

**AGENCY FOR
INTERNATIONAL
DEVELOPMENT**



ANNUAL BUDGET SUBMISSION FY 1977

MALI

BEST AVAILABLE

**DEPARTMENT
OF
STATE**

JULY 1975



ANNUAL BUDGET SUBMISSION

MALI

FY 1977

June 1975

TABLE OF CONTENTS
FY 1977 Mali ABS

I. <u>CDO Bamako Overview</u>	1
II. <u>Bilateral Program</u>	
A. Summary Tables	
1. FY 1976 and Interim Quarter	13-14
2. FY 1977	15
B. On-Going Projects	
1. Central Veterinary Laboratory	16
a. Narrative Description	
b. Fiscal Tables	
2. Mali Livestock Development	18
a. Narrative Description	
b. Fiscal Tables	
3. Mali Livestock Sector	20
a. Narrative Description	
b. Fiscal Tables	
4. Mali Crop Production	23
a. Narrative Description	
b. Fiscal Tables	
5. Mali Land Use Capability Inventory	25
a. Narrative Description	
b. Fiscal Table	
C. New Projects	
1. FY 1976 - Action Riz-Sorgho (PID)	26
2. FY 1977 - PID's - See Appendices	
D. PL 480	
1. Title I	27
a. Narrative	
b. Table	
2. Title II (Food-for-Work)	32
a. Narrative	
b. Table	

III. Appendices

- A. PID Tse-Tse Eradication
- B. PID Expansion of Agricultural Training
- C. PID Pilot Rural MCH Clinic/Training Centers
- D. PID Small Ruminants Study and Pilot Initiative
- E. PID Operation Haute Vallee
- F. PID Wheat Production - Northern Niger Valley
- G. PID IPR - Agricultural Farm
- H. PID Sahelian Tracks
- I. PID Functional Literacy
- J. PID Northern Land Use Capability Inventory
- K. PID Training of Rural Paramedical Personnel

FY 1977 MALI ANNUAL BUDGET SUBMISSION

Introduction

With limited exploitable resources, geographically isolated, and suffering the effects of the disastrous economic policies of the early years of independence, impoverished Mali was hardly prepared to withstand the devastation of the Sahelian drought. While other countries similarly crushed by nature could be expected to remain national basket cases for the foreseeable future, Mali has the potential, with adequate donor assistance and barring natural catastrophes, to become economically viable and to improve significantly the living conditions of its people within the next decade. Given Mali's approach to development and the demonstrated capabilities of its people to accomplish expeditiously and effectively the tasks they set themselves, there is every reason to believe that Mali will realize its potential.

There are a number of national policies which lead directly to this conclusion. There is an honest recognition that Malian economic resources are minimal. Accordingly, development efforts are being concentrated on areas where Mali enjoys something of a comparative advantage - livestock and agriculture - de-emphasizing prestige-building but non-viable industrial activities. This means that resources must be carefully husbanded and priorities clearly defined. The absence of ostentation in the conduct of government and in public investments as well as the efforts made in planning development and

seeking donor assistance for it, testify to the commitment of the Government to follow sound practices. While there are still, of course, the problems of inefficient state enterprises carried over from the former regime and an overgrown civil service, visible progress in development efforts should make it possible for the Government to begin to deal with even these delicate issues. Recent demonstrations of Mali's pragmatism and willingness to pursue innovation in AID-sponsored activities are hopeful signs.

But Mali rightly understands that the critical element in national development and in efforts to improve the lives of its citizens are the Malian people themselves. There is an unbending determination at all levels of government to see that Malians are trained in every area which can be of practical benefit to Mali and to assure that Malians take full advantage of the knowledge and techniques foreign experts bring with them when working in Mali. Thus Mali eschews turn-key projects; whatever activity is undertaken must contain within its design provisions for training the necessary Malians to permit the activity to function effectively after the departure of the foreign experts and advisors. Accordingly, the Government is prepared, as a matter of policy, to make available for academic or on-the-job training whatever counterpart personnel are needed for donor-financed projects and programmes and to see that they fill designated project roles. Further, the Government is constantly projecting future personnel needs and adjusting its very

flexible and practical educational system to produce the required number of trained personnel at the time they are needed.

In the light of these considerations it is reasonable to believe that United States assistance can make a significant and effective contribution to Malian development, that assistance will be used to accomplish the developmental objectives which the Congress has instructed AID to pursue, and that with such assistance Mali will in fact be able to realize its potential. Mali's recent adversities, however, have vastly increased its foreign debt and it cannot afford more. Without grant financial assistance the best governmental policies and the most vigorous will in the world will not be enough to permit Mali to overcome the tremendous handicaps nature has placed on Mali's ability to provide a better life for its people. The program proposed herein envisages significant United States grants, as part of an international donor grant effort, to help Mali meet its development goals.

