

TANZANIA
AGRICULTURE MANPOWER DEVELOPMENT
621-0119
AMENDMENT 1 - FARMER TRAINING
AND
PRODUCTION

Official PP
As Approved
8 August 1977

ACTION MEMORANDUM FOR THE ASSISTANT ADMINISTRATOR FOR AFRICA

FROM : AFR/DR, John L. Withers *Stephen Klein for*
SUBJECT: Tanzania Farmer Training and Production:
Amendment I (621-0119)

Problem: To obtain your approval of the \$2.5 million dollar Farmer Training and Production Amendment. (The original project was authorized in December 1973 for \$3.4 million and amended by an additional \$2 million in FY 76.) This amendment expands the original project's purpose to include a farmer training component requiring four years to complete, and because the amended project will begin in FY 77, three years prior to the original project's completion date (FY 80), a one year extension is required.

Discussion: The Government of Tanzania (GOT), in its efforts to attain the goal of increased social and economic well being of small farmers, has given high priority to the agricultural sector with emphasis on self-sufficiency in food crops and livestock production. Two principal constraints to goal attainment are: (a) the shortage of trained agricultural extension agents; and (b) weak linkages between research and extension activities and local farmer needs. AID's original on-going project is partially removing the manpower constraint by providing technical assistance to two Ministry of Agriculture Training Institutes (MATIS) which train agriculture extension workers and officers. The proposed Farmer Training and Production amendment is designed to strengthen the research, extension, and farmer linkages by establishing farmer training sections in four carefully selected pilot MATIS located in different topographical and climatic areas. If the proposed amendment is successfully implemented, the Tanzania government plans to add farmer training wings to other MATIS.

This amendment's purpose is to increase small farmer production by making extension techniques and farmer training relevant to farmer needs and by creating technological packages (seeds, fertilizer, etc.) which farmers have shared in creating and therefore will accept. MATIS students will be trained to collect and analyze basic socio-cultural and economic data utilizing the farmers as a technical resource concerning his cultivation practices, risks and problems. It is anticipated that this training experience will produce extension agents who will more effectively communicate with farmers and be more sensitive and responsive to farmer needs. The data collection activity will additionally create a data base which will be used in determining the technological inputs that will increase food and livestock production and be acceptable to farmers

as well. The four MATIS selected to implement this project will work jointly with the nearby research stations that have the responsibility for preparing and testing the technological packages.

Implementation: The PP recommends (pp. 49-50) that this amendment be implemented by the present contractor for the original project. However, AID/W has determined that insufficient justification has been provided for using the services of the present contractor, and therefore technical services will be obtained on a competitive basis.

Recommendation: That you authorize the proposed amendment. A Notification (attached) has been submitted to Congress, and the fifteen day waiting period has expired.

APPROVED: *[Signature]*

DISAPPROVED: _____

DATE: 5/5/77

Attachments:

1. Notification to Congress
2. PAF Part II
3. Environment Examination

Clearance:
GC/AFR, TBork *[Signature]*

AFR/DR/ESAP:JMalick/SCole:dph
7/14/77:X28286

AGENCY FOR INTERNATIONAL DEVELOPMENT
ADVICE OF PROGRAM CHANGE

Country : Tanzania
Project Title : Agricultural Manpower Development
Project Number : 621-11-190-119
FY 1977 CP Reference : Africa Programs, pg. 118
Appropriation Category: Food and Nutrition
Intended Obligation : \$1,572,000

The purpose of this Advice of Program Change is to identify an intended obligation increase of \$775,000 in the FY 77 Agriculture Manpower Development project grant, an increase from \$797,000 to a total of \$1,572,000.

The Agriculture Manpower Development project, now entering its fourth year, aims at assisting the Tanzanian Government in developing its professional and sub-professional training activities and capabilities and expanding the supply of highly trained agricultural manpower. U.S. technicians, working with Ministry of Agriculture Training Institutes (MATIs), are playing major roles in improving curricula and practical training capabilities. The proposed additional funding of \$775,000 will provide for an essential new step in the transfer of agricultural techniques to the small farmer: a closer cooperation between academic and technical specialists and working farmers from the villages. The total cost of this expanded activity is estimated at \$2,514,000 over a period of five years (FY 77 - FY 81), which will increase the estimated total Life of Project cost for the entire Agricultural Manpower Project from the amount of \$5,450,000 presented in the FY 77 Congressional Presentation to \$7,964,000.

Clearance:
AFR/ESA:OCylke_____
GC/LPC:ADeGraffenreid_____
AFR/DP:CWard_____
AA/AFR:GButcher_____
LEG/LPCS_____

AFR/ESA:REney:pet:6/24/77

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS PART I	1. TRANSACTION CODE <input type="checkbox"/> A ADD <input type="checkbox"/> C CHANGE <input type="checkbox"/> D DELETE	PAF 2. DOCUMENT CODE 5
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3. COUNTRY/ENTITY Tanzania	4. DOCUMENT REVISION NUMBER <div style="border: 1px solid black; width: 20px; height: 20px; text-align: center; margin: 0 auto;">1</div>
--------------------------------------	---

5. PROJECT NUMBER (7 digits) <div style="border: 1px solid black; padding: 2px; display: inline-block;">621-0119</div>	6. BUREAU/OFFICE A. SYMBOL AFR	B. CODE <div style="border: 1px solid black; padding: 2px; display: inline-block;">06</div>	7. PROJECT TITLE (Maximum 40 characters) <div style="border: 1px solid black; padding: 2px; display: inline-block;">Ag. Manpower Dev. & Production</div>
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8. PROJECT ACTION TAKEN APPROVAL DECISION <input type="checkbox"/> A APPROVED <input type="checkbox"/> D DISAPPROVED <input type="checkbox"/> DE DEAUTHORIZED	9. EST. PERIOD OF IMPLEMENTATION YRS. <div style="border: 1px solid black; padding: 2px; display: inline-block;">04</div> QTRS. <div style="border: 1px solid black; padding: 2px; display: inline-block;">16</div>
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10. APPROVED BUDGET AID APPROPRIATED FUNDS (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY <u>77</u>		H. 2ND FY <u>78</u>		K. 3RD FY <u>79</u>	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) FN	155	247		823		624		604	
(2)									
(3)									
(4)									
TOTALS				823		624		604	

A. APPROPRIATION	N. 4TH FY <u>80</u>		Q. 5TH FY <u> </u>		LIFE OF PROJECT		11. PROJECT FUNDING AUTHORIZED		A. GRANT	B. LOAN
	O. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	(ENTER APPROPRIATE CODE(S)) 1 = LIFE OF PROJECT 2 = INCREMENTAL, LIFE OF PROJECT			
(1) FN	463				2,514				2	
(2)										
(3)										
(4)										
TOTALS	463				2,514		C. PROJECT FUNDING AUTHORIZED THRU			FY <div style="border: 1px solid black; padding: 2px; display: inline-block;">80</div>

12. INITIAL PROJECT FUNDING ALLOTMENT REQUESTED (\$000)	13. FUNDS RESERVED FOR ALLOTMENT																					
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>A. APPROPRIATION</th> <th colspan="2">B. ALLOTMENT REQUEST NO. _____</th> </tr> <tr> <td></td> <th>C. GRANT</th> <th>D. LOAN</th> </tr> <tr> <td>(1) FN</td> <td>823</td> <td></td> </tr> <tr> <td>(2)</td> <td></td> <td></td> </tr> <tr> <td>(3)</td> <td></td> <td></td> </tr> <tr> <td>(4)</td> <td></td> <td></td> </tr> <tr> <td>TOTALS</td> <td>823</td> <td></td> </tr> </table>	A. APPROPRIATION	B. ALLOTMENT REQUEST NO. _____			C. GRANT	D. LOAN	(1) FN	823		(2)			(3)			(4)			TOTALS	823		TYPED NAME (Chief, SER/EM/RS/SD) FCD Jean McColl SIGNATURE DATE July 30, 1977
A. APPROPRIATION	B. ALLOTMENT REQUEST NO. _____																					
	C. GRANT	D. LOAN																				
(1) FN	823																					
(2)																						
(3)																						
(4)																						
TOTALS	823																					

14. SOURCE/ORIGIN OF GOODS AND SERVICES

000
 941
 LOCAL
 OTHER 935

15. FOR AMENDMENTS, NATURE OF CHANGE PROPOSED

To increase food production through the mechanism of developing a mutual understanding between farmers and extension agents in such a systematic way that it will lead to better comprehension and appreciation of farmer's production problems and his or her social/economic attitudes. It is anticipated that this will then result in the preparation and adoption of improved agricultural practices and farm technologies to the direct benefit of the farmer.

FOR PPC/PIAS USE ONLY	16. AUTHORIZING OFFICE SYMBOL	17. ACTION DATE MM DD YY	18. ACTION REFERENCE (Optional)	ACTION REFERENCE DATE MM DD YY
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PROJECT AUTHORIZATION AMENDMENT AND REQUEST FOR ALLOTMENT
OF FUNDS

PART II

COUNTRY : Tanzania

PROJECT : Agriculture Manpower Development; Farmer
Training and Production Component

PROJECT NO.: 621-0119

Pursuant to Part I, Chapter 1, Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize an increase in grant funding for FY 1977 for the Agriculture Manpower Development Project by an amount not to exceed Eight Hundred Twenty-Three Thousand United States Dollars (\$823,000) to help in financing certain foreign exchange and local currency costs of goods and services for the Farmer Training and Production component of the Agriculture Manpower Development Project as described in the following paragraph.

The Farmer Training and Production component of the Project consists of financing technical assistance, participant training, and related goods and services to assist selected Ministry of Agriculture Training Institutes in the development of training and extension services and technological packages for the small farmer.

I approve the total level of appropriated grant funding planned for the Farmer Training and Production component of this Project of not to exceed Two Million Five Hundred Fourteen Thousand United States Dollars (\$2,514,000) during the period FY 1977 through FY 1981, which includes the amount authorized for FY 1977 above and increments during the period FY 1978 through FY 1981 of up to \$1,691,000, subject to the availability of funds and in accordance with A.I.D. allotment procedures.

I hereby authorize the initiation of negotiation and execution of the Project Agreement by the officer to whom

such authority has been delegated in accordance with A.I.D. regulations and Delegations of Authority, subject to the following major condition: together with such other terms and conditions as A.I.D. may deem necessary.

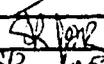
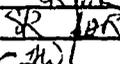
Source and Origin of Goods and Services

Except for Ocean Shipping, goods and services financed by A.I.D. under this project shall have their source and origin in the Cooperating Country or in the United States except as A.I.D. may otherwise agree in writing. Ocean shipping financed under the Grant shall be procured in any eligible source country except the Cooperating Country.

Date: Aug 8, 1977


 W. Haven North
 Acting Assistant Administrator
 for Africa

Clearances:

GC/AFR, TJBork 	Date	<u>8/14/77</u>
AA/AFR, WHNorth	Date	
AFR/DR, JWithers 	Date	<u>4 Aug 77</u>
AFR/ESA, OCylke 	Date	<u>4 Aug 77</u>
AFR/DP, CWard 	Date	<u>5 Aug 77</u>

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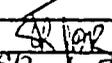
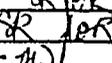
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AFR/DP, CWard		Date	<u>5 Aug 77</u>

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Date: Aug 8, 1977


W. Haven North
Country Assistant Administrator
for Africa

Clearances:

GC/AFR, TJBork 	Date	<u>8/14/77</u>
AA/AFR, WHNorth	Date	<u>8/14/77</u>
AFR/DR, JWithers 	Date	<u>14 Aug 77</u>
AFR/ESA, OCylke 	Date	<u>14 Aug 77</u>
AFR/DP, CWard 	Date	<u>5 Aug 77</u>

MAR 23 1977

ACTION MEMORANDUM FOR THE ACTING ASSISTANT ADMINISTRATOR,
BUREAU FOR AFRICA

FROM: AFR/DR, John L. Withers *JLW*

SUBJECT: Environmental Threshold Decision

PROJECT TITLE: Agriculture Manpower Development -
Amendment One: Farmer Training and
Production

PROJECT NUMBER 621-0119

COUNTRY TANZANIA

ENVIRONMENTAL THRESHOLD DECISION RECOMMENDATION:

PROBLEM: A.I.D. Regulation 16 requires that this A.I.D. financed action be examined from the viewpoint of its potentiality for having a significant effect on the human environment. If the result of this study indicates the action will not have a significant detrimental effect on the human environment, then an official finding to this effect called a "Negative Determination" must be signed by the Assistant Administrator of the relevant A.I.D. Bureau.

FINDING: The Project Review Committee and the members of my staff responsible for the implementation of A.I.D.'s Environmental Procedures have reviewed this project and its proposed actions from the viewpoint of its environmental aspects and A.I.D.'s Regulation 16. They concur with the finding in the Initial Environmental Examination (per Dar-es-Salaam 0546) that this project will not have a significant environmental impact. The reasons for this conclusion are: (1) The thrust of the project is predominantly data collection, analysis and experimentation to determine the behavior of farmers and to seek farmers' suggestions and reaction to Government agricultural production programs. (2) The project seeks only to modify without greatly changing traditional agricultural practices. (3) A minimum use of farm chemicals will be emphasized. (4) Any farm chemicals funded under the project will only be procured

and used in accordance with A.I.D. pesticide regulations in effect at the time. (5) The purpose of the project is to create an effective farm extension system for determining appropriate technological packages, and to replicate this system rather than to replicate the technological packages, and (6) research performed in conjunction with the project will emphasize integrated methods of pest management.

RECOMMENDATION: It is recommended that you approve the recommendation for a "Negative Determination" for the project.

Approved: *[Signature]*

Disapproved: _____

Date: 3/23/77

Clearances:

GC/AFR:TBork: (draft) *[Signature]*
Project Committee Chairperson: JMalick
AFR/DR/HRE:EHirabayshi (draft) _____
AFR/DR/ARD:HJones: (draft) _____
AFR/DR/SDP:JBlumgart: *[Signature]*
AFR/DR:SKlein: _____

[Signature]

AFR/DR/SDP/Environment:DEDibbie:bms:03/21/77

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT PAPER FACESHEET		1. TRANSACTION CODE: A A: ADD B: CHANGE C: DELETE	PP 2. DOCUMENT CODE 3
3. COUNTRY ENTITY Tanzania		4. DOCUMENT REVISION NUMBER	
5. PROJECT NUMBER (7 Digits) [621-0119]	6. BUREAU OFFICE A. SYMBOL AFR B. CODE [06]	7. PROJECT TITLE (Maximum 40 characters) [Ag. Manpower Dev. Amend. I Farmer Trng. & Production]	
8. ESTIMATED FY OF PROJECT COMPLETION [8] [1]		9. ESTIMATED DATE OF OBLIGATION A. INITIAL FY [7] [7] B. QUARTER [3] C. FINAL FY [8] [0] (Enter 1, 2, 3, or 4)	

10. ESTIMATED COSTS (\$5000 OR EQUIVALENT \$1 -)

A. FUNDING SOURCE	Cumulative through FY 77			LIFE OF PROJECT		
	B. FA	C. L/C	D. TOTAL	E. FY	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL						
GRANT	(2,984)	(803)	(3,787)	(6,276)	(1,688)	(7,964)
LOAN	(2,984)	(803)	(3,787)	(6,276)	(1,688)	(7,964)
OTHER U.S. 1						
OTHER U.S. 2						
HOST COUNTRY	104	1,120	1,224	417	4,538	4,955
OTHER COUNTRIES						
TOTALS	3,088	1,923	5,011	6,693	6,226	12,919

11. PROPOSED BUDGET APPROPRIATED FUNDS (\$5000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY <u>77</u>		H. 2ND FY <u>78</u>		K. 3RD FY <u>79</u>	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(11)				1,572		1,530		1,485	
(12)									
(13)									
(14)									
TOTALS				1,572		1,530		1,485	

A. APPROPRIATION	N. 4TH FY <u>80</u>		O. 5TH FY <u> </u>		LIFE OF PROJECT		12. IN DEPTH EVALUATION SCHEDULED MM YY [1 2 7 8]
	P. GRANT	Q. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	
(11)	1,162						
(12)							
(13)							
(14)							
TOTALS	1,162						

13. DATA CHANGE INDICATOR WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

[1] 1: NO
2: YES

14. ORIGINATING OFFICE CLEARANCE		15. DATE DOCUMENT RECEIVED IN AID 'W' OR FOR AID 'W' DOCUMENTS, DATE OF DISTRIBUTION	
SIGNATURE <i>Stephen Klein</i>		MM DD YY [0 3 7 8]	
TITLE <i>Deputy Director AFR/DR</i>			
DATE SIGNED MM DD YY			

1. PROJECT TITLE
Agricultural Manpower Development

APPENDIX ATTACHED
 YES NO

2. RECIPIENT (Specify)
 COUNTRY Tanzania
 REGIONAL INTERREGIONAL

3. PROJECT NO. (I.D. 1073.1)
620-11-190-119

4. LIFE OF PROJECT
BEGIN FY 1974
ENDS FY 1980

5. SUBMISSION
 ORIGINAL
 REV. NO. DATE
CONTR / PASA NO.

6. DATE Sept. 1973

II. FUNDING (DOLLARS AND MONTHS) AND REQUIREMENTS

A. FUNDING BY FISCAL YEAR	B. TOTAL \$	C. PERSONNEL		D. PARTICIPANTS		E. COMMODITIES \$	F. OTHER COSTS \$	G. PASA/CONTR.		H. LOCAL EXCHANGE RATE (US DOLLARS)			
		III \$	IV MM	III \$	IV MM			III \$	IV MM	III U.S. GRANT LOAN	IV COOP COUNTRY	1/ JOINT	2/ BUDGET
1. PRIOR THAN ACTUAL FY	-	-	-	-	-	-	-	-	-	390	2/ (\$000)	3/ (\$000)	
2. OPEN FY 74	418	260	54	120	144	23	15	320	-	-	5	260	
3. BUDGET FY 75	616	264	62	340	408	2	10	320	-	-	5	055	
4. BUDGET FY 76	717	490	108	200	240	22	5	677	-	-	5	001	
5. BUDGET FY 77	683	482	108	200	240	1	5	687	-	-	5	976	
6. BUDGET FY 78	532	485	108	40	48	2	5	530	-	-	5	952	
7. ALL SUBS. 79	387	387	84	-	-	-	-	387	-	-	5	947	
8. GRAND TOTAL	3358	2368	524	900	1080	50	40	2990	-	390	30	5660	

9. OTHER SOURCE CONTRIBUTIONS
- | 1. NAME OF DONOR | 2. KIND OF GOODS/SERVICES | 3. AMOUNT |
|------------------------------|--------------------------------------|-------------|
| 1. International Development | 1. Loan for Const. & Tech. Services | \$3,300,000 |
| 2. AFR/IDA | 2. Grant for Const. & Tech. Services | \$8,300,000 |

III. ORIGINATING OFFICE CLEARANCE

1. DRAFTER	2. CLEARANCE	3. DATE
Winter, FELD/EA Johnson, AFR/DS	USAFR/USAD/Program/Dar es Salaam	10/31/73
Green, Dar es Salaam	USAFR/USAD/Program/Dar es Salaam	11/1/73
	USAFR/USAD/Program/Dar es Salaam	11/19/73

IV. PROJECT AUTHORIZATION
Conditions of Approval (See page 2)

- 1/ Includes commodities, MATI Participant - local costs other than Vehicle/Spares
- 2/ Funds made available from USAID Trust Fund - non-add.
- 3/ Minimum Expected TanGov Contribution.
- 4/ Includes \$18,000 for Evaluation.

2. CLEARANCES

BUR OFF.	SIGNATURE	DATE	BUR OFF.	SIGNATURE	DATE
AFR/ESA	B Gould	10/31/73	AA/AFR	DBrown	11/1/73
AFR/DS	PLYman	11/1/73	AA/PPC	P Birnbaum	12/3/73
AFR/DP	E Hogan	11/19/73			

3. APPROVAL AAS OR OFFICE DIRECTORS	4. APPROVAL AID (See N.O. 1073.1 XI C)
SIGNATURE: [Signature] DATE: 2/26/74 TITLE: AA/AFR	SIGNATURE: [Signature] DATE: 2/26/74 TITLE: A/AID

PROJECT PAPER

AMENDMENT #I

Agriculture Manpower Development

Farmer Training and
Production Amendment

MARCH 1976

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PROJECT ANNEXES

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- ANNEX B: Project Performance Tracking Network
- ANNEX C: Supporting Analyses
- ANNEX D: Supporting Financial Tables -- U.S. Assistance
- ANNEX E: Request for Assistance
- ANNEX F: Letter detailing types of data to be collected
by each Ministry of Agriculture Training Institute
- ANNEX G: "An Appraisal of Rural Women in Tanzania" by
D. R. Reynolds, December 1975 (See copy in AID/Washington
as no extra copies in Mission).
- ANNEX H: "Towards Social and Economic Promotion of Rural
Women in Tanzania" by Hilda Kokuhirwa, Institute
of Adult Education, Dar es Salaam Tanzania,
May 1975.

B. Recommendation

In this project paper, approval is being requested for the following:

1. Grant (Four year project) \$2,514,000

C. Description of the Project

The proposed \$2,514,000 grant will finance an action program to help improve the social and economic well-being of small farmers in Tanzanian villages. The means for achieving this goal is a process which starts by gaining an understanding of small farmer practices, constraints and decision-making. Building from this knowledge base, the project will test different training and extension approaches and technological packages, the adoption of which will help small farmers improve their production and income from village common land and privately operated plots.

The project will be implemented through the Ministry of Agriculture's Training Institutes (MATIs) for future extension and agricultural officers. The capabilities of the MATIs participating in this project will be expanded to include Farmer Training Wings which will sponsor (or adopt) two or more villages in the area surrounding the MATI. The MATI students will collect information on agricultural production practices in villages sponsored by the MATIs. This information will be used to identify training and other requirements for helping villages and farmers improve their production. The MATIs will provide this training and other technical assistance to the villages that they sponsor, and evaluate the effectiveness of the different approaches used to change small farmer behavior. Of primary importance will be the development of two-way communication between farmers and extension workers.

In cooperation with agricultural research stations located near each MATI, the Farmer Training Wing of the MATI will assist in the testing of various technological packages and practices being developed to improve livestock and food crop production. Special efforts will be made to link this work with ongoing research in cereals, legume and livestock production, some of which is sponsored by the USAID.

Consistent with the Government of Tanzania's policy of decentralization, the District and Regional Offices responsible for the areas where the MATIs are located will be involved in the process from the outset. The above-mentioned work will be conducted with their approval and assistance, and the results of the information gathering and experimentation will be utilized to assist in identifying policy and programming options as well as superior agricultural production practices.

Initially, training and extension assistance will be provided to roughly 16 villages containing 15,000 men and women engaged in farming. As the efficacy of various training and extension methods and of the different technological packages is proven, these will be extended nationwide by the extension workers trained by the MATIs. During the four-year duration of the project, it is anticipated that approximately 85 MATI staff members and 400 future extensionists will be trained.

D. Summary Findings

The Mission, with the advice and assistance of various technical experts, has determined that the project is technically, economically and financially sound. The Mission, after extensive discussions with the Ministry of Agriculture, also believes that the project has the support of the Government of the United Republic of Tanzania and can be implemented immediately. The Mission, therefore, recommends that a grant of \$2,514,000 be authorized to the Government of the United Republic of Tanzania, as an amendment to the Agricultural Manpower Development Project 621-11-190-119. These funds will finance the four-year Farmer Training subproject under 621-11-190-119.

The project is an innovative attempt to come to grips with the difficult problem of reaching small farmers through appropriate technologies and improved training and extension techniques. The process by which this problem is addressed may have regional applicability as well as wide ranging effects on TANGOV and foreign donor policies and programs. The project will require careful monitoring and evaluation.

E. Project Issues

PRP Approval Cable (STATE 290675) raised the following issues:

1. Paragraph 2 raised the question of the nature and level of small farmer participation in this project. As will be seen throughout the Detailed Description of the project and in the analysis of the project's technical soundness (Part III), farmer involvement in decisionmaking and resource commitment are critical to the project's success.
2. Paragraph 2 also raises the question of the role of MATI students beyond data collection. The many facets of their involvement are explained in Part III, as well as throughout Part II. The project will add several practical dimensions to their current training.
3. Paragraph 3 raises the issue of whether the number of participating MATIs should be reduced in order to increase the effectiveness of the project. An analysis of this issue may be found in Part III. As will be seen in that analysis, the Mission believes that the project as was originally designed is feasible and a reduction in the number of MATIs would restrict the project's impact on decisionmaking regarding assistance to small farmers.
4. Paragraph 4 asks for a clearer definition of the linkages between this project and the Agricultural Manpower Development Project and other programs sponsored by USAID. This analysis may be found in Part II.
5. Paragraph 5 stresses the importance of the administrative and coordination arrangements in support of the project. Assessments of the Tanzanian government arrangements and the requirements for AID supervision are presented in Part IV.

6. Paragraph 6 asks for a specific discussion of the availability of production inputs for modification of technical packages. This may be found in Part III under the heading "Technical Issues."

7. Paragraph 10 requests a clarification of the qualifications of American staff to be assigned to the MATIs. Criteria for selecting the staff are presented in Part II.

PART II: PROJECT BACKGROUND AND DETAILED DESCRIPTION

A. Project Background

Agriculture is the major productive activity in Tanzania. It engages roughly 90% of the nation's 14.4 million inhabitants, accounting for approximately 47% of the annual gross domestic product. The Government of Tanzania, aware of its meager industrial base, limited proven mineral resources, modest tourist trade and uncertain future position as a transit-trade corridor, has placed its major emphasis on the development of the agricultural sector of the economy. This development strategy, although until recently largely directed toward foreign exchange earning export commodities, is now giving equal attention to food crops.

The Arusha Declaration in 1967 and many subsequent policy statements by the Government have recognized agriculture and rural people as the country's number one priorities for development. This concern for rural development by government planners is rooted in the realization that agriculture, and the small farmer in particular, are the keys to Tanzania's efforts in nation building. It is obvious then, that the degree to which Tanzania can achieve any meaningful and lasting success in achieving production increases, self-reliance, and social equity will, in a large measure, be determined by what break-throughs are made in improving the quality of life of millions of small-holder farm families.

The USAID Mission, recognizing that agriculture in Tanzania, as in many other LDC's, is the economy's foundation, concurs in Tanzania's emphasis. Accordingly, the USAID's DAP identifies this sector as the major area of concentration for U.S. Government assistance. As the DAP emphasized, a shortage of trained manpower is at the top of the list of key constraints to agricultural development. Trained manpower, as defined, includes the very farmers themselves.

To date, little has been done to encourage farmers to change their backward 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 knowledge and information. How to reach and effectively train these farmers who possess little or no education is one of the great problems in Tanzanian agriculture and one for which this project seeks solutions.

In light of this problem, one of the most striking elements of the Tanzanian national structure for development is the manner in which this society is attempting to identify and implement ways and means by which communication and cooperation can be established effectively between village farmers and national agencies and institutions. The intent is to discover techniques by which local villagers might begin to move toward solving problems defined

by themselves and improve the quality of their lives. The two major integrated policies undertaken by Tanzania to enhance this national development process are villagization and decentralization.

