

I. PROJECT IDENTIFICATION

1. PROJECT TITLE: **Masai Livestock and Range Management**

2. RECIPIENT (specify): **Tanzania**

3. LIFE OF PROJECT: BEGINS FY **1970** ENDS FY **1979**

4. APPENDIX ATTACHED: YES NO

5. PROJECT NO. (M.O. 1095.2): **621-11-130-093**

6. SUBMISSION: ORIGINAL REV. NO. **4** DATE **8/5/75**

7. CONTR. PASA NO.:

II. FUNDING SOURCE AND MAN MONTHS (MM) REQUIREMENTS

A. FUNDING BY FISCAL YEAR	B. TOTAL \$	C. PERSONNEL		D. PARTICIPANTS		E. COMMODITIES \$	F. OTHER COSTS \$	G. PASA/CONTR.		H. LOCAL EXCHANGE CURRENCY RATE \$ US (US \$ DENOM)		
		(1) \$	(2) MM	(1) \$	(2) MM			(1) \$	(2) MM	(1) U.S. GRANT LOAN	(2) COOP COUNTRY	(3) BUDGET
1. PRIOR THRU ACTUAL FY	1804	930	303	263	353	291	270					1150
2. OPBN FY 76	744	531	142	94	144	-	119					795
3. BUDGET FY 77*	937	700	156	102	136	75	60					800
4. BUDGET 81 FY	737	600	120	34	48	63	40					785
5. BUDGET 82 FY	79	648	600	120	18	24	30					1470
6. BUDGET 83 FY												
7. ALL SUBO. FY												
8. GRAND TOTAL	4870	3411	931	511	705	429	519					5000

9. OTHER DONOR CONTRIBUTIONS

(A) NAME OF DONOR: **International Development Association**

(B) KIND OF GOODS/SERVICES: **Livestock Development Loan**

(C) AMOUNT: **\$18.5 million**

III. ORIGINATING OFFICE CLEARANCE

1. CREATED: **Jack Cornelius** *J. Cornelius* **Food & Agriculture Officer** DATE: **8/5/75**

2. CLEARANCE OFFICER: **Richard Podol** *R. Podol* **Program Officer / Acting Director** DATE: **5 AUG**

IV. PROJECT AUTHORIZATION

1. CONDITIONS OF APPROVAL: ***Plus Interim Quarter**

2. CLEARANCES

BUR/OFF.	SIGNATURE	DATE	BUR/OFF.	SIGNATURE	DATE

3. APPROVAL AAS OR OFFICE DIRECTORS

SIGNATURE: _____ DATE: _____

4. APPROVAL AID (See M.O. 1025.1 V.C.)

SIGNATURE: _____ DATE: _____

TITLE: _____ ADMINISTRATOR, AGENCY FOR INTERNATIONAL DEVELOPMENT

The following sections of the Masai Project PROP Revision 2 dated April 1973 are hereby amended as follows:

C. 1. (H)(1) Thirty four Tanzanians will have successfully completed US-financed courses and will be assigned to the Masai project.

D. 1. (a). (2). Ten US technicians assigned to the project as follows:

- i) Project Coordinator
- ii) Animal Production Specialist
- iii) Range Management Specialist
- iv) Water Development Specialist
- v) Extension Sociologist
- vi) Ground Water Hydrogeologist
- vii) Veterinarian
- viii) Heavy Equipment Specialist
- ix) Rural Training Specialist
- x) Well Driller

H. Future Development (the following paragraph is added to the end of this section of the PROP).

In late FY 1975 the need for amending the Masai Livestock and Range Management project became clear because of the changing field circumstances found within the two districts in Masailand. It was determined that the position of the Livestock Marketing specialist for this team be abolished since the function of livestock marketing had been taken from the Livestock Development Division in Arusha Region and placed under the Tanzania Livestock Marketing Co. (TLMC), a parastatal organization established in 1974 as part of the Tanzania Livestock Development Authority. It has its own field staff and is supported by USAID under Project 621-11-130-122 (the contractor for this new project is Texas A&M University). The TLMC is now in charge of all aspects of the primary and secondary livestock marketing in Masailand; consequently there is not sufficient work handled by the Livestock Development Division of Arusha Region to justify a full time marketing position on the Masai team. In view of this, the Tanzania Government requested that the livestock marketing advisor on the Masai team be transferred to the Texas A&M Contract because the livestock marketing functions are now being carried out by the zonal advisor to the TLMC who is being provided by Texas A&M. This transfer occurred in late Fiscal Year 1975. It is expected that the Masai team will still concentrate on encouraging the Masai to sell beef commercially, but that the responsibility of advising on the organization of sales will now rest with TLMC's marketing specialist (who is also based in Arusha).

