



TANZANIA FARMER TRAINING AND PRODUCTION PROJECT

PROGRESS REPORT

OCTOBER 1979 - SEPTEMBER 1980

Submitted by  
Lloyd C. Pickett  
Team Leader

## TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
BRIEF HISTORY	2
OPERATIONAL PLAN	5
Purpose	5
Objectives and Outputs	5
Manning Requirements	7
Sequence of Activities	11
REVIEW OF PROJECT ACTIVITIES	12
Project Staffing - Field Staff	12
Project Staffing - Tanzanian Officers	17
Facilities	18
Commodities	21
Participant Training	23
Program	23
Activities/Accomplishments	24
Tracking System	27
Anticipated Problems	29
SUMMARY OF PROGRESS	32
APPENDIX A - Manpower Data	34
APPENDIX B - Plans of Work	37
APPENDIX C - Progress Reports	55

FARMER TRAINING AND PRODUCTION PROJECT  
TANZANIA

I. INTRODUCTION

The Farmer Training and Production Project was launched with the signing of a contract between West Virginia University (representing the Consortium of WVU and North Carolina Agricultural and Technical State University) and the United States Agency for International Development (USAID) in August 1979. This report of the period of October 1979 to September 1980 covers precisely the first year of the Project's activities. It was a year of preparation and beginning. Staff was recruited, transferred to Tanzania, trained in Swahili, and physically settled in.

This Project, financed at a level of US\$2.078 million by USAID and Tanzania Shillings (T.Shs.) 1.3 million in capital and recurrent costs committed by the Tanzanian Government, is aimed at improving the social and economic well-being of small farmers in Tanzanian villages. Achievement of this goal begins with seeking understanding of small farmer practices, constraints, and decision making. Building from this knowledge base, the Project will test different production packages, and use the most effective of them to help small farmers improve their production and income. The insights gained will help researchers and extension workers to function more relevantly.

The Project is being implemented through Ministry of Agriculture Training Institutes (MATIs) and will be integrated and coordinated with research and extension agencies. The capabilities of the four MATIs participating in this Project are being expanded to include Farmer Training Wings, each of which will focus on three or more villages in its surrounding area. MATI students and staff will collect information on agricultural production practices in those villages. This information will be used to identify requirements for assisting the villages to improve their production. The Wings will then provide training and technical assistance appropriate to the villages they sponsor, and will evaluate the effectiveness of the different approaches used.

Each Farmer Training Wing will have an advisory committee to guide the local program and to coordinate the efforts of the various agencies, party officials and village leaders involved.

In the second phase of the Project, the Farmer Training Wings are expected to provide training for extension workers within the areas surrounding each MATI. The program is expected to expand to other MATIs if it is successful. The findings of the program will be incorporated into recommendations for revisions in the curricula used for training extension officers.

## II. BRIEF HISTORY

Activity aimed at establishing Farmer Training programs at four MATIs was underway as early as 1974. The Tanzania Ministry of Agriculture (KILIMO) was interested in development of a more effective method of communication with and assistance to the farmers of rural Tanzania. Historically KILIMO had involved itself in a variety of farmer training efforts. By 1975 substantial dislocation had occurred in information and delivery systems to Tanzanian farmers. Farmer training centers had been absorbed into the Prime Minister's Office (PMO) and the principle of decentralization brought with it delegation of national responsibility for extension activities to the regions and districts under the PMO. Dissatisfaction with the status quo had become a major topic in the local press, and considerable official pressure was exerted for improvement in these information and delivery systems.

The Farmer Training and Production Project was first planned as a sub-project of the Agricultural Manpower Project, AID/afr-C-1067. The first annual Progress Report of that Project gave the following background:

In July 1975 a team composed of Dr. Ralph E. Nelson of WVU, Mr. Edward Hirobayashi of AID/Washington, and Mr. Charles Sweet of Development Alternatives, Inc., Washington, D.C., consulted with KILIMO, ST, and USAID/Tanzania officials. With the assistance of Marcus L. Winter of REDSO/Nairobi, the team drafted a Project Proposal to assist in the initiation of a new farmer training effort under the aegis of KILIMO. The proposal involved the establishment of a "Farmer Training Wing" at MATIa

Mbeya, Nyegezi, Mlingano and Mtwara, with a single Project person stationed at each of these MATIs to spearhead the work of formulating and supervising a grassroots approach to farmer training. MATI students and tutors would be involved in providing extension services to selected villages within their respective areas. The proposal has not yet been fully discussed with KILIMO, and the Project Paper (PP) is still in the formative stages. There is support for this Project in KILIMO and USAID/Tanzania and it appears that this Project can be funded during the current FY period. The philosophy of the Tanzanian approach to rural development is congruent with the USAID congressional mandate. This Project, or sub-project to the current Project, should be underway during 1976.<sup>1</sup>

The 1977 Progress Report for the Agricultural Manpower Project had this to say about the development of the Farmer Training and Production sub-project:

It is pleasing to report that the Project Paper on the Farmer Training component of this Project was approved by AID/W in November 1977. This was the culmination of two and a half years of preparatory work and we hope to be able to report at least some progress on this phase of the project during the next reporting period.<sup>2</sup>

The Farmer Training PIO/T was hand-carried into Washington in late November 1977, but to date we have no further word on the selection of a contractor to perform services outlined in the PP. Given the time lags, it is unrealistic to assume that the contractor will be selected and field personnel recruited and gotten to Tanzania before mid-year 1978 at the very earliest. Some preparatory activities are taking place in the field:

a) A supplementary budget is being processed through the Tanzanian Treasury by KILIMO to allow the two houses and the additional facilities required for the Farmer Training activities to be constructed using local funds. These costs will then be returned to KILIMO on a fixed amount reimbursable basis from project monies. In the near future, plans for housing and additions to MATI buildings will be submitted to USAID and REDSO authorities for their approval prior to the actual start of construction activities. It is planned that all of the construc-

<sup>1</sup>Maxwell, Robert H. Tanzania Agricultural Manpower Project Progress Report, February-December 1975. West Virginia University, Office of International Programs Report No. 56, April 1976.

tion and modifications planned can be undertaken by the maintenance and building crews of the four MATIs involved in the Farmer Training activities. This approach is an attempt to avoid some of the problems experienced with centrally tendered, regionally supervised, building contracts.

b) Arrangements were incorporated into the PP and Pro-Ag which will involve KILIMO in the final selection of the contractor as well as contractor personnel for this sub-project.

c) The Project Manager and the Mission have been successful in their efforts to obtain a waiver for the purchase of other than American-made vehicles for use in the Farmer Training activities. This is welcome, indeed, in terms of operating costs, availability of spare parts, and most importantly the safety of personnel who will be driving the vehicles. For the first time, we shall be able to order right-hand drive models.

d) The selection process for suitable participant training candidates under the sub-project is now underway in KILIMO.<sup>2</sup>

In 1978 and early 1979 the Project was scrutinized in Washington for design appropriateness, and the long process of bidding and then awarding of a separate project contract took place. In the meantime, construction of a staff house was begun at Mlingano and funds were sub-warranted from KILIMO to begin construction on a house for the expatriate staff at Nyegezi. Plans for farmer classroom facilities at Mtwara, Mbeya and Mlingano were developed by the Ministry of Communications and Works. Five Landrovers and thirty Honda motorcycles were ordered, which arrived in Dar es Salaam well ahead of the signing of the project agreement.

A contract between AID/Washington and West Virginia University (representing the consortium of WVU and North Carolina A&T State University) was signed in August 1979. It provided \$2.078 million to conduct a four-year pilot project. Dr. Lloyd Pickett was appointed Project Coordinator. Dr. Pickett also served as Chief of Party for the final nine

<sup>2</sup> Maxwell, Robert H. Tanzania Agricultural Manpower Project Progress Report, January-December 1977. West Virginia University, Office of International Programs Report No. 59, April, 1978.

months of the consortium's Agricultural Manpower Project.

### III. OPERATIONAL PLAN<sup>3</sup>

#### A. Purpose

The Farmer Training and Production Sub-Project of the Agricultural Manpower Project will provide technical assistance to the Ministry of Agriculture in developing and implementing training programs for small farmers at selected Ministry of Agriculture Training Institutes (MATIs) and villages. The process of developing and implementing the farmer training courses will begin by gaining an understanding of small farmer practices, constraints and decision-making processes. Building from this knowledge base, the project will work with small farmers to test different training and extension approaches and technological packages, the adoption of which will help small farmers improve their production and increase their incomes.

The stated purpose of this sub-project is to increase food production and small farmer incomes by developing a mutual understanding between the farmers and extension agents in such a way as to lead to better comprehension and appreciation of farmers' production problems and social/economic attitudes. It is anticipated that this will result in the preparation and adoption of improved agricultural practices and farming methods.

#### B. Objectives and Outputs

To date, little has been done in Tanzania to encourage small farmers in a direct way to change their traditional agricultural practices. Formal training attempts have touched only a few, often with irrelevant or unsuitable information. Yet if agricultural development is to occur, the millions of small farmers must be provided with some additional technical knowledge and information. How to reach and effectively train small farmers who possess little or no education is one of the major problems in Tanzanian agriculture. It is the solution of this problem to which this sub-project addresses itself.

To accomplish the objectives of this sub-project, the USAID will provide technical services to the Ministry of Agriculture and selected MATIs (Mtwara, Mbeya, Nyegezi and Mlingano) to:

<sup>3</sup> Taken from the Contract, AID/afr-C-1480

1. Develop methodologies for gathering information on small farmer production practices, constraints and decision-making processes.
2. Utilize the knowledge gained to develop small farmer training programs at participating Ministry of Agriculture Training Institutes (MATIs). The program will be designed to facilitate greater understanding and communication between the farmers and extension workers.
3. Test small farmer acceptance of new technological packages and the efficacy of various extension and training approaches in transferring agricultural knowledge to small farmers and villagers.
4. Conduct follow-up evaluations of the farmer training programs to determine if they are having the desired results and if not, why not. Evaluations will also be used to refine and improve course content and teaching techniques for the MATIs as well as their Farmer Training Wings.
5. Upgrade the capabilities of agricultural extension personnel through in-service training courses. The favorable results of the information gathering and farmer training experience are to be incorporated into the programs of other MATIs.
6. Assist MATI staff and students to provide technical assistance to those villagers whose farmer members attend courses at the Farmer Training Wings.
7. Identify solutions to production constraints that can be incorporated into national, regional and district development plans.

**Project Outputs** include, but are not limited to, the following specific outputs:

1. A Farmer Training Wing at each of the four participating MATIs.
2. Technical assistance provided by MATIs to villages (including training at Farmer Training Wings and in villages).
3. Trained staff and students in data collection and analysis methodology.

4. Simple information gathering instruments for use in research, training and extension at the participating MATIs.
5. Stronger linkages between research, training and extension to ensure the flow of new ideas to the small farmer.
6. Planning papers for extension, regional and district development officials.
7. Teaching materials and techniques developed for small farmer training programs.
8. Improved in-service training courses for extension agents at the MATIs.
9. Yield-increasing farming practices successfully extended to farmers and villages.
10. Improved production input packages tested in the MATI and Farmer Training Wing sponsored villages.

#### C. Manning Requirements

<u>Number</u>	<u>Title</u>	<u>Assignment Duration</u>
1	Rural Development Coordinator and Team Leader	Two year contract tour Four and a half year position duration
4	Rural Development Specialists (1 for each of 4 MATIs)	Two year contract tour Four year position duration

Job descriptions, duties and qualifications for contract technicians follow:

Rural Development Coordinator and Team Leader (Data Collection and Analysis Specialist), Manpower Development Division, Ministry of Agriculture, Dar es Salaam, Tanzania.

#### Duties, Responsibilities and Supervision:

Assistance will be given to the Ministry of Agriculture by supplying a Rural Development Coordinator to serve in a staff (non-administrative) capacity. In collaboration with the Ministry of Agriculture training officers, the principals of the MATIs and the technical staff supplied under this project, and under the general supervision of the Director, Manpower Development Division, the Rural Development Coordinator will assist the Manpower Development Division to design, organize and implement

appropriate data collection and analysis systems for the participating MATIs and to collate and analyze the information for utilization in training and extension programs in district, regional and national planning efforts. The Rural Development Coordinator will also serve as Team Leader for the U.S. contract technicians working on this sub-project.

As assigned and directed by the Director, Manpower Development Division, the duties of the Rural Development Coordinator will include:

- Assisting in the design of the research program of the four participating MATIs necessary for understanding farmer behavior;
- Help the various Tanzania institutions in devising and testing various training and extension methods and technological packages;
- Organize a system to collect, analyze and present the data collected from the four MATIs;
- Assist in the interpretation of the information and the preparation of implementation plans that enable the Ministry (and other agencies) to utilize the findings of the research and testing undertaken;
- Serve as Team Leader of the 5-person team supplied under this sub-project;
- Other duties as assigned.

