

**MID-TERM EVALUATION**  
**OF**  
**SOMALIA LIVESTOCK MARKETING AND HEALTH PROJECT**

USAID Project No. 649-0109  
Dated 07-12-84  
Amended 08-20-86

Prepared for:  
United States Agency for International Development  
Mogadishu, Somalia

This report represents the independent findings, conclusions and recommendations of the Evaluation Team and does not necessarily represent the official views of the Government of the Somali Democratic Republic or USAID/Somalia.

CONSORTIUM FOR INTERNATIONAL DEVELOPMENT  
5151 East Broadway, Suite 1500  
Tucson, Arizona 85711-3766

Contract No. IQC/AGR-1406-04-01

February, 1988

**BEST AVAILABLE**

## PREFACE

This report was prepared by representatives of the Consortium for International Development under the contract No. IQC/AGR-1406-04-01. The report is a mid-term evaluation of progress and contractor performance for the Livestock Marketing and Health Project in Somalia being implemented by USDA/PASA and SBA/RONCO. The findings and recommendations are based on a review of all major project documentation for the project, discussions with USAID and GSDR officials, and contractors concerned with the project. In addition, site visits were made to a proposed quarantine site, a marshalling yard, the Serum and Vaccine Institute, private feedlots and feed mills, and forage and livestock markets. Interviews were conducted with officials of the Somali Development Bank, Somali Commercial and Savings Bank, and the Livestock Marketing Board. Interviews also were conducted with project beneficiaries, including livestock traders and other individuals concerned with livestock production for export.

The Evaluation Team conducted the study and completed a first draft of this report during the period January 24 - February 14, 1988. Members of the team are:

Mr. Calvin Boykin, Livestock Economist/Marketing Specialist (Team Leader).

Dr. Patrick Moriarty, Agricultural Economist/Credit Specialist.

Mr. Cleon Kimberling, Veterinarian.

The team members appreciate the assistance of USAID/Somalia, the remaining contractors, the General Manager and his staff of LMHP, and others contacted during this evaluation.

## Table of Contents

	Page
I. Project Identification Data and Glossary of Terms	1
II. Summary	5
III. Evaluation Methodology	6
IV. Project Design and Objectives	9
A. Background	9
B. Conclusions	10
C. Recomendations	11
V. Project Implementation and Management	12
A. Background	12
B. Conclusions	13
C. Recomendations	15
VI. Project Activities	17
A. Quarantine Station Development	17
1. Background	17
2. Conclusions	18
3. Recomendations	21
B. Livestock Investment Fund	22
1. Background	22
2. Conclusions	24
3. Recomendations	28
VII. Technical Assistance and Studies	29
A. Long Term	29
1. Senior Veterinary Advisor	29
a. Background	29
b. Conclusions	30
c. Recomendations	31
2. Junior Veterinary Advisor	32
a. Background	32
b. Conclusions	33
c. Recomendations	33
3. Feedlot Advisor	34
a. Background	34
b. Conclusions	35
c. Recomendations	35
B. Short Term	36
1. Domestic Marketing	36
a. Background	36
b. Conclusions	37
c. Recomendations	38
2. International Marketing	39
a. Background	39
b. Conclusions	40

c.	Recomendations	41
3.	Socio-economic Study	42
a.	Background	42
b.	Conclusions	42
c.	Recomendations	43
4.	Administration and Management Assistance	43
a.	Background	43
b.	Conclusions	44
c.	Recomendations	45
5.	Private Sector Assistance	45
a.	Background	45
b.	Conclusions	46
c.	Recomendations	47
VIII. Project Evaluation Summary		47
A.	Summary	47
B.	Evaluation Methodology	48
C.	External Factors	48
D.	Inputs	49
E.	Outputs	49
F.	Purpose	49
G.	Goal/Subgoal	49
H.	Beneficiaries	50
I.	Unlearned Lessons	50
J.	Unplanned Effects	50
K.	Special Comments	51
L.	Special Questions	52
M.	Long-term Project Prospects	59
IX. Appendices		
A.	Bibliography of Personnel and Agencies Contacted	60
B.	Bibliography of Documents Reviewed	62
C.	Timeline for Constructing Quarantine Facilities	65

I. PROJECT IDENTIFICATION DATA AND GLOSSARY OF TERMS

Country : Somalia  
 Title : Livestock Marketing and Health

Original Project Paper: 649-0109

<u>Date</u>	<u>USAID Appropriated</u>	<u>Somalia Contribution</u>	<u>PACD</u>	<u>Primary Purpose CODE</u>
07-12-84	11,000,000	5,500,000	06-30-88	133

<u>Date</u>	<u>USAID Appropriated</u>	<u>Somalia Contribution</u>	<u>PACD</u>	<u>Primary Purpose CODE</u>
08-20-86	17,000,000	16,000,000	12-31-89	131

Midterm Evaluation Scheduled: November 87; Completed: February 88.

Project Components: Quarantine facilities; Livestock Investment Fund; Studies

Implementation: The Ministry of Livestock, Forestry and Range is responsible for implementing the Project. Most implementation activities are the responsibility of the Livestock Quarantine Unit.

Contracting: All contracting is done under the USAID direct contracting mode except commodity procurement.

Contracts to Date: RONCO-Technical Assistance (Marketing); USDA (PASA) - Technical Assistance (Quarantine); USDA (PASA) - Mission Staff Support.

Responsible Mission Officials\*

Director	Lois Richards
Deputy Director	Dale Pfeiffer
Executive Officer	Edward Aker
Agr. Officer	Ralph Conley
Project Officer	Phillip Warren
Asst. Project Officer	Pamela Procella

Responsible Somalia Officials\*

Minister of Livestock	Bile Rafle Guleed
Director of LMHP	Abdiweli Sheik Ahmed

\* See Appendix A for listing of USAID and Somali Project Personnel, and others contacted during the evaluation.

## GLOSSARY OF TERMS

ADO	Agriculture Development Office, USAID/Somalia
AID	Agency for International Development
CBPP	Contagious Bovine Pleuropneumonia
CDSS	Country Development Strategy Statement
CID	Consortium for International Development
CIP	Commodity Import Program
CIPL	An account in the Ministry of Finance containing the local currency proceeds of the CIP and PL-480 Programs
CSB	Somali Commercial and Savings Bank
ENG	Office of Engineering, USAID/Somalia
GSDR	Government of the Somali Democratic Republic
GSP	Generated Shilling Proceeds Committee: the committee that passes upon requests for CIPL funding
IFAD	International Fund for Agriculture Development
IQC	Indefinite Quantity Contract
IRR	Internal Rate of Return
LDA	Livestock Development Agency
LIF	Livestock Investment Fund
LMHP	Livestock Marketing and Health Project
LQU	Livestock Quarantine Unit
MLFR	Ministry of Livestock, Forestry and Range, GSDR
NRA	National Range Agency, an autonomous agency in the MLFR
ODA	Overseas Development Agency,
OIE	Office International des Epizooties

PASA Participating Agency Service Agreement  
PEA Private Enterprise Advisor  
PID Project Identification Document  
PO Project Officer  
PSC Personal Service Contract  
PTR Department of Planning, Training and Research,  
MLFR  
SBA Small Business Administration  
SMO Supply Management Office, USAID/Somalia  
SVI Serum and Vaccine Institute  
TA Technical Assistant

## II. SUMMARY

The livestock industry is the backbone of the Somali economy. The livestock marketing sector, including the pastoral system of herd management, supports from 60 to 80 percent of the population and generates 75 percent of the country's export earnings. Since 1974, at least 90 percent of the hard currency earned by exports of live animals from Somalia have resulted from sales in Saudi Arabia. In May 1983, the Saudis placed a ban on the importation of all cattle from East Africa, based on the fear of introducing rinderpest into Saudi cattle herds. As a result, the ban on the exportation of Somali cattle to Saudi Arabia has severely reduced foreign exchange earnings, and has created an emergency situation, which has escalated the need for a quarantine system to the highest priority.

In late 1983, a PID was drafted by USAID/Somalia and the MLFR, responding to the ban and other issues related to livestock marketing and health. A project paper was written to meet the immediate needs of Somalia's livestock producers and traders by establishing a quarantine system for export cattle. In addition, a series of studies were planned to better define the livestock marketing and health situation as a basis for designing a long-term livestock assistance project. As the LMHP was established in 1984, the goal was set to support the expansion of Somali livestock exports and foreign exchange earnings and to increase the income and welfare of the Somali people over the next decade. The LMHP purpose is twofold: (1) to restore the contribution of cattle exports to the Somali balance of payments, and (2) to lay the conceptual basis for a broader approach to strengthening the Somali livestock industry.

Whereas the immediate LMHP concern was upgrading quarantine and related export facilities, the original design was deemed by USAID as insufficient, and a more comprehensive and inclusive design was prepared. Unable to receive satisfactory bids for construction, the quarantine facilities have yet to be completed near the ports of Kismayo, Mogadishu and Berbera. The project also calls for the provision of supplies and equipment to the project for vaccination before and during cattle quarantine, an activity that has been stalled for lack of quarantine station construction. Nevertheless, technical assistance has been provided, although the effectiveness of these advisors has been severely limited, also due to lack of progress in construction.

During project design, provisions were made for assisting the private sector in importing farm machinery for use in forage/fodder production, and livestock transport equipment for use in transporting quarantine cattle to the ports. These needs were addressed by establishment of the Livestock Investment Fund, scheduled to provide hard currency for purchases of farming and livestock transport equipment through a program similar to the Commodity Import Program. Following unification of the exchange rate, coupled with delays in constructing quarantine facilities, the LIF has not been used.

Despite these limitations, the LMHP with local currency, has been obliged to assume some of the responsibilities designated for USAID in quarantine station improvement in order to maintain and increase Somali livestock exports to non-Saudi Arabian markets, including Egypt and North Yemen. Private sector livestock traders constitute the primary beneficiaries of this meager effort and will continue to benefit from the project once the new quarantine system becomes fully operational. Cattle herders are also expected to benefit from the project since the demand for their animals will increase and, as offtake rates increase, grazing pressure of the range will decrease. Farmers who produce forage/fodder will benefit from growth in demand and increase of these product prices stimulated by the forage/fodder needs of the quarantine systems. The remainder of the Somali population should also benefit from the increased foreign exchange entering the economy as a result of the project.

In order to complete the goals and objectives of the project, however, reliance should be placed on adding Code 935 firms in the building process on construction of the quarantine facilities, a move to reduce costs without calling for a redesign. Additional technical assistance should be arranged, the costs allayed somewhat by a reduction in construction costs. An extension of the project seems essential for successful completion of the project, and indications are that additional funding may well be required.

### III. EVALUATION METHODOLOGY

This report concerns the mid-term evaluation of Livestock Marketing and Health Project (LMHP). The primary objective of the evaluation is to review implementation progress and to recommend changes as deemed appropriate by the Project Evaluation Team. As a secondary objective, the project evaluation contains an assessment of progress relative to

the LMHP's purpose and goals. The project evaluation was conducted by a three-man team, consisting of a livestock economist/marketing specialist (team leader), an agricultural economist/farm credit specialist, and a veterinarian. Services of these outside consultants were provided by an Indefinite Quantity Contract (IQC) with the Consortium for International Development (CID).

The Project Evaluation Team arrived in the Somali Democratic Republic January 24, 1988, and, after completing a draft project evaluation report and discussing findings, conclusions and recommendations with USAID/Somalia and LMHP personnel, departed Somalia on February 14, 1988. The key documents and project papers studied and the personnel with whom the Project Evaluation Team interacted are listed in the appendices.

Findings, conclusions and recommendations in this report are based on standard outlines for evaluating USAID projects, together with a set of questions and suggestions concerning the LMHP provided the evaluation team by USAID/Somalia. In addition to a review of existing LMHP documents, project papers and other background materials, a series of contact interviews and discussions were held with USAID/Somalia personnel associated with LMHP. These included the Agricultural Development Officer, the LMHP Project Officer and Assistant Project Officer, and the remaining USDA/PASA and SBA/RONCO contractors assigned to the LMHP. Interviews were held with other USAID/Somalia officers, including the Engineering, Controller, Commodity Management and Evaluation officers. Regional AID officials from Nairobi who play a role in project implementation, including the Legal Officer, were interviewed during their brief assignments with USAID/Somalia while the Project Evaluation Team was in Somalia.

Prior to the Project Evaluation Team's arrival in Somalia, contacts were made by telephone in the U.S. with the former USAID/Somalia Agricultural Development Officer and with one of the former USAID/RONCO contractors assigned to the LMHP. While passing through Nairobi on the way to Somalia, the Team contacted the Agricultural Officer, REDSO/ESA, who was a member of the USAID project design team.

Interviews were conducted with the Minister of Livestock, Forestry and Range (MLFR), the General Manager and Assistant General Manager of the LMHP, and managers of various departments in the LMHP, particularly those heading the departments of Administration and Finance, Personnel and Training, Private Sector, Quarantine Office, and Marketing.

Host country officials of the Serum and Vaccine Institute/Mogadishu conducted a tour of the facilities for the Project Evaluation Team and explained the procedures for making vaccines and noted the progress made in a security facility financed by the project, for testing the efficacy of the vaccines. A site visit was made to LMHP's semi-quarantine facility at Warmahan, the site designated for constructing the quarantine station for cattle exported from Mogadishu. The veterinary officer in charge discussed the nature of handling and vaccinating cattle in quarantine, the availability of grazing, and demonstrated the use of water facilities serving the needs of cattle then at the station and being trekked to the marshalling yard at Mogadishu. Subsequently, a site visit to the port included a view of the marshalling yard and of the docks.