Two other changes in the project were determined to be necessary in late FY 1975. There are two areas where the project's responsibilities have been greatly increased during the past year, because of the region's acquisition of new facilities and equipment. One concerns the creation of a Rural Training Center devoted specifically to the livestock and drought education training needs of Masailand and the other is the acquisition of a large rotary drill rig. In both instances, it has been found from actual field experience, that the team's present complement of technicians is not adequate to fulfill the mandate imposed by regional and district officials. To properly and sufficiently carry out the objectives of the Farmer Training Center and to assure that the new drill rig is adequately used and maintained, two additional positions are being added to the Masai project - a Rural Training Specialist and a Well Driller.

In addition to the new technical assistance requirements under the Masai Project, a need for further participant training has developed. The PROP currently includes funds for thirty long- and short-term participants in various fields of work. However, it has been determined through actual field experience that additional training at the graduate level is required for certain of the participants previously trained under the project or for one or two specialists working in the project but not trained under the project. This graduate training will become increasingly important as Tanzanians begin replacing the US technicians near the end of the project. Also, the division of Masailand into two separate districts has placed increased stress on the manpower availabilities and requirements, in addition to the need for increased qualitative knowledge including administrative and management training.

It is envisioned that four additional participant slots are needed for training to the Master of Science level. The fields to be covered are Animal Production (two participants), Water Development, and Range Management.

J.5. Livestock Marketing

This section is deleted in its entirety from the PROP.

J.10. Rural Training Specialist (Audio Visual Communications)

Even before Masailand was split into two districts, Monduli and Kiteto, in March 1974, it had been clear that there was a need for a common training facility that could serve as a nucleus for headquartering the mobile extension program of the Livestock Division of Arusha Region Ministry of Agriculture and for developing common extension materials to be used by both districts. The division of Masailand accentuated the problem. For several years, the Livestock Department has been under criticism within Masailand for being too concerned with the improvement of cattle and not concerned enough with the betterment of the Masai people. This has led the Regional officials to fund a new type of Rural Training Center under the Masai project. This will be specifically aimed at training villagers and Masai cattlemen in better livestock management techniques and conducting an intensive program of field seminars at the local (Ranching Association) level.

Within the Masai team it has been clear that there is a need for intensive low-level technical training at this particular stage of development in Masailand. Changing stock owners' perceptions and ideas about their environment has proven to be a much greater task than at first envisioned and one that is going to take a great deal of intensive re-education. There is also much to be done in improving the management of facilities such as dips and water places and in teaching/clarifying concepts of better nutrition and livestock management. All of these tasks require locally prepared extension aids, mimeographed handouts in the local language etc., in addition to a well organized program of seminars and visits by a mobile audio-visual unit. This kind of work will be partly accomplished by the team's sociologist but because of the distances and volumes of work involved it is far beyond the capacity of one person to accomplish.

Furthermore, the region has now completed the first phase of a rural training center including farm acquisition and initial construction of offices and dormitory blocks, and is ready to start a second phase of construction during the current fiscal year. These facilities will be given a large amount of audio-visual equipment provided under the 621-H-017 Agricultural Support Loan. It is also planned to change the function of the 1200-acre farm near Monduli where the Center is located to serve as the demonstration area for

the Center. One output of the Center will be to provide better quality breeding bulls to the Masai Ranching Associations. The Ardai Ranch will also be linked to the new facility as part of the demonstration and grazing system.

If the project is to gain full measure from all these resources, it is essential to strengthen the makeup of the Masai contract team by adding an audio-visual/communication specialist. He will replace the Livestock Marketing technician on the team. The detailed job description for this new position is added as an appendix. The job basically consists of advising on curriculum to be developed by the Principal of the Center, supervising the use of audio-visual equipment, preparing teaching aids, organizing field training sessions (seminars) for the ranching associations, and supporting the center's involvement in the USAID-assisted drought project (621-11-190-128). All of these activities are of the highest priority within the Masai project where at present improved animal husbandry and grazing control is being stressed. Taking into consideration the intensive involvement of the other team members in their respective disciplines resulting in very heavy workloads, these essential tasks must be met by the addition of this position to the team.