Mali has established a detailed five-year plan for the period 1974-1978 with clearly defined objectives, among which self-sufficiency in food received one of the highest priorities. In November 1974, AID fielded a team to examine possibilities for longer-term assistance. This mission, which took place during the early stages of implementation of the Five-Year Plan, permitted AID to focus on Malian needs as defined by Malians. The Development Assistance

Program (DAP) which evolved was developed with the closest collaboration of Malian authorities and followed Mali's development priorities closely. It selects from among those priorities areas of activity in which the United States has the best ability to make significant contributions. The areas selected for emphasis are livestock, agriculture, health, and human resources development. Both the United States and Mali are determined to involve the poorest sections of the country, the rural areas, in the development process.

The Program

The DAP recommends that AID develop a strategy in Mali that focuses on sector level policy, area development programs and maximum utilization of Malian skills. As AID began its medium-term activities, the first investments were made in the livestock sector. The DAP strongly concurs with the broad sectoral approach being taken in the Mali livestock sector grant. At present AID is thus dealing with the problems of cattle production from calving through early maturation in the Sahel, offtake to controlled grazing areas in intermediate rainfall areas, and preparation for slaughter in feedlots. An important adjunct to this cattle production process is the preservation of animal health. Long-standing and continuing interest in the Central Veterinary Laboratory assures adequate coverage of this aspect. Various research activities in animal nutrition, cattle breeding, etc., are included. New requests for funding in the sector are intended to

fit two additional pieces into the process of livestock production. First, already authorized but not funded, is the "new lands" project for eradication of tsetse fly and development of infrastructure in the area. This project will be based upon fly-habit studies and land-use planning studies funded in the Mali livestock sector grant. Second, in order to complete the range livestock picture it is necessary to take the effects and the potentials of small ruminants into consideration. Funding is requested to undertake a national inventory of and pilot production activity with sheep and goats.

In the agriculture sector, the DAP has proposed a broad approach to cereals production, with attention being paid to water utilization. This presentation submits a package of three proposals at locations identified in the DAP to add to the already authorized millet/sorghum production project in the fifth region known as Operation Mills. Each of the three projects will evolve along lines similar to Operation Mills where poor rural farmers are incited to increase production using more modern production techniques made available to them through extension services and through credit. Malian success with Operation Mills seems to indicate that this institutional framework is appropriate to the Malian scene.

The first of the three new projects is Action Riz-Sorgho in Gao which will bolster grain production in the perennially grain-deficit 6th region. The second project is located in Haute Vallee, the potentially rich Niger river valley upstream from Bamako. Here,

using a similar "Operation" approach, production efforts will be made in the production of cereals (rice and sorghum), vegetables, and forage for artisanal cattle fattening and milk production. The third proposal is to undertake irrigated wheat production in the northern section of the Niger valley flood plain using CIMMYT-developed wheat strains. This project will require somewhat more in terms of study and pre-production preparation, but is envisioned as unfolding along lines similar to the other "operations."

In the context of both the livestock and agriculture sectors, two significant complementary activities are proposed. First, an already authorized land-use capability inventory will be extended to cover the whole of Mali. The authorized project at present focuses on the south-western third of Mali which has a relatively high livestock and agricultural production potential. Additional funding requested will provide coverage of the rest of Mali, including the potentially rich areas north of the Upper Volta and Niger borders. Second, as a close adjunct to Mali livestock sector grant activities in the Sahel, it is proposed that AID undertake the rehabilitation of two key road links affecting the Sahel grazing activity; the Mourdiah-Nara road and the Nara-Nioro-Kayes road. The service rendered by these road links to the Sahel grazing area would be of great importance to its development.

The DAP strongly recommends that AID undertake initiatives in the human resource development sector. This document proposes to select initiatives in this sector that tie directly into increasing agricultural

and livestock production. The first activity will expand the ILO-developed Centers for Agricultural Apprentices which will be required to produce much larger quantities of middle-level extension agents to continue the momentum of programs being launched in agricultural production. The second proposal is to assist the Rural Polytechnic Institute to permit it to do a more effective job in producing a greater number of more broadly trained higher level rural livestock and agricultural extension agents through the creation of a farm for practical work and related activities. The third project is designed to multiply the impact of the extension agent in the agricultural production projects by providing functional literacy to the farmer, thus enabling him to absorb and use effectively the knowledge being presented to him. AID funding would permit the existing functional literacy program to address the requirements of such agricultural production projects as Operation Mills and Action Riz-Sorgho. Later additions can be included for other agriculture production activities.

In the health sector, to which the Government has been allocating approximately 10% of its national budget, the needs of the rural Malian population are nearly overwhelming. In order to address the greatest portion of these rural poor in the most prompt and effective way, AID proposes to select activities from the five-year plan which maximize the use of the existing pool of trained para-medical staff and deliver health services to the women and children of the rural areas.

Following the logistical reinforcement of the existing rural health delivery system slated for FY 76, AID proposes the development of three pilot polyvalent MCH clinic/training centers. These centers would be designed for eventual replication in ten key locations in Mali and would include special initiatives in environmental health, nutrition, family planning, school health and health education. Access to the rural areas would be provided by existing, as well as new, mobile units which would also participate in disease surveillance and vaccination campaigns. For positive mutual reinforcement of effort it is intended to relate each of these three pilot MCH centers to an "Operation" to show the productive contribution of increased rural health standards. It is also considered that an initiative to reinforce the existing medical and para-medical training system of Mali will be a useful adjunct in maintaining the momentum of this rural health delivery system by providing timely increments of qualified personnel.