A visit was made to the MLFR's feed mill and experimental feedlot outside Mogadishu to ascertain the state of the operation geared to providing information to cattle fatteners. In addition, questions were asked regarding the availability of feeds and forage/fodder, and the constitution and treatments of these feeds in producing rations both for fattening cattle in small feedlots and in the quarantine stations to be constructed. Outside Mogadishu to the west, a similar private company feedlot was visited by the Project Evaluation Team. Here cattle were being fattened, and an interview was conducted concerning the availability of feed, forage/fodder, water, and the operation of the feedmill and feedlot facilities. The team also visited a privately-owned mill in Mogadishu, one that will be processing concentrate feeds for the poultry, dairy and cattle fattening subsectors. The manager and consulting engineer discussed plant operations and the availability of concentrate feeds, minerals, and by-products of cotton and food crops, including grains, fruits and sugar cane.

The Project Evaluation Team, along with the General Manager, LMHP, conducted in-depth discussions with presidents and their aides of the Somali Development and the Somali Commercial and Savings Banks, both located in Mogadishu. Discussions centered on the banks' current participation as a handler of credit to the private sector under the present livestock export system, together with indications of interest in the export system involving quarantine, vaccinations and trucking to the marshalling yards.

In an attempt to assess the interests and capabilities of those expected to participate in and benefit from the

purposes and goals of the LMHP, the Project Evaluation Team visited with a number of forage/fodder producers, livestock traders and exporters, and officials of the Livestock Marketing Board. In this endeavor, visits were made to the principal forage/fodder market and the main livestock market in Mogadishu. At these markets, both sellers and buyers were interviewed concerning supplies, quality and prices. Some insight was gained into the effects of livestock exporter needs for forage/fodder and cattle on these markets.

Subsequently, the Project Evaluation Team and the General Manager, LMHP, held lengthy discussions at the Livestock Marketing Board with a large group of livestock exporters concerning their interests and capabilities for participating in and benefiting from the LMHP. Some 20 livestock exporters, representing trading companies in the north as well as in the south of Somalia, participated in these discussions. The results of this meeting, together with a meeting the next day with the Permanent Secretary of the Livestock Marketing Board, provided the Project Evaluation Team with insights into the livestock exporting system, the associated costs and problems, and the interests and capabilities of the expected participants in earning the benefits associated with LMHP.

In the course of all personnel contacts, site visits, and interviews, comparisons were made between the LMHP purposes and goals and the levels of project implementation, including the obvious gap between the planning and implementation of the quarantine stations, development of a rinderpest vaccination program for cattle designated for export, and establishment of a means for using the Livestock Investment Fund. In addition, progress toward providing a domestic and foreign market information and news service was taken into account. As observations were made on the timing and implementation of the several components of the LMHP, suggestions were made for moving ahead without further undue delay. For each project element, a brief background was prepared, conclusions drawn, and recommendations made.

#### IV. PROJECT DESIGN AND OBJECTIVES

##### A. Background

In 1983, threat of a rinderpest outbreak in Africa caused Saudi Arabia to ban shipments of cattle from Somalia and several other African countries, closing what had been nearly the only export market for Somali cattle. The total number of all Somali cattle exported dropped from 157 thousand head in 1982 to 54 thousand in 1983, and eight

thousand head in 1984. The total value of all Somali livestock exports, having reached the recent ten-year high of U.S. \$105.7 million in 1982, dropped to U.S. \$70.0 million in 1983 and U.S. \$31.1. in 1984, largely as a result of sharply declining cattle exports.

In response to the Saudi ban on Somali cattle imports, USAID in 1984 designed the Livestock Marketing and Health Project (LMHP), geared specifically for assisting Somalia in reopening the cattle market in Saudi Arabia. While the primary goal of the project is construction and operation of quarantine stations, including rinderpest vaccination of cattle designated for export, the project embraces a series of studies and technical assistance, including veterinary and feedlot services, domestic and international marketing, socio-economics, administration and management, and private sector assistance.

In the project agreement the major components are: quarantine and animal health, calling for construction of three quarantine stations, a vaccination program and attendant technical assistance; a Livestock Investment Fund which can be utilized by the private sector (livestock traders and forage/fodder producers) to purchase equipment for fodder production and trucks for transporting cattle to the ports; and technical studies designed to assist GSDR and USAID in better understanding of the characteristic trends and potentials of the Somali livestock industry. Also, the plan is to further develop the means for assisting the GSDR in serving the needs for both the current and long term marketing and health program.

Total budgets for project activities in the original project paper were \$16.5 million, with USAID contribution of \$11 million and GSDR \$5.5 million equivalent in local currency. Because of stepped-up design of the quarantine stations, the project paper was amended, with the total project budgets raised to \$30 million. USAID's obligation amounts to \$17 million and GSDR's obligation \$13 million. A five-year project life was foreseen, beginning in 1985 and ending December 31, 1989.

#### B. Conclusions

Construction of the quarantine facilities has been delayed about two years because of redesign requirements and the difficulties in developing specifications suitable for obtaining satisfactory bids through the USAID direct contracting arrangement. Received bids have been higher than the budget allocation for this purpose, and the project

appears to have reached an impasse. Considering the delay in construction start-up, timely use of USDA/PASA and SBA/RONCO advisors, in most cases has not been attained. GSDR officials in the Ministry of Livestock and with the LMHP are understandably concerned about why construction has not begun.

Due to the urgent needs to provide water and fencing for the isolation of cattle now being processed for non-Saudi export, GSDR was forced to take on some of the responsibilities of USAID in the project agreement. With local currency, wells have been drilled or rehabilitated, water troughs built or rehabilitated, and perimeter fence installed at the Warmahan, and Lahaley quarantine stations. Improvements have been made in the marshalling yards at Mogadishu, Kismayo and Berbera. Improvements at the Arori holding grounds near Berbera, where sheep and goats are held prior to export, include renovation of wells and water facilities, fence construction, and installation of vaccination facilities. Improvements have also been made in staff houses and offices at Warmahan and Lahaley. Further GSDR investments in local currency are planned for a LMHP headquarters and construction of a 30km road between Kismayo and the Lahaley quarantine station.

Since the signing of the project agreement in 1985, GSDR has supported the LMHP by providing 22 new vehicles, equipment and supplies. Meanwhile, USAID support, pending completion of the quarantine stations, has been limited to only a few vehicles, some office furniture and equipment, a computer, and photocopy machines.

In fulfilling the project agreement, the GSDR early on provided the services of a selected staff for the project, while USAID provided three long-term and five short-term technical advisors. Training of the LMHP staff, other than on the job training, has consisted of brief studies and workshops. Five participants inspected quarantine and feedlot operations in USA, Mexico, Saudi Arabia, Egypt and Turkey, seven participants took a three week management course given by USAID in Somalia, and three graduates were sent to USA for training in marketing, feedlot management, and feedlot veterinary services.

### C. Recommendations

The most urgent need for some time has been to complete the planned construction of the quarantine stations. As discussed later, this may be obtained by a waiver of the nationality of contractors, thus allowing more firms from developed countries to bid on the contract.

At the same time, consideration should be given to scaling down the design of the quarantine stations without sacrificing any of the integrities of the quarantine system. In the announcement for bids, alternative construction levels should be noted and the bidding prepared in these terms. Additionally, the bids should include a series of unit costs for the various components, as well as total costs for completing the contract. No redesign of facilities should be anticipated.

It should be anticipated that the bids will, therefore, come within the range of the funds budgeted for construction. However, it would be highly desirable to retain a remaining margin in the budget for increased technical assistance. Otherwise, there will be a need for requesting additional funding. Also, as discussed later, the accomplishments of the advisors, for the most part, have been limited because of quarantine construction delays. Recommendations for extending or bringing in additional technical assistance should be given high priority, particularly in the fields of veterinary services, credit and livestock marketing. Terms of the feedlot management and the administration and management advisors should be extended. Thought should also be given to bringing in a machinery company representative to demonstrate the use, care and maintenance of forage harvesting equipment. These items are discussed more fully later in this report.

Overseas training of project personnel in quarantine and feedlot management, veterinary services, and livestock marketing has largely been effected through visits to highly sophisticated installations in more highly developed countries. Such training would be more beneficial if conducted on similar sites in the less developed countries, such as Kenya, Malawi and Botswana, to name a few. Further, arrangements should be made with project personnel seeking long-term training in the U.S. or other more developed countries to assure their return to positions on the project and completion of a term of work equivalent to the USAID and GSDR expenditures for their education.

## V. PROJECT IMPLEMENTATION AND MANAGEMENT

### A. Background

The design of the Livestock Marketing and Health Project, with its wide variety of the largely activities and attendant disciplines, presents a formidable implementation and management challenge. These difficulties have been further aggravated by the delay in the quarantine station

construction, the centerpiece activity on which the success of most of the other activities depend. The complexity is somewhat alleviated by the fact that all of the activities are channeled through one project unit, the Livestock Marketing and Health Project Unit of the Ministry of Livestock.

It is recognized that there are in fact two management centers within the project, with the line authority for implementation being with the Somali project unit and with the USAID Project Manager who administers the AID participation in the project. While the Somali participation is discussed in this and other sections of the report, the Evaluation Team mainly concerned itself from a management standpoint with the AID project management performance and the overall Mission management support that was provided to the project.

There has been an unusual degree of continuity of project management with the Assistant Project Manager being on board since the project's inception and the Project Manager and previous agricultural program officers being here throughout most of its implementation.

Most of the planned technical assistance has been completed or is in process, which allows the management track record to be evaluated. The handling of the difficult process of trying to meet all of the requirements and overcome all of the obstacles in attempting to complete the quarantine station construction may be the best measure of management.

It is also recognized that the technical assistance was assembled from various sources and that the participants worked under varying employment arrangements. However, since it is assumed that the project management is responsible for managing the activity regardless of the source of the participants, no distinction is made.

Another important factor in evaluating the implementation and management of this project is its relative importance and the urgency attached to its completion. In this case, the record is well documented as to the urgent, almost emergency, need for the completion of this project to which both countries are heavily committed.

## B. Conclusions

The timing of some of the technical assistance was unfortunate due to the delay in the quarantine station construction and thus was premature and often ineffective.

Because of the long lead time required to assemble these activities, management could hardly have been expected to foresee many of the problems. However, once the timing problems were evident, project management did not move aggressively to make adjustments in timing or redirecting the activities in view of the changed circumstances. They were usually allowed to run their course regardless of the consequences.

Despite the timing problems, most of the technical assistance activities could have had a more beneficial impact if the technical advisors had been more forcefully directed to concentrate on the accomplishment of the project goals. In several instances, they veered sharply off course and failed to accomplish major portions of the scope of activities for which they were responsible. This was particularly true of several of the one-year advisors under the SBA/RONCO contract. Project management has not required sufficient control and accountability in its technical assistance activities, a factor which has contributed to weak performance in many of the activities.

Some of the problems resulted from failure on the Somali side to provide an effective counterpart arrangement. The Project Manager should have been more alert to such problems and insisted that they be corrected. In addition, local currency funded construction on the project is also approximately two years behind schedule, due to GSDR's inability to get an adequate design approved and a contract negotiated. Mention should be made also that the project did not provide adequate logistical support to the advisors, which was a significant factor in reducing their work accomplishments.

Several of the technical assistance activities appear to be misplaced in the LMHP unit in that they are not closely related or necessarily supportive of the primary line responsibility of that unit. This presents problems in furnishing suitable Somali counterparts from the staff of the LMHP unit, as well as for their managers to provide them effective direction and control. It also limits contacts and relationships with government officials and others who have more expertise and are involved in activities more clearly related to the technical aspects of the assistance.

Project management has shown considerable ingenuity and resiliency in attempting to overcome all of the obstacles to the construction of the quarantine stations. If fault is to be found in their performance in managing the project, it is

that they did not challenge an obviously elaborate design and anticipate the difficulties in developing specifications suitable for bidding. From the tracking of the processing of this project, it is evident that long delays were tolerated in design changes and reviews, specified. Approvals and clearances, budgeting and documentation also moved very slowly. There was rigid insistence on strict compliance with all rules and regulations and the top management of the Mission was apparently not sufficiently concerned to push for expeditious handling of a program that was recognized as having a highly critical economic and political impact. This lack of support was a significant factor in the construction delay.

While a recent memo from the current Mission Director has designated the project as being one of high priority, the Evaluation Team did not have the opportunity to discuss the Director's plans on the issue. Based on our interviews, contacts and review of documentation, however, our assessment is that enthusiasm and support within AID for the LMHP, outside of the project participants themselves, has been relatively weak, and changing this attitude may require considerable attention from top management. This lack of support has not been lost on Somali officials. The General Manager of LMHP has complained that while he was expected to represent the Somali side in making decisions and being accountable for performance, his counterparts in the project have no comparable responsibility or authority, and he does not have ready access to the high ranking officials who do. He and others see the AID management system as being hamstrung with rules and restrictions from which no leeway or options are possible. Further, there is a lack of communications with the Somali side on the rationale for such determinations; thus the decisions often appear to be arbitrary.

The Evaluation Team's discussion with the Minister of Livestock and others across the whole spectrum of governmental and business officials familiar with the program reflected a high level of frustration and outrage, which may not be fully recognized within AID.

#### C. Recommendations

1. An assessment should be made of the impact of the quarantine stations' delay on the effectiveness of the existing and pending technical assistance activities and any indicated modifications, delays, or cancellations should be initiated.