All work of the Rural Development Coordinator will be coordinated through the Chief of Party of the overall Agricultural Manpower Development Project (in his capacity as Special Assistant to the Director of Manpower Development).

### Qualifications

#### Education

Academic background should include work at the Ph.D. level or equivalent experience with a Masters degree. This individual should have training in several disciplines with a major field in sociology, agricultural economics, applied anthropology, or an interdisciplinary program in rural or international agricultural development.

#### Experience

Four to six years experience as an agricultural or rural development specialist. The individual selected must have an understanding of traditional small farming systems and experience in introducing changes into these systems. The individual must also have developing country experience (preferably in Africa) in the design and conduct of farmer and extension worker training programs.

Background in applied research methodology, to include experience in the design of data collection instruments and in data analysis. The individual must be able to assess the capabilities of the MATIs and other Tanzanian institutions for doing this type of work and to develop a program with these capabilities.

#### Other

Ability and willingness to engage in frequent and extended field travel is required.

While Swahili capability is not required, it would be advantageous and funds have been made available for such training. The incumbent of this position must have, as a minimum, demonstrated language aptitude.

### Rural Development Specialists (4)

#### Duties, Responsibilities and Supervision

The four Rural Development Specialists will serve as staff (non-administrative) members of the participating MATIs. In collaboration with other MATI staff members and appropriate officers of the Ministry of Agriculture and under the general supervision of the Principals, the Rural Development Specialists will assist in the design and implementation of the programs of the Farmer Training Wings of the MATIs.

As assigned and directed by the respective Principals the duties of the Rural Development Specialists will include:

- Assisting in the design of the research effort necessary to to gain a better understanding of farmer behavior and farming practices;
- Assist in the design and testing of various training and extension methods and different technical packages;
- Train the MATI staff and students in data collection and analysis techniques;
- Provide inputs into regional and district planning.
- Assist as part of the MATI team in dispensing technical assistance of an appropriate nature to the farmers and villagers.

#### Qualifications

##### Education

Academic background should include a minimum of an M.S. degree. The

individual should have one degree in agriculture with supporting studies in agricultural and economic development, sociology, applied anthropology or communications.

#### Experience

Four to six years experience as an agricultural or rural development specialist is required. The individuals selected must have an understanding of traditional farming systems (preferably in Africa) and experience in introducing changes into these systems. The individuals must also have experience in the design and conduct of farmer and extension worker training programs.

Background in applied research methodology, to include experience in the design of data collection instruments and in data analysis. The individual must be able to assess the capabilities of the MATIs and other Tanzanian institutions for doing this type of work and to develop a program with these capabilities.

#### Other

Language capability in conversational Swahili is essential to facilitate communication with staff and farmers and allow close monitoring of training and research programs. Provision for language training for staff members and their spouses may be included in the contract, though, if possible, Swahili speakers with experience in East Africa should be recruited. The Rural Development Specialists (but not spouses) should possess a Foreign Service Institute (FSI) Swahili language rating in conversation at the 1.5 level prior to arrival in Tanzania. Other testing methods equivalent to FSI standards may be used.

Willingness to live and work under isolated field conditions.

It would be desirable if these Specialists were single or that their families were small.

#### Duty Stations

These four officers will be stationed one each at the MATIs Mtwara, Mbeya, Nyegezi, and Mlingano.

#### Other Considerations in recruiting/nominating Contract Technicians:

The four MATIs participating in this sub-project are in remote and widely separated towns and cities in Tanzania. The USAID/Tanzania does not provide logistics support to contract technicians other than those which can be performed in Dar es Salaam. It is imperative, therefore, that the four Rural Development Specialists be self-reliant during their tours in Tanzania and that they be able to get along well and work well with their Tanzanian co-workers.

## D. Sequence of Activities

1. Submission of formal staff nominations.
2. Notification by USAID of acceptance of staff nominations following interviews by USAID/T.
3. Staff Orientation Program on WVU campus.
4. Departure of contract team for Tanzania.
5. In-country Orientation Program conducted by Agricultural Manpower Chief of Party and relevant Project staff, staff of Manpower Development Division of Tanzanian Ministry of Agriculture, and USAID/T, in cooperation with relevant staffs of Regional administrations, MATIs, and University of Dar es Salaam Faculty of Agriculture and Forestry.
6. Rural Development Specialists proceed to assigned posts, Rural Development Coordinator works with Agricultural Manpower project Chief of Party. Specialists work closely with MATI staffs and students, village committees and farmers, Regional and District authorities, in gathering and analyzing village data, developing communications systems and technical packages, suggesting preliminary curriculum innovations, suggesting planning recommendations, and establishing a firm monitoring and evaluation system. All work assisted and monitored by Rural Development Coordinator, who also begins to develop early suggestions for potentially system-wide applications for findings and strategies across Farmer Training-assisted MATIs, and more speculatively, across entire Tanzanian MATI system. Rural Development Coordinator also liaises with Chief of Party, Director of Manpower Development, and campus coordinator on necessary supports, generally develops proposed general policy suggestions from results obtained by Rural Development Specialists, and assists Specialists during frequent field trips to participating MATIs, Regional and District headquarters, and villages.
7. On the basis of the preceding months' experiences, and with the assistance of relevant Government officials, MATI staffs and students, Chief of Party, USAID/T, and others, Rural Development Coordinator and Rural Development Specialists meet and develop formal Farmer Training Communications and Technical Assistance System, to be standardized in the Farmer Training Wings of the four participating MATIs.
8. Farmer Training field staff subject Farmer Training Communications and Technical Assistance System to a minimum one-year test, and constantly monitor and evaluate the relative

merits and applications of component information and technical assistance sub-systems of the System. Team members provide for major refinements of the System, and possible extension of the System to MATIs not included within the sub-project, by the end of their tours of duty.

A U.S. participant training component to the Farmer Training Sub-Project will be implemented. The objective of the participant training component will be to provide a small cadre of specifically trained Tanzanian rural development specialists, who will continue and expand on the work of the Farmer Training team, after the team has left Tanzania at the completion of the contract.

In all of the activities in the operational plan, the Farmer Training field team will be fully supported by the Consortium administrative and technical backstopping services. These services are centered in and coordinated by the Division of International Agriculture and Forestry at West Virginia University. This office will also coordinate and manage the participant training component.

#### IV. REVIEW OF PROJECT ACTIVITIES

##### A. Project Staffing - Field Staff

The contract between USAID and WVU/NCATSU consortium was signed in August 1979. Dr. Lloyd Pickett was appointed as Team Leader and Rural Development Coordinator. O. T. Kibwana was appointed by the Ministry of Agriculture to serve as its Liaison Coordinative Officer to work with Dr. Pickett at the national level. Mr. Kibwana had for several years been Director of the Farmers Education Section of the Ministry of Agriculture. Earlier he served in several agricultural extension positions, some at village level. When Mr. Kibwana and his section were transferred out of the Manpower Development Division during the March 1980 reorganization of the Ministry of Agriculture, Richard Shayo was appointed as Coordinative Officer. Mr. Shayo has a B.Sc. degree in Agricultural Education/Extension and professional experience in the MATIs.

In January 1980 J. J. Mende representing KILIMO, Ron Harvey, Project Officer, USAID/Tanzania, and Lloyd Pickett, Team Leader, traveled to Morgantown, West Virginia, to interview candidates for the four Rural Development Specialist positions. Three of the seven candidates were offered contracts. Two, Charles Smith and Gene Peuse, accepted. Smith and his family arrived in Tanzania during April 1980. Peuse finished his doctoral degree and arrived in Tanzania in September 1980.



Lloyd and Kay Pickett

The Picketts reside in Dar es Salaam where Lloyd serves as Team Leader for the Project. He formerly was Chief of Party for the Agricultural Manpower Project; he is now in his fifth year in Tanzania. The Picketts have two children: Steve, who is with them in Dar es Salaam, and Rachel, who is in school in the U.S.



Gene Peuse

Gene and his dog are at home on the grounds of the Uyole Agricultural Centre near Mbeya where Gene serves as Rural Development Specialist at the MATI. A former Peace Corps volunteer in Cameroon, Gene completed his Ph.D. at the University of Illinois just prior to joining this project. He began work in Tanzania in September 1980.

David has been Rural Development Specialist at MATI Mlingano since September 1980, after completing graduate work at Cornell University. He earlier served in Nepal as a Peace Corps volunteer.



David Scheinman



Jane and David Acker

MATI Mtwara is home for the Ackers, who have been joined by a new daughter since this picture was taken. David is the Rural Development Specialist at the Mtwara project site. He finished graduate work at the University of California/Davis before joining this project. He previously worked at the American Farm School in Greece. The Ackers arrived at Mtwara in August 1980.



Judith, Amy  
and Charles Smith

The Smiths live on the compound at MATI Nyegezi where Charlie serves as Rural Development Specialist. The Smiths came on board in April 1980. Charlie previously served in Nigeria and Cameroon.

In the meantime the consortium nominated the remaining two Rural Development Specialists. David Acker and his wife arrived in Tanzania in August 1980 and David Scheinman arrived in September 1980.

All four Specialists and the two wives had brief Kiswahili language instruction at WVU and have now completed four additional weeks of language training at the Expatriate Development Workers Training Center in Morogoro.

Consortium Field Staff - September 30, 1980

<u>Name - Rank - Institution</u>	<u>Responsibility</u>	<u>Arrival Date</u>
<u>Dr. Lloyd Pickett - WVU</u> Adjunct Professor Agricultural Education	Team Leader and Rural Development Coordinator	July 19, 1979

Dependents: Wife, Kay  
Children, Rachel - 16  
Steven - 14

Previous experience: Coordinator of Studies and Deputy Principal, MATI Mpwapwa, two years. Agricultural Education consultant on the Tanzanian Agricultural Manpower Study, 1979. Supervisor of Extension Programs for American Indians, Montana, six years. Teacher/researcher/adviser, Afghanistan, six years.

Education: Agronomy, Plant Pathology, Adult Education, Sociology of Development

<u>Charles Smith - WVU</u> Adjunct Assoc. Professor Agricultural Education	Rural Development Specialist	April 11, 1980
--	------------------------------	----------------

Dependents: Wife, Judith  
Child, Amy - 2

Previous experience: Secondary School agricultural education adviser, Liberia, one and a half years. Agricultural education and extension lecturer, Cameroon, three and a half years. Secondary school agricultural adviser, Nigeria, three and a half years.

Education: Agricultural Education

<u>David Acker - WVU</u> Adjunct Asst. Professor Agricultural Education	Rural Development Specialist	August 5, 1980
---	------------------------------	----------------

Dependent: Wife, Jane

Previous experience: Director of Agricultural Development Center and tutor in farm school, Greece, three years.

Education: International Agricultural Development, Agricultural Education, Sociology

Dr. Gene Peuse - NCATSU  
Adjunct Asst. Professor  
Agricultural Education

Rural Development Specialist

September 12, 1980

Dependents: None

Previous experience: Project coordinator, Nigeria, one year.  
Agricultural education teaching assistant, University of  
Illinois, three years. Peace Corps volunteer, Cameroon,  
two years. Peace Corps recruitment manager, three years.

Education: International Agricultural Education

David Scheinman - NCATSU  
Adjunct Asst. Professor  
Agricultural Education

Rural Development Specialist

September 12, 1980

Dependents: None

Previous experience: Research assistant, Cornell University,  
two years. Private business, four years. Peace Corps  
volunteer (extension), Nepal, four years.

Education: International Agriculture/Rural Development

B. Project Staffing - Tanzanian officers assigned to Farmer Training  
Wings during reporting period

MATI Nyegezi

Mr. J. H. Gwau  
B.Sc.  
Agriculture

Ms. P. C. Makwala  
Diploma  
Home Economics

Mr. B. H. Matanga  
Diploma  
Livestock Production

MATI Mwaru

Mr. P. Mwakisyombe  
Diploma  
Nutrition

Mr. A. Mtukwe  
Diploma  
Farm Management

MATI Mlingano

Mr. George Sechombo  
Diploma  
Farm Management

Mr. Benedict Matalibu  
Diploma  
Adult Education

MATI Uyole

No wing staff yet assigned

C. Facilities

A total of U.S.\$111,000 was obligated in the Project Agreement for the construction and renovation of facilities required to initiate Farmer Training and Production Projects at the four sites. Funds were released by USAID/Tanzania to the Ministry of Agriculture and thence to the appropriate MATI principals who used mainly their own permanent personnel to procure materials and supervise the work. The following section briefly describes progress of facility construction.