Villagization essentially means a rural development process attempting to create a nation of cooperative farm villages or units based on equality and non-exploitation. As a process of national development, villagization connotes not only cooperative production and marketing, but it also provides for the rural population the framework for meaningful political participation and social exchange. It also refers to a most critical factor: The totally integrated strategy of enabling farmers to realistically participate in planning and decision-making in production, marketing, distribution and defining the quality and texture of rural, political and social life. This proposed project assumes that the system -- despite considerable difficulties in fact is beginning to function on a nationwide scale.

Simultaneously, the other major form of national policy -- decentralization -- provides the main route through which villagization can take place. Decentralization, in brief, has three basic objectives relating to the management of rural development: (1) rural development must be managed locally; (2) it must insure the active support of the masses; and (3) it must be centrally coordinated. The key elements in this rather unique national development design are found in the distributive factor of local management and the simultaneous reality of centrally located coordination. Through the Prime Minister's Office, the decentralization effort finds its central coordination. Through the village decision-making structure, the wide-spread district and regional offices of the Prime Minister, and the various government ministries providing technical services, the decentralization policy seeks a viable local management process. Of course, no local management would develop if there was not the active support of the village population. These decentralization objectives necessitate the formation of dispersed (but locally strong) and representative development committees -- thus increasing the nation's commitment and involvement in rural development activities.

In terms of priority and relevance, the Tanzanian national development structure and process finds striking echoes in the U.S. Congressional mandates as expressed to A.I.D. in implementing its development efforts: i.e., focus on the rural poor, encouragement of popular participation, importance of agricultural production, enhancement of women's role in development, application of a collaborative style, etc. This proposed Farmer Training and Production Project will identify and integrate with this ~~unusually~~ creative form of national development which is, to some extent, in place and beginning to function.

B. Concepts Underlying Project

There are four concepts which provide the basis for the design of this project:

1. Information on small farmer practices, constraints and decision-making is limited in Tanzania. An understanding of these elements is required to enable Agricultural Extension Agents to assist small farmers to improve their production practices.

Tanzanian Government officials in the Ministry of Agriculture and its training and research institutes have identified this need. Current research is limited to point-in-time studies focusing on specific problems and regional and national sector surveys. On-going information-gathering on farmer behavior throughout the agricultural year is required. Ministry officials indicate the lack of this information as a major reason why extension efforts have failed to motivate farmers to change their production practices.

2. Only the small farmers themselves can provide this knowledge. Securing this information requires a strong two-way communication between farmers and extension workers.

Of particular concern to the principals and staff members of the MATIs is how to build an awareness among their students (the future extensionists) that farmers have very pragmatic reasons for what they do. Moreover, there is a recognition among MATI staff members and their students of the need to develop methods or tools which will facilitate communication between extension workers and farmers.

3. Building on current farmer practices, there is a need to test the acceptability of new technological packages and the efficacy of various extension and training approaches in transferring agricultural knowledge. Small farmer involvement in this testing process is critical.

Another concern to Ministry officials is determining the acceptability of new technology to farmers. Currently, there is no mechanism for evaluating farmer reactions to proposed changes in their farming practices, i.e., why farmers do or do not accept a new technological package, and how it can be modified to increase the chances for farmer adoption. Moreover, there are no mechanisms for determining the most effective methods for spreading the use of new practices.

4. The testing of new technological packages and extension and training methods will yield results which may be applied in larger geographic areas by the regional and district administrations and foreign donor projects. Further, the information gathering and analysis effort will identify components (e.g., delivery of inputs, access to market, agricultural research) required in future plans to spread adoption.

After the knowledge base is expanded on what changes in small farmer practices are possible (and on the most effective means for encouraging these changes), there is a need for wider application. According to Ministry officials, this will have to be accomplished by village level agricultural officers operating under the district and regional directors. There is a need to up-grade the capabilities of agricultural extension personnel through in-service training as well as to incorporate the favorable results of the experimentation in the training curriculum of the MATIs. A Center for Continuing Education in Agriculture at Morogoro has been proposed to help meet this need for in-service training of senior officers. Further, the districts and regions (perhaps with foreign donor assistance) will have to provide the programming support necessary for area development. The information gathering and experimentation done by the MATIs can contribute to the formulation of these plans.

C. Project Design Summary

This section summarizes the final project design by providing the key elements of the Logical Framework (See Annex A for full Logframe). The critical USAID input will be the technical experts assigned to the participating MATIs; the major criteria for selecting these experts are outlined following the delineation of Project Inputs.

In Section D of Part II, a detailed project description has been prepared.

1. Logical Framework Summary

A. Project Goal

To improve the social and economic well-being of small farmers in Tanzanian villages.

B. Project Purpose

To increase food production through the mechanism of developing a mutual understanding between farmers and extension agents in such a systematic way that it will lead to better comprehension and appreciation of farmers' production problems and his social/economic attitudes. It is anticipated that this will then result in the preparation and adoption of improved agriculture cultural practices and farm technologies to the direct benefit of the farmer.

C. Project Outputs

- i. Farmer training wing at each participating MATI.
- ii. Technical assistance provided by MATIs to villages (including training at farmer training wing and in villages).

- iii. Trained staff and students in data collection and analysis method.
- iv. Simple information gathering instruments for use in research, training and extension.
- v. Planning Papers.
- vi. Farmer training techniques materials.
- vii. Modified MATI and Extension In-Service Training materials.
- viii. Improved agriculture cultural practices.
- ix. Improved production input packages.

D. Project Inputs

i. U.S.

a. Technical Assistance

- A. Rural Development Specialists
- B. Technical Support

b. Participant Training

- A. Short Term (Africa)
- B. Long Term (USA)

c. Commodities

- A. For MATIs of focus (4)
- B. For other MATIs (2)

d. Local Costs

- A. MATI Support
- B. Administrative Assistant
- C. Computer Support

e. Other

- A. Language Training
- B. Contingency

ii. TANGOV

a. Staff

- A. Senior
- B. Junior

b.

b. Facilities

- A. Classrooms and offices
- B. Housing for U.S. Technicians

c. Operating Costs

d. Participant Costs

2. Qualifications of Technical Specialists

As pointed out earlier, the critical USAID input will be the four technical experts assigned to the participating MATIs and a fifth specialist assigned to the central Ministry of Agriculture. These experts will be a part of the regular staff assigned to the Farmer Training Wings. At each participating MTAI, the technical expert will perform the following tasks:

- help design the research effort necessary for building and understanding of farmer behavior;
- assist the various Tanzanian institutions in testing various training and extension methods, and the different technological packages;
- train the MATI staff and students in data collection and analysis techniques as well as provide inputs into regional and district planning;
- assist as part of the MATI team in dispensing technical assistance of an appropriate nature to the villages concerned.

The technical experts should have a basic agricultural background and experience in two-way communications, data gathering techniques, and the analysis of research data. To maximize their effectiveness, they will have to be well-integrated into the MATI staff.

Major criteria for the selection of these four technical experts include:

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

2. Background in applied research methodology, to include experience in the design of data collection instruments and in the analysis of the data collected. 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 within these capabilities.
3. Academic background should include a minimum of M.S. degree with a preference given for Ph.D. The individual should have one degree in agriculture with supporting studies in economic development, sociology, applied anthropology or communications.
4. Language capabilities in Swahili. This will facilitate communication with staff and farmers and allow closer monitoring of training and research programs. Provision for language training for staff members and their spouses is included in the project, though if possible, Swahili speakers should be recruited.
5. Willingness to live and work under Tanzania MATI conditions.

In addition to the above criteria are the needed personality characteristics which allow a person to perform in a sensitive situation with discretion and effectiveness.

The fifth individual to be recruited for this activity will serve as information coordinator and will be posted to the Ministry of Agriculture headquarters in Dar es Salaam. His function will be to help design, implement, collate and organize the data from the four MATIs and prepare the information for more selective analyses as well as for utilization in the district, regional or national planning effort. This individual will play a leading role in the organization and conduct of the workshops referred to in Section D, following.

Criteria for selection of this individual should include those listed as 1, 2 and 5 under the technical experts for the MATIs. Further,

- Academic background should include Ph.D. work or at least a Masters degree (if he is highly qualified on other criteria). 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 development.
- Language capability in Swahili is not critical for this individual, but would be preferred. If not a Swahili speaker, language training for the individual and spouse would be provided.

In addition, this individual should have wide experience in the analysis and utilization of behavioral and social research data. He will be expected

to prepare position papers regarding rural and agricultural development strategies for use by Ministry of Agriculture and other national officials, based upon the combined data from the MATIs. He will be expected to assist the MATI staff in any way possible to develop and implement the farmer training effort in the villages.

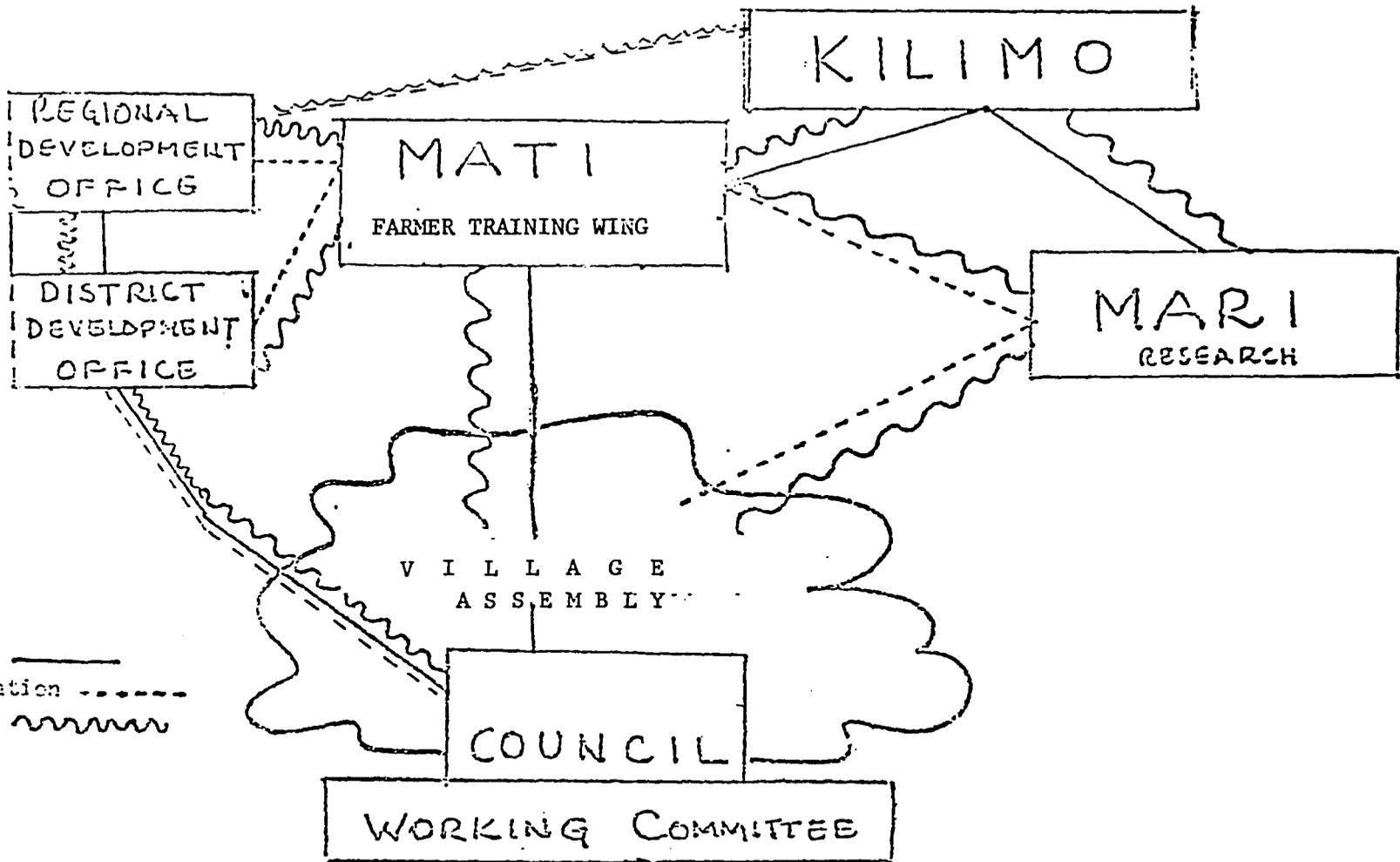
The Mission recommends that Ministry of Agriculture officials, particularly the Director of the Manpower Development Division, interview all possible candidates for these positions.

D. Detailed Project Description

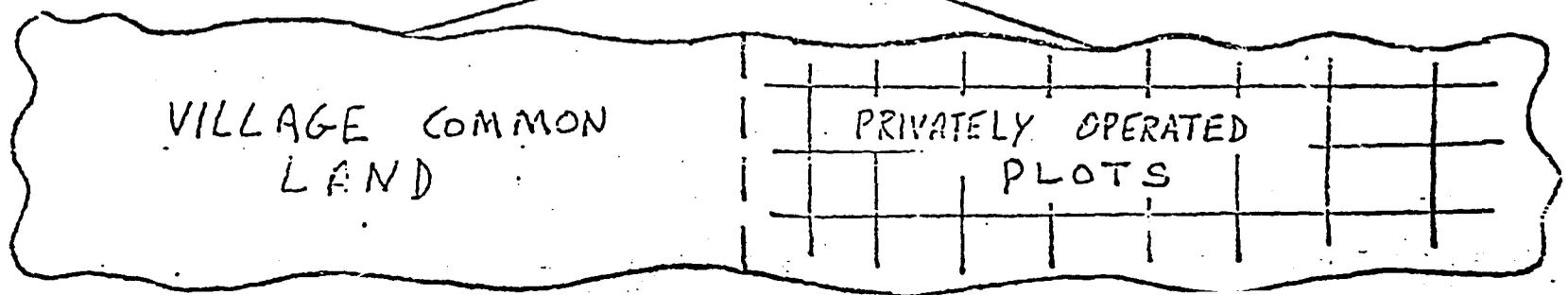
1. Introduction

The goal of this project is to help improve the social and economic well-being of small farmers in Tanzanian villages. The means for achieving this goal is a process which starts by gaining an understanding of small farmer practices, constraints and decisionmaking. Building from this knowledge base, the project will test different training and extension approaches and technological packages, the adoption of which will help small farmers improve their production and income from village common land and privately operated plots. Moreover, working through the MATIs will insure that the lessons learned from this experimentation are incorporated in their training programs for future extensionists, leading to replication in other parts of Tanzania.

Implementing this process will require the cooperation and participation of several elements in Tanzanian rural areas. The possible relationships can be shown in schematic form (see following page) and the roles of the different elements delineated as they were developed with TanGov officials. The detailed description follows.

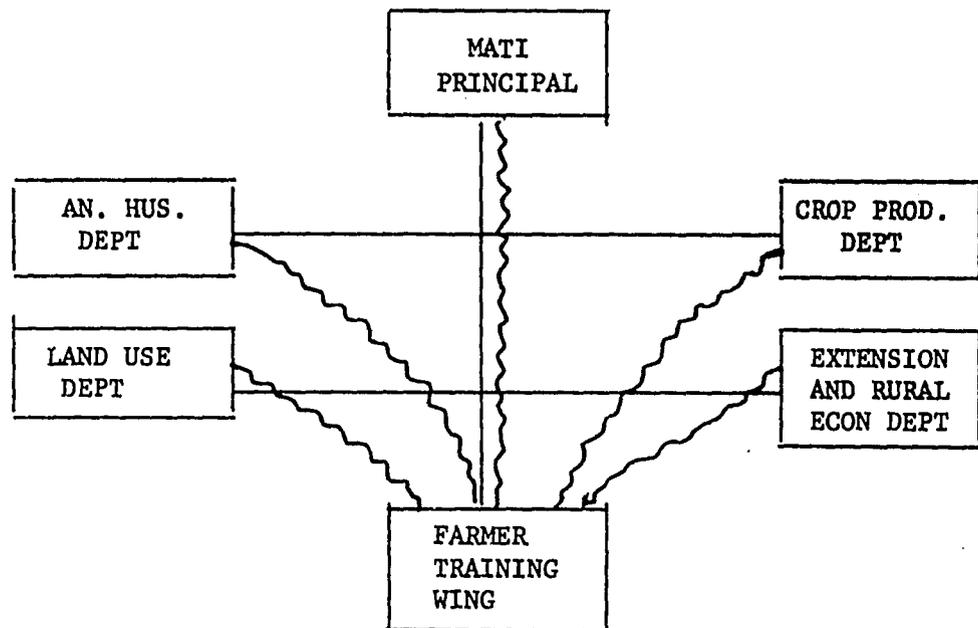


Direct Adm. Line —————
 Indirect Communication - - - - -
 Information Flow ~~~~~~



2. The MATIs

The MATIs are responsible for training future extensionists and agricultural field officers at the certificate and diploma levels. The project is designed to expand the capabilities of the MATIs to include a Farmer Training Wing. The MATIs will also provide in-service training for junior agricultural extension workers. Each MATI has a farm which is used for teaching and demonstration purposes, for providing food for the MATI staff and students, and it is frequently used to test various technological packages. Existing facilities (with improvements and expansion of supplies and logistical capabilities) will be used for project implementation. One American technician (an Agricultural Development Specialist with a background in research and extension methods) and two additional Tanzanian agricultural field officers will be assigned to each participating MATI to assist in the development and implementation of the project. The project will use MATI staff and students for farmer training and technical assistance in the MATI-sponsored villages.