2. A documented management plan should be developed to provide direction and guidance in the management of technical assistance activities associated with LMHP to include:
  - (a) Procedures and administrative requirements for the development of technical assistance activity scope and objectives to assure they support overall project objectives.
  - (b) Procedures and administrative requirements for the direction, monitoring, reporting, control and follow-up of technical assistance programs to determine level of performance and progress in achieving project objectives.
  - (c) Procedures and administrative requirements for the establishment of counterpart relationships which coordinate the USAID and Somali objectives for the activity and provide guidance for resolving conflicts.
  - (d) Performance evaluations for all technical assistance participants on an annual or end of tour basis, with feedback provided to any participating agency or contractor group involved.
  - (e) A structured formal program for regular communication and orientation to include staff meetings, reference letters and memorandums and conferences related to (a) thru (d) above.
3. Regular joint USAID/LMHP project communication channels should be established for joint staff meetings (with an agenda), the interchange of activity reports and directives issued by the respective units and other communication links to improve understanding and cooperation.
4. If AID cannot provide support and technical assistance to project activities not directly involved in the construction and operation of the quarantine station and livestock export operations, they should be split off and placed outside of the LMHP.
5. An internal study should be made of the timeline data on hand relative to processing and handling of the quarantine station construction program as a basis to improve the overall Mission management and

administrative support of future projects.

## VI. PROJECT ACTIVITIES

### A. Quarantine Station Development

#### 1. Background

Epidemics of rinderpest have ravaged the cattle populations of Africa, Europe, and Asia since the recorded history of man. The disease is infectious and extremely contagious, with high morbidity and mortality. Historically, rinderpest has caused greater economic loss than any other single cattle disease. Rinderpest has been eradicated or successfully controlled in all cattle producing areas in the world except Africa, where it remains endemic. Vaccination campaigns, such as the JP 15 International Rinderpest Eradication Program, terminated in 1975. The disease has reappeared in S.W. Ethiopia, spreading to adjoining areas due to the migration of nomadic cattle herds. The lack of a disease monitoring system makes figures on occurrence and distribution highly speculative. The Somalia cattle population for 1986 was estimated at 5,487,000. The Serum and Vaccine Institute reported 322,000 cattle vaccinated for rinderpest in 1986, with a high proportion of the vaccine estimated to be used on animals in quarantine for export. This leaves Somalia with a highly susceptible cattle population vulnerable to a nationwide epidemic.

Saudi Arabia, until 1983, was the importer of the major portion of Somalia's export cattle production. An outbreak of rinderpest in Saudi Arabia was reported to have been traced to cattle originating from Somalia. Thus, the government of Saudi Arabia placed an embargo on importing cattle from Somali until an adequate quarantine system had been established. Speculations evolved about other reasons for an embargo, but health and condition of the animals are sufficient justification.

In a meeting, 25 May 1983, Mohamed Omar Jama, Somali Minister of Commerce, met in Saudi Arabia with Dr. Sulaiman A.S.. Minister of Commerce/Saudi Arabia concerning the ban against Somalia cattle due to the possible reappearance of rinderpest in Somalia. In a letter concerning this meeting it was discussed and agreed upon that:

- a. "All Somali cattle exports to the Kingdom of Saudi Arabia will be effected through the following three ports only: Berbera, Mogadishu

and Kismayo.

- b. The names, titles and specimen's signatures of port veterinary certificates will be submitted to the Saudi competent authorities through the commercial office in Jeddah.
- c. The Somali government will immediately invite the F.A.O. and O.I.E. to send a team of animal health experts to examine and verify the rinderpest situation in Somalia and report their findings to both Saudi and Somali governments
- d. The Somali government undertakes that it will improve, strengthen and develop further the principal of quarantine stations in which all cattle exports will be subjected to the necessary vaccination and detained for a minimum period of 21 (twenty-one) days prior to shipment."

To comply with the International Zoo-Sanitary Code of the Office International des Epizooties Amended Edition 1982, Article 2.1.2.6, the importing country must: "In the case of importation from countries considered as being infected with rinderpest, veterinary administrations of importing countries should require: for domestic ruminants and pigs for breeding or rearing or slaughter, the presentation of an International Zoo-Sanitary Certificate attesting that: 1) On the day of their embarkation, the animals showed no clinical sign of rinderpest; 2) The animals were in the territory of the exporting country for 21 days preceding their embarkation or since their birth, in an establishment in which no case of rinderpest had officially been declared during that period, and that that establishment of origin is not situated in an "infected zone" of rinderpest; and/or 3) The animals are kept in a quarantine station for 21 days before their departure."

Completion of the International Zoo-Sanitary Certificate and Vaccination procedures are outlined in Article 2.1.2.8.

## 2. Conclusions

Somalia currently has a veterinary inspection and an extensive type quarantine system for the export of livestock which meets the requirements of some importing countries, specifically N. Yemen and Egypt. Cattle are processed according to the requirements (this includes rinderpest vaccinations) of the importing country, identified by ear

tags, placed in one of the three quarantine stations (Warmahan, Lahaley, or Berbera) for a 21 day observation, and trailed to the servicing port for loading. The present quarantine stations, with additional security (a well patrolled, good perimeter fence) and a provision to transport the animals from the quarantine station, would satisfy the provisions set forth by the Saudi health authorities and the International Zoo-Sanitary Code. At present, the quarantine stations are extensive, the only feed being the native grasses or browse. Maintaining any resemblance of isolation is difficult, both in the quarantine area and trailing to the port marshalling area. Not only is direct contact with unprocessed animals a problem, but unprocessed animals can become part of the shipment.

Prior to the Saudi embargo in 1983, USAID/Somali had conducted a livestock study assessing the needs of the livestock industry. Following the Saudi embargo, the Somalia Ministry of Livestock and USAID/Somalia developed a Livestock Marketing and Health Project, dated 12 July 1984 and amended 20 August 1986. The main objective was to construct and operate three quarantine stations. These were designed as intensive quarantine facilities within the existing stations. The perimeter fencing on the existing stations was to be replaced with an adequate fence to keep all livestock out of the extensive area, thus providing isolation for the intensive quarantine. This fence has been built and is being maintained by the Somalia government in accordance with their agreement in the contract. Water facilities have also been developed by Somalia, fulfilling a USAID obligation.

The decision to develop a feedlot-type system rather than an extensive system, dependent upon grazing and browsing, was made by USAID during project design, based on the difficulty of patrolling the extremely extensive fencelines due to the fact that even the largest and most productive station could not produce enough forage and would require additional fodder to support the number of cattle in quarantine for export. USDA did the original design of the newly proposed facilities based on this decision. Parsons, Brinkerhoff International, Inc. was contacted later to re-draft the drawings produced by USDA and to reduce the size of each station from 24,000 to 18,000 head of cattle, although PBI did not change the design. Delays came mainly from the USAID's underestimation of costs during design of the project plan, making it necessary to verify USDA's cost estimates and ask USAID/Washington for more money. The Evaluation Team's veterinarian indicates that the design is

excellent, but can be criticized as being overdesigned in view of the disposition of the animals being handled; a less expensive facility would achieve the same goal. Due to the elaborate design and miscalculation on estimated costs, the bids were not acceptable. This, coupled with administrative delays at all levels and the lack of administration priority has caused the project to be far behind schedule.

The Evaluation Team at first felt that the decision made by the USAID/Somalia Director to require an AID direct contract for construction of the quarantine stations delayed progress in reaching the bidding stage. However, subsequent information received indicates the process of letting bids under a host country contract likely would have required about the same amount of time. Indications are that Somalia has limited contracting and monitoring capabilities. In either type of contracting method, AID does the supervising, and all the AID rules have to be followed as well. Because of the delays involved in the present contracting method, USAID has suffered reduced credibility in its ability to produce. The delays have had a rippling effect, causing inefficiencies in the use of technical assistance and above all, further delaying Somali exports of cattle to Saudi Arabia.

Although alternative export markets have been developed in N. Yemen and Egypt, the Saudi market is vital to the economy of Somalia. The need for a quarantine facility remains urgent. The development of the proposed quarantine facility will not only reopen the Saudi market, but will assure the continuation of the N. Yemen and Egyptian markets, with the possibility of expanding markets to other countries. The quarantine system will provide for the control of contagious diseases other than rinderpest and serve as a preconditioning for shipping. These animals have spent a lifetime (4 or 5 years) free of confinement and are unaccustomed to feeding on baled hay, maneuvering horns into feed bunks, and watering facilities. They are suddenly placed in confinement for 7-10 days on a ship. This produces extreme stress, a predisposing factor for disease and debilitation. The 21-28 day confinement period will accustom animals to confinement and a similar type of feeding and watering system, as they will be subjected to during shipping. This will greatly reduce stress, thus minimizing disease. Animals will also arrive in better condition, a factor equally as important as disease control.

### 3. Recommendations

The design of the quarantine facility is first class, with need for only minimum maintenance. Many items within the system are very elaborate, and the function could be performed with a simple, less expensive design. A redesign of the facilities is not recommended, for this would cause further delays, and the expense of engineers for redesign may be economically counterproductive. However, certain modifications should be made in the facilities to reduce costs. One example of cost reduction would be in dipping vats. The costs involved with building a dipping vat totally above ground so that the vat can be drained by gravity, thereby not depending on a motorized pump for cleaning, is questionable. Dipping vats are normally cleaned following 10,000-15,000 or more animals. A simple gasoline powered pump could be used efficiently for this purpose. One must weigh the cost savings of a non-elevated dipping vat against the dependability of a gravity dip. A spray race in place of the dipping vats would be a cost savings but has the disadvantage of maintenance, although many large ranches in Kenya spray 6-10,000 cattle weekly with minimal difficulties. Other design changes could be made to reduce expenses while still maintaining the integrity of a quarantine system. At this point in time, it is evident that any further delays will be economically inefficient and politically disastrous. Therefore, it is not recommended to nit-pick at fine points of the engineers' design. Rather attempts should be made to find options to reduce the overall costs and to stay within the confines of the allocated funds. Given the current funding, we must therefore consider other options for reducing overall costs. The following are recommended:

- a. Build one fully designed quarantine station at, for example, Warmahan. This option could provide an intensive, fully accredited quarantine for animals destined for nations requiring the ultimate in disease prevention. The stations at Berbera and Kismayo could be upgraded with a well-monitored concrete perimeter fence, retaining their extensive nature. The only other expense would be to upgrade the processing facilities. Under proper veterinary supervision and transport from the station to the port, these stations could comply with all regulations as outlined by the Office International des Epizooties in the International Zoo-Sanitary Code. This system may require trailing or transporting cattle over longer distances to arrive at Warmahan, if animals are originating near one of the other stations. If this option is not realistic

consider the option below.

- b. Maintain the concept of three stations with construction at Warmahan first. To complete three stations, eliminating certain components, will be necessary to reduce the costs. Elimination of the post-processing area, except for a loading facility, would save considerable funds and not compromise the guarantee of healthy animals. Other cost reductions could be the elimination of cells. This would reduce the capacity. The capacity could be increased in the future as markets are developed. Elimination of two cells per unit would reduce the capacity by one-third, which would still satisfy the current demands.
- c. To expedite the project, accept bids from AID Geographical Code 935 contracting firms.
- d. If there are any delays for any reason on the start of construction, the provisions for a fixed amount reimbursement agreement or other means whereby the GSDR becomes responsible for construction, must be considered.
- e. If there are cost savings from any of the modifications these funds should be used for continued technical assistance in the areas of:
  - a) Administration and management
  - b) Veterinary medicine
  - c) Feedlot management
  - d) Forage production
  - e) Marketing

The scope of work for each technical assistance should include:

- (1) Training of respective counterparts
- (2) Developing, implementing and conducting in-service training for all personnel in respective areas.
- (3) Identifying outstanding individuals to be selected for advanced training;
- (4) Working with the project training officer in developing an overall training program.

## B. Livestock Investment Fund

### 1. Background

From the inception of the Livestock Marketing and Health

Project, it was recognized that the success of the feedlot-type quarantine stations was dependent on a dependable supply of forage and livestock transport. Further, it was recognized that in the long run, a dependable supply of high quality forage would be essential to improvements needed in livestock quality to keep Somali cattle competitive in international markets.

In order to accommodate this need, a \$3,000,000 Livestock Investment Fund (LID) was set up to provide a financial vehicle to procure forage production and harvesting equipment and for livestock trucks and transport equipment. The fund was intended to work along the lines of the Commodity Import Program, whereby hard currency would be provided for the importation of the equipment by private businessmen who would pay for it in Somali shillings. These shillings would then be placed in a special fund and used for project purposes. It was perhaps misnamed as an investment fund, as it was more of a pass-through hard currency credit without actually generating investment in the fodder and transport sectors. It was to be supported by technical assistance through the employment of a Private Enterprise Advisor who would assist in ordering the equipment and provide assistance to fodder producers.

The proposed use of the fund was initially estimated to be \$750,000 for forage equipment and \$2,250,000 for trucks and transport equipment. Local currency equivalent funding of \$500,000 was made to encourage private sector fodder/feed production. The division between forage equipment and livestock transport needs was made on the basis of a rough calculation of the forage and transport required for the operation of the quarantine stations. No specific technical requirements for the use of the fund were established, as this was to be addressed by the technical assistance component of the program.

The LIF has not been utilized to this point, with the various constraints responsible for the inactivity being cited as:

- a. Lack of term credit to local producers;
- b. Uncertainty of markets, and thus profitability, of forage operations;
- c. Exchange rate imbalance;
- d. Lack of promotion.