Farmer Training and Production Wing FacilitiesStatus at Beginning and End of Year

<u>MATI</u>	<u>FACILITY</u>	<u>STATUS Oct. 1979</u>	<u>STATUS Sept. 1980</u>
Nyegezi	Rural Dev. Spec. House - new	Interior & plumbing unfinished. Furniture not built. No utility hook-ups.	Occupied in July. Needs supplementary water system.
	Farmer class-room and office block - pre-existing	Renovation not started.	Room divider frame-work up. Hardboard unavailable at Government Stores. Completion target date Feb. 1981.
	Farmer dormitory - pre-existing	Renovation not started.	Renovation not started. February target. Funds are released. Toilet facilities should be considered.

<u>MATI</u>	<u>FACILITY</u>	<u>STATUS Oct. 1979</u>	<u>STATUS Sept. 1980</u>
Mtwara	Rural Dev. Spec. House - pre-existing	Needed paint, cabinets, and supplementary water supply.	Occupied in Aug. Water system yet to be constructed. Comple- tion target date Jan. 1981.
	Farmer classroom and office block - new	Foundation in. Some supplies collected.	Walls in progress. Completion target date - June 1981.
	Farmer dormitory - pre-existing	Useable.	Useable.
Mlingano	Rural Dev. Spec. House - new	Complete except for kitchen cabinets and minor details.	To be occupied Oct. 1980. A few minor problems. Kitchen cabinet is being added.
	Farmer classroom and office block - new	Nearly half com- pleted.	Useable but plumbing and electrical wiring incom- plete.
	Farmer dormitory - new.	Less than half com- pleted.	Plumbing and electrical wiring incomplete.
Uyole	Rural Dev. Spec. House - pre-existing	Useable	Useable. Minor adjust- ments required. To be occupied Oct. 1980.
	Farmer classroom - new	Walls going up.	Useable.
	Farmer dormitories - pre-existing	Useable.	Useable.

The progress in completing wing facilities has been slow during the year, but in all cases facilities should be ready for use by the time the MATI schedules call for the training of farmers to begin. Unavailability of building materials has been the major cause of delays in completion of buildings. The Team Leader and his administrative assistant were able to help procure building materials from suppliers in Dar es Salaam.

The Team Leader requested and received approval from USAID for the expenditure of approximately \$4,000 from project funds to upgrade the Rural Development Specialists' houses and to partially resolve water shortage problems. Extra kitchen cabinets are now installed in one house and water systems or modifications are being installed in three houses. This work is being done under the supervision of MATI and project staff.

Appliances and beds for staff houses have been supplied by USAID and generally satisfactory furniture has been provided by the Tanzanian Government. Closets were not built into the bedrooms at Nyegezi and clothing storage cabinets have not yet been provided.

Appliances and beds procured by USAID/Tanzania for this project arrived two to three years before the project staff and were issued to other projects in the meantime. Thus, staff on this project have been issued some used equipment, especially beds and air conditioners. We are still attempting to obtain two beds, and two appliances remain to be delivered to the sites.

Project back-up appliances and spare parts have also been used elsewhere. This will no doubt precipitate some crises when appliances fail, as they will, given the unpredictable voltage at several sites. Spare parts and replacement appliances should be procured by USAID/Tanzania for project appliances.

Mtwara is an especially difficult post. Water has to be hauled from 22 km. away much of the year. The little water that flows some months is dirty and brackish. The Rural Development Specialist there, David Acker, plans to build a cistern for roof water collection and for storage of hauled water. That area is also poorly supplied with vegetables and meat, dairy products and grains.

Uyole at the present time is suffering a severe shortage of electrical power, making the operation of refrigerators almost impossible. Electric power is available only three hours per day.

Obtaining cylinders of cooking gas (propane), light bulbs, paint, water filters, etc. for new staff has been difficult. Settling in, especially into the incomplete house at Nyegezi, has been time-consuming, but is a necessary prerequisite to project objectives.

In summary, the slow progress in completing facilities is understandable in the present Tanzanian context and serious program delays are not anticipated. However, the dormitories (hostels) at Nyegezi and Mlingano must be prepared immediately to avoid delays.

#### D. Commodities

The Project provides for about \$356,000 (T.Shs.2.9 million) for commodities via USAID funds. About half of this amount is budgeted for the first year. Over the four-year period of the project, the MATIs are budgeted as follows: Mtwara, \$77,500; Nyegezi, \$65,000; Mlingano, \$80,000; Uyole, \$77,100; and other MATIs, \$54,700.

Five Landrovers and thirty Honda 90 motorcycles (trailbikes) were ordered in 1977-78, when an earlier initiation of the Project was anticipated. These vehicles were on site and unused in early 1979 when USAID and the Ministry of Agriculture were looking for transport for the Tanzania Agricultural Manpower Study Team. As the Manpower Study was to be managed by the WVU/NCATSU consortium as an appendage to the Tanzanian Agricultural Manpower Project, it was decided to use the Landrovers to conduct the Study's field work. Each vehicle was used for some 12,000-18,000 km. between March and October, 1979. One vehicle was then transferred to MATI Ukiriguru in exchange for its expected new vehicle upon its arrival. The Rural Development Specialist at MATI Nyegezi now has that new vehicle. The Team Leader kept one Landrover for his use and three were stored at the USAID General Services compound awaiting arrival of project staff.

The Team Leader had the vehicles repaired after the departure of the Manpower Survey consultants, and they were roadworthy in November-December, 1979. The condition of the vehicles deteriorated somewhat during storage. Seals dried out, the sun continued to damage canvas, tires and paint. Petty thievery occurred, and various individuals, Project and USAID, used them occasionally, with scant attention to maintenance. The vehicles were rehabilitated again in August 1980 and were in good condition when project staff arrived.

Twenty-seven of the original motorcycles were taken by another USAID project in late 1979, by agreement between USAID and the Ministry of Agriculture. The contractor was not notified of this action. Replacements arrived in August 1980. The present disposition of project Landrovers and motorcycles is as follows:

Vehicles

TZ 45292 Landrover Pickup, 1978 Model, MATI Uyole  
 TZ 45293 Landrover Pickup, 1978 Model, MATI Mlingano  
 TZ 45294 Landrover Pickup, 1978 Model, MATI Mtwara  
 TZ 45337 Landrover Stationwagon, 1978 Model, KILIMO, Dar es Salaam  
 (Team Leader)  
 TZ 51858 Landrover Stationwagon, 1979 Model, MATI Nyegezi

Motorcycles

(All Honda 90s, all new except as indicated)

6 at MATI Nyegezi

4 at MATI Mtwara

17 in storage at a KILIMO warehouse in Dar es Salaam

2 in storage at USAID's Contractor Warehouse

1 in use by Project administrative assistant, Dar es Salaam (2 years old)

In November 1979 the Team Leader and KILIMO Coordinative Officer began to press the MATI principals to update the commodity lists appearing in the Project Paper to meet present needs. An alternative list of commodities was developed and ordered. The items ordered incorporate the thinking of the Director of Manpower Development and Administration (DMDA-KILIMO), the Team Leader, the USAID Project Officer, and MATI staff. Some of the supply items requested by MATIs have been eliminated. For example, the DMDA requested that 8 mm. movie equipment not be brought into the country as service is not available.

The expected arrival of this order is mid-year 1981. The order request has already been returned once from Washington, D.C. for corrections, and some further delays emerged while this report was being written regarding waivers of source and origin requirements.

Any necessary additional equipment and supplies should be ordered soon because of the time lag between ordering and receiving.

USAID/Tanzania should set aside monies and appoint a person to assist MATIs in the procurement of parts for U.S.-manufactured machines following project close-out in 1983. Otherwise the machines may soon become white elephants cluttering shelves in the MATIs.

### E. Participant Training

The six long-term participants funded by the Project left for undergraduate degree training in the U.S. in January 1980. They are expected to complete Agricultural Education/Extension degrees in December 1981. They are:

<u>NAME</u>	<u>PREVIOUS POST</u>	<u>U.S. UNIVERSITY</u>
S. Lugeye	Tutor at MATI Mpwapwa	NCATSU
J. Mashiba	Tutor at MATI Mlingano	NCATSU
G. Mariki	Tutor at MATI Ilonga	WVU
R. Mlozi	Tutor at MATI Ukiriguru	WVU
O. Kusaga	Tutor at MATI Mtwara	WVU
D. Sendeu	Tutor at MATI Mlingano	WVU

The six participants were selected and prepared to depart Tanzania in August 1979, but delays in signing of the contract finally made that departure date impossible. This was a setback for the project, as we will probably remain deficient in competent staff until these men return.

The Project Paper provides for nine short-term participants (Tanzanian officers) to visit other countries. A February trip to another country is being attempted, but thus far no particular project or country has been identified. Responses to our early letters of inquiry have been disappointing.

### F. Program

The purpose and objectives of the Farmer Training and Production Project have been broadly described in the Operational Plan. It was originally anticipated that the Farmer Training and Production Project would get underway during the life of the consortium's Agriculture Manpower Project. A Chief of Party would have administered the combined projects and a Project Coordinator would have worked specifically with the Farmer Training and Production Project program. Because the Farmer Training and Production contract was signed only one year before the mother project was scheduled to terminate, the contractor felt it was unnecessary to recruit a separate Chief of Party. Dr. Pickett assumed both roles and in addition was in demand for several months as a consultant to the Manpower Study, which added considerably to his administrative load. The field staff arrived in Tanzania during the latter part of this reporting period. The Rural Development Specialist at MATI

Nyegezi was on site for 5½ months of the reporting period, all others less than two months.

Program Activities/Accomplishments During the Year

1. A beginning was made by the Team Leader in collecting and reviewing literature and in the acquisition of exemplary data collection instruments. Copies of these selected materials were made available to Wing staff.

2. The Team Leader and his colleagues developed a number of discussion papers for use in orientation and planning. They include:

- Expected Outcomes of the Project
- Anticipated Problems
- Proposed Staff and Their Duties
- Proposed Organizational Structure for Farmer Training Wings
- Suggested Extension Practices or Approaches to be Employed in the Project
- Suggested Simple Experiments and Observations to be Made
- Suggestions for Orientation and Training of MATI Staff, Wing Staff, and Students
- Suggestions for Tutors Teaching Farmers at the FT Wings
- Some Ways Students Might Participate
- Suggestions for Data Collection
- Summarization of Project Paper
- Status of Farmer Training and Production Project

These papers were read and discussed with various KILIMO Headquarters and Farmer Training Wing staff and some revisions were made.

3. The Team Leader and Coordinative Officer from KILIMO Headquarters made two or three visits to each Wing for orientation and planning purposes prior to the arrival of the Rural Development Specialists. Trip notes or minutes are available from all such visits. Contacts were also made at research stations, with Regional development projects, and KILIMO extension officers at the Farmer Training project sites. They also met with KILIMO Headquarters staff on three occasions to discuss plans, approaches and organizational arrangements.

4. In October 1979 the USAID Project Officer and the Team Leader projected target dates for various activities or stages of the Project. This

was updated in November 1980 and is included in this report. Activity lists for the Team Leader and KILIMO Coordinative Officer were developed about every three months as preliminary planning tools.

5. Following the arrival of Charles Smith, Rural Development Specialist assigned to MATI Nyegezi, the Team Leader and the KILIMO Coordinative Officer made four visits to that area. During the first visit, we held an orientation meeting with the staff of the MATI, evaluated housing needs, and initiated the planning of the program there. The second visit was a brief call to monitor progress on the housing and other activities. The third visit involved meeting new staff assigned to the Farmer Training Wing and providing some further orientation, discussion of various ideas concerning approaches to be used in the program at Nyegezi, and planning with the principal and assigning various responsibilities in the Farmer Training Wing. We also made several village visits. On the fourth trip we discussed budgeting, further staffing needs, the development of data collection instruments including a tutor attitudinal questionnaire, and planned a farmer training event with the MATI staff. We also visited several local officers to promote cooperative efforts in the Nyegezi program.

A local Advisory Committee has been formed at MATI Nyegezi which has become active and supportive. Data have been collected from village leaders and families in three participating villages. A large number of families have been interviewed and evaluated in the specific area of nutrition. A very good start on this activity was made under the direction of Deputy Principal Gwau and his officers at MATI Nyegezi. Tutors have now completed the attitudinal questionnaire in order to establish a baseline on tutor attitudes and habits. Students have been given training in interviewing, after which they participated effectively in the collection of individual farmer and family data from the villages.

6. An official letter for KILIMO was developed and sent to the Regions from the Principal Secretary, introducing Farmer Training and Production Project personnel to the KILIMO field staff and requesting support for project activities.

7. A National Advisory Committee in Dar es Salaam was developed.

8. Various local resource persons have been consulted. Examples:
- Dr. Maeda and his staff at the Institute of Development Studies (IDS), University of Dar es Salaam (UDSM) were visited by the Project Coordinators to obtain feedback on two interview forms.
  - Dr. Jim DeVries and colleagues at the Faculty of Agriculture, UDSM, were consulted briefly three times on general approach and data collection.
  - Mr. Lupanga from UDSM represented the Faculty at the recent National Advisory Committee meeting.
  - Officers of the Regional Integrated Development Projects (RIDEPs) at Tanga and Lindi-Mtwara were contacted twice for discussion of programs, approaches, data collection and collaboration.