_____ DIRECT ADMIN LINE

~~~~~ INFORMATION FLOW

The MATI principal will supervise the work of the Farmer Training Wing. He may integrate this element into his Extension and Rural Economics Department.

The Farmer Training Wing will be responsible for working with the MATI staff and students, nearby research institutes, and the District and Regional Development Offices in the design of the data collection instruments. In addition, it will have the responsibility of training the staff and students of the MATI in data collection and analysis techniques. Initially, very simple instruments will be developed and tested. The students will do the data collection under the supervision of the MATI staff.

The idea of sending students into the villages is not new. Currently, the Extension and Rural Economics Departments of the MATIs arrange for student visitations to villages. Also, students are assigned to villages for two months between their first and second years of training. The MATI staff members suggested that an on-going data collection effort could be integrated into the students' current program as part of their practical training. The staff saw the data collection instruments developed as possible tools which the students could use when they are first assigned to villages as extensionists. Most important, by establishing this type of relationship between farmers and future extension agents, the students will become personally aware of farmer problems and current farming practices. The students should develop a much better understanding of how to work with farmers, and extend information to them when they become extension agents and have to work with hundreds of farm families.

In several locations, MATI students have already been used with successful results for collecting data for the national research institutes. However, there will have to be close supervision by the MATI staff members and checks on the validity of the data collected to insure high quality.

Developing the data collection instruments will require the participation of the MATI staff members to help identify data that should be collected. Department heads saw that the data collected could be used to develop teaching aids not only for farmer training but also for MATI students and staff. An assessment of staff capabilities revealed several with university degrees in Animal Husbandry and Crop Science. Few of the staff members have had any experience in analyzing data. This training will be provided by the U.S. technicians and by short-term participant training.

### 3. The MATI Farmer Training Wing and Village Assistance

The data collection and analysis work will provide the basis for designing training and assistance programs to help farmers. These programs will be carried out at the Farmer Training Wing and in the villages which are to be sponsored by the MATIs.

After the data is collected and analyzed and the training needs of farmers are identified, programs of instruction will be prepared for the Farmer Training Wing. Farmers will be brought to the Farmer Training Wings in groups of about

twenty. Existing facilities of the MATIs will be used to provide housing, dining and classroom space. Having Farmer Training Wings is viewed by the MATI staff and students as an excellent opportunity to promote communication with farmers, which should contribute significantly to the success of the entire farmer training experience for both farmers and MATI staff and students.

Different approaches to training farmers will be tested at the Wing as well as innovative training aids. The courses will be crop or functional area-specific. For example, a review of the information gathered may show a need to train farmers in the use of a new maize technological package. A program will then be set up. The course may use group discussion techniques for transferring information, providing farmers with an opportunity to voice their concerns and raise questions. In addition, demonstration plots may be set up at the MATI farms so that the farmers can see the maize at each stage of growth. In an area near one of the MATIs training in simple irrigation techniques may be desired by and for the farmers. Effective training of these farmers may require a course at the Farmer Training Wing followed up with village-level assistance by MATI students and staff working with farmers to help them establish their irrigation system. Certain village leaders may express the desire to have training in farm management techniques so that they can accurately record labor and cash inputs and determine their returns from different crops. Such a course may be offered during the off-season so that these leaders can learn these skills at the Farmer Training Wing.

Follow-up evaluations will be done for all courses to determine whether the training has led to the desired improvements in production and farming practices, and if not, why the newly acquired knowledge was not used. These evaluations will also be used to refine and improve course content and teaching techniques for the MATIs as well as their Farmer Training Wings.

In addition to training farmers, the MATI will also provide in-service training to extension agents. Various approaches will be tried to determine which are most effective in increasing extension capabilities. It may be desirable to have the serving extension officers appointed as instructors for the courses organized for the farmers in the villages where they are posted. This could also help to improve the contact and communications between the extension workers and the farmers. It is necessary that the extension worker be given the role of instructor to protect his status. This can be done through certain tutorial assignments. On the other hand, more intensive (and crop-specific) courses may give him enough expertise so that farmers naturally turn to him for advice. The training of the extension workers is especially important in order to extend new practices to larger geographic areas. In any case, his attendance at some of the farmer courses would serve to make the farmers aware that he is knowledgeable and there to assist them.

The Farmer Training Wing will also provide technical assistance to their selected villages. The MATI staff and students will provide this service. It will be equipped so that movies or slides can be taken of farmers in their fields and shown to them in the evening, to encourage the further adoption of new practices. Students may also work with the farmers in the field as

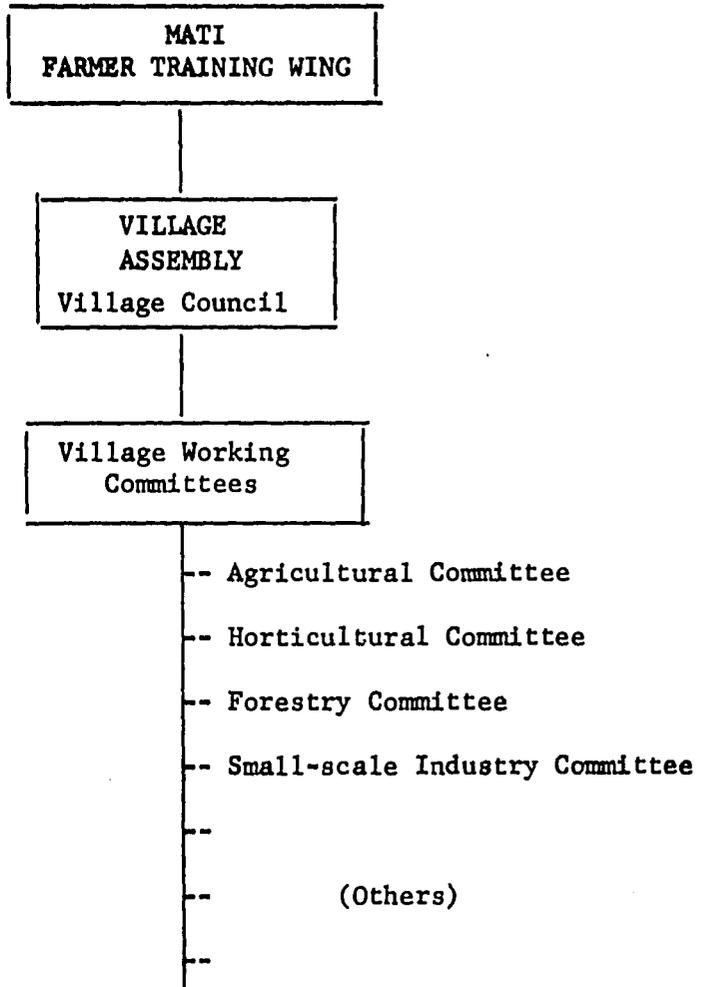
demonstrators, and the staff will provide assistance on farmer problems as they are identified in the data collection and analysis work. The MATI staff and students will help village councils formulate their overall production and economic plans and develop measures of the village's success in implementing them. Also, the effectiveness of different extension techniques will be tested. By sponsoring and assisting individual villages, the MATI students will gain experience and a better understanding of village life as well as the difficulties and potentials of working closely with a village and its members. The villagers as principal beneficiaries would have the most to gain from this entire experience, not only those who attend a particular course but also those who see that what is happening is beneficial and hopefully will follow the advice.

#### 4. The MATIs and the Villages

With the agreement of the villages and the District and Regional Development Offices, the participating MATIs will sponsor two to six villages each depending on the size and strength of the staff and the number of students. Under the sponsorship arrangement, the MATI will be responsible for providing all of the extension assistance to these villages. Securing government agreement for this idea did not appear to be a problem at the MATIs surveyed for possible participation. MATI sponsorship of the villages will allow the District and Regional Administrators to shift current extension officers to other villages where they are badly needed. Also, there appeared to be good working relationships between the MATIs and district or regional offices even though the MATIs come under the direct control of the Ministry of Agriculture.

In addition to the approval of the district and regional offices, the village councils in the selected villages will have to approve the involvement of the MATI staff and students. Under the current operating policies of the Tanzanian Government, villages are given significant decision-making power.

The basic village structure and planned MATI interaction indicates how the project will function. This is diagrammed as follows:



After approvals for sponsorship are obtained and basic information gathering instruments are developed, the MATI students will begin the initial data collection effort. Experience at one MATI which had engaged in data collection on village nutrition suggests that it may be desirable for the students to first spend considerable time in the villages getting to know the people.

One output of the farmer training effort will be the definition of special training requirements which will improve village decision making. As can be seen by the chart above, the villages may have working committees on various aspects of village production and interest. It will be important to develop the technical specialization of these committees so that they can contribute to increasing village production and financial self-sufficiency. Based upon needs identified by the village working committees, courses will be established at the Farmer Training Wing to provide the desired training in their particular areas of specialization (i.e., training in livestock production, poultry

production, food crops production, village bookkeeping, etc.). Follow-up for these courses will be facilitated by the MATIs provision of technical assistance to the sponsored villages. After these courses are evaluated and refined, they can be given to the planning committees of non-sponsored villages. There would therefore be a "spread" effect of useful training programs.

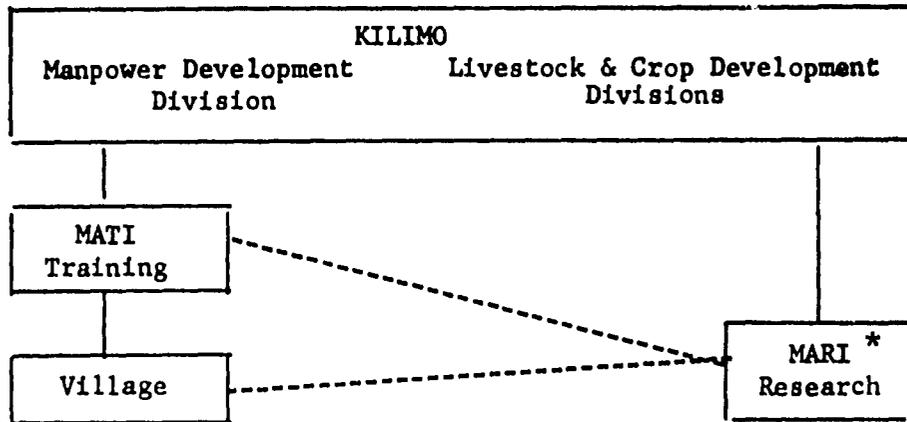
In addition, an on-going data collection effort will be conducted in villages. One technique which may be employed is for the students to help farmers keep a simple farm journal on a weekly basis -- recording his labor and cash inputs, the division of labor within his family, the practices that he uses and his reasons for using these practices, the constraints that he faces (e.g., physical, failures in the delivery and marketing systems), his yields from various crops, and his income from farming and other activities. Of particular importance in the construction of the data collection instruments (such as the farm journal) will be the creation of a dialogue between students and farmers.

Based on this understanding of current farmer practices, constraints and decision-making, new practices will be introduced to the villages for testing (see next section). To introduce new practices to farmers, the MATIs will design various extension and training approaches to be used and tested in different villages. In one village, the training of farmers may take place on the communally worked land; farmers from another village may be invited to attend crop-specific courses at the Farmer Training Wing; in a third village, the council may decide that food crop production training be given to women. These approaches will be evaluated as to their effectiveness in spreading new practices.

As mentioned above, there will be a need to develop the analytical skills of the students and staff of the MATIs. To insure the continued cooperation of the villages and help the villages to carry out their planning functions, the information collected will have to be presented in simple form to the Village Councils. This information can be an input into village planning of what crops or livestock to emphasize in its future production plans.

##### 5. The MATIs, Research Institutes, and Villages

The testing and development of small farmer technological packages will require close communication and cooperation among the MATIs, research institutes and villages. One criteria for selecting the MATIs for participation in this project was the nearness of a national research institute. The following chart shows the relationship that is required.



\* Ministry of Agriculture  
Research Institute

—————Direct Admin. Line  
-----Indirect Communication

One of the problems in Tanzania's agricultural development has been the difficulty of introducing new technological packages to the extension workers as well as to the farmers. One purpose of this project is to strengthen the linkages between research, training and extension so that new ideas reach the farmers. Currently, the research institutes through national crop committees are recommending packages for improving farmer production. One example is the National Maize Program which is being assisted by the IBRD and the USAID.

The MATIs, in cooperation with the research institutes will test new technological packages in the sponsored villages. The research institute will provide the package to be tested, assist in the identification of data that should be collected to measure its effectiveness, and do the scientific analysis of the results. The MATIs will train the farmers to use the package and collect the data necessary for the evaluation. As was mentioned earlier, this type of cooperation has been practiced in several locations already.

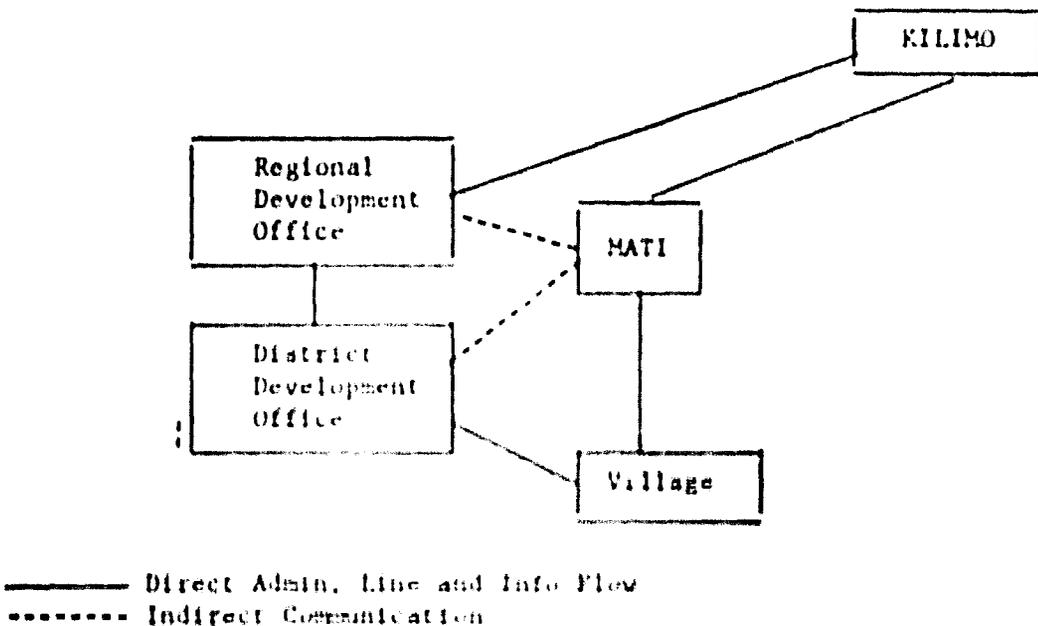
The cooperation of the local research institute is also important for the MATI students who may identify technical problems in the field which are beyond the capabilities of the MATI staffs to solve. The research institutes may then be called upon to examine these problems and make recommendations. Also, the Farmer Training effort may uncover some new ideas from farmers which may require the research institute's guidance on their feasibility. These may include modifications to technological packages which are being tested.

Special links will be established with those institutions conducting USAID-sponsored research. In addition, the plant and animal scientists who are part of the West Virginia University/North Carolina consortium team at the Ukiriguru and Mpwapwa MATIs will be available for providing technical assistance.

As technological packages are found to be acceptable to farmers, there is a need for introducing these packages more widely. This will be done directly with farmers through the work of the Farmer Training Wing. In addition, there will be a need to provide in-service training on these technological packages to extension workers, which will also be carried out at the MATI as part of this project.

6. The MATIs, Regional and District Development Offices and Villages

As was mentioned earlier, the involvement of the Regional and District Development Offices will be critical at the outset for granting approvals. Moreover, their continuing participation in the process is necessary so that they can insure the availability of government support when needed. Further, the information generated on agricultural production, and in particular the efficacy of the technological packages tested, can be a valuable input into future planning. Schematically, the relationship will be as follows:



7. Network among the Participating MATIs

Beyond the linkages that are developed in the geographic area where each MATI is located, an important part of the project will be to establish a communications network among the participating MATIs and KILIMO Hq as well. This will be done through regular (perhaps monthly or quarterly) meetings under the leadership of the coordinator who will be stationed at Hq. Among the major items for these meetings will be:

- examining the efficacy of the different training and extension approaches being used in the Farmer Training Wings;
- examining the findings of the experimentation with technological packages and agricultural knowledge transfer mechanisms to identify broader policy and programming implications for KILIMO;
- examining the potential uses of the data in curriculum development and in the preparation of teaching aids for the MATIs and the farmer and in-service training programs conducted by the MATIs;
- examining problems of developing analytical skills of the MATI staffs and students as well as the villagers, and
- sharing experiences regarding the development of different collection instruments, and assessing their potential value as tools which can be effectively used for farmer training and by all village level extension workers.

These sessions will encourage a more rapid translation of the project's work into operational alternatives as well as further the educational process. The coordinator should play a central role in the organization and conduct of these workshops.

One further purpose of the workshops may be to develop standardized collection instruments so that a comparative analysis can be done across the four sites. These sites are dispersed throughout the country in areas which range from very low development potential (Mtwara) to high development potential (Mbeya). Any such comparative analysis will attempt to identify the determinants of successful development in all the villages which are assisted by the participating MATIs.

#### 8. The Participating MATIs

Four MATI sites were proposed by the Director, Manpower Development Division, Ministry of Agriculture. These sites were visited and evaluated as to their interest and capabilities for participating in the project. Detailed write-ups on each MATI appear in Annex C, and the major highlights are summarized below.

It should be noted that all four MATIs would use their existing staffs and facilities for the project (though some of the facilities need improvements). Each MATI would provide housing, dining and classroom space for the farmers participating in the Farmer Training Wing. In addition, their farms would be used for instruction and demonstration purposes. The MATI staffs would assume the added responsibilities: teaching the courses for farmers and extension workers (in-service training), and providing technical assistance to the sponsored villages, and helping with the data collection and analysis effort. The Ministry of Agriculture would augment their staffs by

two Agricultural Field Officers to assist with the Farmer Training Wing. Following are brief assessments of the four MATIs:

a. Mtwara

Summary: Situated approximately eight miles outside of Mtwara town, the Institute is a newly-constructed facility with a capacity for 160 students. This year's inaugurating class of 60 students began training in general agriculture at the certificate level. The MARI (Research institute) is located on the same site and there appears to be good relationship between the MATI and MARI staff although combined field testing has not yet taken place. It is also the headquarters for cashew research in Tanzania.

Selection Rationale: The Mtwara area is essentially dry, subject to the vagaries of the coastal weather and generally has the kind of sandy soil which reduces the area to a low development potential. There are problems in getting supplies from Dar es Salaam as well.

On the other hand, from a national perspective, relatively little experimentation or assistance has gone into the area because of the sensitive nature of its proximity to Mozambique's recent independence struggle as well as the presence of many refugees in the Mtwara region who have now returned to Mozambique. The Tanzanian Government feels the southern area has been neglected and needs priority development assistance.

Staff Attitudes and Capabilities: The staff is in place and has a few young university-trained members. Currently the plans for the program are under development and the principal and staff have very high interest in trying out new ideas. The Principal welcomes the opportunity to experiment and sees the work of the data collection and analysis unit contributing to curriculum development. One of the first steps in program development at Mtwara has been to identify ways in which students can effectively communicate with farmers. One village has been adopted by the students.

The staff argues that one of the main needs is to assist students in building a strong two-way communication with farmers and that the failure to do this has been one of the shortcomings of the extension service. The feeling was clear that their students must be provided with tools which allow them to establish this communication.

The MATI has four departments: Extension and Rural Economics, Land Use, Animal Husbandry, and Agronomy (with agro-mechanics recently integrated). The staff has about ten professionals assisted by field officers. And while there is a shortage of four field officers, the teaching load allows additional responsibilities with cooperation among the staff allowing for cross-fertilization and mutual assistance. The morale is high and with a young staff (two women staff members are very well integrated), they look upon added work as an opportunity for experimentation and learning.

Linkage Potential: The existing relationship between MATI and MARI appears to be good although no formal collaboration has yet begun. This MATI is highly aware of the importance of cooperation with the District and Regional Development Offices not only to secure approval for village work but also in regard to program development.

Other External Donors: This Institute was originally funded by the Third IDA Agricultural Loan of \$600,000. The only foreign donor presence in Mtwara has been the Finnish who have developed the regional plan and have been assisting in water development. However, the MARI staff will soon be bolstered by a group of five Japanese technicians, including an entomologist, with improvement of cashew production one of their major objectives.

AID Inputs Required:

|                         | <u>Life of Project</u> |
|-------------------------|------------------------|
| 1. Technical Assistance | \$280,000              |
| 2. Commodities          | 77,750                 |
| 3. Local Costs          | <u>70,000</u>          |
| Total                   | \$427,750              |

b. Nyegezi

Summary: Located about seven miles from Mwanza, Nyegezi MATI is a long-established training facility with well-developed facilities which are in need of minor improvements. The Institute trains general agricultural and land use extensionists at the certificate level. The capacity of the Institute is 250 students. About nine miles from the Institute is the Ukiriguru Research Institute which has been specializing in cotton production but is currently doing more work on cereals and legumes. Also at Ukiriguru is another MATI where a five-man team will be provided by West Virginia University/North Carolina A&T University Consortium to help improve the quality and relevance of Agricultural education offered at that MATI.

Selection Rationale: Mwanza Region is rapidly organizing Villages, and the number has expanded to about 600. The region is of a medium development potential because of varying soil quality and weather. With the introduction of irrigation, there is significant potential to expand production. Irrigation has already been introduced on the MATI farm, and the Ministry of Agriculture sees Nyegezi as the site to experiment with and introduce small farmer irrigation techniques. Because of the dry weather, some experimentation is also under way to expand sorghum production.

Staff Attitudes and Capabilities: The principal and staff of the MATI believe that ways for most effectively reaching small farmers are not as yet defined. They view the project as an experiment to identify and test different approaches. Moreover they are highly concerned that the training provided at the MATI be relevant -- equipping students to develop the technical and inter-personal skills necessary to deal with farmers.

The Institute has 34 staff members; there is excellent cooperation among these staff members with high cross-fertilization across functional departments. The location for the project would be the Extension and Rural Economics Department which is headed by a university graduate with some experience in data collection and analysis. This department already has several programs for promoting student/farmer interaction, with second-year students being assigned to work with individual farmers. Also, the Department has used students for data collection in nearby villages. The Head of the Department believes that the project activities can be incorporated into his existing program without difficulty; he also had several ideas on different approaches (and the equipment needed) to integrate the present program with the Farmer Training Wing.

The department heads indicated the willingness and ability of their staffs to help provide technical assistance to the sponsored villages. They also suggested how the data collected could be used for teaching aids in their courses.

Linkage Potential: There exists a close working relationship between the Principal of Nyegezi and the Director of the Ukiriguru Research Institute; both are prepared to cooperate in using students to test various technological packages. The research institute has an Economic and Social Science Unit, headed by a Finnish Economist, which can provide some technical assistance in the design of data collection instruments and the analysis of the data. The programs of the Ukiriguru and Nyegezi MATIs are coordinated. The American team at Ukiriguru should facilitate close coordination with this new project. The Nyegezi principal has excellent working relations with the Regional and District Development officials.

Other External Donors: There is one expatriate at the Institute (a Marynoll Nun) and an Indian is expected to arrive in the near future. At the research station, there is the Finnish Economist who is interested in assisting with the effort; other expatriates working on cotton development are departing. As mentioned above, there will be a five-man American team at Ukiriguru MATI. The Nyegezi MATI would like to assist the IBRD Geita Cotton Development Project but it is located at some distance from the MATI.

AID Inputs Required:

|                         | <u>Life of Project</u> |
|-------------------------|------------------------|
| 1. Technical Assistance | \$280,000              |
| 2. Commodities          | 65,600                 |
| 3. Local Costs          | <u>129,300</u>         |
| Total                   | \$474,900              |

c. Mlingano

Summary: Mlingano is located 17 miles from Tanga and has specialized in diploma level training of farm managers for parastatals and government farms. However, a new course for agro-mechanics will start in January 1976 while the farm management training will increasingly be for staff scheduled for assignment to Villages. Facilities are being expanded to accommodate 134 students but they still remain limited. Staff numbers eleven out of an establishment of 14 with stability a problem. Cooperation with the adjoining research institute and the district and regional development offices appears to be high.

Selection Rationale: The Ministry of Agriculture selected this institute because of its role in training farm managers for Villages. It is the only institute with this responsibility. The Farmer Training Wing is also expected to provide this type of training as well as training to support the village efforts. Facilities are poor, except in the agro-mechanical area, and the surrounding area is of only marginal potential -- with an emphasis on cash crops; but opportunities exist to work with newly forming Villages. The relative maturity of the students being trained is also regarded as a plus factor.

Staff Attitudes and Capabilities: The institute principal is an American-trained M.S. degree holder in economics with a good understanding of data collection and analysis techniques, and an awareness of the need for experimentation in changing farmer behavior. A Hungarian Economist on the staff could assist in data analysis although this activity will be difficult without outside assistance. The remainder of the staff, while generally lacking degree level academic credentials, recognize the value of data collection and analysis in curriculum development, in developing new approaches to reaching farmers and in gaining needed insights into farmer decision-making. The staff members do have experience in data collection, agro-mechanics and farm management but the thinness of staff and the stability situation are problems.

Linkage Potential: Adjoining the institute and sharing some facilities is a research institute specializing in sisal, soils and coconut research. The staff of the institute appeared interested in the project

and believed the project as described is feasible. The research institute does test recommendations for the various national crop development committees to develop appropriate recommendations for the area. This could be assisted by greater involvement of the training institute -- particularly in villages. Limited technical assistance might be available from an economist at the research institute and members of a FAO/UNDP team working on the soils survey. The training institute principal was keenly aware of the importance of the district and regional development offices and eager to have their involvement at all stages of project activities. Links might also be forged with various other authorities and organizations operating in the area.

Other External Donors: At the MATI there are two Hungarian staff -- an Economist/farm management expert and an agro-mechanics advisor. There is no other formal foreign assistance although an Iranian under local terms is serving on the staff in the agro-mechanics area. As mentioned, the adjoining research institute is being assisted by an FAO/UNDP team headed by an American.

AID Inputs Required:

|                         | <u>Life of Project</u> |
|-------------------------|------------------------|
| 1. Technical Assistance | \$280,000              |
| 2. Commodities          | 80,600                 |
| 3. Local Costs          | <u>159,500</u>         |
| Total                   | \$520,100              |

d. Mbeya

Summary: The Mbeya Ministry of Agriculture Research and Training Institute (MARTI) is located approximately 12 miles from Mbeya town in the Southern highlands. The highlands are relatively rich with this area being the major grain producing region in the country. It is over 5,000 feet in altitude, temperate in climate with strong, cool breezes dropping temperatures to sweater weather at night. The physical setting, with the jacaranda trees and the high hills, is very attractive.

The MARTI is composed of a Training as well as a Research Institute headed by a single Director. The single director form of organization among the Institutes is unique to Mbeya. As in the other regions, each Institute in turn has a head: a Principal in the case of Training and a Senior Research Officer for Research.

Selection Rationale: The relative richness of the area results in its being one of the main grain producers for Tanzania and indicates high potential for improving small farmer output. There are excellent physical

facilities at Mbeya provided by the Nordic group and the farm facilities are tremendous as well.

A team of 35 Nordic technicians (of whom 20 are in Training and 15 in Research) are in one-to-one relationships with the Tanzanian staff. One exception is the Tanzanian Director, who has no counterpart. The feelings and communication between the Nordics and the Tanzanians are favorable and mutually appreciative.

Finally, the Mbeya staff may be the richest in resources, and while the temporary presence of the Nordics may account for some of the qualitative level, the Tanzanian staff seemed quite solid in their own right. The professional level at which the Agro-Economic Research staff (for example) had been functioning was quite high.

Staff Attitudes and Capabilities: Basically, in both Training and Research, there was strong feeling about the need to learn much more about farmer production practices. They felt that bringing about change was their most difficult job. In general, all the responses from the Nordics and Tanzanians were very positive.

The greatest strength at Mbeya, apart from its natural resources, is the availability of resources in the four coordinating departments of the Institute: The Agro-Economics and Farm Management Department of Training and its counterpart Agro-Economics and Farm Management Department of Research; and the Extension Training Department of Training and the Extension Research Department of Research. The staff in each of these departments were enthusiastic about the project concept. They explained that they were using Standard VIII leavers in villages for collection of certain kinds of data. They also felt that since MATI students have had more training than these data collectors, their utilization as data collectors could be advantageous.

Linkage Potential: The relationship between Training and Research appears to be functioning at a fairly good level. Good communication and co-operation with the district and regional development offices has been established. The Institute staff presently is working with the district and regional development offices through sub-stations and by making direct inputs into planning exercises.

Other External Donors: The Nordic Project is scheduled to be completed in 1976 and is not expected to be extended. However, some of the individual positions may be retained as the need is indicated. This has been an intense and almost overwhelming presence, with excellent dining and recreation buildings, dormitories, classrooms, and staff housing being designed and funded by the Nordic Group.

AID Inputs Required:

|                         | <u>Life of Project</u> |
|-------------------------|------------------------|
| 1. Technical Assistance | \$280,000              |
| 2. Commodities          | 77,100                 |
| 3. Local Costs          | <u>68,600</u>          |
| Total                   | \$425,700              |

9. Extension of Project Activities to Other MATIs

Extension of project activities to other MATIs will take two forms. First, the project will generate materials and approaches which can be integrated into the curriculums of the other MATIs. This will be facilitated at Mpwapwa and Ukiriguru where the West Virginia University/North Carolina A&T teams will be providing technical assistance. If (as proposed) this project is under the consortium Chief of Party, he and the Ministry of Agriculture will be responsible for insuring that the materials developed and found useful are integrated into the overall planning of the MATI programs. The linkages between the participating and other MATIs will be further strengthened by having the Americans stationed at Mpwapwa and Ukiriguru assist with technical inputs (animal and plant science) required in the farmer assistance work.

Second, if the addition of a Farmer Training Wing proves to be a significant contribution to MATI programs, the Ministry of Agriculture will want to extend these activities to other MATIs. This decision will be reached at the end of the second year, based on a joint evaluation of the project by the Tanzanian Government and USAID. Funds for technical assistance and program support for this project are being budgeted for a four-year period.

10. Participant Training

Short-term participant training is planned to help develop the training and research skills of the MATI staff members. Six months after the project has commenced, a visit is planned to another African country where farmer training programs, including local level data collection, have been successfully conducted. This visit will be designed to show the potential uses of data in designing training programs, as well as the various techniques/mechanisms that may be useful in a Tanzanian village setting for knowledge transfer and behavioral change.