Working through the administrative structure (the "Operation" or "Action") built around a primary production activity (such as Operation Mils) it should prove possible to blend in a great number of the elements necessary for rural development. The projects proposed in the various sectors will introduce extension services, rural credit, health services, potable water and functional literacy. Other elements can and will be added later. All proposed assistance to training institutions in Mali is for the development of very practical,

rural-oriented personnel. These proposals are therefore fully responsive to the Congressional mandate contained in the Foreign Assistance Act.

Additional useful developmental tools available in the Malian context are the proposed PL 480 Title I and II programs. The former will serve as a transition between the period of emergency grain shipments needed to meet acute shortages and the time when the agricultural production programs proposed above - and others financed by other donors - begin to fill the grain gap. In addition the counterpart generated can be funneled back into the agricultural and livestock sectors to support a wide range of initiatives peculiarly susceptible to being addressed by use of counterpart. The Title II program is an innovative application of Food-for-Work to a wide variety of heavily labor-intensive infrastructural activities such as earth fill dams, irrigation ditches, earthen roads and reforestation.

One cannot, in discussing the Malian development effort, exclude either the role of AID regional initiatives or the role of other donor inputs. AID has designed a series of regional initiatives which will serve specific Malian needs, even if Mali is not necessarily the principal beneficiary. The OMVS projects will assist Mali in developing the water, agriculture and livestock resources of the relatively isolated and neglected 1st region. The Niger River Commission will coordinate water management and utilization in the Niger River Basin, truly the key to development to a large percentage

of Mali. The Sahel Water Data Network will serve Malian needs for better meteorological data to assist in improved agricultural and management practices. The International Livestock Center for Africa, through its research station in Niiono will contribute to livestock development technology. WARDA, by placing a regional rice research station in Mopti, will strengthen the rice production capacity of the interior Niger Delta. The Sahel Pest Control project, though not substantially affecting Malian institutions, will confront insect pest problems across the Sahel and will in this way benefit the Malian agricultural producer. Finally Mali can call on the resources of the regional health delivery system advisory project for assistance in addressing special health delivery problems in Mali.

The role of other donors is also important. Without cataloguing the range and strength of other donor efforts in Mali, let it suffice to emphasize that AID is only one of seven major free-world donors contributing to Malian development. Neither should one slight the developmental contributions of African organizations such as CILSS, ADB and ECA nor the catalytic role that certain PVO's such as CARE, AFRICARE, and CRS, are playing in addressing special development problems. AID must work in close collaboration with each of these entities to assure the utmost possible harmony in pursuing development initiatives in Mali.

Management Considerations

Given the complex set of developmental problems and opportunities

traced above, what implications can be foreseen on the capacity of AID to plan, implement and evaluate the proposed initiatives? In conjunction with increased bilateral aid to Mali and the passage of the DAP team, AID substantially increased its planning and management presence in Mali by the creation of the Country Development Office. The Malian response has been one of unqualified collaboration in planning and cooperation in project implementation. This response is critical to the effective functioning of the CDO which has deliberately been designed to locate in Mali the minimum possible number of personnel to assure adequate project design and monitoring. Sectoral activities are to be grouped under key sector managers who will professionally oversee the flow of AID resources into their sector while calling upon a strong collaborative Malian response and a minimum of AID backstopping. Assuming the continued availability of specialized personnel from REDSO and AID/W to assist in project design and relying heavily on Malian Government personnel, (with the realistic assurance that they can and will respond) it will be possible to limit CDO sector management staff to a minimum of one or two per sector. Through the use of contractors, PASA's and short-term AID TDY assistance in project implementation, it should be possible to completely avoid the deeply hierarchical structures characteristic of some USAID Missions. Instead, the Country Development Officer will expect to provide

overall program and management direction to a highly skilled group of professionals who will assure the effective implementation of their programs. Thus, with sector managers operating with support from a limited core of executive, programming and financial management staff, the CDO will constitute a very lean, very busy staff which will be obliged to maintain the utmost collaboration and cooperation with Malian Government personnel in order to accomplish AID's and Mali's development objectives.

