinary Medicine 10 Year Anniversary, 1976-1986.
- 22. SUA: Institute of Continuing Education. ICE Publication No.
- 23. SUA: Research Priorities for the ICE. July 1988.
- 24. SUA: Faculty of Forestry: Documentation Research Policy Guidelines and Management at SUA, September 1987.
- 25. SUA: Short, Medium and Long term Research Programmes for the Department of Agricultural Education and Extension, July 1988.
- 26. U of D Division of Forestry: Faculty of Agriculture, Forestry and Veterinary Science: Research Programme: Occasional Paper No. 1, May 1979.
- 27. Proposal for Computerization of Sokoine University of Agriculture: Computer Corporation of Tanzania Ltd., March 8, 1988.
- 28. SUA: Development Studies Institute: Uluguru Mountain Area Project: Phase I Survey and Project Design, 1989.
- 29. SUA: Regulations and Guidelines for Higher Degrees at SUA, November 1988.
- 30. SUA: Minutes of the 10th Meeting of Research and Publications Committee Held on the 25th February 1987 at 2.35 p.m. in the CCE Meeting Room.

Appendix 6. Term of Reference for a Consultancy for IDRC.

G-C.M. Mutiso, Muticon, Nairobi

- D. Lee-Smith, Mazingira Institute, Nairobi
- G-C.M. Mutiso will prepare an outline project proposal for institutional development at Sokoine University of Agriculture, in line with IDRC objectives for ISRI funding, and based on requirements of SUA personnel. This task will be completed in a total of one month or 26-28 working days.
- 2. SUA will second one member of staff to assist in the drafting of the outline project proposal, including the facilitation of necessary discussions with concerned personnel at SUA and provision of documents and data in Morogoro. The member of staff seconded will also be responsible for logistical arrangements for the one-day workshop to review and finalize the outline project proposal towards the end of the consultancy.
- 3. G-C.M. Mutiso will spend ten working days at SUA identifying the components of the proposed project in detail, based on the priorities of concerned SUA personnel in relevant departments and administration. The SUA member of staff seconded will be available full time during this period to assist in project development.
- 4. G-C.M. Mutiso will finalize the draft document in Nairobi, and prepare the agenda for the one-day workshop for its finalization. He will attend and facilitate the workshop, and finalize the outline project proposal afterwards.
- 5. D. Lee-Smith will provide initial briefing for G-C.M. Mutiso based on the SUA evaluation carried out in 1985, will participate in the preliminary discussion with IDRC regional office staff, provide comment and feedback on the draft document being prepared for the workshop, and assist in final editing of the outline project proposal after the workshop. These tasks will take five days.
- 6. IDRC will provide necessary documentation and advice from the regional office staff involved in past, present and planned projects at SUA. IDRC will arrange for the photocopying of the draft document supplied by G-C.M. Mutiso in sufficient copies for the workshop.
- G-C.M. Mutiso will supply two copies of the final outline project proposal for use by SUA and IDRC.