Long term training is planned for six participants in extension and farmer training methods. This training would take place in U.S. institutions.

11. UDSM Faculty of Agriculture & Forestry - Morogoro

It is expected that senior members of the UDSM Faculty of Agriculture & Forestry will participate from the outset in the planning and coordination efforts of this project. Their participation will insure a two-way feedback between the planned Centre of Continuing Education, the various teaching and research activities of the Faculty, and the problems being encountered at village level by the MATI Farmer Training Wings. The working relationships between the Ministry of Agriculture and the Faculty at Morogoro were assessed and found to be excellent. This cooperative arrangement poses no problems and should be mutually beneficial.

E. Project Linkage with Agricultural Manpower Development Project and Other USAID Programs

The Farmer Training and Production Project complements and supplements several of the ongoing USAID programs. This combined small farmer research/action program will generate the knowledge base to insure that national level programs, funded in part by USAID, reach small farmers.

More specifically, it is proposed that this project be added to the existing Agricultural Manpower Development Project. As is pointed out in the PRP approval cable (STATE 290675), there is the possibility of a conceptual split between the work of the West Virginia/North Carolina Consortium and the probability that the proposed project will provide data and analysis which can be incorporated into the teaching and materials preparation being done by the Consortium. The systematic testing of various training and extension approaches and of different technological packages was not a component of the original Agricultural Manpower Development Project. The Consortium Chief of Party sees this as a valuable innovation, and its integration into the existing project will be facilitated if he is to assume responsibility for the overall project as is presently planned.

On the other side, it is anticipated that the West Virginia/North Carolina technicians will be available to provide technical assistance as it is required. Of particular importance will be their advice on both agronomic and livestock problems as they are uncovered in the field.

The selection of the MATIs to participate in this project was made by the Ministry of Agriculture. An important consideration in their selection was that the system to be developed should be carried out mainly by Tanzanians; for this reason and other policy priorities, Mwapwa and Ukiriguru MATIs (where the Consortium will have technicians) were not chosen. However, if the process works well at the four participating MATIs, it will be extended to Mwapwa and Ukiriguru as well as the other MATIs. The presence of the Consortium team should assist this expansion of the effort.

The proposed project will also complement the other work being sponsored by USAID on livestock development. It should be noted that livestock

production is a major focus in villages, and all four participating MATIs have Animal Husbandry Departments. Technological innovations from ongoing livestock projects will be tested in the villages served by the four MATIs. This will help insure that these innovations are acceptable to small producers.

In addition to complementing the ongoing livestock program, the project will provide inputs into several other USAID-sponsored programs. One major program is to improve farmer access to credit. The farmer training effort will determine the nature and timing of credit needs as well as the most efficacious ways of credit provision. Also, the project will allow the testing of the maize technological package (and other technological packages developed under the Agricultural Research Project) in four diverse locations, and if desired, with the same methodology as developed by Blue and Weaver. Finally, the project will identify other major constraints to improving small farmer production which can be overcome in future USAID programming (e.g., agricultural loans).

The approach being developed and tested in this project will also have applicability for planning future USAID involvement in the Arusha Region. Even though this region was not selected by the Ministry of Agriculture, some of the findings as well as the techniques for data collection and analysis can be replicated there.

### PART III: PROJECT ANALYSIS

This project is consistent with both the Congressional Mandate and with the policies and priorities of the Tanzanian government in the agricultural sector. As has been described in the previous section, it is designed to fit into and assist the ongoing government development effort, the focus of which is to improve agricultural production and the quality of living in rural villages. Because of the government's redistribution of land and its village development program, there is relative equity in the rural areas. The problem becomes one of finding ways to help all farmers improve their production.

#### A. Technical Analysis

##### 1. Technical Soundness

Since the Arusha Declaration in 1967, Tanzania has been experimenting with villagization as well as embarked on a major effort to decentralize government decisionmaking. Regional and district governmental agencies have been given considerable power over the allocation of resources for rural development; the staffs of these agencies have been strengthened. At this point in time, there is a need to generate the data necessary for effective decisionmaking, especially in regard to helping small farmers improve their production. This recognition, combined with the progress made towards decentralization, provides an excellent environment for the initiation of this project.

A major objective of villagization is to develop villages into financially viable production units, with village leaders and people involved in decision-making as well as primary contributors of resources for development. High priority is placed by the Tanzanian government on encouraging "local action" by the rural population. A recent USAID-financed study, Strategies for Small Farmer Development: An Empirical Study of Rural Development Projects, showed that "local action" accounted for nearly 50 percent of the difference in success scores of the 36 rural development projects analyzed.

Small farmer participation is the major component of the project; this participation will take several forms. First the villages will have the deciding voice on whether they participate in the project. If the people agree that the project activities are to be carried out in their villages, the next step will be for the MATI staff and students to discuss with the villagers their problems and the nature of village-level decisions (with a delineation of the information needed for these decisions (e.g., the profitability and risk of various technological packages). One main aim of the Tanzanian government and this project is to develop the planning capabilities of the village level so that land and other resources can be more effectively used.

As new techniques are introduced into the villages, the ongoing MATI student/farmer dialogue will allow needed changes or modifications to be made. Moreover, the project will rely initially on the resource commitments of the villages to implement the new technology; as major constraints are uncovered such as credit need, then the district and regional governments will be expected to make the necessary larger resource commitments complementing but not overwhelming the village commitments. In essence, the villagers will be the testors of new technology -- technology within their means. Outside assistance will be minimized so that the chances of the benefits becoming self-sustaining are improved.

To assist with the introduction of new practices, technical training will be provided at the Farmer Training Center and in the villages. In addition, training will be provided to improve the technical skills of village leaders responsible for functional areas such as food and cash crop production and livestock. Farmer reactions to these training programs will be assessed as well as the need for other types of training programs.

Management training, especially in farm management techniques will be provided by the MATIs. Its focus will be on building group decisionmaking and operational capabilities. To further this process, the data collected will be reduced to simplified display forms so that an analytical capability will be developed at the village level.

The project will also add several dimensions to the training of MATI students:

- . Student participation in project planning and initiation will help them to identify and develop effective ways for interacting with villages.
- . Student participation in the design of the data collection instruments will provide training as to the information they should collect when first being assigned to a village. It is anticipated that the collection instruments, once tested and refined, will be tools that all extension agents can use.
- . Student participation in the training of farmers and in the data collection effort will be structured in ways that they see the value of an ongoing dialogue with farmers when they become extension workers.
- . The project will familiarize students with the process of testing and customizing technological packages to the needs of farmers living in specific geographic areas.

- . The project will provide an opportunity for the MATI students to assist in various training and extension activities, developing a practical understanding of the most effective methods for changing small farmer behavior.
- . Student participation in the initial analysis of the data collected will help develop their ability to analyze village organizational and production problems.

These roles for MATI students should contribute significantly to their training.

## 2. Technical Issues

In the PRP approval cable (STATE 290675), two main technical issues were identified. First, the question was raised whether the project will be difficult to supervise because it will be operating in four geographic areas. Before addressing this question directly, it should be noted that the project, as is presently designed, reflects the interests and priorities of the Ministry of Agriculture. The MATIs were selected because of specific policy needs:

- . Nyegezi: Need for testing the efficacy of small farmer irrigation techniques;
- . Mlingano: Need for developing farm management training methods applicable at the village level;
- . Mtwara: Need for experimentation with dry land cultivation and oil nut crops; and
- . Mbeya: Need for testing food crop technology and its extension.

In addition, the use of four MATIs in different geographic locations will assist current efforts of the Ministry of Agriculture to test technological packages throughout the country, some of which were developed under USAID-supported research.

Participation of four MATIs will allow experimentation with many different research, training and extension approaches for helping small farmers. During the first year, standardization will not be attempted, though as pointed out earlier, there will be close communication among the staffs of the participating MATIs. The logistical and communication problems in attempting this coordination were considered and found manageable.

If the number of MATIs is reduced, this will limit the universe when standardization does take place. Moreover, it will reduce significantly the impact on Tanzania government officials. If constituencies for this approach to training and helping small farmers are developed in four locations, then a positive effect on overall government planning should be achieved. Finally, it should be noted that the project activities will be localized, and its success will rest primarily on the quality of the MATI staff members and American expert assigned at each location. The interest and capabilities of the MATI staff members were assessed during the project preparation as a criteria for MATI selection.

A second issue is the availability of production inputs for the modifications of technological packages. As was discussed above, the primary focus of this project is to encourage small farmers to do as much as they can to help themselves and to identify the key constraints on changing their behavior. Any production inputs that are required and that are beyond the capabilities of the small farmers will be identified. The project will attempt to work through the existing Tanzanian system to provide these inputs (as in the USAID-supported maize program). Currently the regional and district governments (and sometimes parastatals) provide inputs. In addition USAID and other foreign donors are funding development efforts (e.g., small farmer credit, agricultural marketing, agricultural research) that can be tapped. Eventually, it is intended that this combined research/action/training program will generate the information needed to plan a district assistance project which will include critical agricultural components.

### 3. Environmental Aspects

(Not required per STATE 290675.)

### 4. Technical Soundness and Reasonableness of Cost

Considerable time and thought have gone into the technical design and costing of this project. The primary author of the Project Paper, Development Alternatives Inc., has had extensive experience working in the developing world and has completed a series of studies in less developed countries which are directly related to the type of project covered in this project paper. They, therefore, have a good deal of experience and expertise to bring to bear on this project. In addition, both the Tanzania Government, particularly the Ministry of Agriculture, and the USAID Mission to Tanzania have contributed extensively to the paper and have thoroughly reviewed it.

This project is highly innovative and, in many respects, is a research effort directed toward farmer development. To our knowledge there are no other projects of this type on which a comparison of costs could be made. In effect, this project is breaking new ground.

In summary, then, the Mission is satisfied that sufficient thought has been devoted to this project by individuals fully qualified to design an activity of this sort. We conclude that the design is adequate to accomplish the purpose of the project and that the costs as outlined in the paper are reasonable.

## B. Financial Analysis

Since this project should be considered a combined experimental/training effort to determine how to come to grips with the problems of reaching small farmers through appropriate technologies accompanied by improved extension and training techniques, the Mission feels that a rate of return analysis would be inappropriate at this time.

### 1. Recurrent Budget Analysis

During the current economic crisis the TanGov has been under great pressure to limit the growth in recurrent expenditure. It has been further urged by IBRD and others to concentrate resources on directly productive activities. Despite these pressures, the Manpower Development Division of the Ministry of Agriculture has managed to maintain and increase its recurrent budget. The recurrent budget for the entire division has been between \$3 and \$4 million from 1972 to 1975/76. The MATIs budgets remained at the \$750,000 level from 1972 to 1974 but rose dramatically to \$2.6 million in 1975/76.

During the life of the project, the recurrent budget cost to the TanGov is approximately \$840,000 (\$210,000 per year). Not all of this cost is new recurrent expenditure because existing personnel will be utilized to a large degree and many of the costs incurred in running the MATIs remains unchanged. The net recurrent cost increase during the life of the project is estimated at \$50,000 per year.

Upon termination of donor support, the net cost to the TanGov is estimated to rise to \$200,000 per year. This is not considered a significant increase and due to the high interest in this project will undoubtedly be provided.

2. Financial Plan (See Annex D: Supporting Financial Tables)

PROJECT SUMMARY --- AID APPROPRIATED FUNDS (\$000)

Country: TANZANIA

Project Paper: Revision #1

Project # 621-11-190-119<sup>1/</sup>

Title: AGRICULTURE MANPOWER DEVELOPMENT<sup>4/</sup>

| <u>Cost Components</u> | <u>BUDGET YEAR 1977</u> |                 |              |
|------------------------|-------------------------|-----------------|--------------|
|                        | <u>Direct Aid</u>       | <u>Contract</u> | <u>Total</u> |
| U.S. Technicians       | -                       | 345             | 345          |
| Participants           | 45                      | -               | 45           |
| Commodities            | 168                     | -               | 168          |
| Other Costs            | 204                     | 23              | 227          |
| <b>Total</b>           | <b>417</b>              | <b>368</b>      | <b>785</b>   |

1/ Agricultural Manpower Development Project No.

SUMMARY COST ESTIMATE AND FINANCIAL PLAN<sup>1/</sup> (U.S.\$000)

| <u>Source</u>   | <u>AID<sup>2/</sup></u> |                  | <u>Host Country</u> |                   | <u>Others</u> |           | <u>Total</u> |
|-----------------|-------------------------|------------------|---------------------|-------------------|---------------|-----------|--------------|
|                 | <u>FX</u>               | <u>LC</u>        | <u>FX</u>           | <u>LC</u>         | <u>FX</u>     | <u>LC</u> |              |
| 1. Personnel    | 1,418                   | 20               | -                   | 257               | -             | -         | 1,695        |
| 2. Commodities  | 356                     | -                | -                   | -                 | -             | -         | 356          |
| 3. Training     | 113                     | -                | 12                  | 8 <sup>3/</sup>   | -             | -         | 133          |
| 4. MATI Support | -                       | 487              | -                   | 578 <sup>3/</sup> | -             | -         | 1,065        |
| Contingency     | 95 <sup>5/</sup>        | 25 <sup>5/</sup> | -                   | -                 | -             | -         | 120          |
| <b>Total</b>    | <b>1,982</b>            | <b>532</b>       | <b>12</b>           | <b>843</b>        | <b>-</b>      | <b>-</b>  | <b>3,369</b> |

1/ See breakdown on following pages

2/ All grant funding

3/ Includes facilities, housing and operating costs

4/ Farmer Training and Production subproject only

5/ Approximately 5% of the total

ESTIMATED TOTAL BUDGET  
(USAID)

(U.S. \$)

|                                       | <u>Year 1</u>  | <u>Year 2</u>  | <u>Year 3</u>  | <u>Year 4</u>  | <u>Total</u>     |
|---------------------------------------|----------------|----------------|----------------|----------------|------------------|
| <b>1. <u>TECHNICAL ASSISTANCE</u></b> |                |                |                |                |                  |
| A. Rural Development Specialists (5)  | 300,000        | 300,000        | 325,000        | 325,000        | 1,250,000        |
| B. Technical Support                  | <u>45,000</u>  | <u>35,000</u>  | <u>35,000</u>  | <u>35,000</u>  | <u>150,000</u>   |
| Sub-total                             | 345,000        | 335,000        | 360,000        | 360,000        | 1,400,000        |
| <b>2. <u>COMMODITIES</u></b>          |                |                |                |                |                  |
| A. MATIs (4)                          | 167,950        | 44,000         | 78,800         | 10,400         | 301,050          |
| B. Other MTAs (2)                     | -              | <u>24,700</u>  | <u>20,000</u>  | <u>10,000</u>  | <u>54,700</u>    |
| Sub-total                             | 167,950        | 68,700         | 98,700         | 20,400         | 355,750          |
| <b>3. <u>OTHER COSTS</u></b>          |                |                |                |                |                  |
| A. Language Training                  | 18,000         | -              | -              | -              | 18,000           |
| B. Computer Support                   | 15,000         | 15,000         | 15,000         | 15,000         | 60,000           |
| C. Administrative Assistant           | <u>5,000</u>   | <u>5,000</u>   | <u>5,000</u>   | <u>5,000</u>   | <u>20,000</u>    |
| Sub-total                             | 38,000         | 20,000         | 20,000         | 20,000         | 98,000           |
| <b>4. <u>PARTICIPANT TRAINING</u></b> |                |                |                |                |                  |
| A. MATIs                              | <u>44,600</u>  | <u>50,800</u>  | <u>17,600</u>  | -              | <u>113,000</u>   |
| Sub-total                             | 44,600         | 50,800         | 17,600         | -              | 113,000          |
| <b>5. <u>LOCAL COSTS</u></b>          |                |                |                |                |                  |
| A. MATIs                              | <u>188,800</u> | <u>119,100</u> | <u>78,500</u>  | <u>41,000</u>  | <u>427,400</u>   |
| Sub-total                             | 188,800        | 119,100        | 78,500         | 41,000         | 427,400          |
| TOTAL                                 | <u>784,350</u> | <u>593,600</u> | <u>574,800</u> | <u>441,400</u> | <u>2,394,150</u> |
| <b>6. <u>CONTINGENCY</u></b>          | 39,000         | 30,000         | 29,000         | 22,000         | <u>120,000</u>   |
| GRAND TOTAL                           | <u>823,350</u> | <u>623,600</u> | <u>603,800</u> | <u>463,400</u> | 2,514,150        |

ESTIMATED TOTAL BUDGET (TANGOV)

|                                            |              |              |              |              |               |
|--------------------------------------------|--------------|--------------|--------------|--------------|---------------|
| <b>A. <u>Mtwara MATI</u></b>               |              |              |              |              |               |
| 1. Staff                                   |              |              |              |              |               |
| - Equivalent of 1.5 full time senior staff | 7,500        | 7,500        | 7,500        | 7,500        | 30,000        |
| - Junior staff                             | <u>5,000</u> | <u>5,000</u> | <u>5,000</u> | <u>5,000</u> | <u>20,000</u> |
| 2. Facilities                              |              |              |              |              |               |
| - Classroom and office space               | 5,000        | 5,000        | 5,000        | 5,000        | 20,000        |
| 3. Operating Costs                         | 20,000       | 20,000       | 33,000       | 43,000       | 116,000       |
| 4. Housing                                 | <u>3,600</u> | <u>3,600</u> | <u>3,600</u> | <u>3,600</u> | <u>14,400</u> |
| Sub-total                                  | 41,100       | 41,100       | 54,100       | 64,100       | 200,400       |

| <u>B. Nyegezi MATI</u>                      | <u>Year 1</u> | <u>Year 2</u> | <u>Year 3</u> | <u>Year 4</u> | <u>Total</u>  |
|---------------------------------------------|---------------|---------------|---------------|---------------|---------------|
| 1. Staff                                    |               |               |               |               |               |
| - Equivalent of 1.5 full time senior staff  | 7,500         | 7,500         | 7,500         | 7,500         | 30,000        |
| - Junior staff (2)                          | 5,000         | 5,000         | 5,000         | 5,000         | 20,000        |
| 2. Facilities - Classroom and office space  | 3,000         | 3,000         | 3,000         | 3,000         | 12,000        |
| 3. Operating costs                          | 15,000        | 15,000        | 30,000        | 44,000        | 104,000       |
| 4. Housing                                  | <u>2,500</u>  | <u>2,500</u>  | <u>2,500</u>  | <u>2,500</u>  | <u>10,000</u> |
| Sub-total                                   | 33,000        | 33,000        | 48,000        | 62,000        | 176,000       |
| <br>                                        |               |               |               |               |               |
| <u>C. Mlingano MATI</u>                     |               |               |               |               |               |
| 1. Staff                                    |               |               |               |               |               |
| - Equivalent to 1.5 full time senior staff  | 7,500         | 7,500         | 7,500         | 7,500         | 30,000        |
| - Junior staff (2)                          | 5,000         | 5,000         | 5,000         | 5,000         | 20,000        |
| 2. Facilities - Classrooms and office space | 2,000         | 2,000         | 2,000         | 2,000         | 8,000         |
| 3. Operating Costs                          | 10,000        | 10,000        | 26,000        | 40,000        | 86,000        |
| 4. Housing                                  | <u>2,000</u>  | <u>2,000</u>  | <u>2,000</u>  | <u>2,000</u>  | <u>8,000</u>  |
| Sub-total                                   | 26,500        | 26,500        | 42,500        | 56,500        | 152,000       |
| <br>                                        |               |               |               |               |               |
| <u>D. Mbeya MATI</u>                        |               |               |               |               |               |
| 1. Staff                                    |               |               |               |               |               |
| - Equivalent to 1.5 full time senior staff  | 7,500         | 7,500         | 7,500         | 7,500         | 30,000        |
| - Junior staff (2)                          | 5,000         | 5,000         | 5,000         | 5,000         | 20,000        |
| 2. Facilities - Classroom and office space  | 6,000         | 6,000         | 6,000         | 6,000         | 24,000        |
| 3. Operating Costs                          | 20,000        | 20,000        | 34,000        | 45,000        | 119,000       |
| 4. Housing                                  | <u>3,600</u>  | <u>3,600</u>  | <u>3,600</u>  | <u>3,600</u>  | <u>14,400</u> |
| Sub-total                                   | 42,100        | 42,100        | 56,100        | 67,100        | 207,400       |
| <br>                                        |               |               |               |               |               |
| <u>E. MinAg Headquarters</u>                |               |               |               |               |               |
| 1. Staff Time (0.3)                         | 3,000         | 3,000         | 3,000         | 3,000         | 12,000        |
| 2. Participant Costs                        | 10,000        | 5,000         | 5,000         | -             | 20,000        |
| 3. Housing                                  | <u>4,000</u>  | <u>4,000</u>  | <u>4,000</u>  | <u>4,000</u>  | <u>16,000</u> |
| Sub-total                                   | 17,000        | 12,000        | 12,000        | 7,000         | 48,000        |

|                                                | <u>Year 1</u>  | <u>Year 2</u>  | <u>Year 3</u>  | <u>Year 4</u>  | <u>Total</u>   |
|------------------------------------------------|----------------|----------------|----------------|----------------|----------------|
| <b>F. <u>Other Participating MATIs (2)</u></b> |                |                |                |                |                |
| 1. Staff                                       |                |                |                |                |                |
| - Equivalent to 2.0 full time senior staff     | -              | 10,000         | 10,000         | 10,000         | 30,000         |
| - Junior staff (2)                             | -              | 5,000          | 5,000          | 5,000          | 15,000         |
| 2. Facilities - Office and classroom space     | -              | 2,000          | 2,000          | 2,000          | 6,000          |
| 3. Operating Costs                             | -              | 5,000          | 5,000          | 10,000         | 20,000         |
| Sub-total                                      | -              | 22,000         | 22,000         | 27,000         | 71,000         |
| <b>TOTAL</b>                                   | <u>159,700</u> | <u>176,700</u> | <u>234,700</u> | <u>283,700</u> | <u>854,800</u> |

COSTING OF PROJECT OUTPUTS/INPUTS  
(\$000)

| Project Inputs                 | <u>Project Outputs</u> <sup>1/</sup> |            |            |            | TOTAL        |
|--------------------------------|--------------------------------------|------------|------------|------------|--------------|
|                                | <u># 1</u>                           | <u># 2</u> | <u># 3</u> | <u># 4</u> |              |
| Summary of Total Project Costs |                                      |            |            |            |              |
| 1. Personnel                   |                                      |            |            |            | 1,695        |
| 2. Commodities                 |                                      |            |            |            | 356          |
| 3. Training                    |                                      |            |            |            | 133          |
| 4. MATI Support                |                                      |            |            |            | 1,065        |
| 5. Contingency                 |                                      |            |            |            | 120          |
| <b>TOTAL</b>                   |                                      |            |            |            | <b>3,369</b> |

3. Summary opinion

After a thorough review of the financial plan, the Mission is of the opinion that the plan is adequate and fully reflective of the total project requirements. We believe that sufficient consideration has been given to the financial soundness of the project.

### C. Social Soundness Analysis

This project is designed to fit into and assist the existing Tanzanian organizational and development effort. Tanzania's development strategy, as has been examined earlier, is a highly innovative approach with a primary focus of helping the rural poor improve their production, income and social wellbeing. This combined research/training/action program will develop the knowhow to effect small farmer behavioral changes necessary to insure that they receive the benefits of development in a manner that is self-sustaining.

#### 1. Socio-Cultural Feasibility

The initial participants in this project will be the roughly 15,000 men and women engaged in farming in the villages to be sponsored by the four MATIs. These are subsistence farmers who operate on average one hectare individual plots as well as contribute to the farming of the communal land under cultivation. Educational attainment is low, though the Tanzanian government is embarked on a program designed to achieve national literacy by the end of 1977. Incomes from the land vary significantly, especially in the four areas selected by the Ministry of Agriculture for participation in this project. They range from Mtwara which has a low development potential to Mbeya which is the center of the bread basket of Tanzania.

As the acceptability of new technology is proven by small farmers (on their own land) and the efficacy of different training and extension methods is determined, innovations will be introduced to other villages within the same geographic areas in which the MATIs are operating. It is anticipated that a total of roughly 60,000 men and women farmers will be affected at the end of four years.

The focus of the MATI intervention will be the village, to which the government has granted local decisionmaking powers. The manner in which this intervention will take place is described in detail in Part II of this PP, with the specifics of village participation presented in Part III, A. The chief point of communication will be the village councils which are elected and structured to involve all villagers in decisionmaking. Further, the organizational structure of the village allows for the continuing expansion of leadership positions so that the planning, management and technical capabilities can be effectively expanded.

Because of the government's redistribution of land and its village development program, there is relative equity in the rural areas. The problem becomes one of helping all small farmers. The project will test why some small farmers are willing to adopt new practices and why others do not. Then further experimentation with extension and training methods will be done to determine what special measures are required to encourage less progressive farmers to make the behavioral changes required to improve production. This will be accomplished through the keeping of on-farm records and maintaining a dialogue with the farmers in the MATI-sponsored program as well as in control villages.

## 2. Spread Effects: The Diffusion of Innovations

This project is being initiated because little is known in Tanzania about small farmer decisionmaking and behavioral change. While applied research is being undertaken, the acceptability of new technology to small farmers is not known. With the acquisition of this understanding through experimentation and a continuing dialogue with farmers, it will be possible to tailor new practices, training and agricultural knowledge transfer mechanisms to meet the needs of farmers.

As the efficacy of different packages and training and extension methods becomes apparent, these will be introduced into the training programs of extension workers at the MATIs. Inservice training programs will be held for current agricultural extension workers so that they will be able to use this knowledge in their future work. Further, the findings of the experimentation will be integrated into the programming of the regional and district governments for widescale replication; the findings on various technological packages will be fed back to the research institutes so that modifications can be made.

The project represents a process approach to project development, which involves both the local population and the government institutions in the areas where they live. Replication will only occur as new practices are found suitable to small farmers. As they are, diffusion will be expedited because of the nature of the Tanzania's local organizational structure where production decisions are discussed and determined at the village level. It should be noted that new technological packages will have to be customized to geographic areas which fall outside of the project areas, though the methods of testing and knowledge transfer should have nationwide applicability.

## 3. Social Consequences and Benefit Incidence

The benefits from this project will come both from experimentation and development of technological packages that are acceptable to small farmers and from the development of more effective mechanisms for transferring agriculture knowledge. In addition, it is anticipated that the skills of the extension workers will be improved, especially their ability to communicate with farmers, making their extension efforts more relevant to his needs.