SUMMARY TABLE

FISCAL YEAR 1976
(\$000)

	F & N	PP & H	E & HR	SDP	SCC	Dev Assist Subtotal	African Sahel Disaster	Total
On Going Grants								
1. Central Veterinary Lab	200					200		200
2. Mali Livestock Devel.								
3. Mali Livestock Sector								
Subtotal	200					200		200
New Grants*								
1. Mali Crop Production	1750					1750	1500	3250
2. Action Riz-Sorgho	775					775		775
3. Food-for-work	650					650		650
Subtotal	3175					3175		4675
Loans								
Total	3375					3375	1500	4875
HIGs (non-add)								
PL 480								
Title I (non-add)	6000							
Title II (non-add)								

* List activities by funding priority

SUMMARY TABLE

FISCAL YEAR 5th QUARTER
(\$000)

	F & N	PP & H	E & HR	SDF	SCG	Dev. Assist. Subtotal	African Sahel Disaster	Total
On Going Grants								
1. Central Veterinary Lab	20					20		20
Subtotal								
New Grants*								
1. Land Use Inventory	500					500		500
2. Rural Health		500				500		500
Subtotal	520							
Loans								
Total	520	500				1020		1020
HIGs (non-add)								
PL 480								
Title I (non-add)								
Title II (non-add)								

* List activities by funding priority

SUMMARY TABLE
FISCAL YEAR 1977
(\$000)

	F & N	PP & H	E & HR	SDF	SCD	Dev.		African Sahel Disaster	Total
						Assist.	Subtotal		
On Going Grants									
1. Central Vet. Lab.	376						376		376
2. Livestock Devel.									
3. Livestock Sector Grant	1553						1553		1553
4. Mali Crop Production	800						800		800
5. Land Use Inventory		200					200		200
6. Rural Health	925						925		925
7. Action Riz-Sorgho	1960						1960		1960
8. Food-for-work									
Subtotal	5614	200					5814		5814
New Grants *									
1. Tsetse Eradication	1000						1000		1000
2. Ag. Training			950				950		950
3. Rural MCH Clinics		800					800		800
4. Small Ruminants	135						135		135
5. Haute Va lle	3000						3000		3000
6. North Niger Wheat	1500						1500		1500
7. IPR - Ag. Farm	800						800		800
8. Sahelian Tracks						1100		1100	1100
9. Functional Literacy				600			600		600
10. North Land Use Inventory	800						800		800
11. Paramedical Training		373					373		373
Subtotal	7235	1173	1550				9958	1100	11058
Loans									
Total	12849	1373	1550				15772	1100	16872
PL 480									
Title I (non-add)	6300								
Title II (non-add)	1027								

* List activities by funding priority

ONGOING GRANT PROJECT

Project Title: Central Veterinary Laboratory
No. 625-11-190-610

Appropriation: Food and Nutrition

The Central Veterinary Laboratory Project is to provide Mali with a dependable source of production of vaccines for the major diseases affecting the Malian livestock population. This project enables the Malian Livestock and Animal Health Service to meet its requirements for major cattle disease vaccines.

Presently, project activities are directed toward strengthening CVL's capacity to meet vaccination production needs by: providing technical assistance in the management of the laboratory, increasing its efficiency and output, and training professional and technical staff; furnishing technical assistance to bolster the laboratory's equipment maintenance and repair capability; and enabling research to be carried out through joint efforts of an UN-provided immunologist and a US-financed microbiologist who, with their Malian counterparts, seek to improve the quality and shelf-life of locally produced vaccines.

The laboratory has been able to meet Mali's needs for Anthrax, Pleuropneumonia, Rinderpest, Pasteurella and Blackleg vaccines for the past year. The CVL also provided vaccines to Guinea and Mauritania on short notice last year to assist in emergency vaccination campaigns in those countries. The operation is functioning smoothly and effectively and will now broaden its vaccine-producing scope to include poultry

- 2 -

vaccines and animal rabies vaccines. The laboratory also will broaden its assistance in field disease investigation as well as coordinate and assist in the tsetse control program presently being planned by the United States and the GOM.

The Malian Government has strongly supported the laboratory, despite limited resources and increasing demands from many sectors of the economy. During the past year and a half, the GOM has provided the equivalent of \$382,000 above and beyond the normal budget for the construction of additional facilities, modification of present facilities, purchase of needed equipment, and improvement of existing laboratory areas.

The project is moving according to the schedule established in the Project Paper. However in FY 77 a budget of \$376,000 is requested. Included in this increase of project funding are (1) the retention for an additional two years of the services of the Microbiologist and the Maintenance Engineer; and (2) cost increases for equipment parts and local salaries. A revised Project Paper will be submitted to include these additional amounts not later than December 30, 1975.

ONGOING GRANT PROJECT

Project Title: Mali Livestock Development
No. 688-12-130-201

Appropriation: African Sahel Famine and Disaster Relief

The purpose of this project is to finance the cost of equipment, materials, construction, livestock advice, project coordination and administrative services, and research services to carry out a series of related actions to improve beef cattle production and marketing in Mali. The project will provide a model of an integrated approach to increased beef production that may be expanded on a regional basis.

Four sub-projects directly address the Project's cattle management and beef production objectives:

1. Expansion of livestock production by sedentary farmers in the vicinities of Koulikoro and Douna;
2. Construction and operation of a 2,500 animal capacity feedlot at Segou;
3. Construction, operation of, and range research concerning a 27,100 acre managed grazing zone at Doukoloma Park; and
4. Construction and operation of a 1000 animal feedlot and managed grazing area at Tienfalla Forest.

