

PJ-BAF 955

Amendment

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT PAPER FACESHEET	1. TRANSACTION CODE <input type="checkbox"/> A ADD <input checked="" type="checkbox"/> C CHANGE <input type="checkbox"/> D DELETE	PP 2. DOCUMENT CODE 3
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3. COUNTRY/ENTITY Mali	4. DOCUMENT REVISION NUMBER <input type="checkbox"/>
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5. PROJECT NUMBER (7 digits) <input type="text" value="688-0203"/>	6. BUREAU/OFFICE A. SYMBOL <input type="text"/> B. CODE <input type="text"/>	7. PROJECT TITLE (Maximum 40 characters) <input type="text" value="Mali Livestock II Amendment"/>
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8. ESTIMATED FY OF PROJECT COMPLETION FY <input type="text" value="81"/>	9. ESTIMATED DATE OF OBLIGATION A. INITIAL FY <input type="text" value="79"/> B. QUARTER <input type="text" value="3"/> C. FINAL FY <input type="text" value="80"/> (Enter 1, 2, 3; or 4)
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10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$1 -)						
A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL						
(GRANT)	(3,863)	(1,837)	(5,700)	(6,916)	(2,566)	(9,482)
(LOAN)	(3,863)	(1,837)	(5,700)	(6,916)	(2,566)	(9,482)
OTHER U.S. 1.						
OTHER U.S. 2.						
HOST COUNTRY		528	528		659	1,187
OTHER DONOR(S)						
TOTALS	3,863	2,365	6,228	6,916	3,225	10,669

11. PROPOSED BUDGET APPROPRIATED FUNDS (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY <u>79</u>		H. 2ND FY <u>80</u>		K. 3RD FY _____	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) SH	115	079		5,700		3,782			
(2)									
(3)									
(4)									
TOTALS									

A. APPROPRIATION	N. 4TH FY _____		Q. 5TH FY _____		LIFE OF PROJECT		12. IN-DEPTH EVALUATION SCHEDULED
	O. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	
(1) SH (Current Amendment)					9,482		MM YY <input type="text" value="04"/> <input type="text" value="80"/>
(2) FN (Mali II-Ruminants)					393		
(3) FN (Mali II-Overruns)					250		
(4) 639A(b) (Mali II)					7,000		
TOTALS					17,125		

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

1 = NO
 2 = YES

14. ORIGINATING OFFICE CLEARANCE				15. DATE DOCUMENT RECEIVED IN AID/W. OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION MM DD YY <input type="text"/> <input type="text"/> <input type="text"/>			
SIGNATURE							
TITLE		<i>Ronald D. Levin</i> Ronald D. Levin Mission Director		MM DD YY <input type="text" value="06"/> <input type="text" value="13"/> <input type="text" value="79"/>		MM DD YY <input type="text"/> <input type="text"/> <input type="text"/>	

MALI LIVESTOCK II PROJECT AMENDMENT

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Project Amendment
Mali Livestock Sector
(688-0203)

I. Introduction: Amendment Summary

This paper constitutes a project amendment in the amount of \$9.482 million to the Mali Livestock Sector Project (688-0203), "Mali Livestock II" originally authorized as a five year project on May 30, 1975 and subsequently amended in 1977 and 1978. Mali Livestock II is being amended by adding to it the three other ongoing livestock projects in Mali: Central Veterinary Laboratory, Mali Livestock I, and Tsetse Fly and Trypanosomiasis Research.

The purpose of this amendment reflects our wish to respond to Mali's desire for long term USG support to the livestock sector and will continue the ongoing activities of all four projects while a new livestock sector program is being designed. It is believed that such a new sector project can be designed and authorized within two years of the date this project amendment is authorized. Except for the technical assistance necessary to plan and design the new sector project, there will be no new activities added to this project. All projected activities are those existing or already contemplated under the four livestock projects.

The paper amends the Non-Capital Project Paper (PROP) approved May 30, 1975 by the Administrator, as amended by the Small Ruminants Project Paper approved on October 26, 1976. Incorporated by reference into this amendment are the following documents:

1. The PROP for the Central Veterinary Laboratory Project, as approved in March 1974;
2. The PROP for the Mali Livestock I Project, as approved in August, 1974; and
3. The original draft research proposal submitted by Texas Agricultural and Mechanical University ("TAMU") and the authorizing documents extending the TAMU contract, dated July 28, 1978.

For purposes of management this project amendment has reorganized the components of the four projects into four line categories: marketing, production, animal health, and planning. It is under these categories that the four projects will continue to be implemented during the next two years.

II. Current Program Dimensions

Recognizing the potential represented by livestock as a basic vehicle for accelerating social and economic development, AID initially became involved in 1962 through a "regional project" to research, produce and supply vaccine for Sahelian herds. Since then, the livestock program has evolved and expanded into what is now fundamentally a sector level effort comprised of four major components. They are:

A. Central Veterinary Laboratory (625-0610)-("CVL") was authorized in 1963 in the form of an AID loan of \$2.0 million for the construction of a modern laboratory facility. Subsequent grant funded technical assistance, training and commodity support has continued without interruption for 17 years at an additional cost to date of \$1.7 million.

B. Mali Livestock I (688-0201)- ("Mali I") was authorized in August, 1974 in the amount of \$3.408 million to promote greater commercialization of livestock through increased production and marketing. The principal activities are: (1) Small Farmer Feeder Program (Embouche Paysanne) designed to provide credit to small farmers for the purchase of market grade feeder cattle for "growing out" during the dry season; (2) Feedlot Program at Tienfalla, designed to turn out finish-fed cattle; (3) Range Management/Doukoulombu Forest, initiated to increase the carrying capacity of designated native grass range areas; (4) Feedlot Program at Segou, proposed to function similarly to Tienfalla; and (5) Credit fund to ECIBEV, established to finance producer-participant investments.

Two amendments of \$400 thousand in April 1976 and \$700 thousand in August 1977 increased the amount of the grant to \$4.5 million.

C. Tsetse fly and Trypanosomiasis Research (625-0926) - ("Tsetse Research") was a regionally funded project, authorized during the FY transitional quarter in 1975, was initially directed to pure research, but has now been broadened to include area surveys and studies to identify vectors and vector-borne diseases and their control. \$1.5 million in has been committed since authorization.

D. Mali Livestock II (688-0203) - was authorized in June 1975 in the amount of \$7.0 million to provide post drought recovery assistance and medium term expansion of the country's livestock sector. At the same time, an additional \$3.5 million was also approved for authorization for a tsetse clearing and livestock development site. Obligation of the \$3.5 million, however, was conditioned upon completion of necessary socio-economic, technical and ecological studies, the preparation of detailed plans and cost estimates and GRM preparation of an acceptable scheme for the management of the site. Directed specially to Phase II of the New Lands component, the \$3.5 million

has not been obligated, and is no longer needed for the project. The project was amended in 1977 to include \$393,000 for a study of Small Ruminants, not yet contracted. It was increased further by \$250,000 to cover additional project costs in FY 1978.

Principal activities within Mali II are: (1) Sahel Grazing, directed to experimentation and development of controlled range management systems for increased range forage and livestock production - the site of this activity extends over some one million hectares; (2) Training and Communications, designed a) to create a livestock extension service at the GRM agricultural research facility (Sotuba), and b) to provide training for both technical and non-technical field agents; (3) New Lands Activity, to test intensive use of traditional animal health practices and improved herd management techniques on approximately one million hectares between Bamako and Segou; and (4) Supplementary Activities, providing assistance on a selective basis to the CVL, and to OMBEVI, the GRM Livestock and Meat Board, for studies.

All current technical assistance contracts in support of ongoing USAID/GRM livestock and livestock-related projects terminate on 30 June 1979.

III. The Project Amendment

The Mali CDSS makes reference to those livestock activities already underway and to mission plans for long term assistance. In late March 1979, a Project Paper was submitted proposing a six-year comprehensive sector program. This planning, however, was not sustained in negotiations with the GRM which, subsequent to receipt of the PP in Washington, requested further assistance in the form of additional financing for a transitional period of two years to permit it to jointly study a sector livestock program. (See Bamako 1779 of 29 March - Annex 1)

An attempt was made to recast the Project Paper within this limited framework. Subsequent reviews within AID/W, however, determined an adequate basis for long term support was lacking.

In order to respond to the Government of Mali and take into account our own interests in maintaining the momentum of activities presently underway, while, at the same time, providing a time frame needed to plan and negotiate with the GRM a new long term sector project acceptable to both parties, it is proposed to amend the present Mali Livestock II Project (688-0203) for a period of two years. Specifically, this amendment proposes to subsume the current four separate efforts within a single project (688-0203) to serve as the keystone around which ongoing and future U.S. assistance to the livestock sector will turn.

Pursuant to this amendment, it is proposed to continue efforts to improve the welfare of the people through the organized development of a national livestock sector, and to create a source of foreign exchange for the GRM through the export of Malian cattle. Specifically, current project efforts will continue to be directed to the combined objectives of a) increasing production and productivity of Mali's national livestock herd through a series of interventions directed toward a more cost-effective and ecologically sound use of existing human, land and water resources; and b) assisting the GRM in establishing an organizational capacity 1) to plan and direct the improvement of operational efficiency and financial viability of public livestock sector support systems, and 2) to stimulate momentum in livestock marketing through the systematic exploitation of domestic and foreign demand.