The information systems developed at each project site will be designed to determine who is receiving the benefits of the development effort and what difference the project has made in their socioeconomic well-being. Broad measures of success will be defined such as: change in per family net income; change in agricultural production; change in health and nutrition; change in group or village self-help capabilities; the ability of project benefits to become self-sustaining. A cross-village analysis will be done to identify the determinants of success as well as the benefit incidence. The systems will also be set up to determine the constraints which prevent some farmers from benefiting; it will have a diagnostic capability for identifying alternatives to overcome these constraints.

In light of Tanzanian government policies and programs, there is likelihood that neither the project inputs nor benefits will be diverted to other than the small farmer.

#### 4. Effect on Women

##### a. Background \*

Traditionally, women have been viewed as mothers or housewives who keep the home and food shamba (garden) operating while many of the menfolk work in cash crops and off-farm activities. In reality, women have been required to provide labor for subsistence production and farm management skills as males have migrated to urban areas or other areas of employment opportunity. But women normally have not shown strong inclination toward access to development resources. Although there are active attempts to correct the situation within the Ujamaa village structure and through training programs for women's group leaders, guidance, determination and resources which are important to the women's role as agricultural producers are insufficient. Extension services in Tanzania favor the male farmer. Technological innovations, mechanical equipment and other devices to increase productivity and lighten the labor load of farmers apply less to food crops than cash crops. Men have been favored for agricultural credit and the cooperative organizations through which such credit is available are largely male-controlled. Women have traditionally played more active roles in the marketing of agricultural produce but this has been largely on an informal basis in local markets.

##### b. Discussion

The Reynolds report clearly points out the inferior status of women in traditional Tanzanian society. The report also makes the case that the move away from subsistence agriculture and the beginning of wage labor worked to the detriment of women -- at least in the rural areas. But Reynolds also states that TanGov policy is equality of opportunity and role between the sexes, and that legal barriers to achieve it have largely been removed. Beyond that the TanGov has taken many positive steps to promote and encourage the development of women, few of which are mentioned in the paper.

In general, the continuing inferior social/economic/political status of women results not from government policy and efforts at equalization but largely long standing and deeply ingrained attitudes -- men's and women's -- particularly in the rural areas. In fact, Tanzania, in respect to the role of women, is not too far different from the United States prior to industrialization and the explosion in mass education.

Changing a social system is a complex and difficult task, and if not done with care will cause disruption and chaos detrimental to the ends sought. Of the measures open to the TanGov, education and overall development are the two that are most likely to be used. This means slow evolutionary changes,

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\* Based on D. R. Reynolds "An Appraisal of Rural Women in Tanzania", REDSO/EA, December, 1975 (See Annex G).

measured in decades rather than a sudden revolutionary ripping of the social fabric. For AID, this dictates patience and support to TanGov programs. It also means learning much more than is now known about rural Tanzanian society--particularly Ujamaa villages--before sensible suggestions that will lead to social change can be put forward.

The paper written by Hilda Kokuhirwa of the Tanzanian Institute of Adult Education (Annex H) is a step in this direction. This paper attempts to detail the TanGov equity philosophy and how this philosophy has been translated into efforts designed to upgrade the quality of life for women in rural areas. Clearly, one of the uppermost goals of ujamaa living is to help the women and while the effort is in its very early stages, the commitment is there. It is interesting to note here that the Institute of Adult Education is one of the foremost Tanzanian institutions working in rural Tanzania and a good share of the Institute's programs are devoted to the problems of women.

#### c. Conclusion

In view of the comments made above and the statements in Annexes G and H, how can or will the Farmer Training Project have any effect on women's development in Tanzania? In general, this project will be intensively working in approximately 16 villages in four diverse areas of Tanzania. Approximately 15,000 villagers, both men and women, will be directly affected by the project. With the TanGov's commitment to the equality and development of women, there will certainly be sufficient opportunity for women to benefit from this project. It is planned that both women and men will be trained in the Farmer Training Wings and the extension students who will be involved in the teaching of these rural villagers will be affirmatively apprised of the role of women in rural Tanzania and of their importance to general development and to food production in particular.

It must be emphasized that a key element of this project is the collection of rural village social and economic data which ~~after~~ it is analyzed will be used for making decisions on future project courses of action. This vital feedback system will take into consideration the role of women and their contribution to production and village life. In addition to this, every effort will be made to include women as participants under the project and as staff at the MATI Farmer Training Wings.

#### D. Economic Analysis

The economic benefit of this project can be considered at two levels. There is an immediate payoff which results from the transfer of known technology to the sponsored villages. There is also a longer term (3-5 years) and larger payoff in the application of improved technology to expanded numbers of farmers.

In the short term approximately 15,000 farmers will directly benefit from the project. It is anticipated that the project will rapidly develop specific production packages suitable to the socio/economic environment of the MATI area. In the absence of the detailed production packages, it is necessary to use data from similar programs. At a minimum this project should generate economic benefits for participating farmers at a level above that calculated for the National Maize Project. This project, described in detail in a separate USAID Project Paper, uses fairly simple maize production packages and results in a new return of \$42 - \$46 per farmer per year. Since the extension effort under this project is much more intensive, it should be possible to get much higher returns. Even with this level of net return, the project would produce over \$600,000 in benefits to participating farmers.

The longer term benefits cannot be quantified. One of the outputs of the project is exactly the information required to calculate the economic return to alternative production packages. Provision of information on the socio/economic conditions under which production takes place could have wide ranging impact on many future programs. Production campaigns like the National Maize Project continue to face a manpower constraint. The TanGov's goal of an extension agent for each village will be enhanced under this project.

Projects and programs which have a major educational component do not allow accurate traditional economic analysis. It is taken nearly as a matter of faith that such undertakings are universally productive. This project has the added advantage of providing modest but significant immediate economic outputs.

PART IV. IMPLEMENTATION ARRANGEMENTS

A. Analysis of the Recipient's and AID's Administrative Arrangements

1. Recipient

There are several TanGov entities which will be involved in this project, from the Ministry of Agriculture on the National level, through the MATI system to the village council on the local level. It is important to emphasize that the primary need for coordination is at the local level with the overall project direction coming from the Ministry of Agriculture (MinAg). This project will be under the direct control of the Manpower Division of the Ministry of Agriculture; however, the day-to-day implementation will be the responsibility of the four Ministry of Agriculture Training Institutes involved in the program.

This entire system within MinAg is in place and functioning with a total of twelve MATIs having been in operation for some time. The one new element in this project is the concept of the Farmer Training Wing of the MATI, an innovative idea designed to expand the teaching horizons of each Training Institute to encompass village level farmers. Each of these Wings (four to be developed in this project) will be supervised by the Principal of the MATI with the assistance of one US technician and two additional Tanzanian Agriculture Field Officers. The fifth US team member will be responsible for developing and implementing the system for collecting and analyzing the farmer data, and will be under the technical supervision of the Director of Manpower in the MinAg but of course will work closely with each of the MATIs. The important thing to remember regarding these new training wings is that they will be developed as an integral part of the existing MATIs with their personnel and budgets integrally combined with that of the MATIs.

The other TanGov entities which will be involved in this project include the Prime Minister's Office and the TANU, the political party for mainland Tanganyika. Geographic Regions (excluding Zanzibar) are administratively under the Prime Minister's Office and as field personnel in the project will be operating through the regions/districts to the villages, coordinating with the Prime Minister's office becomes vital.

TANU is one of the key organizational and leadership entities in Tanzania with personnel throughout the country at all levels, from national ministries and parastatals down to village level. Few decisions are made, particularly on the local level, without a TANU input. It follows then that this project which will be intimately involved at the village level must take into strict consideration the presence of TANU and involve its local personnel in project decision-making.

The reader is directed to Part II and to Annex C of this Project Paper for further insights into the various relationships and linkages within this project. Also, the several organizational charts presented in Part II of the paper will be helpful to the reader.

a. National Level

The Director of the Manpower Development Division of the Ministry of Agriculture will have technical oversight of both the AID-financed technician stationed in the Ministry responsible for supervising and analyzing the information gathered by the MATI teams and, through the MATI Principals, the four remaining field team members. The AID-financed Chief of Party of the Manpower Project, who is established in the Manpower Development Division, will have administrative oversight over the entire AID-funded Team, including the team member based in Dar es Salaam (See AID arrangements below).

The yearly recurrent budget for this project is the responsibility of the Director of the Manpower Division of the MinAg and any inputs necessary for the project will be provided by his office in close coordination with the AID-funded Chief of Party.

b. Regional Level

The Regional Development Director (RDD) in each region is the "head of the civil service" and the chief operational officer for the region, corresponding to a Principal Secretary in a national ministry. He is responsible for all development activity in his region down to the village level. It is worth stressing here, however, that there is a strong two-way information flow from regional headquarters to the village and from the village to the regional officials. In fact, many ideas originate in the villages and it is national policy that planning begins at the village level and is passed along to the RDD level through the district officials.

The point to stress here concerns the importance of the regional and district officials in Tanzania's decentralized system. This linkage with the project is important to guarantee that this farmer training effort is institutionalized within the regional political and administrative framework.

There is one other regional organization which needs to be mentioned here. This is composed of the Agriculture Research Stations located in the four regions in which this project will be centered. These are MinAg administered and operated stations and in each region are more or less directly linked with a MATI. These stations are vital links in the farmer training chain feeding important technical information to the MATI for use by the farmer training wings. After the data collection system is developed, the AID-funded technician and the two Tanzanian field officers together with the MATI students will form integrated teams which will work with farmers in selected villages gathering data on farmer attitudes and disseminating technical information. As the data

is collected, it will be analyzed with the direct assistance of the regional Research station. This refined data is then fed back to the farmer. As can be seen, the research technicians become key participants in the whole farmer training process.

c. Village level

Another key element is the village council. The project team must work through this organization and will have to accept the decisions made by the council. The Tanzanian staff of the MATI will take the lead in developing the relationships with the village councils. The USAID-funded technicians will remain as much as possible in the background in the approaches to these councils.

In the foregoing brief discussion, it is quite evident that there are a series of Tanzanian entities with which this project will be directly involved. The project design team explored in detail the need for coordination and cooperation among these several elements, and examined quite thoroughly the linkages required to make this project a success. It was their considered judgment that all the agencies involved in this project and the links between them were functioning, and that each of these organizations would thoroughly support the project. It is believed that both the motivation to accomplish project tasks and the capacity to carry out project responsibilities are present. The MinAg reinforces this judgment by exhibiting continued support for this farmer training effort.

2. AID

As covered in Part I of this Project Paper, this project has been designed as a sub-project under the Agriculture Manpower Development activity (621-11-190-119). It will be managed as part of that project by the Agriculture Manpower USAID Direct Hire Project Manager. Being a new, innovative assistance effort, the AID Project Manager may have to devote more time to it than to the other parts of Manpower Project, particularly in its early stages. The Mission believes, however, that the current USAID staff can adequately manage this activity.

The project will be implemented through a cost reimbursement contract with a US institution. The Mission recommends that the technical positions outlined in this Project Paper be added to the West Virginia University and North Carolina A&T Consortium contract for the Agriculture Manpower Project. This appears to the Mission to be the most feasible method of providing the technical assistance proposed in this project as this Consortium is already heavily involved in the Agriculture Education field in Tanzania and is directly working with the MATI system. It would thus ensure maximum coordination of the elements of the Manpower Project. We believe that West Virginia University can field a team of personnel which will be able to carry out the objectives of this project. However, this will require very thorough and

exacting personnel selection possibly with assistance from an organization such as Development Alternatives, Inc. of Washington, D.C., particularly in regard to the data collection specialty. It is expected that the current Consortium Chief of Party for the Agricultural Manpower Project will serve as overall director of this assistance effort, with a full time locally-hired administrative assistant being funded under the contract.

Commodities will be procured by the contractor. To allow timely delivery, it is proposed that several of the items be delivered by air. Waivers will be necessary to enable the purchase of non-U.S. motor vehicles which can be maintained at remote locations. It is planned that the participant training be handled under the contract. Funding of most local costs will also be done under the contract, including the administrative assistant. Additional funds from the USAID Trust Account (Tanzania Shillings) will be set aside for use to cover certain of the local costs.

As stated above, the USAID will manage the project utilizing a project manager with the contract support unit providing logistic and day-to-day support. Project funding is provided for four years. However, continuation beyond the second year is contingent upon a thorough evaluation (joint TanGov/USAID) to be conducted during the latter part of year two.

#### B. Implementation Plan

A preliminary implementation plan and timeable showing major events is shown below. USAID direct involvement in implementation will be minimal as the contractor and the TanGov will be adequately staffed to handle the technical assistance, commodities and participants that are involved. A major factor which can effect the early implementation and the success of the project is the timing of recruitment and the adequacy of the personnel required. The personnel must arrive as scheduled and must possess the skills that have been stipulated on pages 11 through 13 of this Project Paper.

| <u>Action</u>                                            | <u>Responsible Organization</u> | <u>Date</u> |
|----------------------------------------------------------|---------------------------------|-------------|
| 1. PRP Submitted                                         | USAID/Tanzania                  | 10/75       |
| 2. PRP approved                                          | AID/W                           | 11/75       |
| 3. PP submitted                                          | USAID/T                         | 3/76        |
| 4. PP approved                                           | AID/W                           | 4/76        |
| 5. Project Agreement and PIO/T prepared                  | USAID/T, TanGov                 | 6/76        |
| 6. Contract negotiation                                  | AID/W, Contractor <sup>1/</sup> | 6/76-8/76   |
| 7. Commodities ordered                                   | Contractor                      | 7/76        |
| 8. Housing arrangements finished                         | Contractor, TanGov              | 12/76       |
| 9. MATI contract staff arrive                            | Contractor                      | 1/77        |
| 10. Initial commodities arrive                           | Contractor Support Unit         | 3/77        |
| 11. Data collection begins                               | Contractor, TanGov              | 5/77        |
| 12. Participant training in Kenya or elsewhere in Africa | Contractor, TanGov              | 6/77        |
| 13. Remaining commodities arrive                         | Contractor Support Unit         | 9/77        |

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<sup>1/</sup> Contractor includes contract staff

|                                     |                             |          |
|-------------------------------------|-----------------------------|----------|
| 14. Farmer training begins          | Contractor, TanGov          | 9/77     |
| 15. First interim evaluation        | Contractor, TanGov, AID     | 12/77    |
| 16. Participant training in U.S.    | Contractor                  | 7/78     |
| 17. Second interim evaluation       | Contractor, TanGov, AID     | 1/79     |
| 18. Third interim evaluation        | Contractor, TanGov, AID     | 1/80     |
| 19. Project phaseout                | Contractor, TanGov, USAID/T | 10-12/80 |
| 20. Final evaluation (post project) | Contractor, TanGov, AID     | 1/81     |

### C. Evaluation Plan

#### 1. Functions of the Farmer Training Wings

This project requires a careful examination of the activities of each MATI, the supporting MARI, and the related critical development services furnished by other sectors of the Government of Tanzania. Since there are no "certain and assured" development approaches which are applicable to the four diverse regions of Tanzania chosen for this project, a good deal of effort must be expended in experimental testing and selecting "best" alternatives from a set of possible options for rural development. In general the following activities and functions should be performed by the Farmer Training Wings located within each MATI:

#### Monitoring

- . The resource investment and development research approach used -- the money, equipment, technical assistance, etc. (the INPUTS in logframe terminology);
- . The first immediate results of the inputs -- the outcome of the training analysis, technology, adoption, diffusion efforts, etc. (the OUTPUTS);

#### Evaluating

- . The development of a program within the MATI and related GOT agencies which will correctly identify and overcome constraints to small farmer development, including replicability of the program in other districts and villages in Tanzania (the PURPOSE);
- . The results (impact, effects, benefits) on the project participants, the target population and the population in the general area -- income increases, self-help and self-sufficiency capabilities (the GOAL).

#### Diagnosing

- . Which methods of creating and extending development packages are most effective in various environments and with various applications of development resources.

In particular, each Farmer Training Wing will need to focus on the following components of development in rural Tanzania:

- . The development of technological packages which are adapted to the local areas, which maximize net income to the farm family, or the village production unit, considering all farm output and all possible combinations of cropping and production patterns.
- . The testing of these packages on land worked by typical production units (either private or communal), complete with an understanding of the special constraints a farmer (or village) would face in adopting the recommendations of adaptive research.
- . The best methods of extending the knowledge gained by the adaptive research to large numbers of villages and farmers, particularly the use of training centers as a catalyst for rural development.
- . The related rural services of input delivery, credit availability, marketing outlets, etc.

Unless all four components of a development program function correctly, there will be little chance for development among Tanzania's rural population. The Farmer Training Wing in each MATI will serve as prototypes for the testing of various systems of obtaining and analyzing the information necessary for decisionmaking in the Tanzanian environment.

## 2. Meeting the Needs of Decisionmaking in Tanzania

Production decisions are made at the private or communal farm level, at the village level, at the district, regional and national level. It will be important for the Farmer Training Wings to understand fully the decision-making function of each tier of the hierarchy, and to devote time and attention to providing the kind of data, packaged to be most useable, that will satisfy each unique requirement. This is one reason why the overall monitoring and evaluation system must be designed on the ground in Tanzania during the first six months of project operation. Although it is possible at this time to sketch out the general shape of the system, much field work must be accomplished before the details can be specified.

## 3. Insuring Local "Ownership" of the Information System

Closely related to the requirements that the information system meet the needs of appropriate decisionmakers is the requirement that the Farmer Training Wings be fully integrated into the operating structure of the MATIs, with the full commitment of the MATI staff. This will require direct staff involvement in the problem-solving which must go on as the

system is being designed. Only in this way will the MATI professionals and students take the time and attention necessary to make the system function.

#### 4. Monitoring and Evaluation Strategies

The Farmer Training Wings have at their disposal three general strategies which have proven useful in other, similar circumstances. Two of these are relatively simple strategies, low-cost and effective approaches to information collection and analysis for decisionmaking. The third -- a formal monitoring/evaluation system -- is a more complex and time-consuming approach, which may be necessary for definitive conclusions on the development approaches to be undertaken by the MATI.

First Strategy: The least troublesome or difficult monitoring and evaluation strategy involves periodic two-way communications between staff and students of the MATI and the target population to be assisted. This can be accomplished through regular meetings with the production units, and with the leadership of ujamaa villages and district government officials. During the period of time when only four villages per MATI are being used as test models, this will be an easy assignment. However, when the project expands to other villages, there will be a need for systematic scheduling of such meetings. One easily obtainable indicator of success in reaching the local population is the candor of opinion on project operation -- either the training component, adaptive research or the other essential services necessary for rural development.

Second Strategy: The Farmer Training Wing in each MATI may have a special troubleshooting staff which looks for solutions to current or anticipated problems. For example, in evaluating new technology designed for small farmers, one of the roles will be to study who is adopting, and who is not. The reasons for a failure to adopt are constraints to be identified and overcome. These constraints may be concerned with something the project is doing, or more likely, is not doing which is a necessary ingredient to overall project success. Information from the small studies should make no claim to statistical representation, since a delay in delivering the data to project management will considerably reduce the value of the information. This special staff should furnish fast feedback reports perhaps by a two-man team, on the problems with old approaches, the anticipated problems of new approaches, and changes in priorities and additions or deletions in the range of services to be provided to the target population.

Third Strategy: In a project which intends to experiment, test and select "best" alternatives from a set of different approaches, it may be necessary to create a formal data collection and analysis system which will record project resources, approach, success and

reasons for success in various natural or man-made environments.

In other areas data collection has been successful:

- a. Directly from a sample of the farm (production) population;
- b. Indirectly from observable behavior changes, or other observable data based upon the individual or communal production unit; and
- c. As indicators of change (development) within a specific geographic area, such as a village.

The data points must be specified, collection possibilities determined, the data obtained, aggregated and analyzed. The broad outline of how this might be accomplished is available through previous efforts of specialists in data collection and analysis systems. There is a growing body of experience with Farm Records, to be maintained at least initially by the students of the MATIs; Adoption Behavior indicators to be obtained, initially, by the students as they visit farms in the test villages, and Area Development Indicators, both economic and non-income related which measure the impact of a development program over an entire geographic area. The details of these data collection possibilities, and the manner of collection and analysis must be tailored to fit the particular environment in rural Tanzania. Correctly designed and implemented, the systematic data collection and analysis system will provide conclusive evidence of changes in the rural areas brought about by the application of development resources, as well as strong indications of the reasons for the variation in levels of success.

Data collection is time consuming, processing and analyzing massive data banks is expensive. Cost-effective monitoring and evaluation systems require samples be drawn which represent the population to be assisted, allowing generalizations to be drawn from data collected from only a small percentage of the total population.

There is a standard methodology for the selection of the sample which involves: (a) the confidence interval desired; (b) the expected variance in response; and (c) the number of strata (categories) on which "representativeness" is desired. Different samples can be specified for different methods of data collection. Since the maintenance of farm records will be far more expensive than the collection of observable behavior change, the sample size can be chosen to minimize the need for records, and use more data from observable behavior. These two data collection methods, as well as the general area indicators, can be statistically related and a variation in one of the ~~cheaper~~ collection methods may be found to be consistently correlated with a variation in a more expensive method of data collection.

This will lead, over time, to the refinement of the information system, as well as a lowering of total cost of this portion of the project, if implemented.

Because of the structure of villages, it will not be possible (at least it is so assumed at this time) for control groups of farmers to be located within experimental villages. The spread effect of the work by the MATI in selected villages will influence the outcome of all agricultural performance in the immediate area. Instead, the Farmer Training Wings will select villages, based upon a set of the most important characteristics which influence development behavior, and use these villages for data collection as controls, that is "non-effected or non-treated" villages. This will allow more conclusiveness in the findings, since progress in the treatment group can be compared, over time, to progress in the non-treatment group.

#### 5. The Design of the Systematic Monitoring and Evaluation System

The following procedure is suggested. First the technical advisors who will be selected to provide assistance to each of the four MATIs will gather for a three-week seminar at an office which specializes in the design of information systems to support rural development projects. This will establish the conceptual framework for the monitoring and evaluation system. Second, the technical advisors will proceed to their assigned posts and work with their Tanzanian colleagues to interest them in testing various methods of data collection and analysis, in small areas and on subjects of interest to the local staffs. They will also determine the decisionmaking requirements of each tier in the control hierarchy in Tanzania, and work to shape the information system to be designed to meet these requirements. Coordination between the four MATIs will be maintained by the use of monthly or quarterly meetings with all advisors and senior staff of the MATIs.

Third, after approximately six months, there will be sufficient experience to begin the design of a formal system which can be standardized across all four MATI areas. This will be assisted by several technical specialists under the contract to AID, and include the appropriate officials of the Manpower Development section of the Ministry of Agriculture. Since the staffs of the MATIs will have six months experience in what will and will not work in their own areas, the design of the system will have a strong "field"orientation. It should be consistent across all four areas (allowing for local variations) so that the Ministry of Agriculture will be able to generate standardized data for all four areas. This will also provide a tie-in to any nationally-based evaluation system for one crop (maize) or other productive enterprise within the agricultural sector.

During the next 12 months the information systems, likely to have several different approaches and techniques, will be tested and evaluated. By the beginning of the third year there should be a history of useful information which may provide answers to difficult problems all the way from the farm production units to the top level of the Ministry of Agriculture.

When this system proves to be cost-effective and reliable, it can be extended to other regions and areas of Tanzania.

6. UDSM Faculty of Agriculture & Forestry - Morogoro

The Faculty of Agriculture and Forestry at Morogoro should be involved at all stages of evaluation. As one of the country's major repositories of agricultural information and expertise, the Faculty would have much to offer. It may be advisable to subcontract the overall evaluation responsibilities out to the Faculty (Departments of Rural Economy, and Agricultural Education & Extension). Not only is the Faculty very interested in development problems, but they would be an impartial agency, and this responsibility would develop their evaluation capabilities. It is safe to assume that they will be expected to undertake an expanding role in the evaluation of the many rural development projects in Tanzania. It is highly probable that they would require some consultant services to assist them in the evaluation of the farmer training effort.

D. Conditions, Covenants, and Negotiating Status

There are no conditions precedent to executing the Project Agreement or to disbursement of funds. Nor are there any actions which the host government is required to take prior to the signing of a Project Agreement. Also there are no special covenants or caveats which would be part of any Project Agreement.

However, prior to technician arrival, the Tanzanian Government must designate housing for each specialist at each of the sites where the contractor will be working. The Mission does not anticipate severe problems in this regard.

**PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK**

Life of Project: 1976 to FY 1978  
 From FY 1976 to FY 1978  
 Total U. S. Funding \$2,525,000  
 Date Prepared: March 1976

Project Title: Farmer Training and Production, 621-11-190-119