In support of these four direct sub-projects, these supporting activities are being implemented:

1. A credit fund will be capitalized and operated through the administrative services of the Mali Development Bank;

- 2 -

2. Veterinary equipment and supplies will be provided to the Malian Veterinary Services at Bamako and Segou; and

3. A participant training program is underway to train selected Malians in the United States for return to Mali and integration into sub-project management roles.

The contractor has been selected (Experience Inc.-Checchi Co.) and contract team members have begun operations in Bamako. Site selection has been made on the proposed feedlot sites, and equipment and materials lists are being formulated. Four long-term participants are presently being trained under the project.

In ~~late~~ FY 1976, the U.S. contribution to the project will be increased by \$1,050,000. This additional funding requirement is for: (a) an increase in the contract cost; (b) an estimated increase in the cost of the Economic Model (a research component); and (c) capitalization of the credit activity.

ONGOING GRANT PROJECT

Project Title: Mali Livestock Sector
No. 688-12-130-203

Appropriation: African Sahel Famine and Disaster Relief

This program is to provide assistance to the Government and people of Mali directed toward the post-drought recovery and medium-term expansion of the Livestock Sector. Consequently, the program will impact favorably upon the food supply and quality of life of those dependent upon livestock for their livelihood.

Program Objectives are:

1. To aid in the reestablishment of the livestock sector, particularly as a source of food and income, and to initiate measures necessary to avoid subsequent herd losses or damage to range-pasture resources as the numbers of livestock increase;
2. To sensitize Government personnel and herdsman to available technology related to livestock production; and to increase communication of information and exchange of ideas with persons dependent upon livestock for their mode of survival;
3. To assist the Government of Mali (GOM) to carry forward their five-year development plan for the livestock sector while providing the means by which they may refine and improve their program, enhance their financial ability to support the program, evaluate proposed and ongoing efforts, attract additional external support.

There are three principal activities and several subsidiary activities. The program is to be accomplished over five years; financing for the first three years is included in the livestock sector grant:

- 2 -

1. Sahel Grazing Activity - Selective interventions in a defined project area within the Sahelian Zone and programs to increase communications with livestock owners and obtain their cooperation on phased modifications of rangeland use. The area agreed upon by the Ministry of Production for this activity is the Dilly area in the Western Sahelian Zone;

2. Training and Communications - Through in-country training programs, assure that well-trained Government personnel are available for livestock sector activities to meet needs over the next several years; also sensitize herder groups and train select herder group leaders, especially as a means to facilitate execution of the Sahel grazing activity. Considerable participant training is also included; and

3. New Lands Activity - Through tsetse eradication and land use management, open new lands to cattle production. In a two-phase program: (a) develop Malian capacity in tsetse fly survey and eradication and aid in the completion of initial ecological and land use planning studies and; (b) financial and technical assistance in tsetse eradication and land development of an area to be selected in the higher rainfall zone. Funding for the first phase is included in the present Project Paper. Funding for the second phase of \$3.5 million was authorized in the Project Paper with obligation subject to the completion of the necessary technical and socio-economic studies and the preparation of detailed site plans.

This project was authorized at the end of FY 1975, and no additional funding is required for FY 1976. The \$3.5 million for phase two of the

- 3 -

New Lands Activity, mentioned above, will be required for FY 1977.

An amendment to the Sector Grant Project Paper will be submitted in
FY 1977.

ONGOING GRANT PROJECT

Project Title: Mali Crop Production
No. 688-11-130-202

Appropriation: Food and Nutrition

The project includes two distinct but closely related activities, (a) one focusing on the agricultural aspect of increasing production and productivity, the "Operation Mills activity," and (b) a second focusing on improvement of rural infrastructure and living conditions which will contribute to achievement of the production goal -- improvement and maintenance of rural roads and improvement of village water supplies.

Building upon the "Operation Mills Activity" -- an activity designed to enhance production of sorghum, millet and fonio, financed by USAID through PL 480 counterpart funds and which has been in operation in certain portions of the proposed project area for the past two years -- the project will improve production in the existing Operation Mills Area and extend the geographical coverage to include essentially all of the area of the Fifth Region wherein millet and sorghum are the principal crops (see map). The specific actions contemplated are: adaptative research; introduction and extension of use of improved tillage practices -- animal powered plowing, cultivation and hauling; increased plant populations; timely weeding; use of improved seeds and seed treatments; use of fertilizer with emphasis on phosphates of local origin; use of animal manures and composts; rotation of cereals with legume crops such as groundnuts and cowpeas; complementary production of vegetables where conditions are particularly favorable; expansion of availability of credit in kind, particularly for procurement of agricultural implements

and fertilizers; training of personnel; complementary but related activities such as improvement of village water supplies in the desperately needy areas; improvement of priority rural roads, and improvement of blacksmith shops which exist in most villages.

The project was authorized in June 1975, which occurred in advance of the time established in the implementation schedule in the Project Paper. In order to maintain this project momentum, equipment and commodities will be procured earlier than anticipated. Accordingly, \$1,750,000 in addition to the \$1,500,000 authorized in FY 1975 will be requested in FY 1976 to begin project implementation and to initiate the ordering of project equipment. As a result, only \$1,553,000 will be required for FY 1977. This reduction of \$781,000 from the amount budgeted for FY 1977 in the Project Paper is due to the early ordering of project equipment.