In addition to facilitating immediately the extension of contracts of technical advisory personnel presently engaged in support of current project components, assistance provided through this amendment will support that TA through continued financing of participant training, commodities and construction requirements scaled to meet modest growth performance in ongoing or planned activities.

In order to assure improved coordination among the component initiatives, it is proposed to provide, also through this amendment, necessary technical assistance in the development of data collection/analysis and information systems, as well as for planning and other support mechanisms a) to facilitate required studies for purposes of market determination and producer services and b) to assist government policy makers in the development of livestock

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sector planning and the formation of an executive management structure. It is anticipated assistance to objective (b) will result in an evaluation of project performance and the formulation of a longer ranged livestock program, assistance for which will be articulated and presented in a Project Paper to be submitted for AID consideration between the twelfth (12th) and sixteenth (16th) months of the period of the proposed amendment.

IV. Assumptions:

A. **The Market:** Perhaps the most critical assumption in support of the proposed program level of effort deals with demand. Specifically, export demand to the coastal market at prices profitable to producers is valid. However, a market feasibility study focused specifically on the Malian case is required before major resources to either expanded production or marketing can be committed. A study is to be carried out during the initial six months of the amendment period to determine Mali's potential share of the coastal (export) market. Technical assistance will be provided to assist the GRM in this determination as well as to develop the structural and procedural means necessary to respond to such targets of opportunity. The satisfactory completion of this effort will be identified as an "Output" for the project period covered by this amendment.

B. **Achievement Motivation:** A second major assumption deals with the traditional Malian socio-cultural milieu. The project is predicated upon the hypothesis that herders, farmers and traders will respond to similar economic forces historically ascribed to free "Western" agricultural societies. In the Malian context, motivation may be interpreted ultimately to the desire for security and survival against hunger and other forms of privation, especially during cyclical periods of unfavorable climate. Here again, technical assistance will be provided to assist in initial socio-economic surveys in an attempt to verify the nature and magnitude of these factors in producer activities. Completion of the initial round of surveys is cited as a new "Output" during the period covered by this amendment.

C. **GRM Support:** The Government of Mali continues to be beset with conflicting demands upon its scarce human, financial and institution capital. As such, it is recognized that counterpart commitments can sometimes meet with less than full and timely compliance. The USAID firmly believes the necessary GRM commitment exists, but nonetheless feels a clear need for an explicit statement of assumption. The development, in concert with the GRM, of a Project Paper in support of a continuing livestock sector program is contemplated during the period of this amendment. The cooperation of the government throughout continuing project negotiations will provide the necessary indication of GRM commitments to any longer term livestock sector program.

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V. PROJECT STRUCTURE

Under this amendment the four projects will be consolidated into the following organizational framework:

- A. National Institutions: This amendment is designed to consolidate current project efforts in the livestock sector into a comprehensive sector-wide, service delivery system through existing institutional structures dedicated to research, animal health, production and marketing in one capacity or another. Included are the following agencies, presently reporting to the Ministry of Rural Development, and each is headed by a Director General:

OMBEVI: The Malian Livestock and Meat Board, an agency responsible for regulatory functions related to cattle marketing and for statistics and macro-analyses concerning both national livestock production and marketing. It is currently AID's chief counterpart agency in the sector in terms of general coordination.

ECIBEV: The National Agency for Livestock Credit and Commercialization responsible for providing credit and technical assistance to cattle feeders and producers, operation of the Tienfalla Feedlot and development of more effective marketing operations and systems of the GRM. ECIBEV is AID's counterpart for the "Embouche Paysanne" (small farmer feeding/finishing) program, the Tienfalla Feedlot activity and the Doukoulomba Forest Range Management activity. ECIBEV is a relatively new parastatal agency, having been created for implementation of Mali I.

SERVICE DE L'ELEVAGE: The national livestock service is responsible for nation-wide animal health programs and for health supervision of local marketing. It is also responsible for the Central Veterinary Laboratory (CVL) currently assisted by AID funded PASA technicians in vaccine production. CVL is also the implementing agency for the Tsetse Research in support of the "New Lands" activity of Mali Livestock II.

RURAL ECONOMIC INSTITUTE (IER): The institute is the planning/evaluation/studies arm of the Ministry of Rural Development. It conducts agricultural, livestock and economic research, and is the counterpart agency for projects funded by donors in these fields. IER provides the economic research support for the "New Lands" activity of Mali Livestock II.

B. Proposed Sector Components: The amendment which will become effective no later than 1 July 1979 will provide a continuum to the ongoing and presently planned activities with accomplishments measured as falling between "activity progress to date" and "proposed outputs."

For purpose of field implementation, proposed sector components will be considered in the following context:

Proposed Activities

Continuation of:

1) Marketing

A) Mali I (688-0203)
(Except Embouche Paysanne)

2) Production

B) Mali Livestock II (688-0203)
(plus Embouche Paysanne)
(except Supplementary Activities)

3) Animal Health

C) Tsetse Research (625-0610)
Tsetse (625-0926)

4) Planning

D) Mali Livestock II (688-0203)
(Supplementary Activities only)

1. Marketing Activities - (Mali I)

Mali I originally covered five distinct activities. The status of each, including the finding which led to the decision to discontinue two of the activities, are identified below.

ACTIVITY PROGRESS TO DATE:

a. Expansion of Livestock Production by Sedentary Farmers
(Small Farmer Feeder Program - Embouche Paysanne)^{1/}

- 1) Activation of a production enterprise entirely new to participants and to Malian project staff; 100% increase in number of cattle fed and of farmer participants during each of the first three feeding seasons;

^{1/}To be viewed in the context of Production Activities during the period of the Amendment.

- 2) 80% increase in efficiency of production by third year over initial year's operations; and
- 3) average net cash income yield per participant of MF 22,000 (US \$ 48.00), equivalent to three times rural annual per capita cash income.

b. Tienfalla Feedlot Program

- 1) Completion of feedlot construction in early 1979, two years after target date;
- 2) ten-fold increase in number of cattle processed; 2,000 head finish-fed in 1979, representing roughly two-thirds of original target;
- 3) acquisition of critically required large-scale commercial feedlot experience by Malian project personnel; and
- 4) two export market cattle shipments tested and found to be feasible.

c. Forest Range Management - Doukoulomba Preserve

- 1) Wells, cattle handling facilities and quarantine lot provided to permit maximum utilization of range during dry season; and
- 2) construction of firebreaks to protect some 8,000 hectares (17,600 acres);

NOTE: The Doukoulomba Forest site proved not to be representative of open-country range in this rainfall belt and, thus, not suitable for demonstration/application of range management techniques throughout the area. As such, this sub-activity will not be continued. It is anticipated, however, the

facility will be used, in part, by ECIBEV for purposes of testing the feasibility of cattle holding ranches to assure the supply of feeder grade cattle during the period of transhumance.

d. Segou Feedlot Program

This facility was never activated due to cost over-runs on Tienfalla and to a decision that only one feedlot was required for the development and demonstration purposes intended. (Tienfalla was designated as the experimentation site to test commercially viable operations and as a demonstration site to encourage private entrepreneurs to undertake modest scale private feeding facilities).

e. Credit Fund

- 1) A grant of \$800,000 was sub-obligated for the purpose, of which \$600,000 has been deposited to date; it is anticipated the balance (\$200,000) will finance additional investments during the 1979-80 season; and
- 2) collection of loans for farmer-feeder credit has averaged between 95% and 100%; collection of investor loans at Tienfalla are in the area of 95%.

Assistance in the further development of marketing activities during the period of the amendment will be concentrated on ECIBEV, the Malian parastatal organization charged with implementation responsibilities pertaining to marketing and secondary production infrastructure. Specifically, performance will be directed to the furtherance of the following:

PROPOSED OUTPUTS:

- a) A study to determine an appropriately effective marketing strategy for full exploitation of the coastal export market;
- b) further export contract sales on a test basis to determine and refine a capability to operate an export program at a profit;
- c) construction of feeder cattle buying stations and associated competitive buying practices at large weekly livestock markets to demonstrate the demand for cattle as a means to encourage private entrepreneurs to engage in this market (see (f) below);
- d) collaboration with the Production Activity staff - Mali Livestock II - in the adoption and promotion of high energy forages and grains by feeder-farmers and small feedlot operations;
- e) collaboration with the Production Activity staff - Mali Livestock II - in the development/expansion of producer associations to take over self-help functions geared to increase finish-feeding operations with minimum government staff inputs;
- f) increase of \$200,000 in credit to participating feeder-farmers and small feedlot investors for financing cattle procurements, feed production, feed procurement, health and other required production services; and
- g) continued development of systems for year-round cattle feeding; testing of cattle holding ranches to assure a supply of feeder grade cattle during the period of transhumance.

2. Production Activities - (Mali Livestock II)

Mali Livestock II, which contained three principal activities and several subsidiary activities, was scheduled for a five-year period. Financing, however, was authorized for three years only.