| NARRATIVE SUMMARY                                                                                                                                                                    | OBJECTIVELY VERIFIABLE INDICATORS                                                                                                                                                                                                                                                                                                                                                                                                                   | MEANS OF VERIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | IMPORTANT ASSUMPTIONS                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Program or Sector Goal: The broader objective to which this project contributes:</p> <p>To improve the social and economic well-being of small farmers in Tanzanian villages.</p> | <p>Measures of Goal Achievement:</p> <ol style="list-style-type: none"> <li>1. Increase in crop and live-stock production.</li> <li>2. Increase in income from village communal and individually operated farms.</li> <li>3. Increase in agricultural knowledge as manifested by behavioral change and adoption of better farming practices.</li> <li>4. Increase in group problem solving and planning capability at the village level.</li> </ol> | <ol style="list-style-type: none"> <li>1a. Data collected under project.</li> <li>b. District production statistics.</li> <li>2a. Data collected under project.</li> <li>b. Cooperative records.</li> <li>3a. Data collected under project.</li> <li>b. Technological package utilization</li> <li>c. Utilization of simple but out-put increasing farm inputs.</li> <li>4a. Data collected under project.</li> <li>b. Increase in usefulness of plans developed by villagers and their committees.</li> </ol> | <p>Assumptions for achieving goal targets:</p> <p>Primary focus of TanGov policy and resources will continue to be on rural village development and self-sufficiency in food production.</p> |

**PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK**

Life of Project: \_\_\_\_\_  
 From FY 1976 to 1979  
 Total U. S. Funding: \$3,514,000  
 Date Prepared: May 1976

Project Title: Farmer Training and Production, 621-11-190-119

Annex A

| NARRATIVE SUMMARY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | OBJECTIVELY VERIFIABLE INDICATORS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MEANS OF VERIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | IMPORTANT ASSUMPTIONS                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Project Purpose:</p> <p>To increase food production through the mechanism of developing a mutual understanding between farmers and extension agents in such a systematic way that it will lead to better comprehension and appreciation of farmers' production problems and his social/economic attitudes. It is anticipated that this will then result in the preparation and adoption of improved agriculture cultural practices and farm technologies to the direct benefit of the farmer.</p> | <p>Conditions that will indicate purpose has been achieved: End of project status.</p> <ol style="list-style-type: none"> <li>1.a. On-going courses for farmers at participating MATIs.</li> <li>b. Village level, on-the job training by MATI.</li> <li>2. MATIs and other institutions receiving useful flow of information from villages for use in modifying and improving farmer training and extension methodologies and introducing new technological packages and farm practices useful and acceptable to small farmers and villages.</li> <li>3.a. MATI staff and students (future extension workers) have a better understanding of behavior and attitudes of farmers because of personal relationships established during data collection and farmer training experience.</li> <li>b. Knowledge acquired from information gathering and analysis contributing to desirable curriculum changes at MATIs aimed at making the training of extension workers (and agricultural officers) more relevant to their future work.</li> <li>c. Courses also being modified accordingly at other MATIs and training facilities.</li> </ol> | <ol style="list-style-type: none"> <li>1.a. Numbers of Farmer Training Wings of MATIs in operation and numbers of courses and farmers attending annually.</li> <li>b. On-site inspection.</li> <li>2.a. Interviews with appropriate officials and village leaders.</li> <li>b. Review of data collection and analysis work and its application.</li> <li>c. Interviews with farmers.</li> <li>d. MATI and research station reports on adoption rates of new technological packages.</li> <li>3.a. Interviews with participating students and farmers and student reports.</li> <li>b. Records on MATI curriculum and directives from the Director of Manpower Development. Also records of curriculum planning and development meetings for the Manpower Development Division.</li> <li>4.a. Village data collection and analysis over time and interviews with appropriate development officials.</li> </ol> | <p>Assumptions for achieving purpose</p> <ol style="list-style-type: none"> <li>1. MATIs can develop data collection and analysis capability.</li> <li>2. Technological practices acceptable to small farmers can be developed.</li> </ol> |

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: \_\_\_\_\_  
 From FY 1976 to FY 1979  
 Total U. S. Funding \$2,514,000  
 Date Prepared: March 1976

Project Title: Farmer Training and Production, 621-11-190-119

| NARRATIVE SUMMARY       | OBJECTIVELY VERIFIABLE INDICATORS                                                                                                                                                                                                                                                                                          | MEANS OF VERIFICATION                                                                                           | IMPORTANT ASSUMPTIONS                     |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| <p>Project Purpose:</p> | <p>Conditions that will indicate purpose has been achieved: End of project status.</p> <p>4.a. Knowledge acquired being utilized by villagers and development officers for village and broader-level planning efforts.</p> <p>b. Knowledge acquired being used to improve farmer training and extension methodologies.</p> | <p>4.b. Analysis of training modifications made over time and interviews with training and extension staff.</p> | <p>Assumptions for achieving purpose:</p> |

ANNEX A

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: . . . FY 1979  
From FY 1976  
Total U. S. Funding \$2,514,000  
Date Prepared: March 1976

Project Title: Farmer Training and Production, 621-11-190-119

Annex A

| NARRATIVE SUMMARY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | OBJECTIVELY VERIFIABLE INDICATORS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | MEANS OF VERIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | IMPORTANT ASSUMPTIONS                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Outputs:</p> <ol style="list-style-type: none"> <li>1. Farmer training wing at each participating MATI.</li> <li>2. Technical assistance provided by MATIs to villages (including training at farmer training wing and in villages).</li> <li>3. Trained staff and students in data collection and analysis method.</li> <li>4. Simple information gathering instruments for use in research, training and extension.</li> <li>5. Planning Papers.</li> <li>6. Farmer training techniques materials.</li> <li>7. Modified MATI and Extension In-Service Training materials.</li> <li>8. Improved agriculture cultural practices.</li> <li>9. Improved production input packages.</li> </ol> | <p>Magnitude of Outputs:</p> <ol style="list-style-type: none"> <li>1. 1 per institute.</li> <li>2. Roughly 16 villages containing 15,000 men and women engaged in farming directly affected.</li> <li>3. Approximately 86 staff and 400 future extension agents.</li> <li>4. To be determined by Agricultural Development Specialists and MATI staff based on problems to be analyzed.</li> <li>5. To be determined by Agricultural Development Specialists and MATI staff according to problems analyzed and demand for information.</li> <li>6. To be determined.</li> <li>7. To be determined.</li> <li>8. To be determined.</li> <li>9. To be determined.</li> </ol> | <ol style="list-style-type: none"> <li>1. Project reporting and on-site examination.</li> <li>2.a. Project reporting.</li> <li>   b. District reporting.</li> <li>   c. Observation.</li> <li>   d. Village records.</li> <li>3. Project reporting.</li> <li>4.a. Project reporting (including provision of instruments).</li> <li>   b. Extension materials.</li> <li>   c. Training materials.</li> <li>   d. Research guidelines.</li> <li>5. Project reporting (including provision of papers).</li> <li>6. Project reports (including provision of Farmer Training materials).</li> <li>7.a. Project reports.</li> <li>   b. Examination of materials.</li> <li>8. Project reports and field observation.</li> <li>9. Project reports and field observation.</li> </ol> | <p>Assumptions for providing outputs:</p> <p>Through an understanding of small farmer perceptions and behavior, appropriate methods can be designed to assist them.</p> |

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: . . . 1979  
From FY 1976  
Total U.S. Funding \$2,514,000  
Date Prepared: March 1976

Project Title: Farmer Training and Production, 621-11-190-119

Annex A

| NARRATIVE SUMMARY                | OBJECTIVELY VERIFIABLE INDICATORS         | MEANS OF VERIFICATION | IMPORTANT ASSUMPTIONS                                                   |
|----------------------------------|-------------------------------------------|-----------------------|-------------------------------------------------------------------------|
| Inputs:                          | Implementation Target (Type and Quantity) |                       | Assumptions for providing . . .                                         |
| <u>U.S.</u>                      | 1A. Rural Development Specialists         | Project Agreements    | 1. Staff of the type required can be recruited.                         |
| 1. <u>Technical Assistance</u>   | (5) 20 Man-years over 4 years             | PIO/Ts                |                                                                         |
| A. Rural Development Specialists | valued @ \$1,250,000                      | PIO/Cs                |                                                                         |
| B. Technical Support             | 1B. Technical Support for above           | Project Evaluation    | 2. Waivers will be granted for the purchase of non-U.S. motor vehicles. |
| 2. <u>Participant Training</u>   | staff over 4 year period                  |                       |                                                                         |
| A. Short Term (Africa)           | \$ 150,000                                |                       |                                                                         |
| B. Long Term - USA               | 2A. Observation training of data          |                       |                                                                         |
| 3. <u>Commodities</u>            | collection, 9 individuals for             |                       |                                                                         |
| A. For MATIs of focus (4)        | 1-2 weeks each                            |                       |                                                                         |
| B. For other MATIs (2)           | 1st Year of Project \$13,400              |                       |                                                                         |
| 4. <u>Local Costs</u>            | 2B. B.Sc. in Extension Educ.              |                       |                                                                         |
| A. MATI Support                  | Educ. Adm. 6 individuals x 24             |                       |                                                                         |
| B. Administrative Assistant      | months. Spread over 1st 3                 |                       |                                                                         |
| C. Computer Support              | years of project \$99,600                 |                       |                                                                         |
| 5. <u>Other</u>                  | 3A. Will consist of items to              |                       |                                                                         |
| A. Language Training             | equip farmer training wings               |                       |                                                                         |
| B. Contingency                   | in 4 MATIs                                |                       |                                                                         |
|                                  | Year 1 = 167,950                          |                       |                                                                         |
|                                  | Year 2 = 44,000                           |                       |                                                                         |
|                                  | Year 3 = 78,700                           |                       |                                                                         |
|                                  | Year 4 = 10,400                           |                       |                                                                         |
| <u>TANGOV</u>                    | 301,050                                   |                       |                                                                         |
| 1. <u>Staff</u>                  | 3B. Equipment for two additional          |                       |                                                                         |
| A. Senior                        | MATIs.                                    |                       |                                                                         |
| B. Junior                        | Year 1 = 24,700                           |                       |                                                                         |
| 2. <u>Facilities</u>             | Year 2 = 20,000                           |                       |                                                                         |
| A. Classrooms and offices        | Year 3 = 10,000                           |                       |                                                                         |
| B. Housing for U.S. Technicians  | 54,700                                    |                       |                                                                         |
| 3. <u>Operating Costs</u>        | 4A. Provision of local cost               |                       |                                                                         |
| 4. <u>Participant Costs</u>      | support for participating                 |                       |                                                                         |
|                                  | MATIs (4)                                 |                       |                                                                         |
|                                  | Year 1 = \$188,500                        |                       |                                                                         |
|                                  | Year 2 = 119,100                          |                       |                                                                         |
|                                  | Year 3 = 72,500                           |                       |                                                                         |
|                                  | Year 4 = 41,000                           |                       |                                                                         |
|                                  | 342,100                                   |                       |                                                                         |

PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project:  
From FY 1976 to FY 1979  
Total U.S. Funding \$2,514,000  
Date Prepared: March 1976

Project Title: Farmer Training and Production, 621-11-190-119

| NARRATIVE SUMMARY | OBJECTIVELY VERIFIABLE INDICATORS                                                                                                                                                                                                                                                                                                                                                                                                                                                          | MEANS OF VERIFICATION | IMPORTANT ASSUMPTIONS             |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------|
| Inputs:           | <p>Implementation Target (Type and Quantity)</p> <p>LB. Administrative Assistant for four year period \$20,000</p> <p>LC. Provision for more sophisticated data analysis at central point 4 years @ \$15,000<br/>1 year \$60,000</p> <p>5A. Language training for contract staff prior to arrival, six weeks each @ \$3,600 per staff member \$18,000</p> <p>5B. Contingency to cover increased costs and unanticipated inputs \$120,000</p> <p>Total <u>\$2,541,150</u> US Government</p> |                       | Assumptions for providing inputs: |

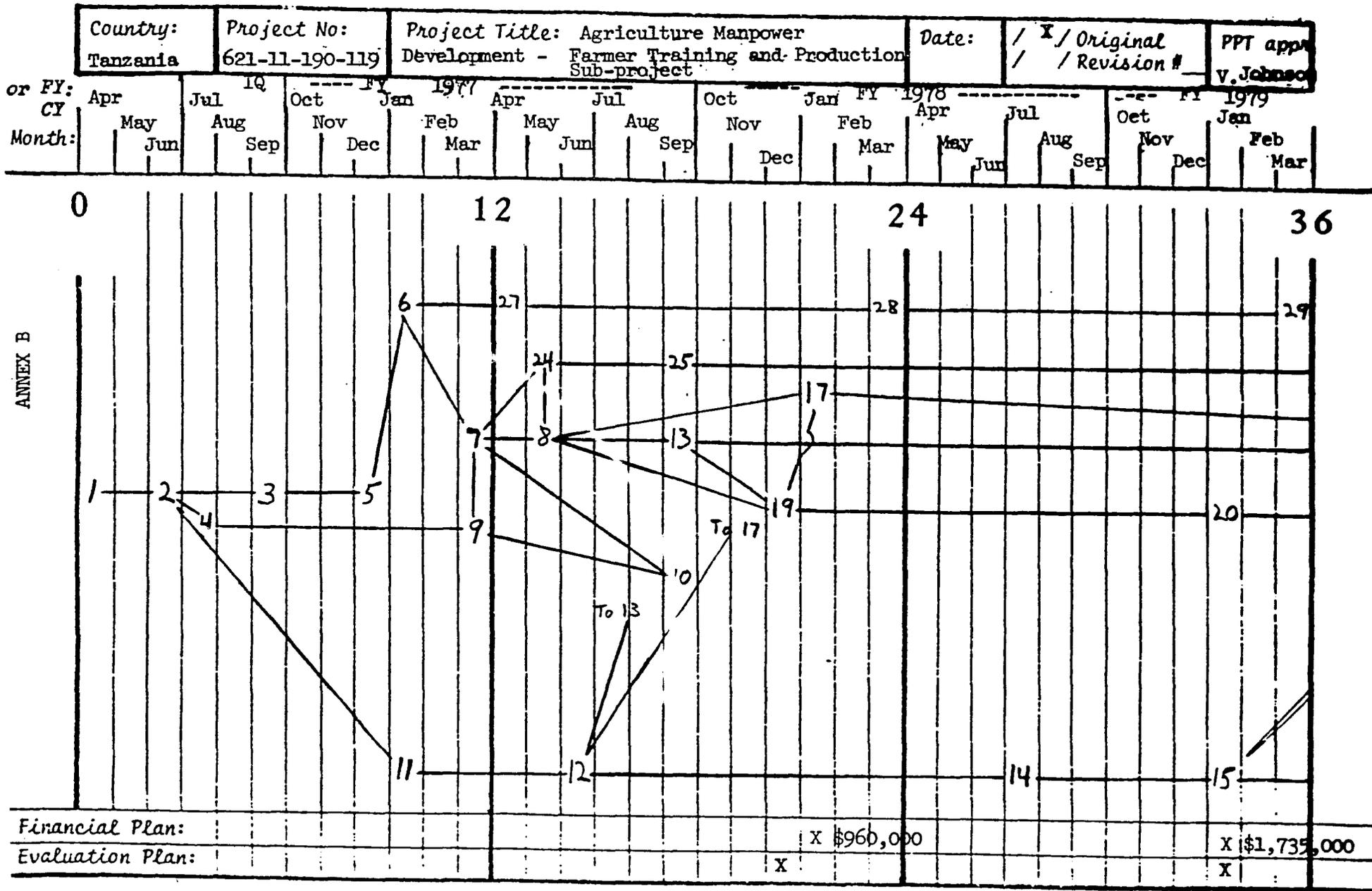
PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK

Life of Project: \_\_\_\_\_  
From FY 1976 to FY 1979  
Total U. S. Funding \$2,514,000  
Date Prepared: March 1976

Project Title: Farmer Training and Production, 621-11-190-119

Annex A

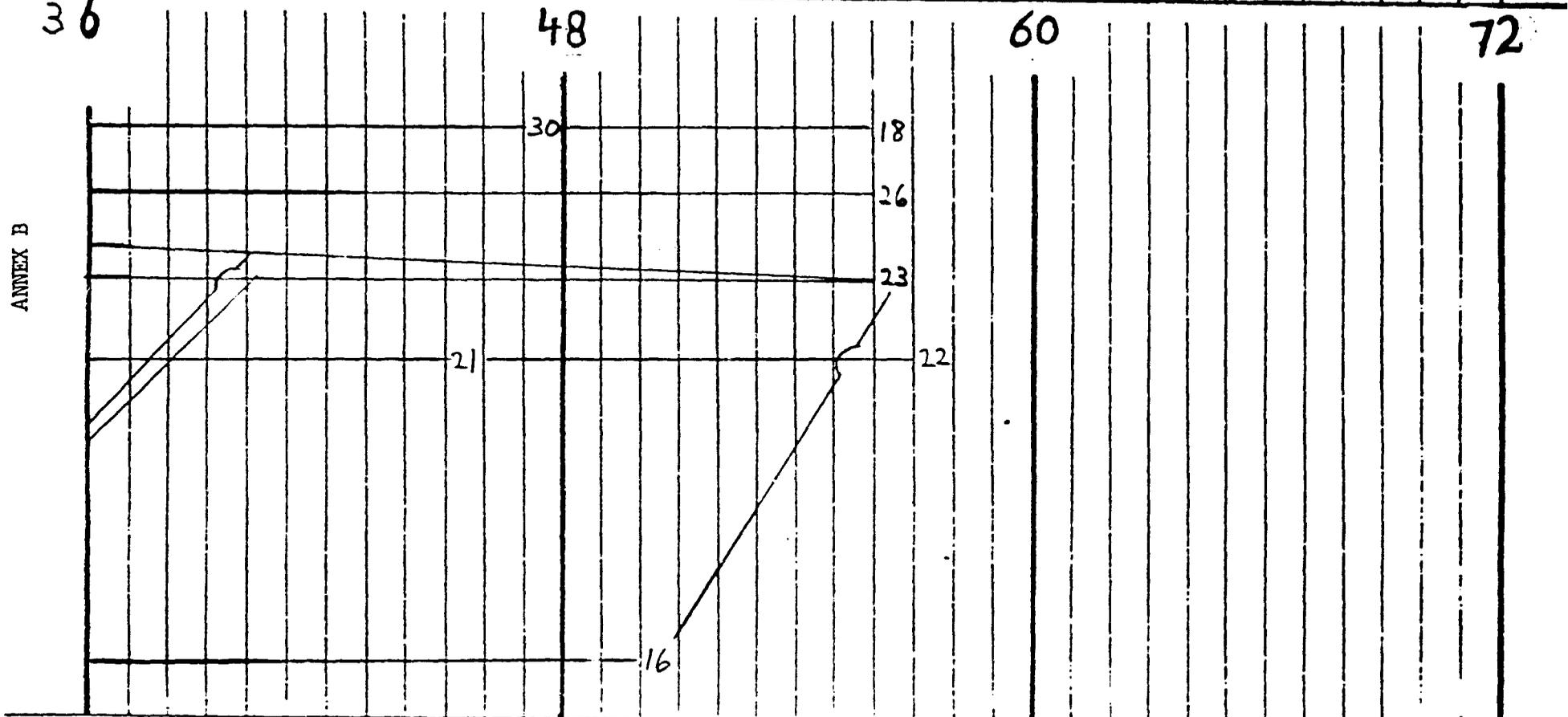
| NARRATIVE SUMMARY | OBJECTIVELY VERIFIABLE INDICATORS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MEANS OF VERIFICATION                                                | IMPORTANT ASSUMPTIONS                                                             |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <p>Inputs:</p>    | <p>Implementation Target (Type and Quantity)</p> <p>1A. Each participating MATI will provide the equivalent of 1.5 senior staff members per year (24 man-years). The Min Ag will provide approximately 1.2 man-years over the life of the project.<br/>Total value \$162,000</p> <p>1B. Each participating MATI will provide 2 junior staff members (32 man-years)<br/>Total value = \$95,000</p> <p>2A. Each MATI will provide classrooms and offices for the Farmer Training Wing and Data Collection Unit.<br/>Total value = \$70,000</p> <p>2B. Housing will be provided for U.S. technicians (5) for 4 years.<br/>Estimated value = \$62,800</p> <p>3. Each MATI will provide operating costs over the 4 year life of the project.<br/>Estimated value = \$445,000</p> <p>4. Estimated TanGov participant costs for 6 long-term U.S. and 9 short-term Africa travel participants = \$20,000<br/><br/>Total <u>\$854,800</u> (TanGov)</p> | <p>Project Reports<br/>Project Evaluations<br/>Operating Budgets</p> | <p>Assumptions for providing inputs:<br/>TanGov will have adequate resources.</p> |



PROJECT PERFORMANCE NETWORK

|                      |                               |                                                                                                    |                                        |                       |
|----------------------|-------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------|
| Country:<br>Tanzania | Project No:<br>621-11-190-119 | Project Title: Agriculture Manpower<br>Development - Farmer Training and Production<br>Sub-project | Date: / X / Original<br>/ / Revision # | PPT app<br>V. Johnson |
|----------------------|-------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------|

|                |     |     |         |     |     |         |     |     |     |     |     |
|----------------|-----|-----|---------|-----|-----|---------|-----|-----|-----|-----|-----|
| or FY: FY 1979 |     |     | FY 1980 |     |     | FY 1981 |     |     |     |     |     |
| CY Apr         |     |     | Jan     |     |     | Apr     |     |     | Jan |     |     |
| Month:         | May | Jun | Jul     | Aug | Sep | Oct     | Nov | Dec | Jan | Feb | Mar |



|                  |               |               |
|------------------|---------------|---------------|
| Financial Plan:  | X \$2,535,000 | X \$3,369,000 |
| Evaluation Plan: | X             | X             |

PROJECT PERFORMANCE NETWORK

|                      |                               |                                                                                                 |       |                                 |                       |
|----------------------|-------------------------------|-------------------------------------------------------------------------------------------------|-------|---------------------------------|-----------------------|
| Country:<br>TANZANIA | Project No:<br>621-11-190-119 | Project Title: AGRICULTURAL MANPOWER DEVELOPMENT,<br>FARMER TRAINING AND PRODUCTION SUB PROJECT | Date: | /x / Original<br>/ / Revision # | Apprvd:<br>V. JOHNSON |
|----------------------|-------------------------------|-------------------------------------------------------------------------------------------------|-------|---------------------------------|-----------------------|

CPI DESCRIPTION

1. PP approved.
2. Project Agreement and PIO/T signed.
3. Contract executed.
4. Commodities ordered.
5. Housing available.
6. MATI contract Technicians arrive.
7. All Farmer Training Wings functioning.
8. Data collection begins.
9. Initial commodities arrive.
10. Remaining commodities arrive.
11. Long-term participants depart.
12. Short-term participants depart and return to project
13. Farmer training begins.
14. Second group long-term participants depart.
15. First group participants return to project.
16. Second group participants return to project.
17. First workshops organized.
18. Contract technicians depart.
19. First annual evaluation.
20. In-depth evaluation.
21. Annual evaluation.
22. In-depth final evaluation (post project).
23. About 16 villages and approximately 15,000.  
villagers directly effected by project.
24. MATI students begin assisting with data collection.
25. MATI students begin assisting with farmer training.
26. Approximately 86 MATI staff and 400 future  
extension agents trained in data collection and  
analysis.
27. First workplan prepared.
28. Annual workplan prepared.
29. Annual workplan prepared.
30. Annual workplan prepared.



have to be identified. This understanding is necessary before students can provide assistance as extension agents.

2. View about student training: One key is to assist students in building strong two-way communications with farmers. The failure to do this is one of the shortcomings of our extension service. The students should be provided with tools which allow them to establish this communication.
3. Willingness to delegate authority: Principal makes effort to involve students and staff in all decision-making. Responsibilities within the MATI are clearly defined.
4. Attitude towards experimentation in farmer training and curriculum development: We welcome opportunity to experiment. See the work of the data collection and analysis unit contributing to curriculum development. Feel that student participation in this work can be integrated into our program. Farmer training is important, though it will be necessary to build a knowledge base before experimentation takes place. This should be developed gradually.
5. Willingness to accept and utilize expatriate assistance to strengthen and augment staff skills: Expatriate assistance is needed to develop data collection and analysis unit. Of particular importance is that the expatriate live and work under the same conditions and procedures as the local staff.
6. Relationships with DEOs and RDOs: We know the importance of cooperation, not only to secure approval for village work but also in regard to program development. Initial interaction has taken place and working relationship is evolving.
7. Relationship with TANU: There is the necessity of political coordination. (Unable to ascertain level of communication and cooperation.)
8. Perspective on development: We view development from a broad perspective encompassing social, economic and political objectives. The starting point is the development process which is communication with farmers.
9. Relationship with research institute: Good working relationship is developing, though no formal collaboration has taken place except in the development of the site.

#### Staff

1. Staff strength and teaching load: MATI has four Departments: Extension and Rural Economics, Land Use, Animal Husbandry, and Agronomy (with agronomy recently integrated). Staff has about ten professional training officers assisted by field officers. There is a shortage of pro-

positional staff—four more are needed. Teaching load allows additional responsibilities.

2. Cooperation among staff (cross-fertilization): Staff is young and looks at work at MATE as an opportunity for experimentation. Appears to be good cooperation.
3. Attitude towards experimentation: Staff appeared enthusiastic about ideas of further training and data collection and analysis. Saw and understood implications of work for curriculum development.
4. Views towards nature and value of student farmer interaction: Saw the need and have acted upon this by encouraging student interaction with nearby village and arranging student visits by bus to villages which were farther away.
5. MATE as strength of local point for project implementation. Project will either be directly under the principal or part of the Extension and Rural Economics Department. Principal is actually an educator rather than an agriculturalist; started to discuss ways of equipping himself to oversee project effort. The Extension and Rural Economics Department has a two-man staff which could handle the project with the principal's assistance.
6. Staff stability: This is not a problem as yet. Need more training officers to assist in teaching courses and supervising practicals.
7. Staff academic qualifications: Since the principal is an educator, he has a basic understanding of the role of social science research. There is also an extensionist (university trained) and an economist, both of whom have been involved in data collection efforts, though not analysis.
8. Expatriate presence: No expatriate presence. Assignment of one American would be welcome if he was young and became integrated into staff.

#### Student

1. Views about interacting with farmers. Felt that this was an essential part of their training. Emphasized the need to understand the risk perceptions of farmers. Cited need for tools to collect information about farmers and to build communication. Spent two and one-half intensive hours discussing different approaches and implications for their future work.

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2. Capability to be data collectors: Students believed that they could collect data. Confident that they could build needed rapport.
3. Experience in interacting with farmers: Field trips to villages had made an impression on them--began to realize the level of farmer knowledge. Continuing interaction with nearby village which they referred to as "our village." Saw need to interact with poor as well as better villages.
4. Student assessment of project feasibility: Students were enthusiastic about project but pointed out the need to incorporate this into their existing program and have adequate logistical support. No reservations about their being able to do the work.

#### Facilities for Farmer Training Wing

1. Housing for farmers: Institute has been constructing low cost Class B houses for staff members. Felt that these would be acceptable to farmers and could be accomplished at a minimum cost. Also raised potential of integrating farmers with students, or setting aside a dormitory wing for farmers.
2. Dining facilities for farmers: Principal emphasized need for farmer integration with students. Dining facilities are adequate.
3. Classroom space: Plenty of space for farmer training.
4. Farm facilities: Farm facilities are being gradually developed. As yet, there are few beyond the poultry farm which would be suitable for farmer training. The next step will be laying out fields--the Institute has 600 hectares. Planning and development efforts are under way.
5. Teaching aids: Well-equipped with audio-visual aids. IBRD provided funds for developing classroom aids. Shortages in actual teaching materials such as slides, pamphlets and other materials.
6. Existing programs: Beyond visitations, the MATI has already sponsored one village. As yet, the program for farmers has not been developed.
7. Staff capabilities: Staff is willing and able to conduct farmer training. There would be no need for additional assistance along this line.
8. Logistical support: MATI has two buses and one small vehicle. The principal has requested bicycles. To reach distant villages, there is a need for expanded capability. Vehicle will be needed for mobile unit.

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A REPORT ON NYEGESI MATI

SUMMARY

Nyegesi MATI is a long established training institution with well-developed facilities (though in need of some improvements). It is located about seven miles from Mwanza. The Institute trains general agricultural extensionists at the certificate level and land use extensionists at the certificate level. The capacity of the Institute is 250 students, though the Principal indicated that he could handle up to 300. About 215 students were in attendance at the MATI. The farm includes dairy, poultry and pig facilities. Work has commenced on developing irrigation, in particular experimentation with small scale systems which might be adopted by farmers. Different crop experiments are under way. The staff consists of 34 members, with the expatriate presence being only one Marylandian; an East Indian is scheduled to join the staff in the near future. In sum, the facilities (with improvements), the farm and staff are adequate for the development of the project. Receptivity to the ideas was high.

About nine miles from Nyegesi, Ukiriguru Research Institute and MATI are located. The Research Institute has been concentrating on cotton, though it is doing more on cereals and legumes. The Institute has an economic and social research unit staffed by a Finnish economist and a Tanzanian agriculturalist. The economist could contribute to the data collection and analytical capability. The program of the Ukiriguru MATI is coordinated with the program at Nyegesi. There may be problems of coordination among the three institutes; this could be assisted by the American team at Ukiriguru.

Principal

1. Views about farmer behavior: Farmers are pragmatic and intelligent within their perceived environment. Constraints may be many--social, cultural, information and input access, etc. Ways of most effectively reaching small farmers are not defined.
2. Views about student training: Highly concerned that training must be relevant; equipping students to deal effectively with farmers. There is need for feedback from both students and farmers as to the relevance of training received. Technical and interpersonal skills need to be gained by students, with emphasis on the importance of two-way communication.
3. Willingness to delegate authority: Extension and Rural Economics Department is the appropriate center for farmer training and the data collection and analysis unit. Staff should be brought into decision-making regarding structure and inputs needed for project.
4. Attitude towards experimentation in farmer training and curriculum development: Prepared to modify curriculum to increase relevance. Can see that data collection and analysis could provide basis to experimentation

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with farmer training and other methods to reach small farmers. We emphasize this as a pilot effort, not to be measured by numbers in attendance.

5. Willing to accept and utilize expatriate assistance to strengthen and augment staff skills: We insist that any expatriate be prepared to serve under local conditions, i.e., no special housing or treatment, and be under the control of and responsible to the Principal. Important that staff be trained. The shorter the assistance, while still providing the basis for a sustained effort, the better. Suggested two years--three at maximum.
6. Relationships with DDOs and RDOs: Aware of need to involve and gain support of DDO and RDO in planning and developing data collection work and laboratory work to work with small farmers at the MATI and in the villages.
7. Relationship with TANU: We are very well informed and actively involved with TANU. We are firm believers in TANU objectives.
8. Perspective on development. Key to development is developing local level planning and technical capabilities. The village is the focal point. We stress importance of political mobilization in achieving development objectives.
9. Relationship with Research Institute (Ukirimuru): Good working relationship. Personal friend of the Director. Recognize connection between research, training and extension. Prepared to cooperate even further and assist research institute through on-farm testing of technological packages and through feedback of information.

#### Staff

1. Staff strength and teaching load: 34 staff members. Teaching loads range from 24 to 48 hours per week. Depends on whether there are staff transfers. At present strength, can take on additional activities.
2. Cooperation among staff (cross-fertilization). High level of cross-fertilization; staff members from different departments teach courses for other departments. Division of labor balanced for carrying out field work and other activities.
3. Attitude toward experimentation: Heads of Extension and Rural Economics and Crop Production Departments highly enthusiastic about experimenting with data collection and analysis and testing different approaches for assisting small farmers. See implications for changes in curriculum and preparation of teaching aids for all departments. Suggested needs for audio-visual aids which could improve extension techniques within the villages.

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Research Institute

1. Current experimentation: Major emphasis has been cotton. However, some experimentation with maize, sorghum and other food crop packages. Appeared receptive to expanding work utilizing information collected by MATI students.
2. Attitude of station staff towards project idea: Concept was understood and well received. Saw value of data collection to research, training and extension groups.
3. Attitude of staff toward project: Expressed some reservations about the quality of data that might be collected by the students. Suggested need for supervision and guidance. Also suggested the need for gaining cooperation and participation of Chief Research Officer (KILIMO-Dar es Salaam).
4. Expatriate presence: Several expatriates currently on staff (working on cotton) though scheduled to depart in near future. Five Americans will join Urdigum MATI shortly. Finnish economist heads Economic and Social Science Research Division. She could provide technical assistance; unit would need a small amount of additional equipment.

Geographic Area Concerns

1. Progress towards Ujamaization: Mwanza region is rapidly organizing Ujamaa villages (about 600). Several locations feasible. Staff suggests working with villages at different stages of development.
2. Potential for tie-in with existing or new development project: IIRD Geita Cotton Development Project will operate in Region but at some distance from MATI. Principal suggested that he would like to help provide assistance to it. No information about other projects.
3. Relative development situation: Region is of medium development potential. Distance from Dar es Salaam and coast raises input prices and lowers producer prices. Difficult growing maize because of weather, so there may be more experimentation with sorghum. People reported to be relatively hard-working.

Support for Expatriate

1. Housing: Housing is a problem with 25 houses for 34 staff. However, modest accommodations could be made available for single person (and couple with difficulty). Alternative would be to house technician in Mwanza but housing is reportedly tight there also. Suggested that one house be constructed for use by institute, not necessarily expatriate staff member.
2. Furnishings: In any new house, furnishings would be needed. Current houses moderately furnished.