ONGOING GRANT PROJECT

Project Title: Mali Land Use Capability Inventory
No. 688-11-120-XXX

Appropriation: Food and Nutrition

This project is to establish and map distinct resource areas in Mali. The information obtained about soils, vegetation and surface water will provide a planning base for establishing resource development as well as identifying areas of greatest potential for investment by the Government. The information inventoried will include descriptions and percentages of the major kinds of soils in each mapping unit; estimated yields of cultivated crops, forage, and trees; and the suitability of resources for other anticipated uses including wildlife, town and rural planning, highways, and other engineering uses.

Initially, the inventory will serve as a basis for site development planning for the Sahel Grazing and site selection of the New Lands activities of the AID Livestock Sector program in Mali.

In FY 1977, the financial requirement for the second year of this project will be \$800,000. This amount will provide advisory services to the GOM to assist in establishing an Office of Land-Use Planning. AID assistance will also help the new office to develop its capability by helping it to conduct a land use inventory directly related to ongoing and proposed AID-supported food production and livestock activities in high priority geographic regions of Mali not covered by the project's initial funding.

PID - ACTION RIZ-SORGHO

I. Summary

1. The Sixth Region of Mali has always been a grain-deficit area with the population exchanging animals and other products for necessary grain imports. The drought of recent years has magnified the grain deficit situation in the area, and the GOM, with help from various aid donors, has had to move large quantities of grain there using all available means including airlifts. In fact, however, there is some potential for grain production along the Niger flood plain, but this has not been well utilized. The GOM desires to exploit all available grain-producing land along the Niger to lessen the need to transport cereals into the Sixth Region. This document requests AID grant funding to continue a drought relief emergency project started by the World Bank for which funding terminates in December 1975.

2. The project has been previously described in some detail in the Mali Food Production PRP submitted in January 1975 (pages 5 and 6). The project would place 1500 hectares of land under floating rice cultivation and 500 hectares under sorghum production. Cereal production would be increased by about 1550 tons, approximately 65 percent of the cereal requirement of the Gao area. This project envisages support to the local institution, Action Riz-Sorgho, which is similar in structure and intent to Operation Mils-Mopti. No long-term U.S. technical assistance for extension work is involved as FAC has a competent technician working in the project. It is intended to provide funding to carry the project for three calendar years 1976, 1977, 1978 by which time it is anticipated

- 2 -

that the project can either be self-supporting or merged into a larger multi-donor Sixth Region cereals effort.

3. The principal assumption in the project is that it is justifiable to stimulate grain production in the Sixth Region in order to save money transporting from other regions or from overseas.

4. The GOM has commenced Action Riz-Sorgho with IBRD emergency funding. FAC has a technician in place and appears disposed to leave him there should USAID pick up project funding.

5. The alternative to reinforcing grain production activities in the Sixth Region is to import grain. USAID is well aware of the cost, the logistics and the creation of long-term dependency which this alternative implies.

6. The direct beneficiaries of the project are approximately 18,000 rural farmers, including their families. The secondary beneficiaries are the grain consumers in the vicinity of Gao who will have a more secure, lower cost supply of grain sorghum and rice.

7. The project can have a substantial spread effect along the Niger River banks. This project will commence with relatively intensive extension work on 2000 hectares which is only a small percentage of the available land between Bourem and Ansongo.

II. Financial Requirements

The project is estimated to cost approximately \$2,625,000 from AID grant funds for three years. FAC is expected to continue the services of the extension agent technician which is valued at \$135,000. The GOM

- 3 -

contribution is expected to amount to about \$90,000 in local salaries.

III. Development of the Project

1. A number of analyses have been identified in detail in the above-cited PRP (pages 14-15). It is anticipated that a FAC-funded SATEC study on irrigation possibilities in the Sixth Region may obviate the need for some of these analyses. This study should become available in July 1975.

2. It is intended to revise the above-cited PRP in FY 1975 with the PP being done in October.

3. Required technician resources are outlined in page 10 of the above-cited PRP. It may be possible to scale these planned requirements down to the level used to do the Mali Crop Production PP.

IV. Issues

No issues are brought to the attention of AID at this time.

Project Title: Mali Sales Program

Appropriation: PL 480, Title I

Year of Initial Funding: FY 1976

I. Balance of Payments

The 1969-74 drought years were particularly disastrous for Mali. Though the impact of the drought continues to be assessed, it is certain that the economy of Mali will continue to be negatively affected for the foreseeable future. Mali's balance of payments situation has been precarious up to 1970. But its overall deficit grew between 1970 and 1974, from 700 million Malian Francs (MF) to 12.5 billion MF in 1974. The value of exports rose from an average of approximately 20 billion MF in 1970-71 to 25 billion MF in 1973 and 29 billion (estimated) in 1974; cotton and groundnut earnings doubled between 1970 and 1974, despite falling volume. But it is import growth that has exacerbated Mali's problem; the value of imports tripled between 1970 and 1974, and although drought relief came in substantial quantities (about 40 billion MF between 1970 and 1974) Malian food purchases, especially cereals, rose phenomenally; from 4 billion MF in 1972 to 14 billion in 1973 and 35 billion in 1974. As a proportion of total imports, food imports went from 30 percent in 1970 to 50 percent in 1974.