Most of the proposals for the use of this fund to this point have been of marginal value in terms of furthering the goals of this project and appear largely designed to exploit the

hard currency credit.

The technical assistance was provided through a one year contract with SBA/RONCO for the services of a Private Enterprise Advisor and was completed in September 1987. The unfortunate timing and the approach used in conducting this activity resulted in leaving the goals of the technical assistance under this activity to be largely unmet. A more detailed discussion of this technical assistance is provided under the technical assistance and studies section of this report.

At this point, there is perhaps an even greater recognition by all concerned of the need for increased production or higher quality forage if the health and quality of Somali livestock in the international market is to be maintained at a competitive level. There is also a consensus that the production and marketing systems that currently exist are woefully inadequate to provide it and provide a major impediment to improvement of the livestock industry.

## 2. Conclusions

It is the conclusion of this Team that the LIF can be a valid mechanism for stimulating fodder production for supporting the quarantine stations and helping meet the increasing need for higher quality cattle through supplemental feeding of forage. To be used and used effectively, however, a major restructuring and reorientation of this program activity is needed.

It is the general consensus that the limited resources provided by LIF should be focused on the rapid development of forage producing enterprises. It is our estimation that the existing truck transport industry could provide for the needs of the quarantine program or that additional resources could be drawn into service without the stimulation provided by the LIF. Further, the use of the fund to purchase trucks would be marginal in terms of its value and difficult to control in achieving the goals of this activity. The exceptions to these restrictions would be the purchase of cattle racks on trailers to be owned by the quarantine stations and used with private truck tractors on a rental basis. This would allow for and assure the proper cleaning and sanitation of the transport used to move cattle to the port.

The timing and other program details must be carefully and realistically planned to maximize the impact and effectiveness of the program and to avoid past pitfalls.

While the program would of necessity be administered by the Livestock Marketing and Health Project, there should be broad based planning involvement, albeit advisory, of all the participants who will ultimately play a role in the implementation. The planning agenda, should include:

- a. Operational plans and timetables for the importation and use of forage equipment and program limits and guidelines.
- b. The amount, terms and conditions of credit extension under the program.
- c. The operational support to be provided.
- d. The technical assistance to be provided.

The following is a discussion of the issues and some suggested approaches to each of the major planning areas. In order to achieve the accomplishment of the project goals within the remaining life of the project and to get some on-line results in increased forage production by the time the quarantine stations are operable, it will be necessary to explore approaches which can expedite the program. One approach would be the active promotion of program participation with the livestock dealers and exporters and the consolidation of machinery orders. This approach carries some risk of excess, but would have a clear advantage in rapid implementation and the scheduling of operational and technical assistance coincident with the on-line use of the equipment. This may also avoid some of the usual problems in servicing and maintenance that have often accompanied a piecemeal approach. There also seems to be a need for a full range of forage production and processing machinery to be available for demonstration and promotional purposes. This may require some purchases of equipment (that could later be resold) through LIF from project funds. Equipment purchases under the LIF should be limited to that which is needed in the individual participant's forage producing or feed processing enterprise. Such limits would prevent exploitation of the fund and would assure the widest distribution of its benefits.

The availability of term credit to finance the purchase of forage equipment is clearly a major impediment to the effective use of the LIF. The local currency fund generated by the purchase of equipment through the LIF has been cited as a possible source of funds for such credit. It is our understanding, however, that these particular funds have

already been advanced and are committed to the construction of the livestock quarantine stations, so their use for funding a credit program is questionable at this time. If funds for a credit program were to materialize, the process for the administration of the credit program would be at issue.

From our assessment of Somali financial institutions, it would appear that they are willing and potentially have the capacity to administer such a credit program. The Somali Development Bank is currently chartered to handle term loans of a development nature and has developed some specialization in the agricultural sector. Their usual loan terms requiring 25 percent equity for financing capital items would seem appropriate. It is also possible that they could serve as a financial umbrella for the importation of consolidated orders of equipment which would later be resold to individual producers on credit.

The Somali Commercial and Savings Bank is currently designated as the financial intermediary in the handling of equipment purchases through LIF. They have also expressed an interest in furnishing operating credit to forage producers operating with modern forage equipment through a coordinated program with the Somali Development Bank.

As essentially government banks which serve primarily as a conduit for government controlled funds, these banks lack the commercial orientation and financial discipline of private commercial banks; however their use in administering credit for forage equipment purchases seems the best option available. Such an approach also has the long-term potential for them to develop a broader agricultural credit capacity and to attract governmental and outside donor funds to the agricultural credit sector.

With the use of modern forage equipment, the farming methods associated with modern forage production present a radical departure from the traditional methods. The operational support which accompanies their widespread introduction is critical. This calls for field trials and demonstration of equipment use, maintenance and care. It also calls for technical recommendations on seed varieties, cultural practices and fertilizer use. Since there is obviously insufficient time for formal research into such matters, the best approach would seem to be an educated analysis using all of the existing data, experience, expertise and other resources immediately available to provide the most rational approach. A model farm approach has been suggested as an approach to provide this guidance. This would seem to be a

cumbersome, expensive approach of questionable value. A better approach would be the use of controlled operations, such as using the quarantine station buffer areas on a rental arrangement with cooperating forage producers and existing feedlot operations.

The amount and nature of technical assistance will largely depend on how the program is developed. Ideally, it would be coincident with the introduction and use of a consolidated purchase of forage equipment and consist of two components. The first would be hands on operational assistance that could be best provided by a manufacturer's representative or other persons intimately familiar with the use, maintenance, care and storage of the equipment. This could be utilized in the planning process, in ordering equipment, and in conducting field demonstrations and workshops as they were needed.

A second possible component would be related to the credit activity. This would consist of a long-term advisory arrangement whereby a counterpart relationship would be established with Somali bank officials and a short-term retainer arrangement made for review and evaluation of the bank accounting systems, controls, books and records in order to make recommendations for improvements in administering agricultural credit programs. The former position would ideally be filled by a senior loan officer of a large commercial bank with a large agricultural loan portfolio such as Bank of America or Wells Fargo. The latter position could be filled by a bank internal auditor or a experienced bank examiner from one of the bank regulatory agencies or public accounting firms.

In planning technical assistance, expertise and experience from within USAID should not be overlooked. The LIF is designed to operate much like the Commodity Import Program (CIP), and experience gained there could be valuable, as could some of the other private sector initiatives such as the Policy Initiatives and Privatization (PIP) program.

It may be an opportune time for a bold initiative in the area of fodder production. The livestock traders and exporters are the most promising group to work with. They have the business sophistication and resources to make such a program work. Also, they are feeling the pressure to improve the quality of Somalia livestock in international trade, which is directly related to feeding problems. Despite the Saudi ban, they almost unanimously agree that animal quality was the major problem and that it could not be solved by improving the quantity and quality of Somali forage.

### 3. Recommendations

- a. The use of the LIF should be limited to the purchase of forage production and feed processing equipment, livestock truck racks or trailers, and for providing the operational support for their use. A reasonable limit to the use of the fund by any one participant would be an amount necessary to purchase a line of forage equipment, approximately \$100,000.
- b. Local currency funds currently committed to the LIF should be used to provide operational support.
- c. Efforts to encourage the use of the LIF should be focused on the livestock dealer organization and its individual members, including their representation in the planning process.
- d. Attempts should be made to expedite the use of the fund through promotional efforts by LMHP and other GSDR units interested in the program, as well as through commercial banks and other commercial channels.
- e. In connection with the above, the consolidation of equipment orders under a financial umbrella arrangement provided by the banks or other commercial establishments or trade groups should be explored.
- f. Short-term advisory arrangements on a retainer basis should be included for the operational support of the equipment introduction and use and for support of the credit program.
- g. Long-term arrangements should be made for a banking and credit specialist to serve on a counterpart basis with officials of the Somali Development Bank and the Somali Commercial and Savings Bank in administering the credit program.
- h. Any credit program should also be coordinated with LMHP officials for assistance in planning, promotion and loan approval recommendations.
- i. USAID LMHP project management should be used to manage the LIF activity with the current feedlot advisory arrangement expanded to include the

operational support for the forage production activities.

- j. USAID and Somali LMHP officials should jointly explore the use of other USAID programs that may provide additional resources and/or technical support to a restructured LIF program. This would include the Commodity Import Program, the Policy Initiatives and Privatization Program, and Sections 106-108 of the PL 480 program.
- k. A sunset provision should be included in the restructuring of this program whereby the commitment to LIF will be withdrawn after two years for any unutilized portion.

## VII. TECHNICAL ASSISTANCE AND STUDIES

### A. Long Term Technical Assistance

#### 1. Senior Veterinary Advisor

##### a. Background

The role of the Senior Veterinary Advisor is to act as chief of party for the Project USDA technical assistance component and be a counterpart to the Director of the Livestock Quarantine Unit of the Ministry of Livestock Forestry and Range. He is to assist the director in design and implementation of policies and procedures for management and operation of the quarantine service.

Specific duties are:

- 1) To advise on development of the Livestock Quarantine Unit including administrative, organizational and implementation details.
- 2) To advise on livestock quarantine regulations and policies.
- 3) To assist in establishing personnel policies and procedures for all personnel concerned with the operation of the Quarantine Unit, including livestock exporters.
- 4) To advise on management of operations for the total quarantine system.

- 5) To assist in developing and implementing overseas and on-the-job training.
- 6) To serve as liaison between all components of the project.
- 7) To serve as an animal health advisor to the Ministry of Livestock, Forestry and Range.
- 8) To make regular reports to the Project Officer on the status of the project.

b. Conclusions

The Senior Veterinary Advisor's tour at duty was November 1985 - December 1987, which was on schedule with the original project paper. During the tenure of the Senior Veterinary Advisor the items covered in the Scope of Work were either fulfilled or initiated, requiring finalization or continuation. A Livestock Quarantine Unit has been established and staffed. Administrative policies, procedures and management for the Unit are being developed with the continued assistance of the Management Advisor. Policies and procedures for the total operation of an internationally recognized quarantine system has been drafted and is being finalized by the Jr. Veterinary Advisor and his counterpart.

The training component of the project was organized. In-country and foreign training and educational tours have been conducted. Further training has been advised and outlined.

Under direction of the Sr. Veterinary Advisor, the importance of the role of the Serum and Vaccine Unit has been emphasized. Construction is currently in progress to build an isolation facility for testing the efficacy of vaccines.

Preventive medicine policies for all livestock have been suggested and will be further strengthened by the Jr. Veterinary Advisor and his counterpart. A procedures manual for logistical operation of the quarantine stations was drafted and is being finalized by the Jr. Veterinary and Feedlot Advisors and their counterparts. An all inclusive, detailed list of equipment and supplies needed to operate the quarantine stations and the Serum and Vaccine Institute's Isolation and Research Unit has been drafted. Some commodities have been procured for the project, while procurement procedures for the quarantine stations and

remaining vehicles have started, although additions and deletions are still being made as some needs and requirements have changed. A project headquarters and staff have been developed and are functioning under the direction of the Project General Manager. Documents have been drafted clarifying the legal authority and areas of responsibility. Action on these is unknown. Problem areas in training, forage production, personnel and delays in construction have been identified. Water for parts of the stations has been developed by GSDR.

The Jr. Veterinary officer arrived in October 1987. The period of overlap between the Sr. and Jr. Veterinary Advisors did not allow time for adequate orientation, according to the Jr. Veterinary Officer. Although the Senior Veterinary Advisor fulfilled the items in the Scope of Work, maximum utilization of his talents was not realized due to the untimely delays in construction of the quarantine stations. This delay has been costly to the GSDR, not only in loss of livestock exports but the cost of maintaining a fully staffed Livestock Quarantine Unit with nothing to do and no purpose in sight.

A drug study was proposed in the project paper. A decree approving the private sector to import Veterinary drugs, dated 15 September 1985, eliminated the need for the study.

c. Recommendations

The implementation schedule for technical assistance can be criticized in view of construction delays. For maximum effectiveness, all functions should be coordinated with the completion of serviceable quarantine stations. Although progress has been made in logistical strategies of developing and organizing a Livestock Quarantine Unit, countless hours have been wasted with endless frustrations due to the construction delay. As the project progresses, USAID/Somalia and the Livestock Marketing and Health Project should consider the feasibility of supplying a Sr. Veterinary Advisor near the completion of construction. This person could:

- 1) Coordinate the health activities and operations of the quarantine stations.
- 2) Train counterparts to assume full responsibility of the quarantine station operations.
- 3) Develop relevant training and educational programs.

- 4) Advise the Ministry of Livestock on developing a national animal health and disease monitoring program.
- 5) Be a liaison between USAID/Somalia, the Ministry of Livestock, and all donor projects with an animal health component.
- 6) Provide in-service training for personnel at all levels.

Although out-of-country training and education is an important factor in developing a total Unit, priority should be given to the immediate needs of the project. This can best be achieved by the use of technical assistance staff capable of providing education and training in the specific areas necessary to operate a quarantine unit. Emphasis must be placed on disease prevention and quality of the livestock. Monitoring of health, diseases and production of the cattle in the system will provide valuable information for improving the health of the overall cattle population. These efforts should be coordinated with the existing diagnostic laboratory system.