ACTIVITY PROGRESS TO DATE:

a. Sahel Grazing Activity

- 1) A test perimeter of approximately 150,000 hectares was selected in the activity zone to test the feasibility of range and herd management techniques proposed for this zone;
- 2) 580 kilometers of firebreaks were constructed in the test perimeter in 1978, partly by self-help of the concerned villagers and partly project funded;
- 3) eight livestock herder associations were organized comprising 500 herder families from 27 villages; one grazing association was organized with representation by one member from each herder association (a constitution and by-laws were submitted to the Ministry of Interior for approval for legal status for these local range management units);
- 4) 15 wells were drilled in the area selected (water yields range from one cubic meter per hour to 30 cubic meters per hour);
- 5) one herder-farmer three-day training program was conducted for herders of the area (attended by over 100 herders); and
- 6) new forage and woody legume plants were introduced at the nursery at the Dilly Training Center for screening for suitability of use by herders.

b. Training and Communication Activity

- 1) Curricula were prepared for courses in range management and agricultural extension (translated into French and published);
- 2) three Malian instructors were trained in the course materials and teaching techniques, and conducted all the training;
- 3) 16 livestock field staff graduated from the five-and-a-half month academic and two-and-one-half month field training program embracing all the subjects and their application;
- 4) surveys were conducted among herders and sedentary farmers to determine the most effective forms of visual aids to be used in farmer training materials;
- 5) radio programs were prepared on all important range and herd management subjects and were broadcast by Radio Mali in at least three dialects;
- 6) cassette recordings were prepared on some half dozen subjects and loaned to villages in the test perimeter area around Dilly; and
- 7) 24 students were selected from 75 candidates proposed for training with various organizations engaged in livestock activities.

c. New Lands Activity

- 1) Reconnaissance surveys in entomology and socio-economics were conducted in the three candidate areas proposed for the pilot project zone (reports of these findings were submitted for review in October 1978);

- 2) the pilot project zone was selected in December 1978.
- 3) intensive entomology and socio-economic studies are under way in the pilot project zone to prepare a feasibility report to determine the benefit/cost feasibility of a tsetse control program (not eradication);^{1/}
- 4) 30 Malian staff underwent four months training in tsetse fly survey techniques (the New Lands activity staff collaborated closely with the Tsetse Research project being implemented by Texas A&M University in collaboration with the CVL);

d. Supplementary Activities

1) Language training^{2/}

- an English language training program was established to provide language instruction to participant training candidates and for local counterpart staff;
- French language instruction was provided foreign contract staffs of several projects; and
- instruction in local dialects was instituted for both Malian and foreign contract staffs assigned to remote areas;

^{1/}Tsetse fly control studies will continue until the feasibility study called for in Mali Livestock II is completed. There is no provision in this extension to finance a tsetse control program. Should the study report indicate such would be feasible, a proposal for tsetse control as a major means of reducing the risk of Trypanosomiasis will be included in the follow-on project to be planned during the period covered by this amendment.

^{2/}There is no other qualified language training program in the country. All USAID-funded participants now use this facility for English language training. It is open to staff members of private commercial organizations on a fee basis. Up to 75 students have been enrolled at one time.

- 2) financial support in the amount of \$80,000 was provided the Central Veterinary Laboratory to assist in back-stop support to the New Lands activity;
- 3) reports on means to establish a market news service and on potential interventions to improve the livestock marketing system were developed;
- 4) approximately nine months of short term consultant support were provided to assist the OMBEVI staff increase its general capability; and
- 5) twelve participants are enrolled in advanced degree training in the United States in range management, animal husbandry, animal breeding, agricultural economics and agricultural extension. ^{1/}

Assistance in the development of these production activities during the period of the amendment will focus primarily on Field Operations

Activities and will include support to assist primary producers (herders herder/farmers and sedentary farmers) to increase livestock production in the Sahel Grazing area and the New Lands pilot zone, and for the production aspects related to the Small Farmer Feeder Program - Embouche Paysanne (Mali I)

Field activities in these geographically separate areas will now be combined as the technical disciplines involved in each are basically the same.

^{1/}No research into livestock management, breed selection or agronomy has yet been initiated and no assistance in economic training has yet been provided as Malian staff availability has been greatly reduced due to the absence of senior staff in pursuit of advanced degrees.

Training and communication activities will continue much as they have functioned in the past for at least the first year. Since the curricula have already been developed and modified, there will be less need for as many expatriate advisors during the period of this amendment. Accordingly, technical support will be reduced by half, with the remaining advisors assigned to the area of primary concern, Field Operations, to work directly with producers. When construction of the physical facilities at the training centers at Sotuba are completed within the next 18 months, space will be available to accommodate larger numbers of students being requested by development agencies (requests now more than double the capacity of the present temporary quarters).^{1/} The livestock training center is open to any GRM agency involved in livestock development (presently, there are some six agencies represented).

A research activity will focus solely on "adaptive" trials to screen feed production, harvesting and storage technology already developed for climatic conditions similar to Mali; it will not include animal husbandry research.

^{1/} The bulk of this funding is in the current Mali Livestock II project; \$200,000 is budgeted in this amendment for completion of Sotuba training facilities.

PROPOSED OUTPUTS

a. Field Operations=Activities

- 1) Development of appropriate agronomic technical packages for range and cultivated forages & grains for the various ecological areas in each activity zone (in collaboration with the Research Activity staff);
- 2) agronomic and herd management technical packages and field trials under controlled conditions to meet various producer requirements and to determine production and economic response in each ecological area;
- 3) demonstrations to acquaint producers with the technologies being developed and their benefits;
- 4) promotion and supervision of adoption trials by producers, and monitoring of results to determine the suitability of the technology for producer level application;
- 5) organization of village producer associations as a means to develop local leadership in those extension functions which can be performed effectively at this level;
- 6) development of technology, in collaboration with technical specialists for area-wide interventions in range management (designs for firebreak systems, and development of transhumanance corridors), and hydrogeology (the development of water points);
- 7) promotion of the feed production and producer organization aspects of the Embouche Paysanne Program in collaboration with ECIBEV;
- 8) conduct of field trials on the use of chemoprophylaxis against Trypanosomiasis on herds under both improved and conventional

management to determine the production and economic response in the "New Lands" pilot zone (in collaboration with the Tsetse Research staff/TAMU);

- 9) sociologic surveys to evaluate producer aspirations and response to innovations introduced, and the factors which contribute to productive change;
- 10) completion of the land use inventory of the Sahel Grazing area (the Earthsat contract study was not determined to be fully acceptable);
- 11) sociological studies of means to increase the participation of, and benefits to, rural women and development of a program for consideration in the follow-on project;
- 12) studies on credit required by producers to implement the various technical packages and, if indicated, development of a credit program for consideration in the follow-on project (to be undertaken in collaboration with IFAD); and
- 13) collaboration with ICRISAT and the cereal and cash crop "operations" in the development of programs to promote the expansion in use of draft animals in support of mixed farming programs in the geographic areas of the project's field activities.

b. Training and Communications

- 1) 24 trainees to complete nine months of combined academic and field training in September 1979;
- 2) 24 new participants trained between October 1979 and June 1980 (numbers will remain constant until construction of the 100-trainee facility is completed);

- 3) joint evaluation by training center and sponsoring agency staff of trainee performance at the end of the first year of duty (after training) to identify strengths and weaknesses of the program;
- 4) herder/farmer short term workshop to be developed and conducted at least once annually for representatives designated by the herder associations in the Sahel Grazing area and for staff designated representatives from other areas;
- 5) radio programs and cassette recordings to continue advice to producers of seasonal herd management and animal health techniques; and
- 6) the visual aids staff is to continue providing educational and publicity support to all of the sector sub-projects and to other USAID funded projects as resources permit.

c. Research

- 1) Screening of varieties and cultural techniques of both range and cultivated forages and root crops, determined suitable to Mali's climate conditions, for greatest potential for feed production (in collaboration with ILCA, ICRISAT, SAFGRAD and IRAT, the French Institute for Tropical Agricultural Research);
- 2) analyses for the purposes of a) determining which varieties are suitable for periods when labor is not competitive with cereal and cash-crop production, and b) determining cultural techniques which produce the highest yields of these varieties at fertility levels existing in Mali;

- 3) collaboration with the Training and Communication activity staff on the introduction of new technology to the training curricula;
- 4) in collaboration with the Training Center staff, development and supervision of the training program for livestock extension trainees during their period of training in field research operations; and
- 5) in collaboration with the Field Operations staff, development of production programs to introduce and test new technology at the producer level.

3. Animal Health Activities (CVL and Tsetse Research)

This activity pertains to two on-going projects which, for purposes of the proposed amendment, will be continued through incorporation into a single activity. Both projects, the CVL and the Tsetse Research provide either direct or complementary development support to the CVL.

ACTIVITY PROGRESS TO DATE:

- a) Annual production levels of vaccine average some 15 million doses of Rinderpest, four million doses of Contagious Bovine Pleuro-pneumonia, three million doses of Blackleg, 1.4 million of Pasteurellosis and 18 thousand doses of Anthrax;
- b) responsibility for quality control is now vested with Malian staff for all the functions for which facilities are available;
- c) maintenance responsibility for all intricate equipment is now the sole responsibility of the Malian staff;
- d) a library of publications on the current state of the art for Tsetse fly and Trypanosomiasis has been established;

- e) a dozen staff members have been trained in fly survey techniques to the level of competence required for research activities;
- f) field surveys conducted during 1978 and 1979 to identify the incidence of the various species of fly and the ecological factors associated with each fly species ;
- g) two laboratory technicians trained in blood borne parasite identification techniques (a skill essential to complement the fly surveys to determine the degree of incidence of trypanosomiasis associated with each fly species).
- h) research initiated to test the relative effects of chemoprophylaxis on N'Dama (trypano-tolerant) and Zebu (trypano-sensitive) cattle when placed under exposure to infestations of Tsetse fly under similar management conditions. (Initial results with the Zebu revealed that none which were treated with the suppressant/therapeutic drug, Trypanidium, contracted the disease, while all of the remaining untreated Zebu contracted the disease several times).