The following tracking system identifies target dates for the accomplishment of various Project outputs or events at each of the Project sites. Note that in the upcoming report year, Wing staff are scheduled to complete their facilities, collect and analyze data, test some cultural practices and input packages in villages, and initiate farmer training. These plans are well underway at this time.

## FARMERS TRAINING AND PRODUCTION PROJECT

TRACKING SYSTEM

<u>Activity or Output</u>	<u>Nyegezi</u>	<u>Mtwara</u>	<u>Mlingano</u>	<u>Uvole</u>
1. Farmer Training Wings established				
a. Building Construction	10/80- 2/81	3/80- 2/81	7/78- 2/81	3/80 12/80
b. Rural Development Specialist and some support staff at post	6/80- 9/83	8/80 9/83	9/80- 9/83	9/80- 9/83
c. RDSs in Language Training	4/80- 5/80	9/80- 10/80	9/80- 10/80	9/80- 10/80
d. Wing Advisory Committee Operative	9/80- 9/83	12/80- 9/83	1/80- 9/83	1/80- 9/83
e. Motorcycles and Landrovers at Wings	9/80- 9/83	9/80- 9/83	1/81- 9/83	1/81- 9/83
f. Large initial Order of Equipment and Supplies Available	1/81?	1/81?	1/81?	1/81?
g. National Coordinative Committee Operative	9/80- 9/83	9/80- 9/83	9/80- 9/83	9/90- 9/83
2. Data Collection Instrument Development				
a. Village	8/80	11/80	11/80	11/80
b. Family	10/80	12/80	12/80	12/80
c. Student	12/80	12/80	12/80	12/80
d. Staff	9/80	12/80	12/80	12/80
3. Training Students and Staff In Data Collection and Analysis	9/80	12/80	12/80	12/80
4. Data Collection and Analysis				
a. Village	8/80	11/80	12/80	12/80
b. Family	9/80- 10/80	12/80 1/81	1/81	1/81
c. Student	9/80	11/80	12/80	12/80
d. Staff	9/80	11/80	12/80	12/80

	<u>Nyegezi</u>	<u>Mtwara</u>	<u>Mlingano</u>	<u>Uyole</u>
5. First annual Evaluation	1/81	1/81	1/81	1/81
6. Improved Cultural Practices Developed and Tested in Villages	12/80- 5/83	1/81- 5/83	3/81- 5/83	3/81- 5/83
7. Improved Input Packages Developed and Tested in Villages	12/80- 5/83	1/81- 5/83	3/81- 5/83	3/81- 5/83
8. Farmer Training Materials Developed	10/80- 9/83	2/81- 9/83	3/81- 9/83	3/81- 9/83
9. Farmer Training	11/80- 9/83	12/80- 9/83	3/81- 9/83	3/81- 9/83
10. Tour of Farmer Training Project in Another African Country	2/81	2/81	2/81	2/81
11. Short Term Consultant Visit	1/81	1/81	1/81	1/81
12. Curricular and Extension In-Service Training Materials Developed	9/82- 8/83	9/82- 8/83	9/82- 8/83	9/82- 8/83
13. Planning Papers				
14. Return of Farmer Training Participants from U.S. Training	12/81	12/81	12/81	12/81
15. Orientation of Farmer Training U.S. Trainees with Wing Activities	1/82- 6/82	1/82- 6/82	1/82- 6/82	1/82- 6/82
16. Second Annual Evaluation	1/82	1/82	1/82	1/82
17. Village Assistance	11/80- 9/83	12/80- 9/83	3/81- 9/83	3/81- 9/83
18. Improved Extension Methods Tested	2/81- 9/83	5/81- 9/83	6/81- 9/83	5/81- 9/83
19. Expansion of Farmer Training to Other MATIs	6/82- 9/83	6/82- 9/83	6/82- 9/83	6/82- 9/83
20. On-Job Training of Regional Extension Workers	9/82- 9/83	9/82- 9/83	9/82- 9/83	9/82- 9/83
21. Project Phase Down and Transfer of Duties	7/83	7/83	7/83	7/83

	<u>Nyegezi</u>	<u>Mtwara</u>	<u>Mlingano</u>	<u>Uyole</u>
22. Annual Plans of Work Due from Field Staff	11/80	12/80	1/81	1/81
	Submit annually each September thereafter			
23. Reports Due from Field Staff	Submit quarterly and each September			
24. Final Reports Due	1/84	1/84	1/84	1/84

### Anticipated Problems

Insufficient Time Span. The Project has four years in which to recruit and field staff, organize programs, test and refine several methodologies and programs, obtain significant social and economic improvement in villages, expand the project to other MATIs, train Tanzanian Extension staff in the light of our experiences, and finally to modify MATI curricula according to our findings. Most of a year has been devoted to start-up. So there is something of a time crunch for extending and applying the results of the Project. To meet our objectives, we must run hard from start to finish. We do not want to dilute our goals.

Agricultural Development Constraints. Visits to the Agricultural Research Institutes in Tanzania remind one again and again of the dearth of feasible technological packages which can be taken to a farmer or a village. For example, the main crop of cotton already enjoys superior seed, made available by the Cotton Authority, and the use of commercial fertilizer is not economical at the present price of cotton. So there seems to be no significant improvement practice to recommend for cotton. Research has not yet developed a package of recommendations for cassava, which is a major crop at three of the Project sites.

Given the egalitarian policies operative in land assignment, an individual farmer cannot readily expand his acreage into a more mechanized and/or efficient operation. The adopted villages at Nyegezi are not able to expand much, due to encirclement. Under such conditions, one might be able to farm more intensively or more effectively. The capability must be developed.

At three of the four Wing sites, there is limited rainfall on a sandy soil. Under these conditions, crop responses to new technologies will be small and extension officers will be hard pressed to sell them. More area-specific crops research will not likely become a panacea in these marginal areas.

This is not meant to show discouragement, but rather to point out a fact of life in much of Africa which we must be prepared to live with. We must concentrate our efforts on solvable problems.

Posting of Diplomates. Most graduates of MATIs Nyegezi and Mlingano are not assigned to rural extension work. These students and their tutors may feel that the village problems they are asked to help solve are irrelevant to their own future needs. It will take a great deal of imagination to design village outreach or extension programs which are both relevant to village problems and appropriate training vehicles for students studying agricultural mechanization and irrigation. Available villages may not be suited for an irrigation project, for example.

MATI Timetables. The present class schedules do not allow sufficient time for in-depth village involvement. Tutors in crops, livestock, and other subject areas will need to be convinced that they should conduct some of their subject training in the adopted villages. A student could cultivate his required plot of crops in a village rather than at the MATI. The crops tutor could evaluate the student on the quality of cultural and pest control practices, while the plot could also serve as a demonstration for the villages. The same student could manage demonstration events on his plot with his extension tutor present to evaluate it and critique him. Further, the plot yields may be of use to researchers if the plot design is properly planned. In such ways, training, village support, and research could mutually benefit one another. Students will have to be willing to devote weekend or evening time to village visitations. This will happen only if it is reflected in their grades (marks).

Transport. Lack of adequate transport will be a chronic and serious problem. We must attempt to sponsor villages that are within reach by bicycle to allow for the frequent student visits which will be required.

The Project Landrovers will require more repairs than are budgeted for at this time. With the tight foreign exchange situation in Tanzania, parts could become unavailable. We have already requested USAID to order common replacement parts from outside the country. Great care must also be exercised in driving and maintaining the vehicles. The Project motorcycles will not last the span of the Project unless rigidly maintained. They should be issued to the Wing, used for Project business only under the management of the Wing Leader or other appointed Wing staff member, and housed at a storeroom controlled by the responsible Wing staff member.

Since spare parts and maintenance are the responsibility of the MATIs, their cost must be built into the MATIs' budget for Farmer Training. A maintenance program should be implemented at each MATI, and the varying conditions

existing will have to be taken into consideration. With such a program, major shop repairs and related administrative problems should be kept to a minimum. Each MATI has been provided with a few specific tools related to motorcycle maintenance.

Funding Levels. Inadequate funding to provide the needed inputs will likely be a chronic and potentially crippling problem. We should not subsidize the farmers or villages with routine inputs as this would develop dependencies and invalidate any positive results we obtain from superior recommendations and extension approaches. Yet, farmers often cannot pay, and other sources are not easily tapped.

Teaching Equipment Repair and Maintenance. The repair of movie projectors, cameras, photo copiers, etc. will become burdensome and cause delays or disruptions in project activities unless a very good system of control and use is established. One or two individuals at each MATI who are always available should be trained to operate such delicate equipment, and only they should have authority to use it.

Unrealistic Project Goals. There is little chance that sixteen villages (15,000 people) suitable for "adoption" can be found within bicycling distance of the four MATIs. The expectation that the project should produce T.Sh.4,800,000 per year in benefits to the 15,000 participating farmers assumes that within three years of active village extension work, every villager will be benefitting to the extent of T.Sh.320/- from the Project. Without a miracle crop or practice, we cannot expect 100% adoption of superior practices in any time period, let alone only three years. Those who do adopt the practices may derive only moderate to marginal benefits. With poor land at two sites, questionable moisture at all sites, little MATI transport and few funds, and with only students and tutors to assist in field work in most cases, it will be enough to hope that several clusters of success will show certain practices and approaches to be clearly superior to existing ones. The Project experience can provide the opportunity to revolutionize training and extension in the nation, and we can hope that 20% of all assisted villagers will increase their productivity by T.Sh.320/-. Nowhere on earth has a short-term extension effort directly affected all farmers in a diversified farming area. In developing countries, only rarely has an extension effort been even marginally successful. We will only be reasonably successful with reasonable goals.

Diversity. The diversification of crop and livestock enterprises and variability in situations among and within adopted villages will require that

many different extension programs will have to be developed and tested. This will decrease the efficiency of Project staff.

Agricultural Resources Management. The collective management of agricultural resources which is practiced nearly everywhere in Tanzania (to some degree) requires new modes of thinking on the part of extensionists. We expatriates must study and learn. We must assume that new approaches on our part will be required in many situations.

#### V. SUMMARY OF PROGRESS

During the reporting period, October 1979 to September 1980, the Farmer Training and Production Project barely got beyond the planning and preparation stages. Three of the four Rural Development Specialists who serve as Wing Leaders arrived in country somewhat later than expected. The Project Coordinators in Dar es Salaam did not complete as extensive a review of literature as they would have liked, nor were they able to consult with specialists and prepare materials and plans to the extent hoped for. The Project is at least four months behind schedule. In our present haste to catch up, we run the risk of planning poorly. These negative elements are quite typical of this kind of project, but undesirable nevertheless.

On the other hand, feedback to date is very positive. The Project shows very good potential for success, in spite of the many anticipated problems. The Project's objectives and approaches have been surprisingly well received by all pertinent groups: MATI staff and students, KILIMO field and research staff, PMO, Regional and District staff, villagers and politicians. This is a credit to the progressive Principals at the Project sites and to the abilities of the Wing staff. The groundwork laid at the Wings and orientation by Project Coordinators has been useful.

Villagers who have participated in orientation and training events at the MATIs have been enthusiastic. They have attended faithfully, participated actively and requested more training events. (MATI Mtwara held two events before the arrival of the Rural Development Specialist and MATI Nyegezi has held a series of training events between the end of the report period in September and the writing of this report in December 1980. Villagers have not hesitated to give information, to join training groups, or to speak up in their groups. If this situation continues at all sites, the Project should be able to move

along rapidly as indicated in the Tracking System (pp. 24-26).

Students and tutors have shown enthusiasm in collecting data from farmers. Advisory Committee members have offered the support of their agencies to the Project. One gets a feeling that these individuals must have been wanting to spend more time visiting farmers, collecting farmer data, and using villages as teaching laboratories -- and now they have been offered the means and the legitimacy.

Relations between Tanzanian officers and expatriate staff are excellent and all parties feel this will continue. The Wing staff are quite competent and enthusiastic. Only Uyoie has a serious shortage of staff, and action is underway to rectify this problem. The Training Staff of KILIMO Headquarters is committed to the success of this Project. A recent staff shortage has been largely alleviated and funds to support Project activities are becoming available.

There is reason for optimism.