## 2. Junior Veterinary Advisor

### a. Background

The Scope of Work in the original project paper, dated 12 July 84 states that the Jr. Veterinary Advisor shall work under the supervision of the Senior Veterinary Advisor to assist the Ministry of Livestock, Forestry and Range in operation of the quarantine system. Specifically, the incumbent shall: "1) Serve as advisor to the three quarantine station supervisors in coordination with the Feedlot Advisor. 2) Assist the quarantine station supervisors in carrying out policies and directives of the Livestock Quarantine Unit. 3) Advise the quarantine station supervisors in day-to-day management and operation of the quarantine station as applies to health and parasite control. 4) Work with the quarantine station supervisor to establish complete procedures for pre-quarantine and quarantine vaccinations. 5) Work with the Livestock Quarantine Unit, quarantine station supervisor, Feedlot Advisor, and Somali National University Faculty of Veterinary Medicine to organize and supervise on-the-job training and in-country training of quarantine service personnel, especially in health related subjects. 6) Advise the Port Veterinary Officer in operation of marshalling yard and port facilities and certification of export animals.

7) Coordinate with the regional veterinary service in preparing small ruminants and camels to enter final inspection and quarantine at port facilities."

In the amended project paper, it states that "shortly before construction is complete, the Junior Veterinary Advisor will begin his tour, and he and the Feedlot Advisor will begin training those employed at the quarantine stations. Training will include vaccination procedures, selection of animals, monitoring the health of animals in confinement, parasite control, feeding, cleaning and sanitation of pens, record keeping, and other procedures necessary to assure smooth and efficient operation of the station."

b. Conclusions

The Jr. Veterinary Advisor arrived with only a two-month overlap with the Sr. Veterinarian. In a country with different disease and husbandry problems, administrative differences and a possible cultural adjustment, a six-month period would allow for a more efficient and smoother transition. With no quarantine stations on site or an estimated starting date, it will be difficult to function effectively. The Jr. Veterinary Advisor has worked together with his counterpart, the Management Advisor, and other project personnel in developing and offering a training program, developing a procedures manual, and working on commodities and support for the quarantine station.

c. Recommendations.

- 1) In general, the technical assistance (Sr. and Jr. Veterinarians) has been premature and their effectiveness not fully utilized due to the lack of a functioning quarantine system. This has some positive aspects if the time for the technical assistance can be extended for at least 18-24 months following the start of a functional Quarantine Unit. The time prior to the opening of the quarantine stations offers excellent opportunities for the technical assistance persons to: 1) become acquainted with the normal collection and processing of animals prior to arrival at the quarantine stations; 2) work with the groups currently in Somalia who are conducting disease surveillance...this will give the veterinarian adequate background of diseases in the population upon which to make recommendations for vaccinations and disease prevention within the station; 3) become familiar

with the academic and clinical proficiency of all staff who will be working at the station; 4) following this assessment, finalize the procedures manual and training programs for all aspects of the operation. This could include such things as: (a) A systematic, thorough physical examination; (b) collection and preparation of samples; (c) laboratory techniques as may be applicable, e.g., blood smears for trypanosomiasis, babesiosis, piroplasmosis, etc.; (d) administration of vaccines; (e) procedures and training of pen walkers who observe for health twice daily; (f) handling and treating sick animals, and (g) proper necropsy procedure and preparation of samples for shipment to the laboratory. It should be the duty of the Jr. Veterinary Advisor to work with the project training officer in developing a plan for in-service training at all levels and, from this cadre, to select the best individuals for advanced training.

- 2) If an extension of time for the technical assistance associated with the functions of the quarantine stations for at least 18 months from the date of receiving the first cattle is not possible, serious consideration should be given to terminating this posts immediately. When there is evidence of completion of the stations, recall this technical assistance advisor. For a successful quarantine program, technical assistance must be supplied to advise in operating the stations and to adequately train counterparts and other personnel. This period should be no less than 18 months. Although personnel could be trained in the U.S. prior to opening the stations, there is no substitute for on-the-job training at all levels. For a lasting impact, a Somali counterpart must work closely with the Jr. Veterinary Advisor.

### 3. Feedlot Management Advisor

#### a. Background

The Feedlot Management Advisor shall work under the supervision of the Senior Veterinary Advisor to assist the Ministry of Livestock, Forestry and Range in operation of the quarantine system. Specifically, the advisor shall: "1) advise the quarantine station supervisor; 2) assist the

quarantine station supervisor in carrying out policies and directives of the Livestock Quarantine Unit; 3) assist the quarantine station supervisor in establishing record and inventory systems and procedures for maintenance of facilities and equipment; 4) advise the quarantine station supervisor in day-to-day management and operation of the station; 5) work with the Livestock Quarantine Unit, quarantine station supervisor and Junior Veterinary Advisor in organizing and supervising on-the-job training for quarantine station personnel in station operation and management; and 6) advise the Port Veterinary Officer on efficient management and operation of the marshalling yards and port facilities."

The Feedlot Advisor arrived 21 May 1986 and completes his tour 20 May 1988.

b. Conclusions

The Feedlot Management Advisor has been on the project for 21 months and has participated in: (1) drafting the procedure manual for operation of the quarantine station; (2) advising on the design of feeding trials with the Minister of Livestock; (3) developing training materials for the quarantine station personnel; (4) accompanying cattle shipments to Egypt; and (5) advising the private sector on feedlot management. Although his time has been well spent and productive, the lack of a quarantine facility has prevented him from functioning in the capacity called for by the project.

c. Recommendations

- 1) It is recommended that technical assistance in feedlot management be extended at least 18 months into the operation of the quarantine system. During this period it is recommended that a counterpart be assigned from each station and trained to manage the feeding, management and care of the station animals.
- 2) If an extension of time for this technical assistance associated with the functions of the quarantine stations for at least 18 months from the date of receiving the first cattle is not possible, serious consideration should be given to terminating this post immediately. When there is evidence of completion of the stations, recall this technical assistance advisor. For a successful quarantine program, technical

assistance must be supplied to advise in operating the stations and to adequately train counterparts and other personnel. This period should be no less than 18 months. Although personnel could be trained in the U.S. prior to opening the stations, there is no substitute for on-the-job training at all levels. For a lasting impact, a Somali counterpart must work closely with the Feedlot Manager Advisor.

3. If the decision is made to keep the Feedlot Management Advisor on until completion of the quarantine stations, he should not only assist in developing, implementing and conducting training programs appropriate for the functioning of the quarantine stations, but he should also spend considerable effort with the private sector. This effort should be directed toward providing a properly preconditioned animal (dehorned, vaccinated, etc.) with proper nutrition, for export. Nutrition of the animals before and during shipment is vital and directly related to health. This Advisor also could assist with forage production and feed management activities at the private sector level.

B. Short Term Technical Assistance

1. Domestic Marketing Study

a. Background

The Domestic Marketing Advisor, provided through a SBA/RONCO contract for short-term studies, was assigned as an advisor to the General Manager of LMHP during September 14, 1986 through September 21, 1987. The Domestic Marketing Unit was created by the advisor at the request of the General Manager. With the assistance of a representative of the National Monitoring and Evaluation Facility in the Ministry of Planning, a Market Information System was proposed and accepted in November 1986.

The overall purpose of the Domestic Marketing Study was to create in the LMHP an independent capability to collect, collate, analyze and report information on domestic livestock marketing in Somalia. In attempting to fulfill this objective, the advisor established a counterpart relationship with a Senior Survey Supervisor, who subsequently was appointed Director of Operations in the Domestic Marketing Unit. Together with a second survey

supervisor and a field staff of enumerators, the Unit has, since January 1987, collected data on livestock prices and other market information. Data is now being collected three days a week at livestock markets in 17 districts of seven regions. Average prices are determined by age, sex and body condition of cattle, camels, sheep and goats. In addition, the volume of sales are recorded, along with data concerning transport distance to market, cost of transport, government taxes and other fees paid, reasons for selling livestock, and origin of animals sold. These data, in the absence of computer facilities, have been analyzed as possible by hand-held calculators. Reportedly, a computer is now becoming available for data analysis. Marketing data have also begun to be collected in several markets on forage/fodder prices by kind and, to some extent, quantity, although this effort has mainly been a function of the Private Sector Department.

b. Conclusions

Establishment of the Domestic Marketing Unit by the Advisor and the close working relationship exhibited with the Senior Survey Supervisor in the training and support of field enumerators in collecting livestock and forage/fodder marketing information have been major contributions to the LMHP. These significant attainments have, however, been fraught with difficulties largely associated with the lack of administrative and logistic support of the Unit's data collecting and analyzing activities.

This lack of support has been evidenced by reported delays in payment of salaries and per diem, reimbursement for expenses, and in procurement of supplies. Access to vehicles by the Survey Supervisor has also been a problem. At the same time, the Advisor was assured by the Minister of Livestock, Forestry and Range and the General Manager, LMHP, that continuation of the Marketing Information System is essential and that the system should be continued. Nevertheless, the General Manager, LMHP, has indicated that the term on the Advisor's contract ended before completion of his plan to establish a sufficient number of data collecting centers, and that the Advisor left before fully analyzing the data collected. Consequently, the collected marketing data is now available and the LMHP is unable to make any use of these stores.

One could understand the reaction of the General Manager, LMHP, relative to the stores of marketing data that for intended purposes remain useless. With limited computer access and no specific computer programs for analysis, hand

calculations to satisfy the Advisor's recommendations for analysis would seem insurmountable. This apparent impasse is compounded by the continuing nature of a market information system, resulting in additional data for analysis. Nevertheless, abandoning the current Market Information System in the Domestic Marketing Unit at this stage, given its success in establishing a viable data collecting activity, would be counterproductive to the needs of the LMHP. However, reviewing the Domestic Marketing Advisor's report, including his suggestions for additional market data collection and analysis, together with a mock-up in tabular form of means for analyzing the data, leads one to conclude that the requirement outlined can be considered overly ambitious for the immediate needs of the LMHP.

### c. Recommendations

Given the need of the LMHP for accurate and continuing livestock market information, the recommendation is made that the Domestic Marketing Unit continue with its present function of collecting, collating, analyzing, and reporting. In order to perform this continuing task successfully, however, the field survey should be narrowed down to the more essential elements of market information. The Unit could, in turn, expand on the market information from numbers and prices of the rather basic kinds, classes, and qualities of livestock sold in the representative markets to a more definitive indication of transport costs, fees and taxes paid as the Unit's ability to process data and report on findings becomes more operational. The same procedure would apply to forage/fodder market information, a function that should be transferred from the Private Sector Department. In the interim, case studies could be made of one or two markets to arrive at insights into market conditions and the many details suggested by the Domestic Marketing Advisor.

With a reduced load of data, the problem of computer programming should not be insurmountable. Weighted average prices by kind, class and condition of animals could be calculated by district and region and for the country. The same recommendation would apply for forage/fodder. In these respects, it would be well for the Unit to reexamine how representative the selected markets are and to close or open additional sources of market information as would appear appropriate.

Given the needs for technical assistance in reducing the present workload of the Domestic Marketing Unit, it is recommended that arrangements be made with the National

Monitoring and Evaluation Facility in the Ministry of Planning or the Planning Department, Ministry of Livestock, for such technical assistance. Personnel in the Planning Department of the MLFR have expressed a desire to see that the Market Information Service continue, and they should be in a position to assist with scaling down the marketing data requirements and assist in designing computer programs for rapid analysis and reporting. If such assistance is not forthcoming, then attention should be paid to securing technical assistance through the project. The person selected should also work on the proposed marketing study at the international level.

The SBA/RONCO Management/Administrative Advisor currently works with the LMHP on a number of administrative problems, such as delays in payment of salaries and per diem, reimbursement for expenses, and delays in procurement of supplies. Further, he currently is working on job descriptions, requirements, and pay scales, as well as suggesting standards for use of LMHP vehicles. All of this Advisor's activities are pertinent to the effective functioning of the Domestic Marketing Unit, and the recommendation is made that his suggestions be reviewed with the General Manager, the G.S.O., the Manager of Marketing, and other LMHP officials as appropriate, and agreed upon standards put into effect.

## 2. International Marketing Study

### a. Background

Services of the International Marketing Advisor were provided through the SBA/RONCO contract for a one year period. The Advisor worked with the staff of the Livestock Marketing Division of the Ministry of Livestock, Forestry and Range and of the Livestock Marketing and Health Project. Overall, the purpose of the Advisor's study was to examine the existing export markets for Somali livestock and survey possible future export market opportunities, including diversification into other animal products. During the course of the study, the Advisor failed to assess the status of the present export marketing situation and determine the potential numbers and types of animals available for export. However, the Advisor, together with representatives from the LMHP, visited present and potential export market countries where the group talked with livestock importers and government officials about imports and market potentials. Countries visited in this regard included Saudi Arabia, the Yemen Arab Republic, Egypt and the United Arab Emirates.

The Advisor also visited livestock exporting countries which compete with Somalia in livestock and meat exports. There, he talked with government officials and exporters about livestock production, market practices and procedures, and government policies and regulations affecting the export trade. Competing export countries visited for these purposes included Australia, New Zealand, Turkey and Jordan.

During these visits to present and potential livestock markets and competing markets, attention was paid to establishing a program of market intelligence and export promotion of Somali livestock. The Advisor prepared reports of findings and made specific recommendations for further steps to be taken to improve export of Somali livestock, including government policy changes and possible investments by private traders and businessmen. The Director of the Marketing Division, LMHP, a joint member of the team investigating market opportunities, also prepared a report of findings.