II. Production and Consumption

The dry years between 1970 and 1974 have also seriously affected agricultural production. Traditionally, Mali has been self-sufficient

- 2 -

in grain production, at one time it was an exporter of grains and it has the technical (if not the economic) potential of becoming a major cereal producing center in West Africa. For these reasons, the 1972-74 drought years have been particularly painful for Mali. First there was a sharp decline in cereals production for domestic food consumption. By official estimates, the grain staples, millet and sorghum fell off 47 percent from 700,000 metric tons to 400,000 MT in 1972-73. Production rose again to 530,000 MT in 1973-75. Rice production fell from 117,000 MT in 1971-72 to 48,000 MT in 1973-74. Rice production is forecasted to be as high as 200,000 MT in 1974-75. (See Attachment A.)

The rate of population growth is believed to be increasing as a result of improved health measures, in particular mass vaccination. Per capita availability of food seems to have declined in rural areas since independence, partially due to the drought but more fundamentally due to a failure to increase food production proportionally to population requirements over the past two decades. Cereal consumption has always fluctuated between harvests but average year-long availability has declined: from an estimated 250 kg per capita in 1961-63 to 220 kg per capita in 1970-72. Per capita meat consumption in rural areas is low (20 kg per capita), although high by African standards. These levels of consumption most likely have declined as a result of the drought and its consequences. As a consequence of this trend, Mali has become increasingly dependent upon food imports, which have more than doubled in the past decade. The

total cereals import requirement for crop year 1974-1975 is projected to be 120,000 MT; and the GOM in its Five-Year Plan has projected a 1975-76 requirement of 111,000 MT. Imports remain a small share of total demand but the problem is clearly growing and it is projected that the requirement for food imports will continue.

III. Donor Assistance

During the period 1966-1970, annual average foreign assistance to Mali totalled \$30 million. One half of this came in the form of long-term concessionary loans from Mainland China and the Soviet Union. Most of the rest came as grants from France and the European Development Fund. Donor support for Mali in 1971 amounted to \$30.5 million (57 percent grant funded). Total donor support rose to \$65 million in 1972 (62 percent grant), including food aid worth \$15 million. By contrast, Mali's new Five-Year Plan calls for an average of \$85 million per year from foreign sources.

To make Mali's development efforts self-sustaining, considerable adjustment in such areas as price policy, government revenue and expenditure policy, and balance of payments policy will have to be encouraged.

IV. Proposed Title I Program

It is recommended that a PL 490, Title I sales program of 15,000 MT of rice and 10,000 MT of wheat be programmed for Mali in FYs 1976, 1977, and 1978. This program will serve a two-fold purpose: (1) to lessen Mali's present disadvantaged financial position in the wake of the drought by providing commodities which when sold will generate Malian

Francs which will be used to support livestock and agricultural activities in Mali; (2) to provide needed food grains to lessen the effects of the phasing out of donor drought emergency food assistance, and assist the GOM in meeting its import requirement of 129,000 MT of cereals.

To support the request for this program, the CDO/Bamako will forward to AID/W in August 1975 the required supply, distribution, commercial and other economic data.

ATTACHMENT A

MALIAN CEREALS REQUIREMENTS 1974-75 ¹

<u>MILLET-SORGHUM-CORN</u>	<u>TONS</u>
Expected Harvest:	910,000
Seed requirements, losses, fabrication of beer External consumption	64,000
Human Consumption: 5,691,000 inhabitants X 148 kg/year	842,000
Security stocks	84,000
Total national requirement	990,000
Total import requirement	80,000
 <u>RICE PADDY</u>	
Expected crop:	200,000
Seed requirements, losses, external consumption	30,000
Population consumption	228,000
Security stocks	22,000
Total national requirement	280,000
Total import requirement	48,000

1/ From the 1974/75 Multi-Donor Report

ANNORAM
CONTINUATION

DEPARTMENT OF STATE

31A **ANNORAM**

POST NO. CLASSIFICATION PAGE PAGE
AIDTO CIRCULAR A-253 UNCLASSIFIED 13 of 27

Commodity	FY 1975 Estimate				FY 1976 Request*			
	Agreements (\$)	Shipments (MT)	Carryover to FY' 76 (\$)	Carryover to FY' 76 (MT)	Agreements (\$)	Shipments (MT)	Carryover to Interim Quarter (\$)	Carryover to Interim Quarter (MT)
Rice					4.6	15,000		
Wheat					1.4	10,000		
	Interim Quarter*							
					FY 1977 Request*			
Rice					5.0	15,000		
Wheat					1.3	10,000		

*All estimates should be in metric tons of the raw commodity, except cotton and cotton yarn. To derive wheat equivalent, multiply flour by 1.33 and bulgur by 1.15. For dollar amounts, use attached price list and show in millions. Dollar values are only requested for FY 1976, the Interim Quarter, and FY 1977.