The organizational structure and field personnel of the "Service de l'Elevage" and CVL are now in a position to operate a country-wide cattle vaccination program adequate to contain the most serious of the epidemic-type diseases of the past. ^{1/} This is not, however, a sufficient base for an

^{1/} 63% and 73% of Malian cattle were vaccinated for Rinderpest and Bovine Pleuro-pneumonia respectively in 1977.

effective program of national health. Proposed assistance to the Animal Health Activity will include support to the Service de l'Elevage/Central Veterinary Laboratory 1) to continue the vaccine production program through part-time technical assistance, 2) to expand the control testing program for animal vaccines to meet international standards, 3) to provide technical assistance, equipment and facilities to develop the skills required to diagnose major animal diseases and parasitic infestations, 4) to conduct research on the Tsetse fly and other animal disease bearing vectors and 5) to conduct research on the diseases which those vectors transmit, with priority focused on activities which are closely related to on-going livestock production programs.

PROPOSED OUTPUTS:

- a) Construction of modest facilities essential to a large animal vaccine quality control program;
- b) initiation of a veterinary diagnostic skill in the identification of animal diseases and parasitic infestations;
- c) construction of modest facilities essential to diagnostic functions and staff training programs;
- d) construction of facilities required to conduct the Zebu/N'Dama research on cattle response to various chemoprophylactic treatments for the control of Trypanosomiasis;
- e) research studies and reports on the response of livestock to various therapeutic and/or management measures to reduce losses from these diseases. and the cost/benefit relationship of these measures;

- f) research studies and reports on the incidence of vector-borne diseases and the ecological factors related to their existence and transmission, and
- g) increased Malian skill in the laboratory identification of hematological disease organisms.

4. Planning Activities

Despite the fact that GRM/AID livestock activities have developed to what can be viewed as a sector program, the "strategy" remains fragmented and focussed upon specific constraints with activity components in relative isolation. This circumstance results, in part, from a critical lack of coordination required to assure complementarity of activities. A further constraint, apparent from a joint U.S. and Malian evaluation, is characterized by a detrimental lack of adequate information on which to base planning, operational and technical decisions.

To address these basic constraints, this amendment proposes to provide contract technical resources for necessary studies and surveys, and to assist the GRM in matters of organizational planning to facilitate decision-making in the formulation of a long term livestock development strategy/program. The individual work pieces proposed herein represent sub-activities previously contemplated to support and interface with continuing sector program objectives.

PROPOSED OUTPUTS:

- a) A Work Plan developed in concert with the GRM to schedule the necessary time frames for:
1. a joint US/GRM review or evaluation of program/project activities to date, the findings of which are to be reflected in terms of reference (TORs) governing the design and development of a follow-on long term livestock sector program; and
 2. formulation of a long range livestock sector program in the form of a Project Paper to be submitted for AID consideration between the twelfth (12th) and sixteenth (16th) months of the period of this amendment;
- b) by the end of month six of this amendment, a study to determine an appropriately effective marketing strategy for full exploitation of the coastal export market for Malian cattle;
- c) development of a limited number of socio-economic surveys/studies still required to enable the GRM to maximize its long term livestock efforts; and
- d) development of pertinent data collection/analyses and information systems to serve as a basis for planning and other support mechanism to be factored into a long term development strategy/program.

VI. Financial Management

The financial management procedures for this amendment will vary with the separate activities as a result of precedents under existing projects and of the contractual arrangements for technical assistance. The budget allocation for each activity will be established in the amended Grant Agreement. The detailed budget for each activity will be subject to mutual agreement and will be determined by procedures to be negotiated and incorporated in the amended Grant Agreement. The financial management procedures for each input category will be as follows:

A. Procedures

1. Technical Assistance

Financial support for this input will be provided for the host country contractor for the Marketing and Production Activities through a direct Letter of Commitment to the contractor pursuant to a request to AID from the GRM.

Financial support for technical assistance for the Tse'tse Research component of the Animal Health Activity will also be provided through a direct Letter of Commitment to the contractor pursuant to a request from either USAID/Bamako or the GRM dependent upon the nature of the contract determined during Grant Agreement negotiations.

The funds provided for the technical assistance USDA/PASA component of the Animal Health Activity will be disbursed through standard AID procedures for PASA's.

2. Participant Training

All of the training for participants in the United States will be funded through PIO/Ps. All third country training will be funded with

local currency advances provided to each activity and administered in accordance with the terms described in the following local currency section.

3. Commodities

Commodity procurement for imported commodities may be by authorized Procurement Services Agents (PSA'S) in accordance with AID procedures. Direct commodity procurement through AID will be through PIO/Cs.

Local procurement of commodities will be the responsibility of each Activity Director; financing procedures will be in accordance with AID policy established for local currency disbursements.

4. Construction

Each Activity Director will be responsible for construction implementation for his respective activity. Financing procedures for this input will be in accordance with AID local procurement disbursement policy.

B. Local Currency Disbursement Policy

All financing of non-contract local currency disbursements for the Marketing and Animal Health activities will be provided through funds advanced to each activity on the basis of documented requests submitted in writing to USAID/Bamako for consideration of approval. The requests will normally be on a quarterly basis, or as otherwise mutually determined to be most appropriate.

The funds provided to each activity for local currency disbursements will be deposited in separate bank accounts for each activity. Funds provided to the Marketing activity for credit will be maintained in a separate account from other funds provided for local disbursement for that activity.

All funds provide for local disbursement for the Production activity shall be in accordance with the terms established during the amended Grant Agreement negotiations and could be either on the same basis as for the Marketing activity or through a Joint Fund on terms generally similar to those currently established for the operation of this Joint Fund for Mali Livestock II as set forth in the appropriate implementation letter to the Project Grant Agreement dated June 30, 1975. Funds provided to this activity for local disbursement will be deposited in bank accounts limited for use by this activity.

VII. Conditions Precedent and Covenants

As the nature of this effort for which funds are being requested is an amendment to an existing project, all conditions precedent and covenants to the Grant Agreement for Mali Livestock II, if still applicable, remain in effect. In addition, the following conditions precedent shall be in the amended Grant Agreement: (a) compliance with certain procedures before obligated funds for construction activities may be disbursed, and (b) conformance with Regulation 16 prior to purchase or use of any pesticides in project implementation.

The amended Grant Agreement shall provide as covenants (1) that the Government of Mali (GRM) will develop, within the period of the amendment, plans for the self-sufficiency in the operations of the Central Veterinary Laboratory (CVL) and, (2) that within 6 months from the effective date of this amendment, the Cooperating Country shall furnish to A.I.D., in form and substance satisfactory to A.I.D., a Work Plan providing for (a) a review and evaluation of the A.I.D. program activities in Mali and (b) the development of a long range livestock sector program, including plans for the financing of such a program and the recurrent costs attendant thereto.

Formal language for the inclusion of the CPs and Covenant is reflected in the PAF II authorizing this Amendment.

VIII. Engineering Analysis

1. General

The varied facilities required for the project have been discussed with the GRM and are listed in the Cost Estimate Section below. The exact designs for the facilities are not completed yet, but will be done by a local Malian Architectural and Engineering (A&E) firm.

Section 611a of the Foreign Assistance Act has not yet been satisfied with respect to construction as well as to other activities requiring analysis, such as firebreaks, cattle holding, handling, water development, vaccination facilities and nurseries. The required analyses for those activities proposed by the project for implementation in FY 79 will be completed within the first four months after project authorization and all other analyses will be completed within nine months of project authorization. This delay is essential to allow for detailed implementation planning to be completed. Planning and analysis will be initiated immediately upon project authorization.

It is recommended that this project be authorized for the full funding requested with the provision that the requirements of Sec. 611(a) of the FAA will be met prior to any obligation of funds for construction under the Project Grant Agreement.

2. Architectural and Engineering Services

The successful firm will prepare a complete bid package. When this is complete, it will be presented to Genie Rural and USAID for approval. After required modifications, the IFB will be advertised. The A&E firm will assist the GRM in assessing offerers' qualifications. The USAID must approve both the contract terms and the selection of the contractor before the order to begin work is given.

Either the A&E firm or Genie Rural will provide for supervision and inspection of the work based upon a separate TOR prepared by the USAID Engineer and Genie Rural. The USAID Engineer and the Director of Genie Rural will monitor the work and accept work completed.

3. Building Construction Cost Analysis

For the project, unit cost estimates are based upon costs of recent similar construction as follows:

a) Simple Concrete Block Construction

For houses built of reinforced concrete frame and roof, concrete block masonry and without certain finishing elements (electricity, wiring, water and plumbing

connections, screens, door locks) and done by a small local contractor with little overhead (tacheron), the cost per square meter is estimated at \$175. Similar type construction (slightly more modest) of offices and housing but completely finished and done by force account cost \$225-285/square meter in Severe in the Summer of 1978.

For this type of construction, therefore, reasonable budgetary figures are believed to be:

- Warehouse/garage: \$250/square meter
- Simple concrete block office: \$275/square meter
- Simple concrete block house with plumbing: \$300/square meter

b) Improved Adobe Block (banco) Construction

The cost of improved adobe construction depends to a great extent upon how much, and in what manner, it is improved. The cost per square meter of a relatively simple building (house, classroom, office) of adobe construction including concrete slab floors, plastered walls, reinforced concrete lintels, metal windows and doors and corrugated metal roofs varied from \$75 (offices/classrooms) to \$125 (houses). Therefore, reasonable cost estimates are as follows:

- Open buildings (classrooms, meeting halls, warehouses); \$100/sq. meter.
- Offices: \$125/square meter
- Housing with plumbing: \$150/square meter

Factors: The following overall factors, based upon the USAID engineer's best judgement, must be added to the above budgetary figures. These factors are summed up as a global factor to be used where needed depending upon actual bid prices for construction.