3. Logistics: Problem as described above; provision would have to be made.

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A REPORT ON MILINGANO MATI

SUMMARY

Milingano MATI is located 17 miles from Tanga, in the midst of large sisal estate farms. It has specialized in the training of farm managers at the diploma level who are normally assigned to parastatals or government farms. The capacity of the MATI is being expanded from 50 to 134 students, though its facilities (classrooms, accommodations and farms) remain quite limited. A new course for agro-mechanics is being added to the Institute's program. In addition, the principal and staff anticipate that the Institute will begin training farm managers for the ujamaa villages. This will require curriculum modifications as well as the development of basic training materials. Also, the staff anticipates that the trainees may be younger and less experienced than those currently being trained (three years field experience rather than the current average of seven years). Staff stability appears to be a problem, with 11 out of the projected 14 currently at the Institute. There are four expatriates at the Institute: an American who is leaving; two Hungarians (economist/farm manager and agro-mechanic); and an Iranian (crops and agro-mechanics). There exists a good working relationship between the MATI and the Research Institute, which specializes in sisal, soil surveys and coconuts. Cooperation with the district and regional offices also appears to be good.

Principal

1. Views about farmer behavior change: We do not have the answers to the question of changing farmer behavior. It is a complicated task requiring research and experimentation. Need to know more about farmer constraints and perceptions of risk.
2. Views about student training: Milingano has mature students who are tested and interviewed before selection. MATI program should be sophisticated, introducing them to the social, economic, political, technical factors which influence local behavior.
3. Willingness to delegate authority: Yes, appears to involve staff in decision-making.
4. Attitudes toward farmer training and curriculum development: There is a definite need to experiment with new approaches to reaching farmers; the staff of the institute should be involved in the testing of these approaches as well as the students. The collection of data in five or





5. Teaching aids: Almost non-existent. Severe shortage of audio-visual aids.
6. Existing village programs: Currently no programs. In the past, the MATI sponsored one village.
7. Mechanical support: MATI has one bus and one Toyota pickup that rarely works. Severe problems.

#### Data Collection and Analysis

1. Classroom and office space: Limited space which could be solved by the addition to existing facilities mentioned above under farmer training facilities.
2. Equipment and supplies: Almost none.
3. Logistical support: Bus. Means for transporting students in small numbers would have to be provided.
4. Availability of outside (Tanzanian) technical assistance: UNDP/FAO staff members at the research institute may be able to provide some assistance. Principal suggested that other institutes in the area may help with analytical work.

#### Research Institute

1. Current experimentation with small farmer technological packages: Almost none, except for the testing of the recommendations of the various crop development committees (e.g., maize). Primary emphases: Sisal, soil surveys and accounts.
2. Attitude of station toward project idea: Director recognized need for information on why farmers adopt (or not adopt) new packages.
3. Attitude of staff towards project feasibility: Saw no problems; positive because of previous work with students--can be accurate data collectors with guidance.
4. Expatriate presence: FAO/UNDP team working on soil survey. American heads team. Ethiopian economist (trained in Prague) at research institute.

#### Geographic Area:

1. Potential for development: Marginal area, sisal has been emphasized in past. More emphasis to be placed on maize. Hungarians have been doing some work on water development. There does not appear to be any other major development efforts underway in the area sponsored by foreign donors.



A Report on Mbeya ARTISummary

The Mbeya Agricultural Research and Training Institute (ARTI) is located approximately 12 miles from Mbeya town in the Southern highlands. It is composed of a Training as well as a Research Institute, headed by a single Director. Each Institute, in turn, has a Head: A Principal in the case of Training and a Senior Research Officer for Research.

This ARTI is assisted by a team of 35 Nordic technicians (Finland, Sweden, Norway, Iceland, Denmark) -- 20 in Training and 15 in Research. This large expatriate presence adds a dimension to this Institute which is absent in the case of the other ARTIs around the country. An added element has been an ambitious program under Nordic aid to train Tanzanian staff (28 in number-- largely in other English speaking countries in Africa, Europe and North America). Further, there is a consciousness on the part of the expatriates of the need for the program of the ARTI to be a part of the Tanzanian rural decentralization system and to develop effective working relationships with Tanzanian staff. There appears to be, on the other hand, a reluctance on the part of the Deputy Principal of Training (an expatriate technician who has considerable influence on the training program) to modify the training curriculum; a reluctance which might hinder efforts to effectively implement the proposed project. This situation is balanced by the fact that the Nordic project is scheduled to terminate in mid-1976. Their departure should leave the project with a capable Tanzanian staff, a staff qualified, it would appear, to carry on the work of the Institute.

At present, the Agro-Economic and Farm Management Section of the Research Institute is engaged in a limited form of farm level data collection and analysis. The proposed project would assist to develop this so that the results could be used to improve the existing methodologies for training local farmers and the planning process at the local level. At the same time, it would facilitate the contact between students (who in the future will be AFOs and FOs) and the farmers and help train the students to understand the need for close local level farmer communication and contact if effective farmer training is to be carried out. The project would be valuable in re-directing and adding to work which has already commenced.

The general response of the Tanzanian staff, as well as the Nordic Group, to the project proposal was quite positive. Whether the project is initiated in Mbeya depends largely upon the reaction of the Director who was out on a trip during our visit.

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Principal

1. Views about farmer behavior change: There is much we need to learn about farmer behavior. Above all else, it is not a simple issue. To bring about change is our most difficult job. Considerable research has to be undertaken and we have only begun to do some work in the area of collecting relevant information.
2. Views about student training: Our primary objective is to train students to be effective extension workers. To this end we have and are defining a practical curriculum. It is a full and heavy classroom load for students. We are open to concepts of curriculum modification but it should not add to the student classroom load per se.
3. Willingness to delegate authority: Mbeya is the only Institute which has both training and research under one person. The Director has responsibility for both in policy and planning. Each Head has autonomous responsibility for operational details of administration for his own section. Each Head has a Nordic counterpart functioning under the title of Deputy. (It appears as though the Principal involves his staff in the decision-making process, but at the same time the Nordic presence may inhibit the Tanzanians in taking the initiative to make decisions.)
4. Attitudes toward farmer training and curriculum development: The Deputy Principal of Training, who also functions as Chief of Party for the Nordic Group, indicated concern for the implications of the Farmer Training proposal upon what he considers to be a fully developed training curriculum. "I would be a little worried about any radical modification to our curriculum so suddenly," he stated. The Tanzanian Principal, on the other hand, said "This is exactly the kind of program we need here. It is just the thing we need."
5. Views about expatriate assistance: In spite of the presence of the Nordics, Nordic sensitivity and perspective is on the positive side. Thus we respond to this presence also positively.
6. Relationships with DDOs and RDOs: Good communication and cooperation have been established. Institute staff presently working with DDO and RDO offices through sub-stations and by making direct inputs into planning exercises.
7. Relationship with TANU. There is an important relationship with TANU and can see this through our work with Prime Minister's Office on regional and district levels.
8. Perspective on development: It will be a difficult and complicated process. Aware of some important factors relating to this process and recognize need for further experimentation and testing to discover more.

9. Relationship with research institute: We are functioning at close level with intentions of improving further.

#### Staff

1. Staff strength and teaching load: Staff strength is excellent on the basis of a one-to-one relationship between Nordics and Tanzanians.
2. Cooperation among staff (Cross-Fertilization): The nature of the organizational structure at Mbaya appears to enhance the quality of staff cooperation.
3. Attitudes toward experimentation: In general, all the responses from Nordics and Tanzanians were positive and open. The only reservation came from the Nordic Deputy Principal who was concerned about curriculum modifications. Otherwise research and extension staff were highly interested and innovative.
4. Views toward nature and value of student/farmer interaction: There is no question that all students and staff are aware that the primary goal of their job is to be in communication with the farmer and help bring about needed modification in his behavior in order to improve production.
5. Strength of focal point for project implementation: The outstanding resources of the four coordinating sections under Research and Training make them obvious focal points: the Agro-Economics and Farm Management Section of Research; and the Extension Training Section of Training and Extension Research Section of Research. The staff in each of these Sections were enthusiastic towards the project concept.
6. Staff stability: Nordics appear to be developing Tanzanian counterparts at significant level. What will happen upon Nordic departure in 1976 is unknown at this time, but provisions are being made for individual positions to be extended as needed. In general, Mbaya appears to be fairly solid in terms of staffing stability and certainly in physical facilities.
7. Staff academic qualifications: A strong Nordic staff in all facets of agricultural training and research with emphasis on practical farming. Most of the Tanzanian training and research staff are themselves graduates of Institutes. Agro-Economics research section has a recent graduate from Makerere University in Ag Economics and Farm Management. Several Tanzanian staff (23) are completing external training sponsored by the Nordic Group (in English-speaking countries).
8. Expatriate presence: Nordic Project is scheduled to be completed in 1976. The project will not be extended, but some of the individual positions may be. At present there are 20 in training and 15 in research. On the whole, their presence appears to be a positive one.

STAFF

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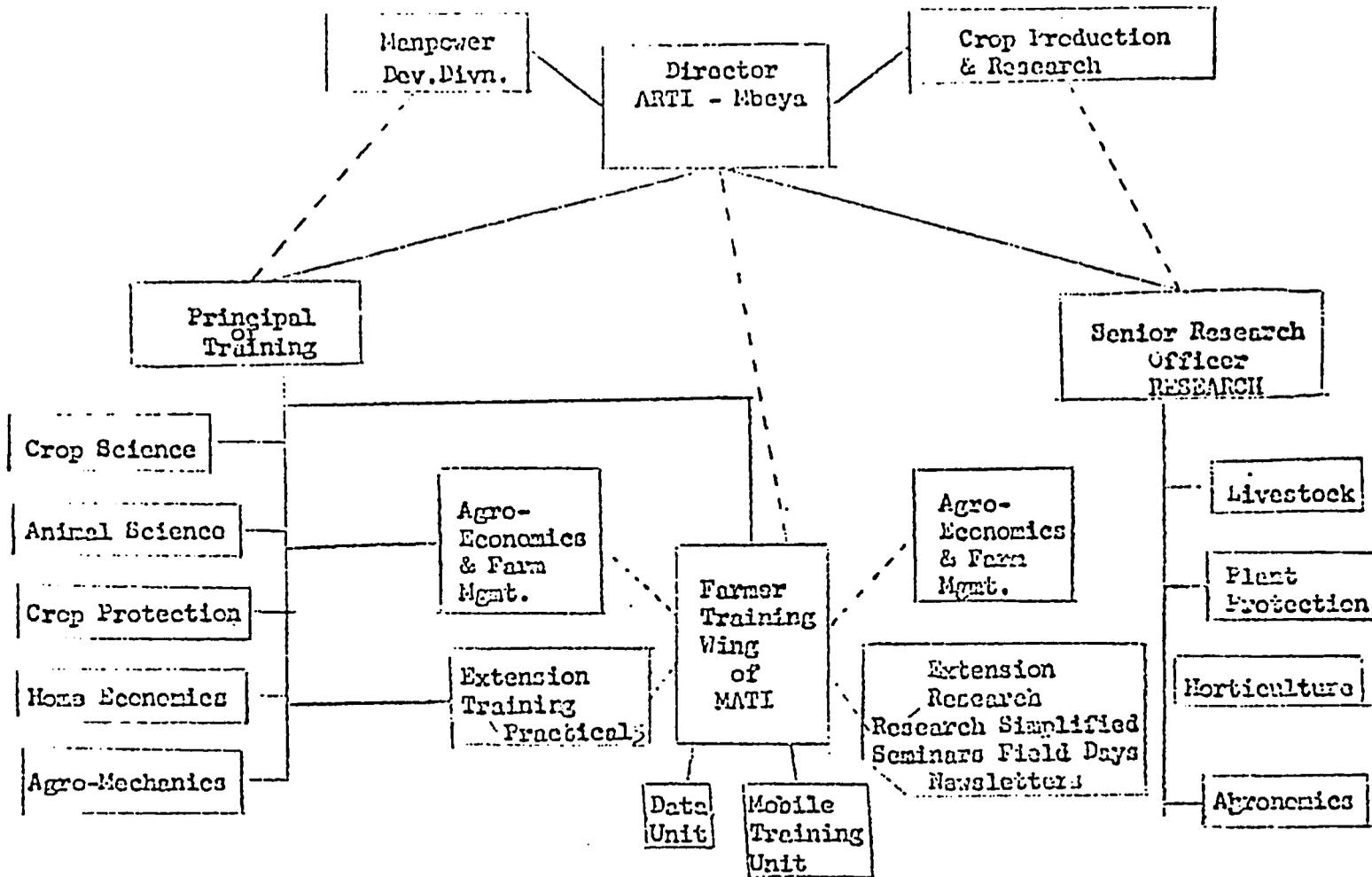
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~~UNCLASSIFIED~~Unique Constraints or Potentials

Large Nordic Group presence is a factor to be considered. It is also clear that apart from the largeness of the number, the Nordics have established a good, working relationship with the Tanzanians.

The single most important constraint in terms of the Nordics may be the possible inflexible attitude toward curriculum modification on the part of the Deputy Principal of Training. However, a balancing factor is the general open receptivity given to the project proposal by the Nordics as well as the Tanzanians. And the Nordics will be leaving in mid-1976.

A critical factor will be the attitude of the ARII Director who was absent during our visit to Mbeya. The staff stated they would brief him thoroughly upon his return. And the staff indicated that the Director is deeply interested in socio-economic research efforts and their practical applications.

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MBEYA ARTI

Organizational Chart

(Unofficial)

———— Direct  
 - - - - - Indirect

MBEYA ARTI

RESEARCH

TRAINING

ANNEX DANNEX D: SUPPORTING FINANCIAL TABLES --  
U.S. ASSISTANCEESTIMATED BUDGETOVERALL PROGRAM SUPPORT  
(Centrally administered project support)  
(U.S. \$)

| <u>1. TECHNICAL ASSISTANCE</u>           | <u>Year 1</u>    | <u>Year 2</u>    | <u>Year 3</u>    | <u>Year 4</u>    | <u>Total</u>     |
|------------------------------------------|------------------|------------------|------------------|------------------|------------------|
| A. Data Collection Specialist            | 69,000           | 67,000           | 72,000           | 72,000           |                  |
| B. External field support (Africa)       | 4,000            | 4,000            | 4,000            | 4,000            |                  |
| C. External field support (U.S.)         | <u>32,000</u>    | <u>24,000</u>    | <u>24,000</u>    | <u>24,000</u>    |                  |
| Sub-total                                | <u>105,000</u>   | <u>95,000</u>    | <u>100,000</u>   | <u>100,000</u>   | <u>400,000</u>   |
| <u>2. OTHER COSTS</u>                    |                  |                  |                  |                  |                  |
| A. Language Training <sup>1/</sup>       | 18,000           | -                | -                | -                |                  |
| B. Computer Support                      | 15,000           | 15,000           | 15,000           | 15,000           |                  |
| C. Administrative Assistant              | <u>5,000</u>     | <u>5,000</u>     | <u>5,000</u>     | <u>5,000</u>     |                  |
| Sub-total                                | <u>38,000</u>    | <u>20,000</u>    | <u>20,000</u>    | <u>20,000</u>    | <u>98,000</u>    |
| <u>3. PARTICIPANT TRAINING</u>           |                  |                  |                  |                  |                  |
| A. U.S. Long-term (6 for 24 months each) | 31,200           | 50,800           | 17,600           |                  |                  |
| B. Kenya short-term (9 for 1-2 weeks)    | <u>13,400</u>    | <u>-</u>         | <u>-</u>         |                  |                  |
| Sub-total                                | <u>44,600</u>    | <u>50,800</u>    | <u>17,600</u>    | <u>-</u>         | <u>113,000</u>   |
| Total                                    | <u>\$187,600</u> | <u>\$165,800</u> | <u>\$137,600</u> | <u>\$120,000</u> | <u>\$611,000</u> |

<sup>1/</sup> Six weeks of training in Swahili. Amount includes salaries of trainees.

ANNEX DESTIMATED BUDGETMIWARA MATI

| 1. | <u>TECHNICAL ASSISTANCE</u>           | <u>Year 1</u>    | <u>Year 2</u>    | <u>Year 3</u>    | <u>Year 4</u>   | <u>Total</u>     |
|----|---------------------------------------|------------------|------------------|------------------|-----------------|------------------|
|    | A. Rural Development Specialist       | 69,000           | 67,000           | 72,000           | 72,000          | 280,000          |
| 2. | <u>COMMODITIES</u>                    |                  |                  |                  |                 |                  |
|    | 12 Hand Calculators                   | 900              |                  |                  |                 |                  |
|    | 1 Print Out Calculator                | 300              |                  |                  |                 |                  |
|    | 1 Adding Machine                      | 150              |                  |                  |                 |                  |
|    | 3 Typewriters                         | 450              |                  |                  |                 |                  |
|    | 2 Filing Cabinets                     | 200              |                  |                  |                 |                  |
|    | Duplicating Masters                   | 3,000            | 3,000            | 1,500            | 800             |                  |
|    | Duplicating Paper                     | 5,000            | 5,000            | 2,500            | 1,200           |                  |
|    | 3 Motorcycles and Spares (25%)        | 3,750            | -                | 5,000            | -               |                  |
|    | 12 Motor bicycles and<br>Spares (25%) | 10,500           | -                | 13,400           | -               |                  |
|    | Books, Periodicals                    | 1,000            | 1,000            | 600              | 300             |                  |
|    | 1 8MM Camera                          | 150              |                  |                  |                 |                  |
|    | 3 35MM Cameras                        | 150              |                  |                  |                 |                  |
|    | 1 Slide Projector                     | 150              |                  |                  |                 |                  |
|    | 1 Movie Projector (8MM)               | 150              |                  |                  |                 |                  |
|    | 2 Tape Recorders                      | 200              |                  |                  |                 |                  |
|    | 1 Landrover-Type Vehicles             | 10,000           |                  |                  |                 |                  |
|    | 1 Portable Generator                  | 1,000            |                  |                  |                 |                  |
|    | Miscellaneous Supplies                | 3,000            | 2,000            | 1,100            | 300             |                  |
|    | Sub-Total                             | 40,050           | 11,000           | 24,100           | 2,600           | 77,750           |
| 3. | <u>LOCAL COSTS</u>                    |                  |                  |                  |                 |                  |
|    | Internal travel                       | 2,500            | 2,500            | 1,200            | 1,200           |                  |
|    | 5 Local houses                        | 3,600            |                  |                  |                 |                  |
|    | Furniture for houses                  | 1,500            |                  |                  |                 |                  |
|    | Vehicle Operation                     |                  |                  |                  |                 |                  |
|    | - Landrover-Type vehicle              | 4,500            | 9,000            | 6,000            | 3,000           |                  |
|    | - Motorcycles                         | 1,100            | 2,200            | 1,500            | 800             |                  |
|    | - Motorbicycles                       | 2,200            | 4,400            | 3,000            | 1,500           |                  |
|    | Farmer Training Wing Operation        | 1,500            | 1,500            | 1,000            | 500             |                  |
|    | Inputs for Farmer Training            | 5,000            | 5,000            | 3,500            | 1,800           |                  |
|    | Sub-Total                             | 20,900           | 24,600           | 16,200           | 8,800           | 70,000           |
|    | TOTAL                                 | <u>\$129,450</u> | <u>\$102,600</u> | <u>\$112,300</u> | <u>\$83,400</u> | <u>\$427,750</u> |

ANNEX DESTIMATED BUDGETNYEGEZI MATI

| <u>1. TECHNICAL ASSISTANCE</u>    | <u>Year 1</u> | <u>Year 2</u> | <u>Year 3</u> | <u>Year 4</u> | <u>Total</u> |
|-----------------------------------|---------------|---------------|---------------|---------------|--------------|
| A. Rural Development Specialist   | 69,000        | 67,000        | 72,000        | 72,000        | 280,000      |
| <u>2. COMMODITIES</u>             |               |               |               |               |              |
| 12 Hand Calculators               | 900           |               |               |               |              |
| 1 Print Out Calculator            | 300           |               |               |               |              |
| 1 Adding Machine                  | 150           |               |               |               |              |
| 1 Duplicating Machine             | 300           |               |               |               |              |
| 1 Typewriter                      | 150           |               |               |               |              |
| 2 Filing Cabinets                 | 200           |               |               |               |              |
| Duplicating Masters               | 3,000         | 3,000         | 1,500         | 800           |              |
| Duplicating Paper                 | 5,000         | 5,000         | 2,500         | 1,200         |              |
| 20 Bicycles                       | 1,500         | -             | -             | -             |              |
| 3 Motorcycles and Spares (25%)    | 4,000         | -             | 5,000         | -             |              |
| 1 Landrover-Type vehicle          | 10,000        | -             | -             | -             |              |
| Books, periodicals                | 1,000         | 1,000         | 600           | 300           |              |
| 1 8MM Camera                      | 150           |               |               |               |              |
| 3 35MM Cameras (Kodak Instamatic) | 150           |               |               |               |              |
| 1 Slide Projector                 | 150           |               |               |               |              |
| 1 Movie Projector                 | 150           |               |               |               |              |
| 2 Tape Recorders                  | 200           |               |               |               |              |
| 1 Landrover-Type Vehicle          | 10,000        |               |               |               |              |
| 1 Portable Generator              | 1,000         |               |               |               |              |
| Miscellaneous Supplies            | 3,000         | 2,000         | 1,100         | 300           |              |
| Sub-Total                         | 41,300        | 11,000        | 10,700        | 2,900         | 65,600       |
| <u>3. LOCAL COSTS</u>             |               |               |               |               |              |
| Internal travel                   | 2,500         | 2,500         | 1,200         | 1,200         |              |
| Type A House                      | 25,000        | -             | -             | -             |              |
| Housing Improvement               | 7,100         | -             | -             | -             |              |
| Classroom Improvement             | 7,100         | -             | -             | -             |              |
| Furniture                         |               |               |               |               |              |
| - House                           | 1,700         |               |               |               |              |
| - Office                          | 300           |               |               |               |              |
| Vehicle Operation                 |               |               |               |               |              |
| - Landrover-Type Vehicles (2)     | 9,000         | 18,000        | 12,000        | 6,000         |              |
| - Motorcycles                     | 1,100         | 2,200         | 1,500         | 800           |              |
| Additional Personnel              |               |               |               |               |              |
| - 2 Drivers                       | 1,000         | 2,000         | 1,400         | 700           |              |
| - 1 Visual Aids Assistant         | 1,000         | 1,000         | 600           | -             |              |

ANNEX DNYEGEZI MATI (CONTINUED)

|                                | <u>Year 1</u>    | <u>Year 2</u>    | <u>Year 3</u>    | <u>Year 4</u>   | <u>Total</u>     |
|--------------------------------|------------------|------------------|------------------|-----------------|------------------|
| - Data Collection Assistant    | 1,000            | 1,000            | 600              | -               |                  |
| Farmer Training Wing Operation | 1,500            | 1,500            | 1,000            | 500             |                  |
| Inputs for Farmer Training     | <u>5,000</u>     | <u>5,000</u>     | <u>3,500</u>     | <u>1,800</u>    |                  |
| Sub-Total                      | 63,300           | 33,200           | 21,800           | 11,000          | 129,300          |
| TOTAL                          | <u>\$173,600</u> | <u>\$111,200</u> | <u>\$104,500</u> | <u>\$85,600</u> | <u>\$474,900</u> |

MLINGANO MATI1. TECHNICAL ASSISTANCE

|                                 |        |        |        |        |         |
|---------------------------------|--------|--------|--------|--------|---------|
| A. Rural Development Specialist | 69,000 | 67,000 | 72,000 | 72,000 | 280,000 |
|---------------------------------|--------|--------|--------|--------|---------|

2. COMMODITIES

|                                   |              |              |              |            |        |
|-----------------------------------|--------------|--------------|--------------|------------|--------|
| 12 Hand Calculators               | 900          |              |              |            |        |
| 1 Print Out Calculator            | 300          |              |              |            |        |
| 1 Adding Machine                  | 150          |              |              |            |        |
| 1 Duplicating Machine             | 300          |              |              |            |        |
| 2 Typewriters                     | 300          |              |              |            |        |
| 2 Filing Cabinets                 | 200          |              |              |            |        |
| Duplicating Masters               | 3,000        | 3,000        | 1,500        | 800        |        |
| Duplicating Paper                 | 5,000        | 5,000        | 2,500        | 1,200      |        |
| 10 Motorbicycles and spares (25%) | 8,700        | -            | 11,000       | -          |        |
| 2 Motorcycles and spares (25%)    | 2,500        | -            | 3,100        | -          |        |
| 1 Landrover-Type Vehicle          | 10,000       |              |              |            |        |
| Books, Periodicals                | 1,000        | 1,000        | 600          | 300        |        |
| 1 8MM Camera                      | 150          |              |              |            |        |
| 3 35MM Cameras                    | 150          |              |              |            |        |
| 1 Slide Projector                 | 150          |              |              |            |        |
| 1 Movie Projector                 | 150          |              |              |            |        |
| 1 Tape Recorder                   | 200          |              |              |            |        |
| 1 Landrover-Type Vehicle          | 10,000       |              |              |            |        |
| 1 Portable Generator              | 1,000        |              |              |            |        |
| Miscellaneous Supplies            | <u>3,000</u> | <u>2,000</u> | <u>1,100</u> | <u>300</u> |        |
| Sub-Total                         | 47,200       | 11,000       | 19,800       | 2,600      | 80,600 |

ANNEX D

MLINGANO MATI (CONTINUED)

|                                | <u>Year 1</u>    | <u>Year 2</u>    | <u>Year 3</u>    | <u>Year 4</u>   | <u>Total</u>     |
|--------------------------------|------------------|------------------|------------------|-----------------|------------------|
| 3. <u>LOCAL COSTS</u>          |                  |                  |                  |                 |                  |
| Internal Travel                | 2,500            | 2,500            | 1,200            | 1,200           |                  |
| Housing for 20 students        | 20,000           |                  |                  |                 |                  |
| Type A House                   | 25,000           |                  |                  |                 |                  |
| Classroom Expansion )          |                  |                  |                  |                 |                  |
| Office Space Expansion )       | 17,000           |                  |                  |                 |                  |
| Furniture                      |                  |                  |                  |                 |                  |
| - Classroom                    | 700              |                  |                  |                 |                  |
| - Office                       | 300              |                  |                  |                 |                  |
| - House                        | 1,700            |                  |                  |                 |                  |
| Vehicle Operation              |                  |                  |                  |                 |                  |
| - Landrover-Type Vehicle       | 9,000            | 18,000           | 12,000           | 6,000           |                  |
| - Motorcycles                  | 750              | 1,500            | 1,000            | 500             |                  |
| - Motorbicycles                | 1,850            | 3,750            | 2,500            | 1,200           |                  |
| Additional Personnel           |                  |                  |                  |                 |                  |
| - Typist                       | 1,500            | 1,500            | 1,000            | 500             |                  |
| - Drivers (2)                  | 1,000            | 2,000            | 1,400            | 700             |                  |
| Farmer Training Wing Operation | 1,500            | 1,500            | 1,000            | 500             |                  |
| Inputs for Farmer Training     | <u>5,000</u>     | <u>5,000</u>     | <u>2,500</u>     | <u>1,800</u>    |                  |
| Sub-Total                      | 87,800           | 35,700           | 23,600           | 12,400          | 159,500          |
| TOTAL                          | <u>\$204,000</u> | <u>\$113,700</u> | <u>\$115,400</u> | <u>\$87,000</u> | <u>\$520,100</u> |

ESTIMATED BUDGET

MBEYA MATI

1. TECHNICAL ASSISTANCE

|                                 |        |        |        |        |         |
|---------------------------------|--------|--------|--------|--------|---------|
| A. Rural Development Specialist | 69,000 | 67,000 | 72,000 | 72,000 | 280,000 |
|---------------------------------|--------|--------|--------|--------|---------|

2. COMMODITIES

|                                      |        |       |        |       |  |
|--------------------------------------|--------|-------|--------|-------|--|
| 12 Hand Calculators                  | 900    |       |        |       |  |
| 1 Print Out Calculator               | 300    |       |        |       |  |
| 1 Adding Machine                     | 150    |       |        |       |  |
| Duplicating Paper                    | 5,000  | 5,000 | 2,500  | 1,200 |  |
| Duplicating Masters                  | 3,000  | 3,000 | 1,500  | 800   |  |
| 12 Motorbicycles and spares<br>(25%) | 10,500 | -     | 13,400 | -     |  |
| 3 Motorcycles and spares<br>(25%)    | 3,750  | -     | 5,000  | -     |  |

## ANNEX H

- 12 -

Although women in Ujamaa villages are enjoying the benefits of staying and working together for the benefit of all, they still do quite a lot of work, and they hardly have time to rest. However, women do participate fully in educational programs including agriculture, health, cooperative, education, and others. Ministry of Agriculture trains young adults who will work in the Ujamaa villages. Ten-month courses are offered to young men and women in national service camps. Mobile clinic services are offered to rural women and the rural medical aids train these women in child care, health, nutrition and sometimes family planning, as they attend these clinics. Each village has a community centre where women can meet regularly to discuss matters concerning their social welfare. Again each village has a day care centre to enable women to participate in development projects. The radio study groups, which attract both men and women together, have encouraged women to talk freely before men and express themselves with confidence. Women are also seriously engaged in small scale industries to uplift their income level.

Tanzania is now gaining momentum in its effort to make people live together in development villages where it is easy for the people to get facilities like: schools, hospitals, water, building materials, roads, social welfare facilities and the rest. This is a movement which touches the whole family but more so the woman, for a home has more sense to the woman than to the man. It has been resolved that by 1976 all rural Tanzanians live in planned villages to facilitate the social services as earlier mentioned.

The success of the whole national revolution depends on the understanding participation of the Tanzanian women as a revolutionary of the 20th century. The social and economic promotion of the rural women in Tanzania cannot depend on external agencies alone but on her own effort and initiative, through the development of her talents which for quite long have laid dormant.

The revolution has started in Tanzania through socialism and it is an uphill task. There is still much to be done towards the achievement of equality, development and peace, the objectives of 1975, an International Women's Year.

ANNEX DMBEYA MATI (CONTINUED)

|                            | <u>Year 1</u>    | <u>Year 2</u>    | <u>Year 3</u>    | <u>Year 4</u>   | <u>Total</u>     |
|----------------------------|------------------|------------------|------------------|-----------------|------------------|
| 1 8MM Camera               | 150              |                  |                  |                 |                  |
| 3 35MM Cameras             | 150              |                  |                  |                 |                  |
| 1 Slide Projector          | 150              |                  |                  |                 |                  |
| 1 Movie Projector          | 150              |                  |                  |                 |                  |
| 2 Tape Recorders           | 200              |                  |                  |                 |                  |