#### b. Conclusions

The International Marketing Advisor went to great lengths to develop, as accurately as possible, time series data concerning Somali exports of cattle, camels, sheep and goats. However, no evidence appears to exist of the Advisor's attempts to determine the potential numbers and types of animals available for export. This situation may be explained by the lack of a centralized livestock reporting system where country-wide estimates of livestock inventories, birthrates, death losses, and offtake are practically non-existent.

During his visit to the export markets for Somali livestock, the Advisor and his associates collected considerable data on livestock and meat imports into these markets and prices received. Cognizant of the inaccuracies inherent in these import data, the Advisor gave reasons for these deficiencies and often used other sources of import data, such as the FAO Trade Yearbooks, for comparing and assessing discrepancies in import data obtained. In his report, the Marketing Director determined Somali market share of Saudia Arabia imports, while the Advisor pointed out in considerable detail the problems Somalia livestock exporters have in becoming more competitive in their export markets. However, neither report contains specific recommendations about setting up a program for market intelligence and export promotion for Somali livestock.

In determining the status and prospects of livestock exports from countries deemed competitive in Somalia's export

markets, sufficient data were found by the Advisor, at least for Australia, New Zealand and Turkey, to determine current levels of livestock production, some indication of costs, and figures on exports. The competition here for Somalia's export markets comes mainly from sheep and goats. The Advisor's report lists in rather general fashion several suggestions for changes in government policies to strengthen Somalia's livestock export position. No recommendations appear relative to the establishment of a market intelligence service to aid Somalia exporters and Government in adjusting to changing conditions in Somalia export markets.

Despite the apparent success of the International Marketing Advisor in obtaining and analyzing livestock marketing data in current and potential markets and in countries competing in the Somali export markets, nothing solid has been left with the Ministry of Livestock, Forestry and Range or with the LMHP for setting up a market intelligence and export promotion program, including an analysis of the information collected.

#### c. Recommendations

The LMHP General Manager and his marketing staff recognize the need for establishing a livestock market intelligence and export promotion program. Members of the Marketing Division should continue their visits to current and developing Somali livestock markets and to competing countries for Somalia's market as well. However, their routine should be phased down to occasional visits for market assessment, and arrangements made for a permanent posting of livestock market information specialists in the major export markets. This could be done by assigning the tasks to existing Somali consulates or embassies. In addition, the livestock marketing associations might well consider sending their own representative to Somali export markets. Some livestock exporting companies have representatives in these markets who could be a ready source of information.

As the LMHP Marketing Division could be the mainspring in collecting and analyzing market information gained in the export markets, this Division should likewise concern itself with improving the Somali livestock export statistics. More accurate data from Somalia would be a must, particularly as the market information specialist abroad would have need for more back-up data in his attempt to identify livestock export opportunities.

In order to be in a position to influence government policy in regard to increasing livestock exports, consideration should be given to establishing a continuing study of the livestock export marketing systems and the costs and returns involved. Results of such data would also be useful in assessing the economic health of all contributing to and benefiting from livestock exporting. Such a study should be in the hands of the Marketing Division, perhaps with some assistance from the Planning Department of the MLFR. Consideration should be given to providing technical assistance for a period of six to twelve months to set up such a continuing study and to develop analytical procedures in the Domestic Marketing Unit. Further, the Advisor should assist the Domestic Marketing Unit in analyzing data collected at the livestock and forage/fodder markets.

### 3. Socio-economic Study

#### a. Background

The SBA/RONCO contract with USAID called for 12 person months of socio-economic studies in support of the LMHP. The objective of the studies was to assess pastoralist behavior in the areas of livestock management, health and marketing. Specific studies were to have come later. RONCO arranged for the services of a Socio-economist for a period of one year during 1987; however, he departed Somalia after working less than six months on the LMHP. His research results represented a cooperative effort between the LMHP and the Central Rangelands Development Project (CRDP), and was confined to the Ceel Dheer District of the Central Rangelands.

#### b. Conclusions

The report by the Socio-economist concerning development implication of range enclosure in the Ceel Dheer District is weighted heavily toward the conservation and development of central Somalia rangelands, and less to the immediate concerns of the LMHP. Major components of the reports include ecology, causes of enclosure, comparisons between arable and pastoral enclosure, land use patterns, changes in productivity resulting from enclosure, and the legality of enclosure. In the report, brief reference is made to livestock herd structures and movement of livestock from one area to another in search of forage and browse, and movements initiated for reasons of animal health. Mixed farming and livestock production system are discussed, and reference is made to fallow land regeneration and the use of crop residues by livestock. While ratios of cultivated,

short fallow, virgin and long fallow, and cleared and not cultivated land to total enclosed land are estimated for the study area, no mention is made of specific crops planted. Further, had ratios of area devoted to grazing and browsing of native plant species, forage/fodder harvesting, and crop aftermath been estimated, these data would have been useful in further development of a forage/fodder program under the LMHP. Nevertheless, this report although not geared to LMHP purposes, does provide considerable insight into range enclosures as integrated into livestock production systems.

A further limitation of the study is that in the study areas more emphasis is placed on sheep production than cattle, the major concern of the LMHP. The major limitation, however, concerns the lack of information on livestock marketing practices, other than the production of sheep for the export market and the specialized Somali market.

#### c. Recommendations

Although the SBA/RONCO Socio-economist provided practically no insights into the behavior of pastoralists in the areas of livestock management, health and marketing, there appears to be no need at this time for the LMHP to commit additional resources for these studies. Such information as useful could be gained through the current domestic marketing surveys conducted by the Domestic Marketing Unit of the Marketing Department, LMHP. (See recommendations under Domestic Marketing Study).

As mentioned previously, there is considerable information about the use of range enclosures in the Socio-economist's report that has a direct bearing on potential forage/fodder production on these lands. It is recommended that the Private Sector Department study the report, along with other reports produced by the Central Rangelands Development Project, so as to be in a more knowledgeable position to advise livestock exporters and other forage/fodder producers in producing feed for cattle in quarantine.

#### 4. Administration and Management Advisor

##### a. Background

The SBA/RONCO contract was amended to include the services on the LMHP of an Administration and Management Advisor for a period of six months during 1987 - 88, ending in May of 1988. The Advisor's overall objective is to improve the on-going operation of the LMHP by evaluating and initiating modification of management systems and procedures and the

budgeting and account format and procedures.

More specifically, the Advisor is charged with establishing a system for reviewing and defining LMHP goals, annual work plans and budgets and identifying a set of targets for each component part of the project. He assists the project at regular intervals in quantifying the progress of the project toward its ultimate goals. Further, he is to establish a Monitoring and Evaluation Unit within the Project and train appropriate personnel for monitoring purposes. The Unit will report on areas of project implementation and administration which need improvement.

On the administrative and management side in the LMHP, the Advisor determines the need for improvement and suggests steps which should be taken to improve performance in a number of areas: staffing; scheduling of activities; budgeting, accounting and financial disbursements; warehouse management and inventory control; contracting and procurement procedures; vehicle policy, use and control; and intra-office communication.

In implementing administration and management improvements, the Advisor prepares periodic reports of progress and discusses these with the LMHP General Manager and USAID Project Officer to target modifications for implementation. In budgeting assistance, the Advisor helps prepare a local currency budget, which includes all program activities. Further, he instructs budgeting and accounting personnel with procedures used in annual and long-range budgeting.

#### b. Conclusions

A review of the Administration and Management Advisor's periodic reports, accompanied by documentation of reporting forms used as tools for implementing necessary improvements in LMHP administrative and management procedures, indicates that considerable progress is being made to obtain the commitments assumed by this Advisor. From discussions with the Advisor, he appears to have a close rapport among those with whom he works, and no doubt he carries a large share of the burdens associated with the details of assisting a relatively new organization become more efficient in an operational sense.

Particularly notable has been the Advisor's progress in consultation with the LMHP General Manager and USAID project officers toward developing job descriptions and conditions of employment, establishment of departments within the LMHP, a streamlining of staffing required for effective operation,

establishment of office files, development of a much-needed system of communication, and plans for an orderly system for disbursement of procurement funds and payment of per diem and expenses. Other significant undertakings include the development of a plan for vehicle control and maintenance. A primary Advisor activity at the moment is in assisting the LMHP General Manager and the G.S.O. to revise the 1988 local currency budget.

During the tasks performed by the Advisor, he appears to be heavily involved in training of personnel involved in administration and management. Reportedly, the Monitoring and Evaluation Unit has only recently been established.

#### c. Recommendations

The workload of the Administration and Management Advisor is heavy and time is growing short. Therefore, the Advisor should move ahead as rapidly as possible in training personnel of the Monitoring and Evaluation Unit. As possible, members of the Unit and other selected personnel involved in administration and management should be sent for short-term training in these areas of responsibility. A workshop of one to two weeks conducted by an organization such as the Institute for Development Management or USDA, for instance, could well serve the needs of these personnel in the LMHP. Attendance at such workshops could be encouraged on a rotational basis, with each of possibly several workshops consisting of increased levels of sophistication.

The Advisor should reduce his concern about the more mundane aspects of his endeavors and pass them to the Monitoring and Evaluation Unit. Then, he should concentrate more time in establishing a more intensive counterpart relationship with someone in administration, such as the G.S.O. Consideration should be given to extending the Advisor's term, at least for a period of six months. The administration and management needs are great, and the payoff for continuation of the Advisor's services would be high, particularly as the quarantine stations are built and LMHP becomes truly operational.

### 5. Private Sector Assistance

#### a. Background

In the initial LMHP planning stage, improvement in forage production and livestock transport were recognized as important ingredients of any overall plan to improve the

health and quality of Somali livestock moving into international trade. This need was further emphasized by the decision to develop feedlot-type quarantine holding facilities requiring large amounts of additional forage, which appeared to be well beyond the capacity of the current forage production and marketing system.

The project plan to meet this need was to provide support and incentives to private sector forage producers to bring forth the needed production. In the case of the livestock transport, project concern was largely centered on the additional needs required to transport livestock from the quarantine stations to the port.

The Livestock Investment Fund was developed to provide incentive to the private sector, and the technical support was to be provided through the services of a Private Enterprise Advisor for a one year period. His efforts were to be divided into a three-month component for an initial survey and ordering of equipment and a nine-month component for providing assistance to forage producers. The activity was designed to coincide with the completion of the quarantine station construction and the increased demand for forage associated with its operation.

A contract for the services of a Private Enterprise Advisor was arranged through SBA/RONCO, and he was on duty from mid-1986 to mid-1987.

#### b. Conclusions

The work of the Private Enterprise Advisor had little impact. His in-country work was beset by problems, some of which were beyond his control.

For reasons discussed earlier in this report, little interest has been generated among potential forage producers to utilize the Livestock Investment Fund. Another impediment was the delay in quarantine station construction which would have been an incentive for forage producers to utilize this assistance to develop modern forage enterprises.

Although a counterpart arrangement with the Private Sector Unit of LMHP was contemplated, it was never developed to a effective level. The Advisor thus was largely left to his own devices to carry out this activity. This counterpart arrangement was perhaps misplaced and should have been established with government officials and/or private sector business establishments or trade groups which had more of a

commercial orientation than LMHP.

Based on his reports, he apparently had difficulty in developing and focusing on a plan which targeted the stated objectives of the assignment. His final report dealt primarily with a macro discussion of the Somali livestock industry and provided little in the way of a blueprint for any follow-up activity.

The experience with this activity indicates a need for more specific and broader based planning in developing project guidelines and in monitoring and managing the on-going activity.

c. Recommendations.

- 1) In future private sector assistance projects, preference should be given to those where carefully planned and targeted program objectives can be accomplished in a relatively short duration or in a series of timely contracts rather than an on-going advisory arrangement.
- 2) If long-term advisory assistance is provided for private sector activities, any counterpart arrangement should be established with officials and business organizations and groups with a commercial orientation.
- 3) When basically a commercially oriented activity such as this is included in a technical project such as LMHP, a more broadly based planning involvement from other commercially oriented units AID and GSDR should be utilized.

IX. PROJECT EVALUATION SUMMARY

The Evaluation Team took note of the topics listed in AID 1330-ISA (3-78) and the following contains brief narrative statements associated with each topic.

A. Summary

The first design for constructing quarantine facilities was deemed inadequate by USAID for meeting requirements, while the second more elaborate design, resulted in USAID direct contracting bids that surpassed the funding allocated for this purpose. As a result, construction has not begun, although GSDR, after delays, contributed local funds toward providing minimum facilities for holding cattle designated for export to non-Saudi markets.

Most of the technical assistance advisors, other than the engineers involved in the design and preparation of specifications for competitive bidding, began their tours before the beginning of construction became a reality. Mostly these advisors have completed their tours of duty without having the opportunity of contributing to the establishment of a quarantine system.

Prospects are dim at this point for achieving the goals of the project unless construction begins soon and additional technical assistance and training can be provided. A modification of the contracting method to include Third World firms may increase the level of competitive bidding, while the proposed scale-down of facilities, without calling for a redesign, should reduce expected costs. An extension of the project, while in order, may not be sufficient for reaching project goals without additional funding for technical assistance.

#### B. Evaluation and Methodology

The Evaluation Team reviewed all project documentation for the LMHP and other pertinent background materials. Appropriate contacts were made with major project participants, including USAID, the Ministry of Livestock, LMHP staff, contractors as available, and samples of project beneficiaries, including livestock traders and other individuals concerned with livestock production and export. Site visits were made to the quarantine site at Warmahan, the marshalling yard at Mogadishu, private and GSDR feedlots, the Serum and Vaccine Institute, a commercial feedmill, and the forage/fodder and livestock markets at Mogadishu. Debriefings were held with the Ministry of Livestock, the General Manager and department managers, LMHP, and concerned personnel with USAID.