- Inflation: 5%.
- Construction market factor: 10%.
- Contingency factor: 10%.

Total global factor: 25%

IX. Procurement Plan

1. Responsible Agency

All procurement under this Development Grant will be the responsibility of and conducted by the Government of the Republic of Mali (GRM), except otherwise as negotiated for those given categories and value of equipment which can be procured by the contractor. However, in view of the variety of American products required for this project and the high dollar value of the procurement in the United States, it is expected that the project contractors and/or USAID/Bamako will be requested to undertake the necessary U.S. purchases either through a Professional Procurement Services Agent (PSA) or directly from U.S. suppliers, as appropriate.

2. Equipment/commodity list

The items listed under this heading are those that represent the general needs of the project over its two (2) year life span. More exact details and specifications will be issued to enact procurement.

A. Vehicles for Transportation of Project Personnel/Commodities⁽¹⁾

(\$000)

18 ea Scouts, Diesel, 4 wheel drive	\$ 252
4 ea Scout, Gasoline	44
18 ea Motorcycles	30.6
10 ea Mobylettes	<u>5.3</u>

Total Vehicles \$ 332 (rounded)

(1) Includes 15% Spare parts

B. Livestock Production and Handling Commodities

(\$000)

Fencing Material	30
Garage Equipment	40
Radio Equipment	70
Forage Production Equipment/Animal Draft Types	24
Research and Draft Cattle	50
Seeds and Fertilizer	25
Cattle Handling Equipment	52
Visual Aid Equipment	24
Language Laboratory Equipment & Supplies	12
Miscellaneous	<u>30</u>
Total Livestock Production and Handling	\$ 357

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C. Animal Health Supplies and Equipment
(\$000)

Laboratory Equipment and Supplies	\$ 125
Research Equipment, Vector Research	125
Cattle, Vector Research	30
Total Animal Health	\$ 280

D. Marketing Commodities
(000)

Communications/Visual	\$ 10
Tractor	20
Cattle Scales	6
Cattle Squeezer	6
Radio Equipment	10
Miscellaneous	30
Total General Commodities	\$ 82
Sub Total B+C+D	719

15% spare parts on 30% value
of non-vehicle commodities \$ 32

Sub-Total - Non-vehicle commodities 751
Sub-Total Item A 332
Sub Total Items A-D \$1,083

Inflation factor, 8% annum on
items A-D^{1/} 22

Total Commodities (items A-D) \$1,105

3. Waivers

A waiver of the source and origin restriction for purchase of motor vehicles is required to permit procurement of the following from code 935 sources:

18 motorcycles	30,600
10 mobyettes	5,300
Total	<u>35,900</u>

^{1/}Includes inflation factor for that portion of commodities to be purchased after CY 1979.

Justification

This authorization is needed to allow timely procurement of motorcycles and mbylettes. These will be essentially for use by marketing, health and production agents in outlying towns to assist villages in implementing project activities. The motorcycles and the mbylettes for which the waiver is requested are 100 cc and 49 cc displacements respectively. There are no U.S. or code 941 country distributors in Mali and non-A.I.D. foreign exchange is not available for purchase of these vehicles or spare parts from code 935 countries. As a result, parts for U.S. or code 941 country made motorcycles and mbylettes are neither available in Mali nor are Malians trained in their maintenance.

These motorcycles and mbylettes, which can be repaired and serviced locally are essential to the successful implementation of this project.

4. Local Currency Procurement

To support activities of the project, local currency will be required to purchase the following:

28 Motorcycles and Mbylettes	\$ 36,000
12 Animal traction forage production units	24,000
Research cattle	80,000
Seeds	8,000
Communication & Visual Aid Equipment	14,000
Language Laboratory Equipment	8,000
Spare parts (for vehicles)	20,000
Spare parts of 30% of non-vehicle commodities	32,000
Cattle handling equipment & supplies (fabricated locally or complementary for fabrication)	63,000
Fencing equipment/supplies	15,000
Veterinary supplies (non-pharm)	15,000
Inflation	10,000
Miscellaneous	20,000
Total	<u>\$345,000</u>

X.

FINANCIAL PLAN

1. Financial Summary (see details Annex B)

SUMMARY COST ESTIMATE AND FINANCIAL PLAN (FY 79-81)

	<u>FX</u>	<u>AID LOCAL</u>	<u>TOTAL</u>	<u>GRM LOCAL</u>	<u>TOTAL</u>		<u>TRAVEL</u>
					<u>FX</u>	<u>LOCAL</u>	
Technical Assistance	5,001	-	5,001	744	5,001	744	5,745
Training	886	-	886	-	886	-	886
Construction	-	937	937	-	-	937	937
Commodities	804	301	1,105	-	804	301	1,105
Credit Fund	-	200	200	-	-	200	200
Sub-Total	<u>6,691</u>	<u>1,438</u>	<u>8,129</u>	<u>744</u>	<u>6,691</u>	<u>2,182</u>	<u>8,873</u>
Recurrent Costs	-	760	760	443	-	1,203	1,203
Sub-Total	<u>6,691</u>	<u>2,198</u>	<u>8,889</u>	<u>1,187</u>	<u>6,691</u>	<u>3,385</u>	<u>10,076</u>
Contingency	225	368	593	-	225	368	593
TOTAL	<u>6,916</u>	<u>2,566</u>	<u>9,482</u>	<u>1,187</u>	<u>6,916</u>	<u>3,753</u>	<u>10,669</u>

OBLIGATIONS BY FISCAL YEAR
(U.S. \$000)

<u>U.S. Fiscal Year</u>	<u>A.I.D Grants</u>	<u>GRM</u>	<u>Total</u>
1979	5,700	528	6,228
1980	3,782	659	4,441
	<u>9,482</u>	<u>1,187</u>	<u>10,669</u>

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GRM Financial Support

(Thousands of Dollars Equivalent)

	<u>FY 79</u>	<u>FY 80</u>	<u>Total 2 CY</u>
A. <u>Personnel</u> ^{1/} (annual 8% inflation factor)	\$ 348	\$ 396	\$744
B. Recurrent Costs (Operational Costs exclusive of GRM personnel salaries) Annual Total for Project	(600)	(625)	
GRM proportionate Annual Share (in accordance with most recently proposed formula)	(30%) <u>180</u>	(42%) <u>263</u>	<u>443</u>
Total Personnel & Recurrent costs contribution	528	659	1187
GRM - Land & Facilities (This is a constant that is non add except in the total)	(3,800)		<u>(3,800)</u>
C. <u>Farmers & Herders</u> ^{2/}	<u>(10)</u>	<u>(16)</u>	<u>(26)</u>
Total GRM Contribution		\$ 659	\$1,187

1/ Includes OMBEVI, ECIBEV, CVL, Service de l'Elevage & I.E.R. staffs assigned to project support.

2/ Contributions in kind (labor, equipment, etc. for self-help portion of activities calculated at \$15 per beneficiary for families directly involved in development in the areas of the project where integrated production practices are being implemented. At such time as a fee is established for livestock vaccines, which are currently being provided gratis, there will be an appropriate portion of the fee allocated to the Central Veterinary Laboratory. This is currently under consideration and will substantially increase contribution from beneficiaries. It can be estimated that at least 1¢ per dose would be generated for the CVL portion and at an annual rate of vaccination of at least 7 million doses this would generate \$70,000.

**MALI LIVESTOCK SECTOR
(688-0203)**

**FINANCIAL SUMMARY
(\$000)**

Input Category	FY 79			FY 80		
	FX	Local	Total	FX	Local	Total
1. Technical Assistance ^{1/}	2,665	-	2,665	2,336	-	2,336
2. Participant Training ^{1/}	396	-	396	490	-	490
3. Construction ^{1/}	-	717	717	-	220	220
4. Commodities ^{1/}	602	211	813	202	90	292
5. Credit Fund	-	200	200	-	-	-
6. Sub-total	3,663	1,128	4,791	3,028	310	3,338
7. Recurrent Cost:	-	400	400	-	360	360
8. Sub-total	3,663	1,528	5,191	3,028	670	3,698
9. Contingency	200	309	509	25	59	84
10. TOTAL	3,863	1,837	5,700	3,053	729	3,782

Life of Project		
FX	Local	Total
5,001	-	5,001
886	-	886
-	937	937
804	301	1,105
-	200	200
6,691	1,438	8,129
-	760	760
6,691	2,198	8,889
225	368	593
6,916	2,566	9,482

^{1/} The inflation factor has been included in each of these categories.

MALI LIVESTOCK SECTOR (688-0203)

TECHNICAL ASSISTANCE
(Long Term)
(\$000).