## APPENDIX A

## MANPOWER DATA - POSTINGS

INTENDED UTILIZATION OF CERTIFICATE FINALISTS 1980

	<u>Number</u>	<u>Total</u>
<u>Agro Vets and Land Use Planners</u>		
Regions	269	269
Ministry of Agriculture		31
Crop Research	20	
MATIs (Training)	11	
Ministry of Livestock		9
Livestock Research	7	
Vet Investigation Centers	2	
Agricultural Parastatals		40
Tobacco Authority	25	
SUDECO (Sugar)	8	
Tanzanian Cotton Authority	5	
Coffee Authority of Tanzania	1	
NAFCO (Farming Co.)	1	
Other		27
Pyrethrum Board	8	
Ministry of Education	7	
JKT (National Service)	7	
Mwadol Farm School	2	
JWTZ (Army)	2	
Prisons	1	
	<b>SUB-TOTAL</b>	<u>376</u>
<u>Artificial Inseminators</u>		
Regions	46	46
Ministry of Livestock		5
Livestock Research	5	
Agricultural Parastatals		4
DAFCO (Dairy)	3	
Uyohe Ag Center	1	
	<b>SUB-TOTAL</b>	<u>55</u>
	<b>TOTAL</b>	<u><u>431</u></u>

INTENDED UTILIZATION OF DIPLOMA FINALISTS 1980

	<u>Number</u>	<u>Total</u>
<b>Regions</b>		195
Crops	135	
Livestock (including Ranch Management)	60	
<b>Ministry of Agriculture</b>		72
MATIs (Training)	32	
Crop Research	24	
Seed Multiplication Farms	8	
Irrigation	4	
Coconut Pilot Project	3	
Other	1	
<b>Ministry of Livestock</b>		10
Livestock Research	3	
Livestock Training Institutes	6	
NAIC (Artificial Insemination)	1	
<b>Agricultural Parastatals</b>		74
Tanzania Tea Authority	12	
Tanzanian Sisal Authority	10	
Tanzanian Cotton Authority	10	
SUDECO (Sugar)	9	
Uyole Ag Center	10	
Tobacco Authority of Tanzania	6	
Coffee Authority of Tanzania	5	
Tanzania Livestock Marketing Company	5	
NAFCO (Farming Co.)	2	
DAFCO (Dairy)	1	
Pyrethrum Board	1	
Kibaha Education Center	1	
TRDB	1	
Tanzania Food and Nutrition Center	1	
<b>Other</b>		38
ELIND (Ministry of Education)	14	
JKT (National Service)	11	
Zanzibar	7	
Dar es Salaam City Council	2	
Prisons	1	
Kivukoni College	2	
Capital Development Authority	1	
	<b>TOTAL</b>	<u><u>389</u></u>

INTENDED UTILIZATION OF BSc AGRICULTURE FINALISTS FROM THE FACULTY  
OF AGRICULTURE, FORESTRY AND VETERINARY MEDICINE, MOROGORO, 1980

	<u>Number</u>	<u>Total</u>
Regions		6
Crops	0	
Livestock	6	
Ministry of Agriculture		6
MATIs (Training)	2	
Crops Research	2	
Planning Division	2	
Ministry of Livestock	8	8
Agricultural Parastatals		13
Uyole Ag Center	1	
NAFCO (Farming Co.)	1	
LIDA (Livestock Development)	4	
GAPEX (Ag. Export)	1	
SUDECO (Sugar)	1	
AISCO (Ag. Machinery)	1	
Breweries	1	
TRDB (Ag. Development Bank)	2	
TIB (Investment Bank)	1	
Other		15
Tanzanian Library Service	1	
ELIMU (Ministry of Education)	6	
CCM (Party)	2	
Faculty of Agriculture	5	
JWIZ (Army)	1	
		<hr/>
<b>TOTAL</b>		<b>48</b>
		<hr/>

## FARMER TRAINING AND PRODUCTION PROJECT

## Plan of Work

October 1, 1980 - September 30, 1981

LLOYD C. PICKETT, TEAM LEADER

MINISTRY OF AGRICULTURE - DAR ES SALAAM

## I. Role as Chief of Party for the WVU/NCATSU Consortium

As the WVU representative in Tanzania, I will maintain the required personnel and financial records, pay local expenses, supervise staff and programs, oversee the distribution of commodities, prepare reports for USAID and Ministry of Agriculture, maintain appropriate public relations, support field staff in their activities, and provide leadership aimed at reaching the goals set for the project.

## II. Program-Related Activities (in conjunction with a Tanzanian Counterpart)

- A. Assist in the quick tabulation and dissemination of survey data.
  1. Construct master tabulation sheets for the Household Survey and distribute to Wings, one set per village, in February, 1981.
  2. Combine data from the four Wings for the Village Leaders Survey, the Student Survey and the Tutor Survey by June, 1981.
  3. Combine Wing data from the yet-to-be-developed Research Staff Surveys and Extension Staff Survey, by September, 1981.
- B. With the assistance of Wing staff, develop survey instruments to measure present practices, attitude, etc. of research staff and extension staff who participate in our project, by April, 1981.
  1. The surveys should be administered immediately and should be readministered near project termination to measure any changes in staff behavior which would likely be a result of involvement in the project.
  2. The instruments should also evaluate the present practices and attitudes of research and extension field workers as potential constraints to agricultural development. FT&P programs would need to be designed accordingly.

3. Use the insights gained from these two surveys in planning cooperative farmer training and outreach efforts, and especially in preparing for the training of extension workers in the second half of the project.
  4. Near the end of the project responses from the less effective project participants should be compared with responses from, and observation of, those who were most successful in Farmer Training and village activity.
- C. Plan for the evaluation of project impact on villages, farmers, students and tutors.
1. Further develop the impact measures which will compare pre-project and post-project village conditions and will compare assisted versus non-assisted villages.
  2. Weight responses to questions which are intended to be incorporated into accumulative scales within the "Village Leaders Survey" and "Household Survey" instruments.
  3. Be sure that a few control villages near each Wing are surveyed. The impact of the FT&P project could be evaluated by before-project and after-project assessments only, but non-program factors such as drought may intervene severely. These can be factored out by making pre-project and post-project assessments on both project and control villages.
- D. Via field visits and meetings, brainstorm with and assist Wing staff, their advisory committees and consultants, to identify the major constraints to agricultural production and well-being of villagers.
1. Assist in identifying the best points of intervention and in developing training and outreach programs which will benefit villagers most. This process will require a review of literature, collaboration with various experts, farmer surveys, critical observations of farming practices, testing of soils, etc.
  2. To find effective points for interventions and to build outreach programs, a second phase of surveying and consulting will be necessary in most cases, beginning in early 1981. This should develop in-depth understandings of selected problems, their best mode of solution if any is feasible, and provide the basis for prioritizing training and outreach activities.
  3. My specific role will be primarily to promote the foregoing process as a supervisor and to locate and alert field staff of relevant studies and experts.
- E. Participate with Wing staff in developing curricula, training materials and instruments to evaluate the training of farmers.

1. In 1981, a full schedule of Farmer Training should get underway. It should include helping village leaders and farmers to analyze their needs and opportunities, training on how to plan, and lastly, training directed at improving agricultural production. The training should be problem centered. It should utilize farmers in further defining problems/opportunities and in developing strategies acceptable to them.
  2. At the conclusion of short courses, individual commitments should be obtained from each participating farmer to use the training on his own shamba.
  3. The final training input should be via individual follow-up with farmers in the villages. Wing staff, senior students or other professionals assisting with the FT&P project can do so.
  4. Each training session should be evaluated in several ways, but should be measured in part by the changes in farming practices, brought about as a result of training and follow-up.
  5. In May, 1981, arrange to have a consultant advise Wing Staff on how to train farmers.
- F. Assure that the individual Household Survey instrument becomes back-translated to English so its Swahili version can be corrected, then assure that some re-sampling is done in 1981-82 using the corrected Swahili form.
- G. Write and distribute a bi-monthly FT&P Newsletter to keep all key participants in MATI's, research institutes and extension field offices informed and motivated.
- H. Assist Wing staff to design simple experiments to compare various approaches to farmer training at the Wing.
- I. Assist Wing staff to design simple experiments to compare various approaches to extension work in the participating villages.
- J. Assist Wing staff to develop plans and research methodologies for testing small-farmer responses to various technological packages.
- K. In supervising visits (4-6 times per year) attempt to evaluate the following:
1. The compatibility of project activities with project purposes and goals.
  2. The thoroughness of program planning which precedes outreach activity and the relevance of the plans to the objectives. Objectives must be both long-range and annual, be specific and measurable. Activities must be detailed.

3. The relevance of the proposed extension recommendations and practices in Tanzania's socialistic society.
4. The relevance and adequacy of research activities planned to the fulfillment of extension objectives.
5. The ability of planned project activities to affect the quality of village planning.
6. The appropriateness of the sequence and timing of events.
7. The relevance of the proposed training methods and curricula to adult villagers in Tanzania.
8. The adequacy of project legitimization with key influentials.
9. The adequacy of staff and student orientation in preparation for project involvement.
10. The adequacy of "team" effort by MATI, research and extension staff.
11. The use made of the local advisory committees.
12. The adequacy of staff and student involvement in collection and analysis of information and in village outreach (extension work) with farmers to assure that staff and students have abundant opportunity to gain insights regarding how to conduct effective extension work.
13. The degree of farmer participation in the FT&P project.
14. The extent of material and staff support provided by regional and district KILIMO and MIFUGO offices
15. The adequacy of Wing liaison with, and assistance to, village leaders (village councils and committees).
16. The effective incorporation of adopted-village Bwana Shambas into Wing activities.
17. The adequacy of continuous feedback by Wing staff to students and tutors.
18. The adequacy of feedback from Wing activities to researchers.
19. The adequacy of communication flow from farmers to their trainers during training.
20. The scheduling of MATI classes in such a way as to facilitate village activity by students.
21. The adequacy of field notes being kept by Wing staff.
22. The adequacy of tabulation categories and procedures.
23. The soundness of the educational and extension methods being applied.
24. The appropriateness of the techniques used in analyzing constraints and opportunities in villages.

### III. Support Activities -- Farmer Training and Production Project

- A. Obtain shillings via USAID for the local procurement of bicycles at the remaining three sites. Checks will be sent to MATI principals for purchasing through Regional Trading Companies. Target date is March, 1981.
- B. Procure bicycle spare parts centrally and distribute to MATIs. The target date is July, 1981.
- C. Work with counterpart, Richard Shayo, in stimulating an adequate flow of recurrent funds to the Farmer Training Wings.

- D. Order additional equipment and supplies needed by the Wings. The target date is April, 1981.
- E. Distribute the Farmer Training supplies and equipment requested in March, 1980 (when they arrive).
- F. Procure local equipment/supplies/materials for Wings when they cannot be obtained otherwise. This include materials for construction of Wing buildings.
- G. Order parts for the five Landrovers and the twenty-nine motorcycles by March 1981.
- H. Transport six additional motorcycles to MATIs.
- I. Clear and transport the household effects of RD specialists from Dar to post, along with household appliances and some furniture.
- J. Participate in the annual NCAE conference and training conference about October, 1981. Serve as an editor of the National Council on Agricultural Education Conference Report, if asked.
- K. Participate in divisional and sectional staff meetings as called.
- L. Receive and orient the six participants who will return with BS degrees in December, 1981. Assist them to get started. Send them letters and reports during their remaining year in the U.S.A.
- M. Serve as an external examiner for the Faculty of Ag. if asked.
- N. Participate in the internal evaluation of January, 1981.
- O. Arrange for the National Advisory Committee to meet four times per year. Add two additional members.
- P. Arrange for two to four meetings per year of representatives from each Wing.
- Q. Host the Associate Dean for International Agriculture, WVU, in February, 1981.
- R. Continue to review the pertinent literature and to order reference materials.
- S. Arrange a study tour for Wing staff to other African countries.
- T. Prepare quarterly and end-of-year progress reports.

- IV. Wrap-up of Tanzanian Ag. Manpower Development Project (Project 621-0119 which phased out September 30, 1980).
  - A. Respond to queries and requests regarding the eight remaining student participants in the U.S.A. under this project.
  - B. Finalize the transfer, issuance and inventory of all unissued project commodities. Several back orders and spare part orders are still scheduled to arrive in Dar. When complete, turn over commodity records to TanGov.
  - C. Assist MATIs temporarily and selectively with procurement of replacement parts required to keep project-supplied equipment operating.
  - D. Continue to assist the Division of Manpower and Administration, KILIMO, in Curriculum Development matters as requested. Help curriculum development staff to develop Tutor Handouts for two difficult sub-topics in the new certificate syllabus. These include: Cultural, Psychological and Sociological Factors in Extension Work and Principles of Extension.
  - E. Distribute copies of the teaching notes and student manuals developed by project staff now being printed at West Virginia University. About twenty-three topics are involved. Recommend ways to fully utilize these materials.
  - F. Finalize all outstanding financial transactions.
  - G. Contribute to the Terminal Report.
- V. Participate in the Completion of the Tanzania Agricultural Manpower Study.
  - A. Participate in the workshop to review the full draft report.
  - B. Further edit the agricultural education sections and re-write as recommended by the review committee.
  - C. Promote and participate as requested in follow-up discussions and planning exercises.