J.11. Well Driller

As in the case of the Rural Training Center requiring an audio-visual/communication specialist, the arrival of the rotary drilling rig to the project has created a need for a well driller. The hydrogeologist on the team is currently trying to supervise the drilling program in addition to his primary survey duties, but it is impossible for one technician to do both jobs. The drilling rig has proven to be an extremely technical and difficult rig to support and operate without constant expert supervision. Without this constant supervision, the rig is operating at less than fifty percent of its capacity. There have been several accidents when a supervisor was not present and the district and regional officials have requested that USAID provide a full-time drilling supervisor. Constant supervision means living on-site (in a trailer) with the drilling rig in order to supervise closely the day-to-day operations and maintenance. Other similar drilling rigs in Tanzania under the Ministry of Water Development are provided with full-time expatriate drilling supervisors, and it seems essential that some similar arrangement be reached within this project if the rig is to continue to operate under the control of the Masai project team. There are intermediate level Tanzanian staff assigned to this operation, but they do not have the technical background adequate for supervising the drilling program and do not know what action to take when something out of the ordinary goes wrong. The specific duties are attached as a separate appendix but generally he will be responsible for the operation, maintenance and safety of the drilling program. He will primarily be responsible for the Schramm drill rig but will also supervise the operation and maintenance of any other drills operated under the Masai project.

Appendix B - Life of Project Budget (\$000)

	FY 1970		FY 1971		FY 1972		FY 1973		FY 1974		FY 1975		FY 1976		Interim	FY 1977		FY 1978		FY 1979		Total		
	MM	\$	MM	\$	MM	\$	MM	\$	MM	\$														
A. <u>Project Total</u>	120		123		221		463		284		593		744		161		776		737		648		1579	
B. <u>Personnel</u>																								
1. <u>Direct Hire</u> 2/							27	73															27	73
a. Project							(12)	(43)															(12)	(43)
b. Secretary							(12)	(23)															(12)	(23)
c. <u>NY</u>							(3)	(7)															(3)	(7)
2. <u>FASA</u>							6	25															6	25
3. <u>Contract</u>	48	100	48	100	48	100	57	118	84	155	108	309	108	356	30	120	120	550	120	600	120	600	591	3105 1/2
a. Coordinator								(11)	(20)	(12)	(34)	(12)	(35)	(3)	(9)	(12)	(55)	(12)	(60)	(12)	(60)	(74)	(273)	
b. Sociologist	(12)	(25)	(12)	(25)	(12)	(25)	(12)	(25)	(12)	(23)	(12)	(34)	(12)	(42)	(3)	(14)	(12)	(55)	(12)	(60)	(12)	(60)	(123)	(355)
c. Engineer (Water)	(12)	(25)	(12)	(25)	(12)	(25)	(12)	(25)	(12)	(23)	(12)	(34)	(12)	(35)	(3)	(9)	(12)	(55)	(12)	(60)	(12)	(60)	(123)	(376)
d. Range Mgt.	(12)	(25)	(12)	(25)	(12)	(25)	(12)	(25)	(12)	(23)	(12)	(34)	(12)	(35)	(3)	(9)	(12)	(55)	(12)	(60)	(12)	(60)	(123)	(376)
e. Marketing Specialist	(12)	(25)	(12)	(25)	(12)	(25)	(12)	(25)	(12)	(23)	(12)	(34)												
f. Hydro-geologist								(4)	(6)	(12)	(34)	(12)	(35)	(3)	(14)	(12)	(55)	(12)	(60)	(12)	(60)	(67)	(264)	
g. Heavy Equipment Specialist								(5)	(8)	(12)	(35)	(12)	(41)	(3)	(14)	(12)	(55)	(12)	(60)	(12)	(60)	(68)	(273)	
h. Veterinarian								(4)	(6)	(12)	(35)	(12)	(35)	(3)	(9)	(12)	(55)	(12)	(60)	(12)	(60)	(67)	(260)	
i. Animal Production Specialist							(9)	(18)	(12)	(23)	(12)	(35)	(12)	(42)	(3)	(14)	(12)	(55)	(12)	(60)	(12)	(60)	(64)	(307)
j. Well Driller												(6)	(28)	(3)	(14)	(12)	(55)	(12)	(60)	(12)	(60)	(45)	(217)	
k. Rural Training Specialist												(6)	(28)	(3)	(14)	(12)	(55)	(12)	(60)	(12)	(60)	(45)	(217)	
4. <u>Land Use Study</u> 4/												34	175	3	15	3	15						40	205