		<u>EOD</u>	<u>FY 79</u>	<u>FY 80</u>	<u>TOTAL</u>	<u>PERSON MONTHS</u>
<u>Administration</u>	Team Leader/Bus. Mgt.-Spec.	1/7/79	115	120	235	24
	Administrative Assistant	1/8/79	46	42	88	23
	Data Mgmt. Specialist	1/9/79	114	92	206	22
	Business Manager	1/7/79	105	110	215	24
	Engineer Civil	1/7/79	110	115	225	24
	Engineer Mechanical	1/10/79	90	71	161	21
	Total Administration			580	550	1130
<u>Marketing</u>	Economist/Marketing	1/9/79	114	92	206	22
	Animal Husbandry/Feedlot Spec.	1/7/79	110	115	225	24
	Total Marketing		224	207	431	46
<u>Production</u>	Agricultural Economist	1/7/79	110	115	225	24
<u>Research</u>	Range Management Specialist	1/7/79	110	115	225	24
	Agronomist/Forage	1/1/60	105	55	160	18
<u>Training</u>	Agricultural Extension/Training	1/7/79	110	115	225	24
	Communications/Visual Aids	1/7/79	110	115	225	24
<u>Field Operations</u>	Animal Husbandry/Extension	1/9/79	114	92	206	22
	Agronomist/Extension	1/9/79	114	92	206	22
<u>Tsetse Studies</u>	Tsetse Control Officer	1/7/79	88	0	88	9
	Glossinologist	1/7/79	88	0	88	9
	Total Production		949	699	1648	176

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MALI LIVESTOCK SECTOR (688-0203)
Technical Assistance (Long Term)

(cont'd)

		<u>EOD</u>	<u>FY 79</u>	<u>FY 80</u>	<u>81</u>	<u>TOTAL</u>	<u>PERSON MONTHS</u>
<u>Animal Health</u>	Micro-Biologist	1/7/79	110	115		225	24
	Diagnostician	1/7/79	115	115		230	24
	Entomologist	1/7/79	120	125		245	24
	Glossinologist	1/7/79	110	115		225	24
	Veterinary Parasitologist	1/7/79	120	125		245	24
	Total Animal Health			575	595		1,170

SUMMARY - LONG TERM PERSONNEL

<u>Administration</u>		580	550			1130	138
<u>Marketing</u>		224	207			431	46
<u>Production</u>		949	699			1648	176
<u>Animal Health</u>			<u>575</u>	<u>595</u>		<u>1170</u>	<u>120</u>
Total Long Term Personnel			2328	2051		4379	480
<u>Total Person Months</u>			40	240			480

MALI LIVESTOCK SECTOR (688-0203)

TECHNICAL ASSISTANCE
(Short Term)
(\$000)

	<u>FY 79</u>	<u>FY 80</u>	<u>TOTAL</u>	<u>PERSON MONTHS</u>
Economic Surveys	29	29	58	6
Program Planning	29	--	29	3
Soilologist	29	29	58	6
Hydrogeologist	56	56	112	12
Range Management	38	38	76	8
Rural Women		29	29	3
English Language Training Advisor	20	21	41	24
Marketing Survey	20		20	2
Forage Agronomist	56	54	56	6
Animal Health				10
Other	0	29	29	3
Total - Short Term Personnel	337	285	622	83
Total - Long Term Personnel	<u>1,328</u>	<u>2,051</u>	<u>4,379</u>	
Total - Technical Assistance	<u>1,665</u>	<u>2,336</u>	<u>5,001</u>	
Total - Person Months - Long Term	240	240		480
Total - Person Months - Short Term	<u>44</u>	<u>39</u>		<u>83</u>
	284	279		563

MALI LIVESTOCK SECTOR (688-0203)

TRAINING - LONG TERM

(\$000)

	<u>Year 1</u>	<u>Year 2</u>	<u>Total</u>	<u>(Person - Years)</u>
Long Term - \$ per person year -----	15.2	17.4		
Continuation 9 Participants Currently in U.S.	136.8	-	136.8	9
Marketing: Economics, Bus. Mgt., An. Sci., etc. 8 person-years	30.4	89.2	119.6	8
Production: Agronomy, Range mgt., An. Sci., Econ., Bus. Mgmt., Extension, Rural Sociology, 16 per.-years	60.8	213.2	274	16
<u>Animal Health</u>				
Diagnostic Unit: 10 person-years	76	87	163	10
Vector Research: 6 person-years	45.6	52.2	97.8	6
SUB-TOTAL	349.6	441.6	791	1
Thesis Research in Mali by Malian participants	46.3	48.3	95	
Total Long Term Participant Training	396	490	886	

MALI LIVESTOCK SECTOR (688-0203)

SUMMARY - COMMODITIES

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VEHICLES

	FY 7			FY 80		
	FX #	Local #	Total #	FX #	Local #	Total #
1 Production	95 7	9.8 10	104.8 17	67 5	3.4 2	70.4 7
2 Marketing	67 5	12.5 10	79.5 15	- -	6.8 4	6.8 4
Animal Health	67 5	3.4 2	70.4 7	- -	- -	- -
Total Vehicles (cost)	229 17	25.7 22	254.7 39	67 5	10.2 6	77.2 11
Total non-vehicle Commodities	357	177	534	115	70	185
30% Value of non-vehicle Commodities/15% spare parts	16	8	24	5	3	8
Total non-vehicle plus spare parts	373	185	558	120	73	193
Total Commodities	602	211	813	187	83	270
Inflation 8%/annum on total commodities	-	-	-	15	7	22
TOTAL COMMODITIES PLUS INFLATION FACTOR	602	211	813	202	90	292

	L.O.P.		
	FX #	Local #	Total #
	162 12	13.2 12	175.2 24
	67 5	19.3 14	86.3 19
	67 5	3.4 2	70.4 7
	296 22	35.9 28	331.9 50
	472	247	719
	21	11	32
	493	258	751
	789	294	1,083
	15	7	22
	804	301	1,105

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MALI LIVESTOCK SECTOR (688-0203)

COMMODITIES - VEHICLES

(\$000)

VEHICLE REQUIREMENTS & COSTS	FY 79			FY 80		
	FX	Local	Total	FX	Local	Total
1 Marketing						
Scout Diesel	56	-	56	-	-	-
Scout Gasoline	11	-	11	-	-	-
Motorcycles	-	10.2	10.2	-	6.8	6.8
Mobylettes	-	2.3	2.3	-	-	-
Total - Marketing	67	12.5	79.5	-	6.8	6.8
2 Production						
Scout Diesel	84	-	84	56	-	56
Scout Gasoline	11	-	11	11	-	11
Motorcycles	-	6.8	6.8	-	3.4	3.4
	-	3	3	-	-	-
Total - Production	95	9.8	104.8	67	3.4	70.4
3 Animal Health						
Scout Diesel	56	-	56	-	-	-
Scout Gasoline	11	-	11	-	-	-
Motorcycles	-	3.4	3.4	-	-	-
Total - Animal Health	67	3.4	70.4	-	-	-
TOTAL PROJECT VEHICLES	229	25.7	254.7	67	10.2	77.2

Life of			Project		
FX	Local	Total	FX	Local	Total
56	-	56	-	-	-
11	-	11	-	-	-
-	17	17	-	10	10
-	2.3	2.3	-	4	4
67	19.3	86.3	5	14	19
140	-	140	10	-	10
22	-	22	2	-	2
-	10.2	10.2	-	6	6
-	3	3	-	6	6
162	13.2	175.2	12	12	24
56	-	56	4	-	4
11	-	11	1	-	1
-	3.4	3.4	-	2	2
67	3.4	70.4	5	2	7
296	35.9	331.9	22	28	50

MALI LIVESTOCK SECTOR (648-0203)

COMMODITIES - Non-Vehicle

(\$000)

	FY 79			FY 80			L.O.P.		
	FX	Local	Total	FX	Local	Total	FX	Local	Total
1 Production									
Fencing Materials	10	10	20	5	5	10	15	15	30
Garage Equipment	40	-	40	-	-	-	40	-	40
Forage Equip. 12-Draft-animal Units	-	24	24	-	-	-	-	24	24
Seeds & Fertilizers	7	3	10	10	5	15	17	8	25
Cattle handling Equipment	20	32	52	-	-	-	20	32	52
Research Cattle/ Draft Animals	-	35	35	-	15	15	-	50	50
Radio Equipment	70	-	70	-	-	-	70	-	70
Visual aid Equipment	10	5	15	6	3	9	16	8	24
Language Lab. Equipment & Supplies	2	4	6	2	4	6	4	8	12
Miscellaneous	10	5	15	10	5	15	20	10	30
Total Production	169	118	287	33	37	70	202	155	357
2 Animal Health									
a) CVL									
Laboratory Equipment/Vaccine Production	70	10	80	40	5	45	110	15	125
b) Vector Research									
Equipment	70	15	85	30	10	40	100	25	125
Cattle	-	20	20	-	10	10	-	30	30
Total Animal Health	140	45	185	70	25	95	210	70	280
3 Marketing									
Communications/Visual aids	2	3	5	2	3	5	4	6	10
Tractors	20	-	20	-	-	-	20	-	20
Cattle Scales	6	-	6	-	-	-	6	-	6
Cattle Squeezes	-	6	6	-	-	-	-	6	6
Radio Equipment	10	-	10	-	-	-	10	-	10
Miscellaneous	10	5	15	10	5	15	20	10	30
Total Marketing	48	14	62	12	8	20	60	22	82
TOTAL NON-VEHICLE COMMODITIES	357	177	534	115	70	185	472	247	719

4/4

5/1

CONSTRUCTION (Summary)
(\$000)

	<u>FY 79</u>	<u>FY 80</u>	<u>TOTAL</u>
I. Project Administration	-	-	-
II. Production Headquarters/Sotuba	470	-	470
III. Animal Health (Central)/CVL	50	72	122
IV. Dilly/Training Center	-	62	62
Sub-total Buildings (Items I-IV)	(520)	(134)	(654)
V. Animal Health (Field)	50	-	50
VI. New Lands/Mixed Farming (Field)	-	45	45
VII. Dilly/Test Perimeter (Field)	35	15	50
VIII. Marketing Facilities (Field)	90	-	90
Sub-total Field Facilities (Items V-VIII)	(175)	(60)	(235)
Sub-total Buildings & Field Facilities (Items I-VIII)	(695)	(194)	(889)
IX. A & E ^{1/}	22	10	32
X. Inflation 8%/year on I-VIII	-	16	16
<u>TOTAL CONSTRUCTION</u>	<u>717</u>	<u>220</u>	<u>937</u>

1/ 6% on items I-IV and on components of items V-VIII as appropriate.