FARMER TRAINING AND PRODUCTION PROJECT

Plan of Work

October 1, 1980 - September 30, 1981

DAVID G. ACKER -- MATI MTWARA

- OBJECTIVE I - To establish a Farmer Training Wing at MATI Mtwara**
- A. To complete the construction of the Farmer Training Wing Building. Target date: June 30.**
    - 1. To supervise contracting technicians
    - 2. To assist in the procurement of construction materials
    - 3. To design and order appropriate furniture
    - 4. To plan and execute landscape improvement
    - 5. To develop demonstration sites on land contiguous to Wing Building
  - B. To involve the MATI staff in the Wing**
    - 1. To orient and supervise staff assigned directly to the Wing
    - 2. To orient and involve staff not directly assigned to the Wing
    - 3. To coordinate Wing activities with activities of all departments
  - C. To publicize the Wing's activities to, and solicit support from, all relevant parties in the Region**
    - 1. To orient and involve the following:
      - a. Regional Agricultural Development Officer
      - b. District Agricultural Development Officer
      - c. CCM party officials
      - d. Ward and Village Extension officials
      - e. Village Chairmen and Village Councils
      - f. Cashew Nut Authority of Tanzania
      - g. Town Council Agricultural Officer
      - h. Rural Integrated Development Project staff
      - i. FAO Representative
      - j. Agricultural Research Institute staff
      - k. Nordic project staff
    - 2. To ensure the greatest possible visibility of the project
    - 3. Farmer orientation Day - for 80 farmers (Feb. 10), Introduction/project kickoff/MATI tour

**OBJECTIVE II - To provide, through the MATI and Wing, technical assistance to project villages**

- A. To provide technical assistance to two project villages in the form of introductory, highly visible, self-help development projects (both crops and livestock)
- B. To provide technical assistance to four project villages in the form of a series of short courses to be offered at MATI. The first is scheduled for the last week of February.
- C. To provide technical assistance to four project villages in the form of Wing staff follow-up to monitor changes in practices after short courses and to provide advice where appropriate

**OBJECTIVE III - To involve staff and train students in data collection and analysis methods. Target date for collection: June 30.**

- A. To teach students in a formal classroom situation as well as during follow-up in villages
- B. To involve staff in the design, implementation and analysis phases of information gathering, planning, and research purposes

**OBJECTIVE IV - To develop, implement and analyze a variety of information gathering instruments for use in research, training and extension**

- A. The following instruments will be developed, administered and analyzed:
  1. Village Inventory Survey, January '81
  2. Individual Household Survey, January '81
  3. Extension Worker Attitude and Practice Survey, April '81
  4. MATI Student Opinion Survey, January '81
  5. MATI Tutor Attitude and Practice Survey, January '81
  6. MARI Staff Attitude and Practice Survey, April '81

**OBJECTIVE V - To produce and distribute planning and position papers based on the lessons learned at the Wing**

- A. To include papers in the following areas:
  1. Cultural considerations for extension planners in this zone
  2. Agricultural considerations for extension planners in this zone
  3. Position Paper: The efficacy of Farmer Training Wing expansion to other MATIs based on lessons learned in four unique cultural and farming system zones

OBJECTIVE VI - To develop farmer training techniques and materials

- A. To include such ingredients as:
1. Short courses
  2. Medium length courses
  3. Full length courses
  4. In-village training
  5. Training and visit adaptations
  6. Refresher courses
  7. Posters
  8. Curricular materials
  9. Audio visual materials
  10. Sensitivity preparation for teachers of farmers
  11. Questionnaire to weed out teachers with low farmer training potential

OBJECTIVE VII - To modify/improve MATI curricular and Extension In-Service training materials

- A. To work with MATI staff to modify/improve curricula to reflect lessons learned from farmers (i.e., farmers' needs, learning patterns, etc.)
1. For MATI students (certificate level)
  2. For Agricultural Field Auxiliaries (refresher training)

OBJECTIVE VIII - To test and demonstrate improved agricultural cultural practices in two project villages

- A. Improved agricultural cultural practices on pigeon peas and sorghum to include:
1. Land clearing/de-stumping, January '81
  2. Field measurement, January '81
  3. Land preparation of plots, January '81
  4. Plant density and spacing, January '81
  5. Seed treatment, January '81
  6. Planting techniques, January '81
  7. Pest control, February-April '81

OBJECTIVE IX - To test and demonstrate improved production input packages in two project villages. Target date: March 30, 1981

- A. Improved production input packages to include:
1. Crops: Tillage alternatives  
Appropriate insecticides and fungicides  
Correct fertilizer recommendations  
Other

- 2. **Livestock:** Improved genetic material  
Endo- and ecto-parasite control  
Introduction of new small animals

## FARMER TRAINING AND PRODUCTION PROJECT

## Plan of Work

January 1, 1981 - September 30, 1981

H. GENE PEUSE -- MATI MBEYA/U.A.C.

On January 24, 1981, a meeting was held at U.A.C. that resulted from previous protocol visits and culminated in a commitment from the Regional Agricultural Development Officer to help launch the project in the selected villages. Consequently, a plan of work was developed to guide priority and second-order activities during the forthcoming year.

## I. Priority Activities

- A. Design a schedule of meetings with village leaders, with help from two extension agents and eight U.A.C. students, from the five nearby villages; seek approval from the Regional Agricultural Development Officer and act upon the schedule.
- B. Review the survey instruments with the extension agents and U.A.C. students and other enumerators that may be found, (Ms. Abigail Willmer, a Peace Corps Volunteer/Mbeya, has offered to help survey and participate in subsequent extension activities, thereby gathering data otherwise not available to the all male team); and conduct village surveys.
- C. Seek assistance from U.A.C. researchers for prompt analysis of specific survey items so that certain training activities may be arranged as quickly as possible.
- D. Form an advisory committee comprised of representatives from U.A.C., Regional and District Development Offices, village development committees, and (if deemed useful from farmer responses) from credit, cooperative, commodity or livestock organizations; commence first meeting prior to actual planning of training activities.
- E. Consult with training institute staff who have recently returned from Food Corps Program orientation in Sri Lanka to prevent duplication of services to the villages and to facilitate comparison and testing of the (perhaps) different outreach and training approaches.

## II. Second-Order Activities

- A. Continue the analysis of project survey data for baseline comparison of:

1. villages
2. households

among the four Farmer Training Project sites.

- B. Design:

1. Extensionist's Visit Record
2. Farmer's Visit Record
3. Supervisor's Monthly Record

along the lines recommended by Robert Chambers in Managing Rural Development: Ideas and Experiences from East Africa, The Scandinavian Institute of African Studies, Uppsala, Sweden, 1974; train persons who will use these records and monitor the extension activity recording system for necessary adjustments and for ideas on the training of extension agents and farmers.

- C. Conduct an estimated eighty days of formal farmer training sessions at U.A.C. and/or in the villages (forty training sessions of two days each).
- D. Through project reports, research documents and farmer training materials provide verification of farmer training activities.
- E. Based upon experiences in the training and coordination of extension activities in the five villages, prepare a series of presentations for the extension methods course wherein pupils will be trained to conduct village and household surveys in approximately eighty villages for the second year of farmer training project operations.
- F. Analyze the constraints and opportunities in integrating the Farmers Training Project with U.A.C. programs by use of a systems analysis approach that will be an elaboration on the conceptual scheme outlined by Earl Kulp in Designing and Managing Basic Agricultural Programs, International Development Institute, Indiana University, Bloomington, IN, 1977.

The above activities, of course, imply a variety of management responsibilities (e.g. resource programming, administrative mediation, development of communication and transportation procedures) which, if included here, might provide more detailed portrayal of anticipated events but would not necessarily add much to the planning process.

### III. Observations

Partly out of necessity and partly due to the technician's own orientation, the implementation of the Farmers Training Project at U.A.C. has moved at a slower pace than at the other sites. First, the lack of staff has been an impediment to rapid movement into the villages. Moreover, the Uyole Agricultural Centre is a large organization with several sophisticated programs underway that compete for attention and resources. Thus it has been imperative to carefully assess past and present programs of the Centre in order to identify a means of advancing a farmer training thrust that takes best advantage of and complements on-going institutional efforts.

Secondly, observations of veteran East African experts such as Jon Moris (The Administration of Rural Development, AEE Working Paper Number 2, Faculty of Agriculture, Forestry and Veterinary Science, University of Dar es Salaam, Morogoro, February, 1980) and James De Vries ("Extension or Dialogue," Journal of Adult Education, Number 2, August, 1980) warn that unless one first thoroughly analyzes the setting, a technical assistance effort may likely become an autonomous development project--neither part of an exciting institution or part of farmers' real desires--that will not likely make the transition into general practice after the outside contractor departs. I have taken these observations seriously in the first stages of project implementation at U.A.C. and, hopefully, have built the framework for cooperation and understanding among parties that will yield long-term benefits.

## FARMER TRAINING AND PRODUCTION PROJECT

## Plan of Work

October 1, 1980 - September 30, 1981

DAVID SCHEINMAN -- MATI MLINGANO

- I. Complete surveying and data collection in Mkanyageni, Lusanga, Kicheba, and Kigongomawe. Analyze the results and identify agricultural problems we can help solve through training.
- II. Design short training courses based upon surveying results.
- III. Hold introductory one day seminars for the leaders of each village participating in the project. The first three seminars are scheduled for March 3, 4, and 5.
- IV. Act as liaison between villagers and researchers. Introduce villagers to researchers and encourage direct communication between the two groups.
- V. Plant crop demonstrations in Kicheba, Mkanyageni, and Lusanga in cooperation with FAO soils project and village councils.
- VI. Incorporate surveying and data collection techniques into curriculum of new Farm Management students arriving in 1981.
- VII. Recruit and train select MATI faculty to teach in the Farmer Training Center. Recruit faculty from MARI, FAO, DADO Office, or any other appropriate organization. We will try to engage outside speakers and educators.
- VIII. Supervise remaining construction of Farmer Training Center and assist with procurement of water pipes and electrical fixtures.
- IX. Train staff (Matilibu and Shechambo) in data collection and Curriculum development so they can eventually coordinate the project.
- X. Plan a small demonstration farm adjacent to hostel illustrating techniques and crops relevant to local conditions. We will plant coconuts, bananas, millet, sorghum, and other crops.
- XI. Send timely newsletters to local leaders in Tanga and Muheza informing them of our activities and soliciting their aid and ideas.

- XII. Develop an outreach program for farmers who have participated in Farmer Training programs. Include Bwana Shambas if possible.
- XIII. Officially open the Farmer Training Center with a ceremony attended by MATI faculty, local Member of Parliament, RADO, DADO, Pamba House representative, local officials, and village leaders.

## FARMER TRAINING AND PRODUCTION PROJECT

## Plan of Work

July 1, 1981 - June 30, 1981

CHARLES O. SMITH -- MATI NYEGEZI

- A. Crop demonstrations of one hectare in each village. The village production committee will select the side of the demonstration, the crops and practices to be demonstrated and provide the necessary hand labor for planting, weeding and harvesting as village contributions to the project. The Farmer Training Wing will provide the inputs of tractor work, seeds, fertilizer, planting materials, etc., needed. There will be an evaluation session held at harvest time at each plot for the villagers concerned. The MATI agronomic staff will conduct the evaluation, the Farmer Training Wing will provide cokes.
- B. Small firewood and forestry plantation of one hectare for each village. These will be small pilot projects which are designed to be added to each year until firewood harvesting begins. Two thousand seedlings of a suitable firewood species will be produced in polyethylene bags at the village nursery (described later). One elementary school in each village will be selected to participate in this project. MATI staff will come to the school and demonstrate to the students and teachers proper spacing and planting methods. Planting will be done by the pupils, under supervision of the teachers as soon as rains have become dependable in February. The pupils will maintain the plantation as a school project.
- C. Initiated a small scale, simplified irrigation project of about one hectare for each village on a pilot basis. From Land Use Maps and inspections by Land Use Planning Staff and Village Production Committee, an area of of about one hectare will be identified bordering Lake Victoria for each village. These areas should be fairly level, not more that three feet above lake level, fertile and with water retaining soil qualities. Intermediate technology to be used for raising water to the required height for gravity flow to crop area. Source of power to be wind, animal power or human. Irrigation Department at MATI to be consulted to determine flow of water required, height to be raised, appropriate technology to be used, and layout channels.

If possible, combine this project with forage improvement project (described later) to irrigate a plot of elephant grass plantings to provide supplemental livestock feed for late dry season.