#### c. External Factors

Changing the exchange rate by GSDR from a fixed, artificial rate to a free market rate eliminated the premium of subsidy received by those wanting to buy equipment through the Livestock Investment Fund and made the LIF considerably less attractive. This measure has been an external factor affecting project implementation. Return to the fixed exchange rate, a recent event, may cause rises in the value of currency, which could be an advantage to participants in the LIF. However, the decision by GSDR to initiate price controls could adversely affect the flow of livestock to domestic markets. This seemed to be the case at a principal livestock market, which the team visited for the second time

and after price controls were initiated.

Otherwise, there do not appear to be any significant changes in project setting, socio-economic conditions or host government priorities since the project inception which would have an impact on the project. The Somali government remains intensely interested in the completion of the project due to its potential economic impact and are increasingly frustrated by the delay.

d. Inputs

The major USAID input to this project is, of course, the construction and provisioning of equipment for the construction of the quarantine stations, which have been seriously delayed. This has also adversely affected the effectiveness of much of the technical assistance that was basically tied to completing construction and the initiation of a quarantine system.

e. Outputs

The quarantine station construction is delayed and is seriously behind the original schedule due to design and contracting difficulties and the attendant processing delays. Technical assistance has been provided roughly on schedule; however, the timeliness has been out of pace with construction and, thus, its effectiveness has been adversely affected. The need for the quarantine stations remains acute.

f. Purpose

The stated project purpose is to restore the contribution of cattle exports to the Somali balance of payments and lay the conceptual basis for a broader approach to strengthening the Somali livestock industry. The project is stalled due to contracting difficulties and AID construction has not started. Thus the major purpose of the project has not been achieved.

g. Goals/Subgoals

The stated goal of the Livestock Marketing and Health Project is to support the expansion of Somali livestock exports and foreign exchange earnings and to increase the income and welfare of the Somali people over the next decade. Obviously the major goal has not been achieved due to the delay in quarantine station construction. It would, however, appear to be a realistic goal if Saudi Arabia opens

its markets to Somali cattle as a result of the project contributions.

#### h. Beneficiaries

Direct beneficiaries of the project will be the livestock exporters, who will again have the opportunity of selling their cattle at higher prices in the Saudi Arabian market. Despite their higher marketing costs, associated principally with the cost of forage/fodder for animals in quarantine and in transit, and for quarantine fees, net earnings should be significantly higher than in current non-Saudi export markets. Cattle producers, many of whom are small-scale traditional nomadic graziers, should also benefit from the project as the livestock exporters exert increased demand for animals, resulting in higher producer prices to the extent that price controls become ineffective.

Many small farmers should benefit from the increased demand and price for forage/fodder stimulated by the needs of the quarantine system. Further, increased employment levels should be expected as forage/fodder producers respond to the increased need for their products as the project moves forward. Another aspect of the project beneficiaries rests in the expectation that many of the forage/fodder producers will be the livestock exporters themselves. Their use of imported forage harvesting equipment will generate additional employment and income in the private sector, not only in the harvesting of forage crops, but also for those private companies importing and/or servicing this equipment.

Secondary effects of the project fall to the remainder of the Somali population, who are expected to benefit from the increased foreign exchange entering the economy.

#### i. Unplanned Effects

This is a relatively limited scope, sharply focussed project and thus the unexpected changes in social environment, health, technical or economic situation that may result in a broadly scoped project through a rippling effect into these areas is not expected to be a major concern. It could have a positive effect on the use of improved farming and livestock production technology.

#### j. Lessons Learned

One primary lesson learned from the LMHP at this stage is the need for the USAID to call in engineering and design consultants at the early stage of project design to determine the least cost method of meeting Saudi

requirements for imported cattle. Had the first project proposal been submitted with these parties in agreement, after their assessment of the immediate needs for overcoming the ban on Saudi Cattle, with due attention paid to other anticipated quarantine requirements, then the request for bids could have been circulated two years sooner. Quite likely, under these conditions, a less elaborate and costly quarantine design would have been forthcoming.

Another important lesson concerns the early decision to entertain only a USAID direct contracting alternative with U.S. firms in advertising for bids, given Somalia's location and difficulties of doing business under these conditions. While host country contracting may not be in order, adequate attention should have been given to including firms in Third World countries before advertising for contract bids. Most certainly for this type of construction, firms in a less developed country such as Kenya, for instance, would likely have stimulated more competitive bidding.

In the absence of solid evidence that construction of the quarantine stations is underway, it stands to reason that bringing in some of the technical assistance advisors, particularly those whose effectiveness is related to construction of the quarantine stations, was decidedly premature. Sending LMHP personnel to the U.S. to learn about animal quarantine, feedlot operation and veterinary practices seems to have been less rewarding than had these individuals been sent to a developing country where such facilities and practices more closely approximate those envisioned for Somalia.

Project management on the USAID side would have been more effective had the project officers not been assigned too often to other duties competitive with their primary project duties. In this particular case, an earlier project evaluation might well have uncovered the reasons for project delay, and have resulted in actions to move much more rapidly in project implementation.

k. Special Comments

While the initial reaction from USAID relative to the GSDR urgent request for assistance in building quarantine stations was given high priority and responded to accordingly, the priority seems to have faded into the background as time passed. The USAID and quarantine design engineers seem to have taken over and project officers' attempts to break the deadlock, given the multiplicity of checks and balances within the USAID management structure, largely proved fruitless. Earlier attention by the USAID

Director to breaking up this impasse most likely would have produced results.

Although the current USAID Director has recently revitalized the priority given to the LMHP, there will be difficulties in regaining the confidence of the Ministry of Livestock, the LMHP General Manager, and other Somalis in both the public and private sectors in USAID's ability to deliver results on one of Somalia's most pressing problems. The Evaluation Team did not get the opportunity to visit with the USAID Mission Director to sense the commitment on the part of the Mission to LMHP implementation, nor to convey their findings on the severity of the problems associated with inaction on the construction phase of the project.

Further, the Evaluation Team must mention the complaints of the General Manager of the LMHP about the lack of authority his USAID counterparts have on the project. He and others see the USAID management system as being hamstrung with rules and restrictions, from which no leeway or options are possible. Further, there seems to be a lack of communication. The General Manager feels that in the decision-making process in USAID/Somalia, his input is not requested, and the decisions made often appear to be arbitrary. Discussions the Evaluation Team had with the Minister of Livestock and others across the whole spectrum of the public and private sectors concerned with livestock exporting reflected a high level of frustration about the inert status of the Project. These concerns may not be fully recognized by the higher levels of administration within the USAID mission.

#### 1. Special Questions

- Q. Is a quarantine system still needed for Somali export cattle?
- A. Yes, a quarantine system is necessary to fulfill the Saudi demand and improve the health and quality of export cattle to other markets.
- Q. Are the concept and design of the quarantine system appropriate and adequate to meet the goals?
- A. The total system is excellent and exceeds the requirements of the provisions outlined by office of International des Epizooties in the International Zoo-sanitary Code, and the requirements discussed by the Saudi Health Authorities. However, a scale-down in design without resorting to a redesign of facilities, would be appropriate.

Q. Is the project headed in the right direction to achieve its goals?

A. Efforts are being made by concerned USAID/Somali personnel to expedite the building of the quarantine facilities. A directive, dated 21 Jan. 88, from the Mission Director instructs AID personnel to give this project first priority.

The Contract Officer and the Mission Engineer are working together on items and bidding procedures to reduce the cost of the facilities, which will expedite the start of construction and keep the costs within the current funding.

Q. What factors have influenced implementation of the project?

A. (1) Lack of a unified effort and communication among personnel of the USAID/Somalia mission; (2) Underestimation of costs; (3) A sophisticated engineering design of the facilities; and (4) Numerous steps required for changes and approvals.

Q. Why is the construction program so far behind schedule?

A. The simple answer is bureaucracy and procrastination. A few days or months delay in processing procedures has accumulated into two years' delay, with nothing in sight for the immediate future. The decision to redesign the facilities at the onset of the project, may have been the one largest contributing factor to the contracting delays. Each step in changing the project and design of the system has added sophistication which may not have been necessary to satisfy the requirements for a quarantine system, ultimately escalating costs which have ultimately resulted in further delays.

Q. Has technical assistance been competent and timely?

A. Although competence of the USDA/PASA engineer may be considered adequate, he took a longer time than expected in designing the quarantine stations. Apparently he lacked the expertise for preparing specifications suitable for construction. Neither this engineer or the Parsons Brinkerhoff engineer settled on

an economical design and set of specifications.

In the absence of quarantine facilities the remaining technical assistance, for the most part competent, had reduced opportunities for fulfilling these obligations to the project. The Senior Veterinary Advisor helped set up the Quarantine Unit and otherwise assisted with administrative matters, trained local personnel on the project and began developing a manual for operation of a quarantine system. These activities are now being carried on by the Junior Veterinary Advisor. The Feedlot Management Advisor also has moved ahead in fulfilling his tours of reference as possible, given the delays in construction.

The domestic and international marketing advisors, their effectiveness less hampered by lack of construction, completed their studies satisfactorily. However, these advisors left many unanswered questions concerning the continuation of their work. The Socio-economic Advisor revealed little of his competence by leaving the project before the end of his scheduled tour, and by preparing a report that answered few questions posed in his terms of reference.

The Administrative and Management Advisor is performing well in satisfying his obligations in his terms of reference, although his term is scheduled to end before many of his services can be fully utilized.

The Private Sector Advisor's services, as related to the Livestock Investment Fund, came at a time when operation of the quarantine system remained in the future. Therefore, he discerned no private sector interest in using the LIF in producing forage or providing transportation. Neither did the Advisor address the issues on how the LIF could be utilized.

- Q. Has Somalia participation supported project activities adequately?
- A. Support by GSDR to the project has been forthcoming through staffing of the LMHP and provision of local funds for constructing a part of the quarantine facilities. However, local currency funded construction is also approximately two years behind schedule, due to GSDR inability to get an adequate design approved and a contract negotiated. Also, the project did not provide adequate logistic support to

the contractors, which was a significant factor in reducing the amount of work they accomplished.

Q. Does it seem likely the project will attain its goals before its PACD?

A. As of February 1988, a second round of bids for quarantine facilities construction has not been authorized or advertised. Unless a means for reducing expected costs and modifying the contracting methods as suggested occur in rapid order, there is considerable doubt that the facilities can be constructed, much less become fully operational by the scheduled completion date of the project. Even so, terms of the technical assistance advisors provided by the project will have expired before goals and objectives are fully attained.

Q. If not, what should be done?

A. The contracting method for construction of quarantine facilities should be opened to include Code 935 countries. Further, the bidders should be presented with alternative proposals associated with the elimination or modification of certain components in design as discussed earlier in this report to reduce costs. A redesign is not anticipated. The bidders should provide unit costs for each design component and total costs for the full design and for each scale-down level in design. A final alternative would be the selection of one of the three proposed sites for construction. If progress is not made on these alternatives, thought should be given to a host country contract, or turning the allocated funds over to GSDR for contracting of construction.

Once the quarantine facilities are nearing completion, attention should be given to extending the terms of the current advisors and arranging for additional advisors. There remains a need for the services of senior and junior veterinarians, a feedlot management specialist, a livestock marketing economist, credit advisors, and an administration and management advisor. Providing training for Somali personnel on the project remains a critical need.

An extension of the project and additional funding appear necessary for attaining the goals and objectives outlined.

Q. Is the LIF still a valid mechanism for stimulating fodder production for support of the quarantine stations?

A. Yes, as it will be primarily used by exporters to whom a hard currency credit will be an incentive, especially at current exchange rates. In addition, they are under pressure from importing countries to improve livestock quality, a problem that is directly related to the quantity and quality of the feed supply.

Q. Why has the LIF not been used?

A. A number of reasons have been cited, including lack of credit, uncertain profitability of forage enterprises, exchange rate imbalance, and lack of promotion. Credit is the biggest factor i.e., the difficulty of generating shillings to purchase the dollars.

Q. Are the timing and the criteria for its use appropriate?

A. Timing, for the reason listed above probably is not a big factor in the lack of use of LIF. The "Buy American" requirement is in this case an advantage, as U.S. built forage equipment is perhaps the very best and most durable equipment available.

Q. Is the lack of credit a major constraint?

A. Yes, the lack of term credit to finance capital items such as forage equipment has been cited in all assessments of the LIF as being the major problem. Even in the U.S., very few businessmen can finance major capital items out of their working capital.

Q. If so, comment on how credit should be set up.

A. This is dealt with extensively in the discussion of LIF in this report. The source of credit funds recommended for this use, i.e., the shillings generated from the purchase of hard currency in LIF to import the machinery, may already be committed to the point that it cannot be used for this purpose. If not, there do not appear to be other funds available within the project. If funds are made available, they should be set up and administered by the Somali Development Bank. The details of such a program are contained in this report.