| 1 Landrover-Type Vehicle   | 10,000           |                  |                  |                 |                  |
| 1 Portable Generator       | 1,000            |                  |                  |                 |                  |
| Miscellaneous Supplies     | <u>3,000</u>     | <u>2,000</u>     | <u>1,100</u>     | <u>300</u>      |                  |
| Sub-Total                  | 39,400           | 11,000           | 24,100           | 2,600           | <u>77,100</u>    |
| 3. <u>LOCAL COSTS</u>      |                  |                  |                  |                 |                  |
| Internal travel            | 2,500            | 2,500            | 1,200            | 1,200           |                  |
| Vehicle Operation          |                  |                  |                  |                 |                  |
| - Landrover-Type Vehicle   | 4,500            | 9,000            | 6,000            | 3,000           |                  |
| - Motorcycles              | 1,100            | 2,200            | 1,500            | 800             |                  |
| - Motorbicycles            | 2,200            | 4,400            | 3,000            | 1,500           |                  |
| Additional Personnel       |                  |                  |                  |                 |                  |
| - Driver                   | 500              | 1,000            | 700              | -               |                  |
| Training Wing Operation    | 1,500            | 1,500            | 1,000            | 500             |                  |
| Inputs for Farmer Training | <u>5,000</u>     | <u>5,000</u>     | <u>3,500</u>     | <u>1,800</u>    |                  |
| Sub-Total                  | 17,300           | 25,600           | 16,900           | 8,800           | <u>68,600</u>    |
| TOTAL                      | <u>\$125,700</u> | <u>\$103,600</u> | <u>\$113,000</u> | <u>\$83,400</u> | <u>\$425,700</u> |

ESTIMATED BUDGETOTHER PARTICIPATING MATI's (Per MATI)1. COMMODITIES

|                        |                 |                 |                |  |                 |
|------------------------|-----------------|-----------------|----------------|--|-----------------|
| 12 Hand Calculators    | 900             |                 |                |  |                 |
| 1 Print Out Calculator | 300             |                 |                |  |                 |
| 1 Adding Machine       | 150             |                 |                |  |                 |
| Duplicating Masters    | 3,000           | 3,000           | 1,500          |  |                 |
| Duplicating Paper      | 5,000           | 5,000           | 2,500          |  |                 |
| Miscellaneous supplies | 2,000           | 1,000           | 500            |  |                 |
| Books and Periodicals  | <u>1,000</u>    | <u>1,000</u>    | <u>500</u>     |  |                 |
| Total                  | <u>\$12,350</u> | <u>\$10,000</u> | <u>\$5,000</u> |  | <u>\$27,350</u> |
| Two Centers =          | 24,700          | 20,000          | 10,000         |  | 54,700          |

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THE UNITED REPUBLIC OF TANZANIA  
MINISTRY OF AGRICULTURE AND CO-OPERATIVES

PH: 621-119  
X: 61-125

Telegrams: "Kilimo", Dar es Salaam  
Telephone: 77251  
In reply please quote  
Ref. No. AG. 36/120

Min. of Agriculture and Co-Operatives Division  
Pamba House  
P.O. Box 122, Dar es Salaam

3rd March, 1970.

The Director of U.S.A.I.D.,  
P.O. Box 1490,  
DAR ES SALAAM.

U.S.A. The Principal Secretary,  
The Treasury,  
P.O. Box 9111,  
DAR ES SALAAM. (Attention: Mr. P. Issa,  
Finance Officer,  
External Finance).

Dear Sir,

Over the past several months various personnel from our Soyower Development Division have discussed with the U.S.A.I.D. the possibility of obtaining technical assistance for the implementation of a Farmer Training Project. The major objective of the Project would be to bring farmers from the villages to a central location for some training in simple out output production farmer techniques. The farmer training course would be conducted by students and staff of the Ministry of Agriculture Training Institute. Not only would the farmers gain from the experience, but it would also encourage regular contact between the MATI students and small farmers and increase the relevance of extension training at the MATI.

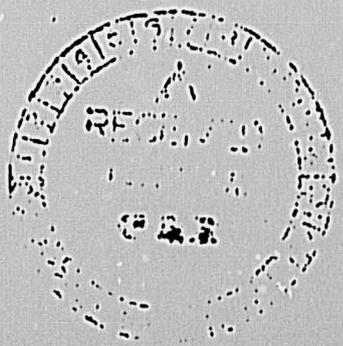
At this time we would like to submit a formal request for your assistance in designing and implementing the Farmer Training Project. Your favourable response to the request would be greatly appreciated.

Yours sincerely,

*Rushi*

A. Rushi,  
PRINCIPAL SECRETARY.

| DISTR/AC | HEH |
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| DIR      |     |
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Classification



XXXXXXXXXXXX

XXXXXXXXXXXX

XXXXXXXXXXXX

- 2 -

Extension workers have the difficult task of convincing farmers to take these high risks.

The main purpose of the data collection and analysis work will be to determine the acceptability of new practices to farmers and what is required to motivate them to adopt these practices. To acquire this knowledge requires a continuing dialogue with farmers. As you and MATI staff members suggested, one task of the project will be to develop simple instruments to assist extension workers in building this dialogue.

The starting point of the above is an understanding of traditional practices, farmer perceptions of the risks involved in adopting new practices and other aspects of farmer decision making. Operationally, this suggests the need to develop an awareness among extension workers of traditional practices and the elements that enter into farmer decision making. Of primary importance are the constraints that the farmer perceives: physical or natural (e.g. weather, soil conditions); cultural (e.g. superstitions about planting times); economic (e.g. the costs of inputs); technical (e.g. level of agricultural knowledge); and agricultural infrastructure support (e.g. access to markets and the delivery of inputs). Secondly, it suggests the need to develop the capability of extension workers to identify what changes in behavior are necessary for farmers to receive the benefits of new practices and the components necessary to encourage farmers to make these changes such as training, on-farm demonstration, the frequency of extension visits and improvements in agricultural infrastructure. With a knowledge of the gap between traditional and new practices, it will be easier for extension workers to judge what they must do to encourage farmers to take steps for improving their production.

During our field visits to the four MATI's, we discussed the above issues with staff members and students; both had excellent suggestions as to the data required to increase the effectiveness of their assistance to farmers. As the data collection begins in the field, their knowledge in defining data requirements will be increased. In the process of identifying the data needed, it will be important to define how the data will be used. The following illustrates the types of data that should be collected and its potential use:

#### Data Category

##### Technology for Small Farmers

###### Data Needed

Existing production pattern:  
priority crops and livestock,  
inputs, yields, income, etc.

Past agricultural history, other  
crops, animals, etc.

Soil/weather/blight/drought/  
special conditions.

###### Data to Be Used to:

Determine the degree of change  
required for new technology.

Determine the appropriateness  
of alternative technology.

Determine special constraints  
to alternative technology.

~~XXXXXXXXXX~~

~~XXXXXXXXXX~~

~~XXXXXXXXXX~~

Annex F  
~~XXXX~~  
~~XXXXXXXXXX~~  
~~XXXXXXXXXX~~

Data Needed

Data to Be Used to:

Agricultural calendar.

Determine time constraints on new endeavors.

Traditions and customs.

Determine social/cultural factors that may influence adoption of new technology.

Transferring Agricultural Knowledge

Spread pattern of new technology.

Determine the rapidity of existing extension and knowledge transfer channels.

Willingness to try new agricultural methods.

Determine the degree of extension and training services required for new technology.

Agricultural Services

Land cultivated in relation to land held or available for cultivation.

Determine the potential for expansion of land under cultivation.

Labor use calendar.

Determine labor constraints to new technology.

Labor requirements by skill level: male, female, children.

Determine alternative labor sources (potential for female labor tasks).

Agricultural supplies, equipment/transport used, their availability and price.

Determine the adequacy of the current delivery system.

Cash/credit availability by source for innovations.

Determine whether credit is a constraint to new technology.

Agricultural Marketing

Percent of present output sold for cash, by crop.

Determine present involvement in cash market.

Marketing networks; local, regional, national prices.

Determine whether market access and pricing is a constraint to new technology.

| <u>Data Needed</u>                                      | <u>Data to Be Used to:</u>                                                    |
|---------------------------------------------------------|-------------------------------------------------------------------------------|
| <u>Profitability and Risk</u>                           |                                                                               |
| Relative prices of inputs and outputs.                  | Determine profit margin of present technology.                                |
| Cash requirements of present production techniques.     | Determine the return to cash from present technology.                         |
| Cash requirements of alternative production techniques. | Determine "risk" on upfront cash, return to cash from alternative technology. |
| Surplus above subsistence.                              | Determine the level of disaster if new technology fails.                      |

As mentioned earlier, these data categories are only illustrative of the types of data that might be collected. The definition of the data needed will be done through discussions at the local level. By involving students, officials and villagers in this process, it will help build the motivation to provide, collect and use the data as well as help increase their problem solving capability.

Sincerely yours,

*Charles F. Sweet*

Charles F. Sweet  
Consultant

Vice President,  
Development Alternatives, Inc.

ANNEX G

" An Appraisal of Rural Women in Tanzania "

by

D. R. Reynolds

December 1975

(See copy in AID/Washington as there are no  
extra copies in USAID/Tanzania)

TOWARDS THE SOCIAL AND ECONOMIC PROMOTION  
OF RURAL WOMEN IN TANZANIA 1/

By

Hilda Kokuhirwa <sup>2/</sup>  
Institute for Adult Education  
Dar es Salaam, Tanzania

Introduction:

The purpose of this brief descriptive paper is to make an attempt at showing roughly the changing image of the women in rural Tanzania and the various agencies responsible for social, economic, cultural, and political promotion of women in rural Tanzania. In Tanzania, emphasis is placed on rural development where the majority of the people live and work. It is the women who do most of the agricultural work and agriculture is the basis of our economy. If our country is to make full and quick progress now, the women must have their talents developed, and their economic level in terms of income must be raised.

General Background

Tanzania (mainland) which achieved her independence on 9th December, 1961, is one of the largest countries in East Africa, covering an area of 362,820 square miles, of which 20,650 is covered by water in lakes and rivers.

Reports from the 1967 census indicate that the population of Tanzania is about 12.3 million people, but ever since, the population has been increasing very rapidly and it is now estimated that the population is about 13 million people. There are three major ethnic groups, the Africans who are the majority (98%), the Asians and the Europeans. The African population is composed of 123 tribes, all different in cultural traditions but all united by one language, Swahili, the official language of the country. About 95% of the population live and work in rural areas. Most of these are peasant farmers.

Policy and Administrative set up

Tanzania through TANU - "Tanganyika African National Union" - has adapted a policy of socialism in developing the economy of the country which is predominantly agricultural. The manner in which this policy was to be applied in Tanzania was clearly spelled out in the Arusha Declaration of 1967. The fundamental principles underlying this policy are:

---

1/ Reproduced from "FIKARA", May 1975, a publication on Adult Education published by the Tanzania Institute of Adult Education.

2/ Miss Kokuhirwa is Assistant Resident Tutor, Institute of Adult Education, Dar es Salaam.

- 1) Social equality involving the extension of developmental benefits as widely as possible throughout society.
- 2) The development of cooperative forms of economic activity particularly in the rural areas through the formation of Ujamaa villages.
- 3) Self reliance which involves the maximum possible development of domestic resources through the mobilization of the people.
- 4) Economic and social transformation in order to expand production capacity.
- 5) African economic integration through the extension of economic cooperation with other African states.

Administratively, Tanzania is divided into 20 regions which are further subdivided into 80 districts. The government adapted the policy of decentralization in 1972 whereby the regions are responsible for the planning and implementation of the economic and social activities within them. Decentralization apart from being a structural device of administration, is a development strategy for transforming the Tanzanian rural society. Development in the Tanzanian context implies:

- the giving to the people power in deciding on matters that affect them that is - freedom to manage their affairs.
- effecting increases in their material well-being.

The people must participate in considering, planning and implementing their development plans. The obligation of the Party TANU is to ensure that the leaders and experts implement the plans that have been agreed upon by the people themselves.

There has been established at the regional level a Regional Office headed by the Regional Commissioner who coordinates the political and executive functions of the government. Below him is the Regional Development Director who is the effective head of development affairs within the region assisted by a team of three senior officers namely:

- The Regional Personnel Officer
- The Regional Financial Controller
- The Regional Planning Officer, and a number of functional managers each responsible for one of the following:

- Agriculture
- Health
- Land Development
- Ujamaa and Cooperatives
- Water
- Education
- Engineering
- Natural Resources
- Livestock
- Commerce and Industry

All these form a regional team of experts and their activities are coordinated at the regional level instead of the national level as in the previous system. This administrative structure repeats itself at the district level. Alongside this administrative structure are "Development Committees" at different levels in order to facilitate people's participation in and control of development, as well as to involve the Party in the development process.

Funds earmarked for development have been decentralized as well as the control of funds and decision making on expenditure. The rural areas possess a great potential for the fast economic development.

#### Pre-Independence and the Role of Women in Society

In African traditional society, the position of women was considered inferior to that of men and their lives were limited to the domestic duties, while in the public roles were allocated to men. Women played the role of child-bearing; care of home and husband and work on the fields. Decisions on major family and tribal issues were man's domain. Even in issues of choosing a life partner it was the right of men alone.

Tanzania was no exception to this, although the society was based on the traditional practice of Ujamaa (familyhood) namely: respect for one another; sharing of property and the obligation to work. This is confirmed by Mwalimu Nyerere's words in "Socialism and Rural Development" that ..... "it is true that the women in traditional society were regarded as having a place in the community which was not only different, but was also to some extent inferior. It is impossible to deny that the women did, and still do, more than their fair share of the work in the fields and in the homes. By virtue of their sex, they suffered from inequalities which had nothing to do with their contribution to the family welfare. Although it is wrong to suggest that they have always been an oppressed group it is true that within traditional society ill-treatment and enforced subservience could be their lot'....."

Under such circumstances, women's capacity to develop was stunted and human resources lay dormant. As a result, Africa has suffered because of the lack of the necessary women's contribution to continental developmental goals.

With the dawn of colonialism in Tanzania, the situation was worsened because neither Christianity nor Islam advocated the equality between men and women. The policy of colonial education favoured men, while women were left to lag behind men. For instance in 1961, when Tanzania got independence after nearly 80 years of colonialism, only five girls had completed Higher Cambridge! Worse still, the church education instructed women to be submissive to husbands and to be subservient to childbearing, the kitchen and the Church for this was the surest way to heaven! Some of the most educated women could join the nunnery life which emphasized absolute obedience more than critical and liberal thinking. Under colonialism, both men and women suffered, but women's suffering doubled under the suppression of the colonial masters and under their own men!

The resignation of Tanzanian women from the second place position of humanity can only come by political and social education which is right now the major involvement of women throughout Tanzania as we shall see in the next pages.

#### After Independence: The Changing Image of Rural Women

Tanzania, as we have seen before, invests in rural development because it gives the fastest returns of inputs and is less demanding in capital investment. It also gives a chance for equality for the majority of the people. About 95% of the total population lives in rural areas and, therefore, the emphasis is on rural development. There are more women than there are men in the rural areas and it is these women who do most of the agricultural work which is mainly subsistence, on top of the housework. The contradiction here is that it is mostly men who receive training in agronomy! "It is the responsibility of the Government and Cooperative Societies to see to it that our people get the necessary tools, training and leadership in modern methods of agriculture" (Arusha Declaration). Talking about the people in this context, we should not consider men alone but women, too, should get access to the necessary facilities since they are the very people who do most of the agricultural work. Nevertheless, these days women are active participants in all educational programs pertaining to agriculture.

Educational programs for rural women are all aimed at and integrated into our total development planning. Tanzania firmly believes in education as being central to the development process. The priority in the development process is on the rural areas where the majority of the people live. There are more women than there are men here. Considering the fact that women have generally lagged behind men in terms of development, effort is being made to narrow this gap. Various institutions have been formed to cater for the welfare of rural women and they have much to contribute towards the promotion of rural women in the social, economic, political and cultural fields.

The U.W.T. - Union of Women of Tanganyika

With the victory of Independence in 1961, TANU, in the following year, 1962, initiated the formation of a women's organization, the Union of Women of Tanganyika which since then has been catering to the needs and problems of women. This organization which is an affiliate of TANU was formed with the following objectives:

1. To bring together all the women of mainland Tanzania so that they can think, speak and act together.
2. To preserve and propagate the good reputation and unity of our nation.
3. To foster the development of women and their active participation in economic, educational, political, cultural and health activities.
4. To act as a liaison and cooperate with the government and the Party on all matters which are of special concern to women.
5. To campaign for and preserve the rights and dignity of women in our nation and the rest of Africa and the world.
6. In order to achieve these objectives, the organization will seek to cooperate and act as a liaison with other organizations in the world whose aims are similar or close to those of U.W.T. The colour, creed, or racial background of the members of such organizations will not stand in the way of cooperation provided that those policies and objectives being followed are deeply rooted in socialism, in quality and in self-reliance.

Membership is open to any Tanzanian woman who is sixteen years and above. Groups of women can join the U.W.T. as well as individuals.

Administrative Structure:

On the National level, the U.W.T. has a chairman who is elected by the U.W.T. national conference and holds this post for five years. She is the leader and spokeswoman of the organization. She is assisted by the vice chairwoman who is also elected by the national conference. The general secretary is appointed by the President of the United Republic who is the chairman of the National Executive Committee (NEC). The current general secretary, Ndugu Thecla Mchauru, is the first presidentially appointed secretary. Prior to her appointment, she was

Principal Rural Training Officer and, therefore, her familiarity with the rural areas cannot be doubted. Although the President appoints the secretary, women are given the opportunity to recommend names of suitable candidates to the President. The National Treasurer is also appointed by the National Executive Committee after the suitable candidates have been recommended by the U.W.T. Under the General Secretary are assistant secretaries to assist her in her day to day activities.

On the regional level, the structure is repeated but there is only one secretary. The regional chairwoman and secretary are paid personnel since August 1974. The government pays them, e.g. the chairman gets \$100 (800/- Tanzanian shillings) per month. The regional secretaries are well-trained former community development officers with an experience of up to 20 years. Most of them are trained in the country but a few are graduates from abroad. Many of these have been Home Economics Trainers. Secretaries are charged with the duty of coordinating the U.W.T. activities down to the district level. The government, together with UNICEF, gives assistance to regions by providing them with transport which is mostly used by the secretaries.

Below the regional level, is a district where the administrative structure is similar to that of the region. Some of the district secretaries are ex-Rural Development Assistants and are also well-trained persons. Not every district has a secretary who is a former rural development assistant. In this case, the Community Development Officers have to act as secretaries.

On the divisional level, and below, the leaders are all volunteers most of whom are retired teachers, nurses, mission workers and outstanding women with a good level of literacy.

#### U.W.T. and the Training of Rural Women

The government has given U.W.T. its own institution for the training of rural women. This is the Rungemba Leaders Training Centre in Iringa Region. Here women from all over rural Tanzania are trained for a period of three months whether **they** are or are not members of U.W.T. The three-month course covers leadership training and home economics and includes:

- child care
- income and budgeting
- needlework
- home management
- nutrition and hygiene
- agriculture

On completion of the course, these women go back to their villages where they train other women in the same field. They organize women in groups and share with them the knowledge that they have gained. Most of these women have had a primary school level of education. These courses are sponsored financially by the government and UNICEF. About 120 women are trained annually. The trainers at Rungemba are trained either in Tanzania or abroad. To enable the women to attend these courses effectively, a nursery school has been established within the institution.

Besides Rungemba, other centres which train rural women leaders are:

- Buhare Home Economics Training Centre
- Ndanda Homecraft Centre
- Bigwa

These centres train U.W.T. leaders, extension workers and various women group leaders. By 1980, each district will have its own Rural Training Centre. There are 34 District Rural Training Centres all under the Prime Minister's office. These centres train peasant farmers in modern methods of agriculture and various other crafts. Women are not excluded from these short courses which may last from a few days to two weeks, depending on the objectives of the program. Among other things, women are taught here how to run day care centres.

#### Income-Generating Activities (Cooperatives)

There are many problems facing women which hinder them from increasing their income in their homes. Some of these problems are:

- illiteracy
- bad health
- lack of knowledge and experience
- lack of support from the home
- Limited environment which gives a woman no chance of hearing from others and sharing their experiences and this way she can hardly expand her horizon of knowledge
- mishandling of funds because women have no knowledge in budgeting and savings. This problem is more found in cooperative activities like shopkeeping where many cooperative shops have been forced to close down.

The role of U.W.T. in curbing such problems has been to encourage the women to participate actively in literacy classes. There are literacy classes conducted by U.W.T. in various branches in the villages.

Throughout the country, the U.W.T. branches run small scale businesses in cooperative forms to enable the women to get a little income. Such activities include:

- |                               |                            |
|-------------------------------|----------------------------|
| - Consumer cooperative shops  | - small scale industries   |
| - community farms and gardens | Using local materials e.g. |
| - textile cooperative shops   | - pottery                  |
| - canteens                    | - weaving                  |
| - poultry raising             | - carving                  |
| - bars and restaurants and a  | - fabric dyeing            |
| good many other activities    | - various handicrafts      |
| on cooperative basis          | - needlework               |

#### Day care Centres

In order to enable women in Ujamaa villages to participate fully in development activities, U.W.T. in collaboration with the Ministry of Labour and Social Welfare, has established day care centres throughout the country in Ujamaa villages. Some of the 78,681 day care centres in the country as of 1974 are run by the U.W.T. Each day care centre has an average of 50 children.

The few examples that have been listed are a demonstration of the role played by the U.W.T., the only national organization instituted to cater for women's welfare in the social and economic promotion of rural women. Through U.W.T. women are now beginning to feel that they have a positive contribution to make towards the development of this nation. Despite the shortcomings of the organization e.g. lack of funds, lack of trained staff, lack of experts in the matters of administration, finance, planning and legal affairs, the U.W.T. is trying very hard to fight for the welfare of women.

#### Functional Adult Education:

Generally speaking, the education of women in Tanzania is very much behind that of men and this is perhaps demonstrated by the predominance of women in rural adult education classes. The majority of the women living in rural areas are illiterate.

The Second Five-Year Development Plan, which started in 1969, laid down clearly the policy of adult education, which was to emphasize learning wherever it would help development. 1970 was declared an "Adult Education Year" in Tanzania and the President clearly outlined the objectives of adult education as:

1. To shake people out of their resignation and to realize what they can do for their communities and themselves
2. To provide people with the skills necessary to bring about change in their environment
3. To foster nation-wide understanding of the policies of socialism and self-reliance.

During that year, Tanzania had a population of about 13 million people out of which 7,000,000 were adults of over 15 years. Seventy five percent of these adults were illiterates. In other words, there were 5,250,000 adults who were illiterate. Of this 57% were women and 43% men. The enrolment figures of 1970 into literacy classes show the following:

- women = 2.1 million = 55%
- men = 1.7 million = 43%

The general picture is that women responded more positively than men; they want to run while men walk !

In order to enable those who had not participated in formal or informal education, Tanzania has launched an enormous literacy and education program for everybody, including follow-up stages. Such educational programs include health campaigns e.g. "Man is Health" which was launched in 1973 and "Food is Life" a nutrition campaign of 1975; agricultural campaigns, eg. "Politics is Agriculture" of 1972, political and cultural campaigns. These campaigns are national and are for all regardless of the educational background. During such adult education activities which are broadcast over the radio, written in the press, discussed in seminars, people especially in the rural areas, assemble in their study groups for discussions during which they decide and implement their decisions. For example, a group might decide to dig a well or a trench, clear bush nearby, cultivate or carry on any activity as a response to what has been taught.

#### Women and Functional Literacy

All training in literacy is training for productivity. Here theory and practice are like sides of the same coin. As previously mentioned, women predominate adult education classes quantitywise in rural areas. These classes assemble and learn in primary schools; TANU branch offices, houses, churches and mosques, tree shades and anywhere else. Here one can see women in large numbers, some of them with babies on their backs or on their laps who try to grab the primers from their mothers, who are so attentive to the teacher that they are hardly disturbed.

The Unesco Work Oriented Literacy Project started in Tanzania in 1968 in the four lake regions, an area which is known for its cotton production. Cotton is one of the major export crops in Tanzania hence the selection of the area for this project. The project started with developing functional literacy primers for the improvement of cotton production, but later on more primers for other occupations were: fishing, cattle raising and banana growing. Women do participate

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fully in all these programs and a special primer has been developed to cater to better health, home and child care. Productivity for each person increases as his health and nutrition is improved and this is an economic factor.

It was resolved in 1970 by TANU that Tanzania would mount a campaign which would eliminate illiteracy in the nation by 1975! To this effect, the Lake Regions Functional Literacy Project, in cooperation with the Ministry of National Education, has developed the following primers to be used nationally:

- National Rights
- Wheat Growing
- Rice Growing
- Cattle Raising
- Banana Growing
- Maize Growing
- Tobacco Growing
- Cotton Growing
- Fishing
- Better Living (Home Economics for women)

These primers will be used in various parts of the country where such economic activities take place. Each topic will have two primers, levels I and II and a teachers' guide.

Special Centres for Skills:

Alongside with literacy, in 1971 each district got special centres for rural skills such as:

- agriculture for both women and men
- homecraft (for women)
- crafts e.g. masonry, carpentry, carving, etc.
- health (for both men and women)

In 1973 these centres were extended to each division. There are about 400 divisions in the country. The 1974/75 budget year allocated some funds to these centres which were extended to each ward. There are about 2,000 wards. The allocation of funds to these centres was as follows:

- agriculture 2,000/- Tanzanian shillings
- crafts 2,000/- Tanzanian shillings
- health 500/- Tanzanian shillings
- homecraft 4,000/- Tanzanian shillings

The homecraft centres got more funds because the teaching materials are many and expensive.

It is difficult to list all the agencies which cater to the welfare of rural women in the country. Apart from the public institutions, there are volunteer agencies which are seriously engaged in the social and economic development of rural women. These include:

- homecraft centres run by Missions, especially, Christian Missions
- Rehabilitation centres
- The Lushoto Integrated Development Project (Lidap) and a good many other volunteer groups. The Missions, especially, Christian Missions have been a nucleus for development wherever they exist in rural and urban areas. Here women are taught, apart from religion, literacy, various handicrafts, child care and health in general. The sisters have played a big role in this.

The mass media in general has played a big role in education of the rural women. Special programs for women are given out on Radio Tanzania every day apart from the general adult education programs. Subjects like nutrition, better farming, health, child care and home management are taught to women through the radio.

Rural Women in Ujamaa Villages:

An Ujamaa village is a rural economic and social community where people live together and work together for the good of all. The principles of Ujamaa (familyhood) are: equality and respect for each other, the sharing of property, work by all and exploitation by none.

An Ujamaa village may be composed of 100 or more family units. Each village chooses its own chairman, secretary and treasurer, and each village has its own constitution. Apart from the communal farms owned by the whole village, each household has its own plot on which to grow subsistence crops. Traditionally, it was women who did all the farming but in an Ujamaa village things are quite different. Agricultural work is for all, both men and women, and participation is registered. When the harvest is sold, women get equal shares with men!

The day to day activities of a woman living in an Ujamaa village include:

- waking up in the morning about six a.m. (6 a.m.)
- making breakfast for the family if any
- cultivating on the communal farm or family plot up to mid-day
- fetching firewood and water
- fetching grass for cattle (sometimes)
- feeding the children
- pounding and grinding grain
- cooking lunch for the family
- washing clothes and cleaning the house
- attending adult education classes in the afternoon
- cooking and other household drudgery
- gardening
- caring for the children
- finally resting (usually after 10 p.m.)