- D. Initiate a modest livestock improvement project to upgrade local herds of Suluma cattle. The Farmer Training Wing will provide a three day seminar for the village livestock committees and some influential livestock keepers in the villages. Livestock Development Officer and MATI Livestock Management Staff to participate. Genetic traits to be selected and bred for to be determined by seminar participants. Female animals of breeding age to be selected by village livestock committees and gotten into condition for breeding with an improved bull to be loaned to the village for the breeding season (July, August). Comparison of conformation of dam and offspring to be made as follow up in succeeding years.
- E. In conjunction with the above seminar, an extra day will be scheduled for the livestock committees and influential livestock keepers to discuss forage management. Topics will include rotational grazing, pasture species improvement, and supplemental feeding (in conjunction with irrigation project).
- F. Compost and Livestock Manure Utilization Project. This is a follow up of topics discussed in four day seminar of November, 1980. At present, large amounts of cattle manure must be used for fuel, making it unavailable for maintaining soil fertility. Composting is not done. The first problem should be alleviated when the firewood plantation is in production. The second problem will be attacked with demonstration of compost pits and heaps (in conjunction with our backyard garden project mentioned later).
- G. Establish a village nursery for each village. These nurseries will provide the 2000 firewood seedlings required for the firewood plantations mentioned above, as well as 1000 citrus seedlings for the small scale orchard project (to be mentioned later). The site of the nursery and the selection of the nursery manager to be made by the management committee of each village. The Farmer Training Wing will supply seeds, fertilizer, spray materials, equipment and polyethylene bags, as well as providing the salary of the nursery manager for a nine month period. It is intended that the appropriate village committee take over this project in future years as an on going village project to supply seedling of firewood species and fruit trees for village needs.
- H. Fishing Improvement Project for one section (Sweya) of Luchelele village only. Sweye Balozi to select not more than twelve villagers to receive instruction in better fishing methods, preservation and utilization of catch. Villagers to be selected from the fishermen of the village. Farmer Training Wing to provide facilities and arrangements for two day seminar of discussions and demonstrations for this group. Fisheries Institute personnel to provide technological knowledge and provide instructors. Tie in with Food and Nutrition Section of Farmer Training Wing to demonstrate utilization of fish products.

- I. Backyard Garden Projects. Small scale poultry and rabbit rearing projects and small scale orchard projects to be combined with a series of food and nutrition lectures and demonstrations to be carried out throughout the year. Poultry and rabbits to be available to villagers through the Young Farmer Project (to be mentioned later). Citrus seedlings to be available through the nursery project and garden seeds from the Farmer Training Project, through the village Balози.
- J. Environmental Sanitation Project to be initiated. In the first year this project will concentrate on rubbish pits, pit latrines and drying racks. There will be a tie in with composting for the backyard garden project. This is to become a continuing project which is designed to create the attitude of pride in their village. This attitude must be encouraged for other projects envisioned for future development.
- K. Young Farmer's Clubs formation in one elementary school in each village. The Young Farmer's Club members will have a choice of projects for club projects and for individual projects. The Headmaster will appoint a tutor to be in charge of the project. The Farmer Training Wing will provide assistance in organizing the club, providing seeds, chickens and rabbits for basic breeding stock and supervision. The club poultry and rabbits will become a reservoir to draw upon for the poultry and rabbit rearing projects for the villagers.
- L. Competition and rewards for outstanding club members will be encouraged by an Annual Project Fair for the three villages to be held at the MATI. There will be competition for exhibits of poultry, garden vegetables, rabbits and field crops in both junior divisions for the youngsters and senior divisions for adults. Farmer Training Wing to organize the Fair, provide judges and prizes.
- M. There will be a series of educational films to be shown in the villages on the above subjects as the films are available. Farmer Training Wing to provide films and equipment and show the films.

MATI MBEYA/U.A.C. - PROGRESS REPORT  
FARMER TRAINING AND PRODUCTION PROJECT

September 1980

by H. Gene Peuse

I. Overview of U.A.C.

The Uyole Agricultural Centre (U.A.C.) began in April 1972 as a joint venture between Tanzania and the Nordic countries of Denmark, Finland, Norway, Sweden and later Iceland. In March, 1976, U.A.C. was established as a parastatal (public corporation) with its programs governed by a Board of Directors and a Director appointed by the President of Tanzania.

The major component parts of the Centre are the training institute, research institute and farm production division. The Centre employs 580 people along with a Nordic staff of approximately fifteen. Although the training institute has facilities to accommodate five hundred certificate and diploma level students, the number of pupils sponsored by the Ministry of Agriculture and various parastatals has not exceeded three hundred fifty per year. The research institute conducts studies at the Centre in crops, livestock, economics, engineering and food technology and maintains nine substations in nine different districts in Mbeya, Iringa, Ruvuma and Rukwa regions. The farm production division was established in 1977 with the goal of making the parastatal self-reliant and of demonstrating and testing modern agriculture on eight hundred hectares of crop and grazing land.

Many of the fifteen departments of the research institute conduct village diagnostic surveys and verification trials and the Extension Unit organizes regional seminars with the Ministry, hosts field days for extension agents, publishes research findings and prepares extension leaflets written in Swahili that are intended for village use. Upon request the training institute also organizes in-service refresher courses for extension workers and sends its certificate/diploma students to nearby villages for practical extension exercises. Thus, the Centre generally concentrates on the training of present and future extension personnel and uses the villages to identify farming patterns and problems. However, an outreach program that regularly extends educational services directly to the farm household is not a feature of U.A.C. operations.

II. Project Activities: October 25, 1980 - December 31, 1980

The Rural Development Specialist (RDS) arrived at U.A.C. on October 25, 1980, after attending four weeks of Swahili at Morogoro and two weeks of orientation at Farmer Training Project headquarters in Dar es Salaam. The technician's house had been readied in the staff residential area so that settling-in was accomplished with a minimum of difficulty. A new farmer's training building, consisting of an office, storeroom and classroom, had already been constructed upon the specialist's arrival, although

some of the furniture, telephone, electricity and security bars had not yet been installed and office equipment not yet received from headquarters.

The first order of business was articulation with research staff who were not clear about the purposes and scope of the project and expressed concern that there might be duplication of village activities. Indeed, the research institute had conducted reconnaissance surveys of five nearby villages and had plans for a village block extension program quite similar to that envisioned by the project. Nonetheless, implementation of the extension program had been delayed because of on-going research institute obligations. After a series of informal discussions, it became apparent though that the farmer training project could complement the original extension scheme and provide additional resources necessary for its implementation. Hence, during a joint meeting on November 28 between research and training staff (Tanzanian, Nordic, and American) an oral agreement was reached whereby it was understood that:

- A. The Rural Development Specialist would assume leadership in organizing and coordinating farmer training activities in five villages within a three mile radius of U.A.C.
- B. The research institute would supply technical assistance and limited material support (e.g. soil testing services, data analysis assistance, certain seeds) and make available its village block advisory committee for consultation.
- C. The training institute would assign students to help conduct surveys and help the RDS gain entry into the villages.

The major handicap during the first quarter of operations at U.A.C. was the absence of three project staff members as stipulated in the contract guidelines. A formal request for staff support was sent to the Ministry by the U.A.C. principal on October 21, but it became obvious that the RDS would have to initiate the project as the sole staff member. This restricted RDS' movements into the villages as a local sponsor would have helped overcome the language barrier and make the necessary social introductions. Nevertheless, the technician was able to join U.A.C. tutors on a two week tour of villages in the Sumbawanga district where villages were surveyed as possible village practicum sites for U.A.C. pupils; the trip was simultaneously used to pilot test a Village Survey instrument which the RDS had prepared and later would submit at the December Farmer Training Conference in Dar es Salaam. Likewise, the RDS participated in some of the weekly excursions to nearby villages where institute pupils were organizing demonstration plots as part of their extension methods course; this provided an opportunity to personally examine the proposed target villages for the project.

The tangible outcomes of this period were the Village Survey and Household Survey instruments which were presented, revised and amended at the Farmer's Training Conference on December first through third. Plans

were drawn at U.A.C. to conduct surveys in approximately eighty villages where students would be participating in the village practicum component of their extension training from January 8, 1981 through February 21, 1981. However, the late receipt of the revised Village Survey from the December conference negated such plans and thus attention was delimited to the five selected villages.

MATI MLINGANO - PROGRESS REPORT  
FARMER TRAINING AND PRODUCTION PROJECT  
September 1980

by David Scheinman

## I. Introduction

I arrived in Tanzania on September 12, 1980 to assume responsibility as Rural Development Specialist at MATI Mlingano. Two Tanzanian staff, Mr. Shechambo and Mr. Matilibu, were assigned to the Farmer Training Wing at the MATI at about the same time. During October and November our staff met with all of the appropriate District and Regional leaders, village Councils from seven villages, Research Institute staff, TIRDEP (Tanga Integrated Rural Development Project) representatives, and many other persons and groups germane to this project. We drew up a preliminary budget, provisionally selected villages for adoption, completed six village surveys, and identified some preliminary training needs which can be met upon completion of our facilities. We began organizing our Advisory Committee, made plans for four short courses (each lasting five days and being repeated twice), and we are very happy with the help and cooperation we have received from MATI staff.

## II. Meetings and Orientation

### A. District Agricultural Development Officer (DADO)

MATI Deputy Principal Mr. Mande, Mr. Shechambo, and I met with the DADO, Mr. Mbwana in Muheza. He identified the villages selected by TIRDEP for the Training and Visit System of Extension and suggested that we work with TIRDEP/Tanga. He offered his assistance and asked us to return after selecting villages.

### B. TIPDEP/Tanga

We met with Christian Metzler, a German agricultural economist, who explained that his program was training extension aides to assist Bwana Shambas. We agreed that our programs had compatible goals and decided to coordinate activities as much as possible. Metzler, MATI Principal Mr. Mosha, and I later met at Mlingano and decided that if possible TIRDEP would conduct training programs in Wing facilities.

### C. Regional Agricultural Development Officer (RADO)

We met with Mr. Koisha, assistant to the RADO. He advised us to choose villages which were not going to have agricultural demonstrations sponsored by outside agencies. Again, he asked us to return after selecting villages.

### D. Ministry of Agricultural Research Institute (MARI) Mlingano

We met with Mr. Miani and his British FAO counterpart in the soil fertility section. They are both very eager to assist us in conducting fertility and yield demonstrations in villages and urged us to return after village selection. They both want their section to become involved in villages and they see the FTP as an excellent means to this end. They will help us set up village demonstrations which we will coordinate and monitor at village level.

### E. Divisional Adult Education Coordinator

We were introduced to village Councils by Mr. Mnzava, adult education coordinator. He accompanied Mr. Matilibu (course tutor - FTP) to Mkanyageni, Kisheba, Kigongomawe, Lusanga, Kibaoni, and Ngonami. Mr. Mnzava has worked in the area for over fifteen years and we took advantage of the excellent contacts he has established.

## III. Accomplishments

### A. Village Surveys

Mr. Matilibu and I devised an 11-page survey designed to give us a preliminary idea of village needs, problems and attitudes. We visited all selected villages at least two times. During the first visit we were accompanied by Mr. Mnzava, who briefly explained the FTP to villages. Mr. Matilibu then delivered a short talk on increasing MATI participation in villages, and providing villagers with agricultural training at the MATI. He stressed our need for gathering information and asked if we could return with our survey. All of the villages (seven) enthusiastically invited us to return. The following week we completed questionnaires in Mkanyaneni, Micheba, Kigongomawe, Busanga, Kwalabuye, and Ngomani. Mr. Matilibu plans to survey Micheba in December.

Village response was excellent. We toured fields in Kogongomawe, inspected orange trees in Lusanga, and were requested by all the villages that they be included in the project. Our first farmer training session took place in Lusanga where course tutor Mr. Balelle demonstrated the use of insecticides on citrus trees which had insect and disease problems.

### B. Survey Results and Training Needs

Many villagers mentioned the limited availability of land and water. All villagers showed interest in learning more about improved cultural practices concerning maize, cassava, coconut, banana, and citrus. Farmers also wanted to learn how to raise poultry and control vermin/pests. As a result of our surveys we are proposing the design and implementation of the following four courses between February and June, 1981. Each course will be run twice so that sixty-four farmers (thirty-two per session) can participate.

1. Principles of Agriculture
2. Maize and Cassava Production
3. Banana and Coconut Production
4. Poultry Keeping

(Total Students - 256)

Later we want to add Citrus Production and Pest Control. Mr. Matilibu has taught at a Folk Development College for five years and feels that five days per course is a good starting point. His experience has been very valuable since his career has been spent with farmers. He also proposed designing special courses for illiterates.