MALI LIVESTOCK SECTOR (688-0203)

CONSTRUCTION^{1/}
(\$000)

	<u>M²</u>	<u>FY 79</u>	<u>FY 80</u>	<u>TOTAL</u>
<u>I. Project Administration</u>				
<u>II. Production Headquarters/Sotuba</u> <u>Complete Present Plans^{2/}</u>		200.0		
Field Operations Offices	162	44.6	-	
Research Offices/Laboratory	120	63.0	-	
Storage	45	11.2	-	
Auto Maintenance	140	35.0	-	
Sub-total (without factors)		(153.8)	-	
Sub-total (factor adjusted)		470	0	470
<u>III. Animal Health (Central)/CVL</u> <u>Large Animal Facility</u> <u>Storage</u>	200 100	- 50	72 -	
Diagnostic Facility (Factor adjusted)		50	72	122
<u>IV. Dilly/Training Center</u> <u>Offices/Classrooms</u> <u>Dormitories, Garage</u>	366	- 0	62 62	62
(Factor adjusted)				

1/ Details, Part III, D, Engineering Analysis

2/ Already Factor adjusted

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MALI LIVESTOCK SECTOR (688-0203)
Construction (\$000)

(cont'd)

4

	<u>M²</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	<u>TOTAL</u>
V. Animal Health (Field)					
<u>N'Dama/Zebu Research</u>		<u>50</u>	<u>-</u>		<u>50</u>
		<u>50</u>	<u>0</u>		
VI. New Lands					
Offices (Field 20)		-	25		
Training Center (roofed only)		-	10		
Cattle Handling Facilities		-	5		
Firebreaks & Nursery		-	5		
		<u>0</u>	<u>45</u>		<u>45</u>
VII. Dilly/Test Perimeter (Field)					
Firebreaks & Nursery		10	15		
Cattle Holding Yards		25	-		
		<u>35</u>	<u>15</u>		<u>50</u>
VIII. Marketing Facilities (Field)					
Export Cattle Yards		50	-		
Sahel Marketing Yards		20	-		
Holding Ranges		20	-		
		<u>90</u>	<u>0</u>		<u>90</u>

INITIAL ENVIRONMENTAL EXAMINATION

Project Location : Various

Project Title : Livestock Sector II

Funding :

Life of Project : FY 1979 through FY 1981

IEE prepared by : George Thompson, Engineer, USAID/Mali

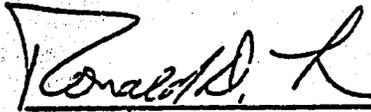
Environmental Action :

Recommended

Negative Determination

Concurrence

Date: April 10, 1979



Ronald D. Levin,
Mission Director

Assistant Administrator's Decision:

Date:

Approved _____

Disapproved _____

Signature: _____

EXAMINATION OF THE NATURE, SCOPE AND
MAGNITUDE OF THE PROJECT'S IMPACT ON THE ENVIRONMENT

I. Description of Project:

The Mali Livestock Sector II project proposes an integrated, evolutionary and holistic approach to the development of the livestock sector in Mali. Four current projects, as previously stated, are to be included in this project. Phase I of Mali Livestock Sector II will extend through June 1981.

The majority of the interventions in this initial phase of the project will deal with management, data-gathering, training and technical assistance. A management unit, Executive Secretariat (E.S.), will be organized to coordinate the development of the livestock sector. Baseline surveys and continuous data collection will better enable the planning unit of the E.S. to execute its function. Training will be provided as well as technical assistance in several critical areas.

The sector approach of this project will address all important areas of livestock production, including:

- range management;
- transhumant herd management;
- small farmer livestock production;
- integrated crop and livestock production;
- research, agronomic, animal husbandry and animal health;
- health delivery systems;
- marketing and export.

A pesticide, in the form of a cattle dip, will be used in this project to control disease vectors. When the specific name of the pesticide is known, the proper procedures will be followed for the procurement and use of this pesticide.^{1/}

1/ As stated in Handbook 3, Appendix 4B, Section 216.(3)(1)(v) of Regulation 16

"(v) If the project includes assistance for the procurement, or use or both of pesticides but the specific pesticides to be procured or used cannot be identified at the time the IEE is prepared, the procedures outlined in 216.3(b)(i) through (iv) will be followed when the specific pesticides are identified and before procurement or use is authorized. Where identification of the pesticides to be procured or used does not occur until after Project Paper is approved, neither the procurement nor the use of the pesticides shall be undertaken unless approved, in writing by the Assistant Administrator."

II. Identification and Evaluation of Environmental Impacts

The attached Impact Identification and Evaluation form has been modified to show a qualitative as well as quantitative judgement of impacts.

A. Land Use

1) Changing the character of the land through:

a. Population increase:

It is expected that the project will increase the Maian animal population along with the area and carrying capacity of the presently used rangeland by promoting improved range management practices, mixed farming schemes and the seeding of otherwise fallow land with appropriate perennial legumes and/or grasses. The impact of an increased animal population will be low because of both the strengthened market structure's ability to draw off excess numbers of animals and the increased area and carrying capacity of the rangeland.

2) Extracting Natural Resources:

Wells designed to extract water from underground aquifers and runoff are planned. Funds for water development however, will be requested separately upon the completion of further impact studies.

3) Land Clearing

Land clearing will be done only for construction sites and firebreaks. The impact of land clearing will be from low to medium, because of the small area involved. The greatest impact will derive from the beneficial effects of the firebreaks that will allow for the prevention and/or control of rangeland fires.

4) Changing Soil Character

The soil character will be slightly improved by the end of phase three of this project; however, the large organizational, data-gathering and personal components of phase one will probably have no significant effect upon soil character. (See Land use)

B. Alternation of Natural Defenses

Impact will be from low to moderately favorable through increased ground cover resulting from improved range management practices.

C. Foreclosing Important Uses

No important uses will be foreclosed, as the rangeland to be developed is unused for anything else. In fact, new uses will be

developed in the Sudano-sahelian areas because of the seeding of fallow land with legumes and grasses.

D. Jeopardizing Man or his Works

N/A

E. Other Factors

The most important impact from a land use standpoint will be the improvement of rangeland, as cited above, and the utilization of fallow land. Impact will be from low to moderately favorable during phase one.

F. Water

1) Physical State

Upon the completion of anticipated studies, the physical state of water (location, levels, etc.) could be altered. At this time, however, no interventions proposed in this paper would significantly alter the physical state of water in Mali.

2) Chemical and Biological State

The chemical and biological characteristics of the water in Mali should not be significantly changed by phase one of this project.

3) Ecological Balance

Interventions on behalf of this project should tend to buffer the drastic cyclical ecological changes that occur on Malian rangeland. Better range management will increase the ground cover and thus will increase the water retention capacity of the soil.

4) Other Factors: Ground Water

The impact of phase one upon groundwater is expected to be negligible due to increased water retention in the soil.

G. Atmospheric

No significant impacts can be foreseen.

H. Natural Resources

1) Diversion, altered use of Water

Existing groundwater and rainfall will be used more efficiently thru better range management, fire control and the seeding of otherwise fallowed land in crop-growing areas.

Irreversible, inefficient Commitments

No irreversible/inefficient commitments are foreseen.

I. Cultural

1) Altering physical Symbols

N/A

2) Dilution of cultural Traditions

Certain cultural practices relating to herd management will be changed. These changes are seen as beneficial for the culture, health and overall quality of life of the target group.

J. Socioeconomic

1) Changes in economic/employment Patterns

The project's impact on economic/employment patterns should be moderately favorable, if the goals of phase one are attained

2) Changes in Population

With an increased quality of life expected as a result of this project as slight increase in the human population would also be expected. This increase would be compensated for by an improved economic situation and the increased carrying capacity of the range and crop lands.

3) Changes in cultural Patterns

Anticipated changes in cultural patterns are discussed above and in the social soundness analysis of this paper.

K. Health

1) Changing a natural Environment

Improved range management will slightly change the natural environment in such a way that it will become less hostile for the herders and their animals. The health of the people can be expected to improve slightly during phase one, while a moderate improvement in animal health is anticipated due to improved animal health delivery systems.

2) Eliminating an ecosystem element:

N/A

L. General

1) International Impacts

Increased trade and meat supply in adjacent nations.

III. Recommended Environmental Action

In view of the above analysis and the overall environmentally sound approach to this project, a Negative Determination is recommended.