Appendix B - Life of Project Budget (\$000)

	FY 1970		FY 1971		FY 1972		FY 1973		FY 1974		FY 1975		FY 1976		Interim Quarter	FY 1977		FY 1978		FY 1979		Total		
	MM	\$	MM	\$	MM	\$	MM	\$	MM	\$	MM	\$	MM	\$		MM	\$	MM	\$	MM	\$		MM	\$
C. Commodities																								
1. Vehicles		12		10		16		111		24		118		-		-		75		63		-		429
2. Equipment		(12)		(10)		(16)		(111)		(24)		(93) ^{2/}		-		-		(51)		(43)		-		
		-		-		-		-		-		(25) ^{2/}		-		-		(24)		(20)		-		
D. Participants		12	7	18	11	44	28	46	29	108	90	125	98	144	94	26	96	76	48	34	24	18	705	511
Long Term		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1. New		(12)	(7)	(12)	(7)	(36)	(24)	(36)	(21)	(72)	(60)	(72)	(63)	(48)	(31)	-	(24)	(16)	(24)	(16)	-	-	-	-
2. Continuing		-	-	(6)	(4)	(8)	(4)	(10)	(8)	(36)	(30)	(53)	(35)	(96)	(63)	(26)	(72)	(60)	(24)	(18)	(24)	(18)	-	-
E. Other Costs		1		2		77		107		15		68 ^{7/}		119		-		60		40		30		519
Miscellaneous Support costs, houses, Project Manager Support, etc.																								
F. <u>Loans</u>		-		-		-		500		955		-		-		-		-		-		-		1,455(non-a11)

- ^{1/} Major changes in budget include deletion of Direct Hire Personnel costs (except in FY 1973), addition of Land Use Study Team funding, and changes in contract personnel man-year costing.
- ^{2/} Direct Hire costs covered under Operating Costs budget except in FY 1973.
- ^{3/} Increase due to additional technical assistance and increased benefits resulting from switch to General Provisions.
- ^{4/} Covers contract with Earth Satellite Corporation and includes 18 months of services of a Soil Scientist and six months of services of a pasture economist.
- ^{5/} \$20,000 for 2 four-wheel drive vehicles for Land Use Survey.
- ^{6/} Land Use Team. (\$17,000)
- ^{7/} \$50,000 for Land Use Team.

APPENDIX A - JOB DESCRIPTIONS FOR U.S. TECHNICIANS

Rural Training Specialist

The Rural Training Specialist will be responsible to the Project Co-ordinator and through him to the relevant Tanzanian Government officials for advising on the curriculum and development of the Monduli Rural Training Center, for assisting in the preparation of teaching materials and simple audio-visual aids, and for organizing an on-going program of field extension housed in the Center but implemented through training seminars conducted in the field. Working on a day-to-day basis under the Principal of the Center, he will be responsible to:-

1. Advise the Principal on the development of a training curriculum appropriate to the Districts' and Ranching Associations' needs, including:-
 - a) identification of the existing types of need for low level training,
 - b) design of the content and length of proposed sources,
 - c) development of simple forms of training in improved livestock husbandry and management for villagers.
2. Assist the various technical officers within the Masai Project in preparing and testing simplified training materials and audio-visual aids related to their specific training needs, including among other topics:-
 - a) the management and operation of dips,
 - b) the management of grazing and forage,
 - c) better livestock nutrition,
 - d) the care and maintenance of water supplies,
 - e) the care and maintenance of simple technical equipment,
 - f) the leadership and organization of the Associations.
3. Control the operation and effective use of any audio-visual equipment provided under the project for the Center and its field extension program, including the keeping of required records.
4. Work with the Tanzanian teaching staff and Field Officers within the Districts of Monduli and Kiteto in setting up training workshops and seminars at the local level within the Ranching Associations for local staff, Association leaders, Masai stock-keepers, and women and youth.