### C. Adoption of Villages

Messrs. Shechambo, Matilibu, Mande, and I would like to work with seven villages. Officially we want to adopt the following four: Kigongomawe, Mkanyageni, Lusanga, and Micheba. Additionally, we want to continue working with the following three: Ngomeni, Kibaoni, and Kwalabuye. We want people

from these villages to attend courses at the Farmer Training Center. Kigon-gomawe, Lusanga, Kicheba, and Mkanyageni all have good potential (agricultural) but aside from Mkanyageni are located too far for students to reach by bicycle. Kibaoni, Ngomeni, and Kwalabuye are closer to Mlingano but do not yet possess the strong leadership we are looking for. We want to continue our relationship with these villages since they are very interested in working with us. They should be invited to participate in activities even if they are not officially adopted.

#### D. Budget

We have prepared a budget of Shs.22,457 from December 1, 1980 - June 30, 1981. Prices are all estimated and should be corrected prior to final approval.

### IV. Problems Concerning Completion of Office and Hostel

#### A. Missing Fixtures

In order to complete our office and hostel we need the following:

42	5-amp wall switches
42	Lampholders
42	Ceiling Noses
4	Flourescent lamps and fittings (each)
50	Light bulbs (60W-100W)
20	Junction boxes
10	5-amp switch sockets
10	20-ft. sections 1/2 inch pipe

Mr. Kurian from the ag mechanics staff at MATI Mlingano says that most of these supplies are unavailable in Tanga. Those that are available -- junction boxes and lamps -- cost much more than our budget allows. The Training Wing cannot open until these fixtures are installed and the hostel has water and electricity. We need office space as we are presently operating out of a small office which is shared with four other tutors.

#### V. Conclusion

We are fortunate that Mlingano has been provided with a very competent staff. Messrs. Shechambo and Matilibu have made many valuable contributions to the FTP and we look forward to working together.

## MATI NYEGEZI - PROGRESS REPORT

## FARMER TRAINING AND PRODUCTION PROJECT

September 1980

by Charles O. Smith

## I. Introduction

The Rural Development Specialist, Mr. Charles O. Smith, was recruited by West Virginia University as of April 1, 1980. After a brief orientation at Morgantown of five days, Mr. Smith proceeded to Dar es Salaam because the Chief of Party, Dr. Pickett, had chartered a plane to Mwanza and it was desired that Mr. Smith accompany him. The R.D. Specialist arrived at Nyegezi for the first time on or about April 11, 1980. At that time a certain amount of disappointment was experienced relative to the lack of preparations, facilities, and information about the project that was evident. The house for the expert, for instance, which had supposedly been under construction for almost two years, was not completed. (The expert had been assured in West Virginia that the house was ready for occupancy.) At any rate, while the basic structure was completed and the roof was on, the visiting team discovered that no windows were present, no landscaping had been done, no plumbing, no wiring, no kitchen or bathroom facilities, no interior painting, and the whole place was knee deep in rubble. It was evident that the house would not be available for occupancy for months. Similarly nothing at all had been done at MATI Nyegezi on the reconstruction and renovation of facilities for the Farmer Training Project. The dormitories and classrooms were present, but they had been in a state of misuse for a long period of time and nothing had been done to prepare them for use. The delay in construction has been caused by a serious problem in getting almost any kind of building materials. This problem still exists, and has increased the difficulties of renovation project up to this date. There was one staff member assigned to the Farmer Training Wing, a Mr. Koloseni who appeared enthusiastic about the project. The three villages we were to work with had been selected, the basic instrument for gathering baseline data for these three villages had been prepared, and the village committees had been informed about the prospective new project to some extent.

Since this visit was literally a "flying trip," little more was attempted than to introduce the new specialist to the MATI staff and to describe in general terms what the project proposed to do. The staff seemed interested in the project and made several suggestions as to how the Farmer Training Wing could help to increase the participation of the various departments of the MATI with the surrounding villages. It was felt by several of the staff members that a two-way communication between the MATI staff and villagers would be mutually beneficial, and the Farmer Training Wing would be the ideal vehicle to assist in bringing this communication about.

Since the staff house for the expert's family would not be available for some time, alternate arrangements for housing were concluded on this visit. There was a German house on the compound which would become available on June first, and permission to use this house until the project house was completed was granted.

This was, in fact, a useful visit, and it gave the expert an opportunity to prepare for specific challenges before actually arriving at the site.

## II. Activities of the Rural Development Specialist

Upon arrival of the wife and child of the Rural Development Specialist, the Smith family proceeded to Morogoro where four weeks of Kiswahili language training had been arranged for. This passed uneventfully. It was realized, however, that four weeks of language training was not sufficient to meet the needs of working in the village, so private tutoring in Kiswahili was arranged for upon reaching Nyegezi, and this continues.

At the completion of the Kiswahili course at Morogoro, the Smith family proceeded to Nyegezi, timing their arrival for the first of June when the German house was to be available. It actually became available on June second at which time the Smiths took up residence. Very little had been accomplished on the project house in the interim, and a priority was established of getting the house habitable. This involved a host of problems and a great deal of time since the workmen were liable to walk off the job if no one was there to supervise. Materials were lacking and only available on the black market, so at times large expenditures of time and personal money were required of both the specialist and the Chief of Party. Eventually the house was completed and the Smith family moved in during the month of August. Minor problems such as water supply, etc., still remain, but they are gradually being eliminated.

Meanwhile, the Principal had assigned three other MATI tutors to the Wing, since Mr. Koloseni was transferred shortly after the arrival of the Rural Development Specialist. The three tutors assigned were Mr. Gwau, Mr. Matanga and Mrs. Makwaia. These were good choices, and they have worked out well, but the loss of Mr. Koloseni with his experience and enthusiasm was felt. Nevertheless, these staff members met with the specialist and our priorities and plans of action were drawn up and approved by the Principal. Our first activity was to become acquainted with the three villages chosen - Buhongwa, Mkolani and Luchebele. This was done through the task of administering the baseline data survey that had already been prepared to the Chairman and Secretary of the village committees. This activity was completed in about one week. We now had quite a lot of useful information about each village upon which to proceed with our plans. Most of our future training programs, however, would be based on specific needs of the farmers making up these three villages, and it was decided to design and administer individual family questionnaires to provide us with this data. It was later found that we had the capability to take a random sample of twenty percent of all villagers in the three villages. We used MATI students who had had about five days of instruction in administering questionnaires. This exercise turned out very successfully. Both the students and the villagers responded enthusiastically and we ultimately had the 260-odd questionnaires that we required. Since Mrs. Makwaia is

a trained nutritionist with a deep interest in improving the nutritional status of people in the villages, particularly the infants, we also decided to take advantage of this training and interest. We designed a two part nutritional survey and infant health examination form which we also administered in the three villages. In this survey, we utilized the female students from our class, the various dispensaries serving the different areas of the villages and the dispensary personnel. Again, we found the villagers cooperative, the students involved and the dispensary personnel enthusiastic and helpful. We have collected a great deal of data from these surveys, and at the same time, stimulated the interest and enthusiasm of the people in the villages.

Simultaneously with these activities, we organized a local advisory committee and have held a meeting approximately once a month. In addition, we prepared a calendar of activities, budget, staffing requests, and the myriad of other paperwork which with all the survey forms has resulted in an enormous outpouring of paper. To this point we had encountered nothing but unexpected successes.

In August we held our first "Seminar" at the MATI for the village people. This was a one day affair to which we had invited fifteen people from each village. The purpose was simply to introduce ourselves and the project and let the invited few know what our goals were and what activities we had planned so they could go back and spread the word in the villages. This event grew from the simple thing envisioned to a relative extravaganza. Local politicians and officials of the local government decided to come and lend their blessing to the event. The Ministry of Agriculture and various other agencies of village development, health, education, etc. all showed up, and our anticipated attendance of forth-five to sixty people materialized at about one hundred. Luckily we had intended to provide our village participants with plenty of food and drink, so the food, cokes and pombe was sufficient for all comers. Our program for the day was full and interesting, yet flexible enough to allow the public officials to make plenty of speeches praising our program and exhorting the villagers to cooperate. Altogether, the program which lasted from 8:00 in the morning to 4:30 was a stunning success - the people of one village even elected to stay afterward and walk home so they could help us by finishing the last tin of pombe. It pleased us afterward when we were doing our family surveys to hear people complaining that they had not been invited to our seminar.

When our family and health and nutrition surveys were finished, we decided to go ahead with some other training seminars in spite of the fact that our data had not been collated or analyzed. This was partly because of the success of our one day seminar, and partly because we wanted to maintain the momentum which we had now established. We prepared programs for the Chairman, Secretary, and all the Balozí (Ten Cell Leaders) in every village. We were fortunate to have land use maps of two of the three villages (prepared by the Land Use Planning Department of the MATI) which we determined to make copies of and present to the Chairman and Secretary of each village. Then we had lecturers from the Land Use Planning Department explain to these village leaders how to use these maps in village planning sessions, which crops to grow on which soil types, etc.

From this we led into some very basic agronomic skills and facts again presented by MATI teaching staff. We had classes for four days for the two villages and with Land Use maps, and three days for the third village (Mkolani). The response was excellent. Not one balozi missed one day of classes - this in spite of the fact that the classes were held in November which is an extremely busy planting season. We were not hampered unduly by the fact that our facilities at the MATI for housing village participants were not yet completed. We resorted to the option of alternating our days of teaching between the village concerned and the MATI. On the days we were in the village we used one of the classrooms in the elementary school; on the days we were at the MATI, we used MATI facilities. Our scheduling was so that even if we had more than one seminar going on a given day only one group was at the MATI. These seminars went off extremely well. The staff who had done the teaching were delighted with the chance of teaching village farmers - and amazed at the intelligent questions and discussion. The village leaders, too, were delighted with the seminar. Every one came up to thank us and assure us that they had learned a lot. Incidentally, the feeding of these groups at lunch time was done as follows. The group that was at the MATI on any one day ate in the dining hall. We had contracted with village ladies to provide a specified substantial meal for the participants of their village on the days when classes were held at the elementary school.

As I said before, these seminars went off extremely well. As a matter of fact they were a smashing success. We have stimulated a great deal of interest and enthusiasm within the villages, and judging from the many comments and compliments from the seminar participants, we can expect their support and assistance in forthcoming programs. There has been a delay in only one other project which we had started. We had formed a committee in each village consisting of the village production committee and one of our staff members. These committees were to act as sub-committees to the main Advisory Committee and provide village inputs of information to this body. On this occasion we utilized these committees to plan a crop demonstration for each village. The village committees would select the sites, decide on what crop was to be grown and which practice to demonstrate. We would simply provide the inputs - tractor, fertilizer, seeds, etc. We contracted with the school for use of the school tractor to prepare the three hectares of land (one hectare per village). We had donations of fertilizer and improved varieties of seeds lined up from other sources represented on our advisory committee. Estimates for tractor work for the three hectares were made. We provided funds to the MATI for the diesel fuel and other calculated costs for land preparation. We agreed upon a schedule for the various field operations on the village plots to be carried out. The farm manager, who provided use of the tractor for these operations, was particularly enthusiastic about the proposed crop demonstrations in the villages and a good start was made on the land preparation.

Since the crop demonstrations were our last scheduled activity for the year of 1980, and since promises had been given that these would be completed, the Rural Development Specialist felt justified to go on leave at this point. Upon returning he found that the tractor which had been in

use for the crop demonstration had developed a minor fault in the hydraulic system. This was then brought into the shop for repairs so the work could continue. It was not repaired in time for our needs. However, this did not stop the project. We simply went to the villages to employ hand labor to complete the job. Fortunately, the rains are holding off at this point, so it appears the project was only delayed. These demonstration plots will be used for a series of on-site evaluation sessions in May and June of 1981 when the crops are harvested.

### III. Observations

It appears that the project at Nyegezi is off to a very good start. The successes that we enjoyed from the very beginning were totally unexpected and the enthusiasm for our activities which was generated was very gratifying.

We are still understaffed, however. An additional staff member was allocated to us in September. To date he has not arrived on site.

Our supplies and equipment have not yet arrived, either. Our facilities for housing village participants is not yet ready, primarily because of the shortages of building materials. When these things are in place our work should be much easier and more productive.

In this short report I have attempted to give the main points of our activities only. More specific details of these activities can be obtained by reading the several progress reports, the copies of various documents, etc., sent to the Chief of Party, or by questioning any of the staff. Meanwhile, we are going on with other scheduled activities.

### IV. Recommendations

There are a number of recommendations that can be made.

- A. That the staff members required and promised be promptly sent.
- B. That since communications between Dar es Salaam and Mwanza are very difficult, the possibility of providing a short wave transmitter and receiver between the specialist and the Chief of Party be investigated.
- C. That a small budget be established to enable us to purchase such things as gasoline, motorbike repairs, seeds, fertilizers or other such supplies and equipment as we may need for our classes.
- D. Since food and provisions are getting very scarce and almost impossible to obtain in Mwanza, and I presume in all the outlying areas of Tanzania, provisions should be made for Farmer Training Personnel to have Commissary privileges. Even though we would be unable to use these privileges frequently, at least we would be able to get some things occasionally.