IMPACT IDENTIFICATION AND EVALUATION FORM

Impact Areas and Sub-areas 1/

Quality 2/

Impact Identification and Evaluation 3/

A. LAND USE

1. Changing the character of the land through:

a. Increasing the population-----	0	L
b. Extracting natural resources-----	0	L
c. Land clearing-----	0	N
d. Changing soil character-----	0+	N-M
2. Altering natural defenses-----	+	L-M
3. Foreclosing important uses-----	0	N
4. Jeopardizing man or his works-----	0	N
5. Other factors		
<u>Changing rangeland.</u>	+	L-M

B. WATER

1. Physical state of water-----	0	L
2. Chemical and biological states-----	-	N-L
3. Ecological balance-----	+	L
4. Other factors		
<u>Ground water</u>	-	N

1/ See Explanatory Notes for this form

3/ Use the following symbols: N - No environmental impact
 L - Little environmental impact
 M - Moderate environmental impact
 H - High environmental impact
 U - Unknown environmental impact

2/ "

: - : Adverse
 + : Beneficial
 0 : Neutral

IMPACT IDENTIFICATION AND EVALUATION FORM

C. ATMOSPHERIC

1. Air additives-----	0	N
2. Air pollution-----	0	N
3. Noise pollution-----	0	N

D. NATURAL RESOURCES

1. Diversion, altered use of water-----	+	M
2. Irreversible, inefficient commitments-----	0	N

E. CULTURAL

1. Altering physical symbols-----	0	N
2. Dilution of cultural traditions-----	+	M

F. SOCIOECONOMIC

1. Changes in economic/employment patterns-----	+	M
2. Changes in population-----	0	N-L
3. Changes in cultural patterns-----	+	M

G. HEALTH

1. Changing a natural environment-----	+	L-M
2. Eliminating an ecosystem element-----	0	N

H. General

1. International impacts-----	+	N-L
2. Controversial impacts-----	0	N
3. Larger program impacts-----	0	N

Listed below are, first, statutory criteria applicable generally to projects with FAA funds, and then project criteria applicable to individual fund sources: Development Assistance (with a sub-category for criteria applicable only to loans); and Security Supporting Assistance funds.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? IDENTIFY. HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

A. GENERAL CRITERIA FOR PROJECT.

1. App. Unnumbered; FAA Sec. 653(b); Sec. 671

(a) Describe how Committees on Appropriations of Senate and House have been or will be notified concerning the project;
(b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that figure

(a) Through FY 79 Annual Budget Submission which forms basis for FY 79 Congressional Presentation, and through a Congressional Notification or program change.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial, and other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

(a) yes
(b) yes

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

Not requested

4. FAA Sec. 611(b); App. Sec. 101. If for water or water-related land resource construction, has project met the standards and criteria as per *the Principles and Standards for Planning Water and Related Land Resources* dated October 25, 1973?

N.A.

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified the country's capability effectively to maintain and utilize the project?

N.A.

6. FAA Sec. 209, 619. Is project susceptible of execution as part of regional or multi-lateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. If assistance is for newly independent country, is it furnished through multi-lateral organizations or plans to the maximum extent appropriate?

No

7. FAA Sec. 601(a); (and ~~Sec.~~ 201(f) for development loans). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; (c) encourage development and use of cooperatives, credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

- a. yes
- b. yes
- c. no
- d. yes
- e. yes
- f. no

8. FAA Sec. 601(b). Information and conclusion on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

Project will finance technical assistance services from private U.S. firms, and procure U.S. vehicles from newly established U.S. agency representative.

9. FAA Sec. 612(b); Sec. 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized to meet the cost of contractual and other services.

- Mali's contribution will be established in the grant agreement and, in accordance with previous policy for this project will be calculated as an increasing annual percentage share of recurrent costs.
- U.S. owns no foreign currency.

10. FAA Sec. 612(d). Does the U.S. own excess foreign currency and, if so, what arrangements have been made for its release?

No

11. ISA 14. *Are any FAA funds for FY 78 being used in this Project to construct, operate, maintain, or supply fuel for, any nuclear powerplant under an agreement for cooperation between the United States and any other country?*

No

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(c); Sec. 111; Sec. 281a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production, spreading investment out from cities to small towns and rural areas; and (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions?

(a) Project is directed specifically to resolve economic and social problems of rural poor

(b) No

b. FAA Sec. 103, 103A, 104, 105, 106, 107. Is assistance being made available: [include only applicable paragraph -- e.g., a, b, etc. -- which corresponds to source of funds used. If more than one fund source is used for project, include relevant paragraph for each fund source.]

- | | |
|--|-----|
| (1) [103] for agriculture, rural development or nutrition; if so, extent to which activity is specifically designed to increase productivity and income of rural poor; [103A] if for agricultural research, is full account taken of needs of small farmers; | N/A |
| (2) [104] for population planning or health; if so, extent to which activity extends low-cost, integrated delivery systems to provide health and family planning services, especially to rural areas and poor; | N/A |
| (3) [105] for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development; | No |
| (4) [106] for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is: | No: |
| (a) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations; | N/A |
| (b) to help alleviate energy problem; | N/A |
| (c) research into, and evaluation of, economic development processes and techniques; | No |
| (d) reconstruction after natural or manmade disaster; | No |
| (e) for special development problem, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance; | No |
| (f) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development. | N/A |

(5) [107] by grants for coordinated private effort to develop and disseminate intermediate technologies appropriate for developing countries.

No

c. FAA Sec. 110(a); Sec. 208(e). Is the recipient country willing to contribute funds to the project, and in what manner has or will it provide assurances that it will provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least-developed" country)?

Section 110 (a) not applicable to projects SH funds.

d. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"?

No

e. FAA Sec. 207; Sec. 113. Extent to which assistance reflects appropriate emphasis on; (1) encouraging development of democratic, economic, political, and social institutions; (2) self-help in meeting the country's food needs; (3) improving availability of trained worker-power in the country; (4) programs designed to meet the country's health needs; (5) other important areas of economic, political, and social development, including industry; free labor unions, cooperatives, and Voluntary Agencies; transportation and communication; planning and public administration; urban development, and modernization of existing laws; or (6) integrating women into the recipient country's national economy.

1) Project addresses development of local farmer and herder associations to assist in implementation of project through local participation.

2) Yes, producer associations will provide for beneficiary self-help contribution.

3) Project supporting establishment of first livestock extension program in country.

4) Improved nutrition will be an indirect benefit.

5) N/A

6) Yes, project includes specific studies to analyze needs of rural women. In scope and design of project certain activities foster the improved welfare of rural women.

f. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civic education and training in skills required for effective participation in governmental and political processes essential to self-government.

Establishment of producer associations is based on local, traditional democratic processes.

g. FAA Sec. 201(b)(2)-(4) and -(8); Sec. 201(e); Sec. 211(a)(1)-(3) and -(8). Does the activity give reasonable promise of contributing to the development: of economic resources, or to the increase of productive capacities and self-sustaining economic growth; or of educational or other institutions directed toward social progress? Is it related to and consistent with other development activities and will it contribute to realizable long-range objectives? And does project paper provide information and conclusion on an activity's economic and technical soundness?

Yes

h. FAA Sec. 201(b)(6); Sec. 211(a)(5), (6). Information and conclusion on possible effects of the assistance on U.S. economy, with special reference to areas of substantial labor surplus, and extent to which U.S. commodities and assistance are furnished in a manner consistent with improving or safeguarding the U.S. balance-of-payments position.

The market to which this project is aimed does not affect the U.S. economy

2. Development Assistance Project Criteria (Loans only)

a. FAA Sec. 201(b)(1). Information and conclusion on availability of financing from other free-world sources, including private sources within U.S.

N/A

b. FAA Sec. 201(b)(2); 201(d). Information and conclusion on (1) capacity of the country to repay the loan, including reasonableness of repayment prospects, and (2) reasonableness and legality (under laws of country and U.S.) of lending and relending terms of the loan.

N/A

c. FAA Sec. 201(e). If loan is not made pursuant to a multilateral plan, and the amount of the loan exceeds \$100,000, has country submitted to AID an application for such funds together with assurances to indicate that funds will be used in an economically and technically sound manner?

N/A

d. FAA Sec. 201(f). Does project paper describe how project will promote the country's economic development taking into account the country's human and material resources requirements and relationship between ultimate objectives of the project and overall economic development?

N/A

e. FAA Sec. 202(a). Total amount of money under loan which is going directly to private enterprise, is going to intermediate credit institutions or other borrowers for use by private enterprise, is being used to finance imports from private sources, or is otherwise being used to finance procurements from private sources?

N/A

f. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete in the U.S. with U.S. enterprise, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

N/A

Project Criteria Solely for Security Supporting Assistance

a. FAA Sec. 531. How will this assistance support promote economic or political stability?

b. FAA Sec. 533(c)(1). Will assistance under the Southern African Special Requirements Fund be used for military, guerrilla, or paramilitary activities?

Additional Criteria for Alliance for Progress

[Note: Alliance for Progress projects should add the following two items to a project checklist.]

N/A

a. FAA Sec. 251(b)(1), -(8). Does assistance take into account principles of the Act of Bogota and the Charter of Punta del Este; and to what extent will the activity contribute to the economic or political integration of Latin America?

N/A

b. FAA Sec. 251(b)(8); 251(h). For loans, has there been taken into account the effort made by recipient nation to repatriate capital invested in other countries by their own citizens? Is loan consistent with the findings and recommendations of the Inter-American Committee for the Alliance for Progress (now "CEPCIES," the Permanent Executive Committee of the OAS) in its annual review of national development activities?

N/A

5. Additional Criteria for Sahel Development Project: How will this assistance contribute to the long-term development of the Sahel Region in accordance with a long-term, multidonor development plan?

Livestock production represents a singularly important factor in economic development planning for Mali. This project which is in full accord with CILSS plans for the development of the Sahel region, will significantly expand livestock production and im-

prove the country's competitive position in the export market.