5. Supervise the operation of the Center's mobile audio-visual unit (cinema van) and insure that this resource is fully used by the Districts.
6. Supervise any activities conducted by the Rural Training Center in connection with the Arusha Region Drought Project for Masailand, specifically:-
 - a) to advise and assist in organizing any drought relief measures at the local level that are requested,
 - b) to work with the field staff and Associations in monitoring the severity and distribution of drought in the livestock areas,
 - c) to organize local measures and seminars to improve the capability of local leaders and households to cope with drought conditions, especially with regard to the nutrition of women and children,
 - d) to work with the Animal Production specialist in devising effective training in improved herd management to accompany the issue of any replacement or improved stock.
 - e) to order, receive, and inventory any equipment purchased for the Center under the Drought Project, in liaison with the relevant USAID and Tanzanian Government officials.
7. To maintain the Project's library of technical publications and to help the District and field MIFUGO offices in building up their own collections of relevant extension and technical material.
8. To build up a collection of audio-visual materials and films which are relevant to livestock development and the Project's activities, for loaning out or adaptation by any interested groups.
9. To serve as the Center's technical advisor on any other requests for assistance in the general areas of extension, youth education, or women's work.

The team's Rural Training Specialist would have office space within the Center and would report there whenever not occupied on field or other duties.

The Rural Training Specialist will also be responsible for training a counterpart and supporting personnel to carry on when he departs the project. This in-service training responsibility is an essential part of the Training Specialist's tasks.

Well Driller

The Drilling Supervisor will be responsible to the Project Co-ordinator and through him to the relevant Tanzanian Government officials for supervising the operation, maintenance, repair, and economic use of the Project's drill rigs. Working on a day-to-day basis under the Regional Water Department, he will live on-site with the Schramm drilling rig and will be responsible to:-

1. Insure that regular maintenance and safety procedures are followed at all times in the operation of the drill rigs.
2. Supervise the day-to-day operation of the Schramm drill rig and, on request, any other drill rigs operated under the Project.
3. Maintain liaison with the relevant Tanzanian or USAID officials to insure that parts and supplies are ordered in advance to minimize down time by the rig.
4. Maintain adequate records for financial and work control pertaining to all aspects of the drilling program, and in particular insure that Tanzanian government regulations are met insofar as they pertain to the drilling operation.
5. Operate an on-site program of field training for any Tanzanian staff assigned to the rig or working with it from the Regional Office.
6. Submit regular progress and financial reports covering all funds allocated to the drilling program, except where these functions have been delegated to a Tanzanian counterpart.
7. Provide specialized mechanical knowledge in repairing any breakdowns to drilling equipment and in solving any problems that arise in the field drilling program.
8. Advise the Project's other water specialists on the economical use of the drilling rigs, particularly in regard to the location of new drilling sites.
9. Control the movements of the drilling rigs and their attached staff in accordance with agreed procedures laid down by the Project Co-ordinator in liaison with the Regional Water Engineer and the relevant District officials.
10. The Well Driller will also be responsible for training a counterpart and supporting personnel in operating and maintaining the drill rigs. This in-service training is an essential part of his responsibilities as a trained expert must be available to take over the drill rigs upon the departure of the Well Driller.

Share - The share value is an unspecified amount. At present, share accounts are used as a guarantee for loans not to exceed the amount of shares. The share accounts represent the savings of the individual member in the credit union for which dividends are usually paid. The rate of interest varies in each country from zero to a maximum of six percent. The average rate paid in credit unions surveyed is three percent.

Loan Criteria - Loans are provided to credit union members only. Loans can be guaranteed by savings or share accounts belonging to family members of the borrower. At present, loans are primarily granted for various non-productive purposes. Only a small percentage (4%) are for production loans. Future programs will reverse this tendency.

Handling and Use of Depository Funds - Surplus funds deposited by the credit union with the leagues are utilized as interest bearing loans to other credit unions and commercial banking institutions.

Agriculture Inputs - The Ministry of Agriculture and Rural Development will supply excess to the facilities of supply and marketing cooperatives and technical advisory services of extension agents.