- Q. What inputs besides the LIF are needed to assure adequate supplies of fodder for quarantine stations?
- A. If the \$0.5 M equivalent of local currency budget in the LIF activity can be used for the operational support described in this report, and the use of the LIF can be stimulated by the other actions recommended, the only other inputs would be some short-term technical assistance in the operational support program. If a credit program is initiated, technical assistance in that area would be advisable.
- Q. Can these inputs be provided within the scope of the project?
- A. There is considerable question as to whether funds for a credit program can be generated from the LIF transactions. There are also questions as to whether the \$0.5 M of local currency support funds remain intact. There are no funds currently available for the recommended technical assistance. Some other options may be available through other AID private sector initiatives.
- Q. What actions are necessary to improve the progress of the project and the potential achievement of its goals?
- A. The achievement of the project goals are totally dependent upon the completion of the quarantine facilities.
- Q. What actions are critical before the project ends?
- A. (1) Developing a quarantine system; (2) The use of technical assistance to operate and manage the system. This would include technical assistance in forage production, feedlot management, veterinary medicine, business management, administration, and marketing.
- Q. What steps should be taken to ensure continuation of the project activities after the end of the project?
- A. Training of Somali personnel at all levels remains the major step for ensuring continuation of project activities after the end of the project. While a few key people should receive university training abroad, most of the training should be provided by the advisors

in a counterpart, hands-on arrangement.

- Q. Should any of the activities be assumed by the private sector?
- A. Livestock traders in the private sector are capable and should perform some of the services associated with pre-conditioning cattle for entry to the quarantine system. Such services might well include dewormings and ear-tagging under the direction of a station veterinarian.

Private transporters should be relied upon for hauling cattle from the quarantine stations to the marshalling yards at the ports.

Machinery company representatives should be encouraged to provide technical assistance to forage producers concerning repairs, maintenance, storage, and operation of equipment.

- Q. What lessons can be learned from this projects experience to date which can be used to encourage success and avoid problems in similar projects in the future?
- A. Despite USAID/Somalia's well-intended, early response to Somalia's urgent needs for developing an acceptable quarantine system, haste in response resulted in a design that, later, USAID deemed inadequate. This led to delays associated with a redesign of facilities to a highly sophisticated level and a revision of cost estimates. Further, it appears that the more highly designed facilities came forth without due regard for the regulations for a quarantine system specified by the Office International des Epizootics in the International Zoo-Sanitary Code, and the requirements set forth by the Saudis. Difficulties and disagreements in these design activities, and problems associated with costs, should have been more closely monitored by USAID's top level management and mediated at once.

Difficulties in developing a suitable design for the quarantine facilities, together with the consequent delays in obtaining competitive bids, should have forwarned USAID's administrative officers that bringing in additional technical assistance before signs of construction became evident would be, for the most part, premature.

More attention should have been paid to assigning a technical assistance advisor, either the Senior Veterinary Advisor or a Livestock Marketing Advisor, to the LMHP as a counterpart to the General Manager, for assuring more thorough liaison between the Somali's on the project and USAID. In addition, greater success possibly could have been forthcoming in establishing counterpart relationships for the technical assistance advisors and providing these advisors with logistical support, and in fulfilling training needs.

M. Long-term Project Prospects.

The LMHP, scheduled to end by the end of 1989, will no doubt require an extension of at least one to two years in order to reach the project's goals and objectives.

Further, there appears to be a definite need for a new project, one that involves a full-fledged series of livestock marketing studies, with the view of putting the current GSDR personnel on top of the total domestic and international marketing scene.

Such a project would require two or three livestock marketing economists who could delve deeper into domestic marketing chain, focusing not only on the livestock markets, but also on slaughterhouses and the wholesale and retail meat trade in view of improving the system. The same applies to international livestock marketing, where the team could focus on competitive relationships between domestic and foreign markets, and evaluations of the economic feasibilities of improving the condition and health of Somali livestock exports.

Activities under such a project would include all livestock, including cattle, camels, sheep and goats.

Not to be overlooked would be the need for forage/fodder production and marketing studies that would identify economically viable schemes for providing the quantity and quality necessary for meeting the needs of the Somali livestock sector.

A critical element of this project would be the training program, including solid university training abroad in livestock marketing economics, administration and management, and veterinary medicine. Counterpart and short-term training and workshops would be a must and should be applicable to the work at hand.

APPENDIX A: BIBLIOGRAPHY OF PERSONNEL AND AGENCIES CONTACTED

1. USAID/Mogadishu

Dale Pfeiffer	Acting Mission Director
Ralph Conley	Agriculture Development Officer
W. Philip Warren	Project Officer, LMHP
Emily McPhie	Evaluation Officer
Pamela Procella	Assistant Project Officer, LMHP
Ali Yusuf Ibrahim	Project Assistant
Girard La Bombard	Commodity Management Officer
Virginia Speidel	Contracting Officer
Gladys Gilbert	Private Sector Advisor
Dan Vincent	Engineering Officer
Ray Fox	Agricultural Economist

2. Ministry of Livestock, Forestry and Range

Bile Rafle Gulaid	Minister
Abdiraham H. Nur	Permanent Secretary

3. Livestock Marketing and Health Project

Abidweli Sh. Ahmed	General Manager
Mahamed Muse H. Aden	Deputy General Manager
Dahabo Issa Mahamoud	Manager, Domestic Marketing
Abdulaahi M. Mah'ed	Manager, Personnel Training
Mahamuud D. Aye	Manager, Private Sector
Mahamed A. Isse	Manager, Quarantine Unit
L. M. Stewart	Veterinary Advisor (USDA)
Orhan Saygideger	Management Advisor (RONCO)

4. Livestock Marketing Board

Abdullahi Ismail Musa	Vice Chairman
Ahmed Adam Ahmed	Permanent Secretary

5. Livestock Traders

Muse H. Diriye  
Ahmed Ibrahim  
Yasin Dahir Muse  
Omer Mahamed Naleyeh  
Abdillahi Ismail Abdi  
Farah Ali Shire  
Abdillahi Yusuf Farah  
Abdirahman Hussein  
Hassan H. Muse  
Hassan Mahamed Aden  
Shirkadda Mubaarak

6. Somali Development Bank

Said Ahmed Yusuf            Director General  
Yassan Issa Gure            Livestock/Fishery Credit Officer

7. Somali Commercial Bank

Osman Yusuf                President

8. Areas Visited

Waraham Quarantine Station  
Fodder Market in Medina  
Indian Ocean Feedlot  
Karan Livestock Market  
Ministry Feedlot at K.7  
Serum and Vaccine Institute  
Marshalling Yard at Mogadishu Port

9. USAID/Nairobi

Kathleen Hansen            Legal Advisor  
Judy Beckwith              Former Advisor to Ministry of  
France  
Robert Armstrong          Agriculture Officer, REDSO/ESA

10. U.S.A.

Alexander Dickie          Former Domestic Mkt. Advisor,  
LMHP  
Ray Carpenter              Former ADO, USAID/Somalia

11. Central Rangelands Development Project

William Hargus              Animal Husbandry Specialist  
Robert Kornegay            Soils and Water Specialist  
Max Bauman                 GTZ Veterinary Advisor  
Christian Staak              GTZ Advisor  
Thomas Carlton             PhD Candidate  
Glenn Howze                 Rural Sociologist

12. Shabelle Water Management Project

Michael Roth                Land Tenure Center (U. of  
Wisconsin)

APPENDIX B. BIBLIOGRAPHY OF DOCUMENTS REVIEWED

- Livestock Marketing and Health Project paper, 07-12-84.
- Livestock Marketing and Health Project Amendment, 08-20-86.
- Behnke, Roy Jr., Progress and Activity Reports on Socio-economic Studies of Livestock Marketing and Health Project, 1986 - 87.
- Livestock Marketing and Health Project Background File 1979 - 1984.
- Saygideger, Orhan, Progress Reports, Activities Reports, Scope of Work, Administration and Management Advisor LMHP, June 87 - February 88.
- Holtzman, John, Review of Livestock Marketing and Livestock Marketing Facilities in Somalia, S&T/RD/RI, March 1984.
- Cassam, Mohamed, Reports and Files on Marketing International Marketing Advisor, 1986 - 87.
- Dickie, Alexander, The Establishment of a Market Information System in Somalia: Final Report, and Interim Reports, Sept. 86 to Sept. 87.
- Walker, John, Reports and Activities, Senior Veterinary Technical Advisor, 1985 - 87.
- Procella, Frank, et. al, Feedlot Trial Design Proposal, Feeding Systems, Parasite Control, Pen Rehabilitation at Warmahan, Warmahan Quarantine Station Activities Update, Extension Reports, Feedlot Advisor, 1987 - 88.
- Stockton, Gilles, the Case for the Development of the Private Livestock Export Infrastructure, Reports and Activities, Private Enterprise Advisor, LMHP, 1986 - 87.
- RONCO Consulting Corporation, Contract for Technical Assistance in: 1. International Marketing Study; 2. Domestic Marketing Study; 3. Private Enterprise Advisor; 4. Animal Drug Study, 09-05-86 to 30-06-87.
- Participating Agency Service Agreement. Agreement to Provide Technical Advise on Design and Operation of a Quarantine Station, 13-01-85 to 30-06-88.

Project Implementation Order/Technical Services: 1. International Marketing Study; 2. Domestic Marketing Study; 3. Private Enterprise Advisor; 4. Animal Drug Study; 5. Socio-economic Studies, May 86 - May 87.

Pogson, R. and P. Procella, Berg Study and Reports on Project Recommendations on Behalf of Somalia's Private Livestock Industry: 1. Veterinary Medical and Supply Project; 2. Animal Health Outreach to Nomads and Other Livestock Producers; 3. Improving Port (Quarantine, Holding, Loading) Water Facilities; 4. Continuation of Public Breeding Program and Private Sector Artificial Insemination Service; 5. Commercial Communications; 6. Assistance to Entrepreneurs in the Livestock Industry; 7. Shipping Improvements; 8. Support Private Sector, 22 May 1983.

Dhigane & Co. (Consultants), Pilot Credit Programme for Livestock Target Groups, Sept. 1987.

Ministry of Livestock, Forestry and Range, Somali Livestock Marketing Intelligence Service Draft Proposal, 08-10-87.

Berg & Associates, Strategies for the Encouragement at the Private Sector in Somalia, 07-09-82.

Holtzman, J., The Economics of Improving Animal Health and Livestock Marketing in Somalia, Michigan State U./USAID/Somalia, June 82.

Cassam, M., The Status and Prospects of the Livestock Exporting Industries in Australia, New Zealand, Turkey and Jordan, International Marketing Advisor, RONCO Consulting Corp. 18-10-87

Salisbury, Lance, The Role of Livestock in the Lower Shebelli, USAID/Somalia, Sept. 87.

Stockton, Gilles, The Case for the Development of the Private Livestock Export Infrastructure in Somalia, Private Enterprise Advisor RONCO, Sept. 1987.

Aden, M.M.H., The Target Markets for Somali Livestock Export (Kingdom of Saudi Arabia, North Yemen and Egypt), Director of Marketing LMHP, 30-06-87.

Parsons Brinkerhoff Int'l, Inc., Livestock Marketing and Health Isolation Facilities, 5/01/87.

Request for Proposal/Somalia 87-002, Livestock Isolation Facilities, Amendment, 16 Sept. 87.

Ahmed, Abdiweli, Livestock Marketing and Health Project, An Evaluation, 1 Feb. 88.

Ahmed, Abdiweli, Pilot Credit Programme for Livestock Target Groups. 31 Jan. 88.

Hussein, A. J., History and Current Status of Livestock Development in Somalia, Somali Journal of Range Science, 1 March 86.

Project No. 4100.045.06.27-5100,35,94,317 PAN AFRICAN RINDERPEST CAMPAIGN (PARC) OAU/IBAR, April 1987.

Report No. 770/83 Animal Health Services in Somalia FAO/IFAD 21 June 83.

International Zoo-Sanitary Code, Amended Edition 1982, Published by: Office International des Epizooties.

Jama, M. Correspondence and Documents Concerning Rinderpest, Ministry of Commerce, Mogadishu, 1983.

Charpentier, H., Specifications for Isolation Facilities for Cattle Export, Project. 4 Oct. 85.

God, Musa Rabile, Import of approved Veterinary Drugs, Article 42, 43, 44 of the Veterinary Code, Law No. 20 of 27 June, 1967. Decree Approved 15 Sept. 1985.

APPENDIX C. TIMELINE FOR CONSTRUCTION QUARANTINE FACILITIES\*

07/17/84 - Proag signed _____ )				
- SOW for engineer ) - 5 months				
09/18/84 - Mission agrees on PASA )				
)				
)				
2/13/84 - USDA nominated engineer _____ )				
01/20/85 - USDA engineer TDY )				
) - 5 months				
03/29/85 - Designed shipped )				
)				
05/19/85 - Designs arrive _____ )				
05/30/85 - Ask for return of engineer )				
)				
08/03/85 - Engineer 2nd TDY )				
)				
10/20/85 - Specs arrive _____ )				
)				
) - 5 months				
01/19/86 - Send USAID engineer to U.S. )				
)				
03/06/86 - Decide to go for more money _____ )				
)				
05/29/86 - AID/W agrees to more money _____ ) - 4 months				
)				
07/16/86 - PP Revision approved _____ )				
)				
) - 3 months				
10/31/86 - Contract PBI _____ )				
)				
) - 5 months				
)				
)				
03/02/87 - PBI specs received _____ )				
)				
) - 4 months				
07/15/87 - Issue RFP _____ )				
) - 3 months				
10/15/87 - Bids received & Evaluated _____ )				
) - 2 months				
12/17/87 - Cancel RFP, ask AID for waiver _____ )				
) - 3 months				
03/03/88 - AID decision on waiver _____ )				

15 months  
 5 months  
 4 months  
 8 months  
 9 months

USDA design  
 Verify  
 Cost  
 Funding  
 Inc.  
 PBI specs  
 RFP prep &  
 bid evaluation

\* Prepared by Assistant Project Officer, USAID/Somalia