- 2 -

in country will also be used to initiate the project. This phase will employ about 4,000 needy, unemployed persons. Funds, (approximately \$650,000), will provide cash to pay laborers on work projects; (approximately \$410,000) and for hand tools and labor equipment which will be supplemented with PL 480 inputs -- 3 kgs of sorghum per person per day. It is projected that the project will expand to include approximately 6,000 workers in FY 1977 and that 3,210 MT of PL 480 grains will be required. The dollar requirement for the total project (including grains) in FY 1977 is estimated at \$1,960,000.

PID - TSETSE ERADICATION

I. Summary

1. The GOM has developed a strategy in the livestock sector which calls for a stratification of production as follows: (a) birth and early growth in the Sahel, (b) maturation in intermediate rainfall areas, and (c) finishing in feedlots or in closely controlled grazing areas near feedlots. The GOM is commencing activities for (a) and (c) but is faced with infestation of tsetse flies in areas most appropriate for undertaking activity (b). Thus the GOM has resolved to survey a suitable land area and develop eradication procedures and complete appropriate ecological and land use planning studies. Subsequent to these activities the GOM will undertake to eradicate tsetse flies in the selected area and develop appropriate infrastructure for its utilization, and requires funds for this activity. Both the DAP and Mali Livestock Sector Grant PP have strongly supported the funding of this GOM undertaking.

2. The project is best described on pages 32-34 of the above-cited PP. The estimated disbursement period would be FY 1977 to FY 1979.

3. The major assumption of the project is that it is appropriate and workable to stratify cattle production in Mali. This assumption has been accepted in the PP.

4. The GOM is undertaking a series of activities in the livestock sector in concert with other donors including the Fifth Region integrated livestock project (IBRD), the Sixth Region livestock project (Libya),

the Ndama livestock project (FED), and the Niono Ranch (FED). This activity is appropriate in the overall livestock sector.

5. The direct beneficiaries of this project will be approximately 50,000 sedentary and semi-sedentary herders. Indirect beneficiaries would be the Malian feedlot operators and meat processors and ultimately the Malian meat consumer.

6. The spread effect will in fact be substantial in that this project fits the missing link into the overall flow of cattle from birth to consumption.

II. Financial Requirements

The project is expected to cost \$3.5 million to be funded from a USAID grant added to the existing livestock sector grant. The GOM will utilize its resources, principally the CVL, to supervise the work. Final details of GOM contribution will become available as the necessary land use planning and ecological studies are completed.

III. Development of the Project

1. As noted above a series of fly surveys, land use planning studies and ecological studies will be performed prior to the obligation of this project. These studies are funded in the Mali Livestock Sector Grant and need no further inputs of AID.

2. In view of the wealth of information in existence on this project and in view of the projected detailed studies to be done under the Mali Livestock Sector PP, it is hereby requested that the PRP be waived and that a PP amendment to the livestock sector grant be processed in FY 1977 to fund this activity.

3. Preparation of the PP amendment will require inputs from the studies to be done under the Mali Livestock Sector PP. It is assumed that an engineer (3 weeks), a glossinologist (2 weeks), a range management specialist (2 weeks), and a project design officer (3 weeks) will be sufficient to establish the amendment.

IV. There are no issues to be brought to the attention of AID/W at this time. The Mali Livestock Sector PP has included authorization of this project.

PID - AGR. EXTENSION TRAINING

I. Summary

1. The GOM has established as a priority goal in its present Five-Year Plan that Mali should be self-sufficient in food. A critical input into any food production activity is effective extension work to allow the Malian farmer to benefit from more modern food production techniques. Without adequate coverage by extension agents, the Malian effort to recover from the drought will be severely hampered. Present output by the CAA is 90 trained extension agents per year in contrast with a requirement in 1978-85 of 407 per year.

The DAP has recommended that AID consider assisting the GOM in bridging this gap. This document requests that AID provide the necessary funds to install and/or increase the GOM training capacity at four sites to 320 extension agents per year. Consideration could be made at a later date to fully cover the manpower training requirements expressed above.

2. It is intended that AID should review existing GOM expansion plans for the four sites and, upon approval, provide funds to the GOM to accomplish these plans. It is expected that the expansion plan could be accomplished in a maximum of three years. The GOM has, according to a study done by the ILO, the capacity to fully staff the proposed extension of this training system.

3. It is assumed that local construction companies have the capacity to do the work and would be used.

- 2 -

4. This project will serve to strengthen and expand the GOM's existing training program for extension agents. The ILO has had a close relationship with this project and will continue to do so.

5. There are essentially no realistic alternatives to donor financing of this project, given the present GOM budgetary situation. If sufficient agriculture extension officers are to become available it is obligatory that these training facilities be provided.

6. The major direct beneficiaries of this project will be the extension agents themselves and the Ministry of Production under whose direction they will work. Other direct beneficiaries will be various parastatal. "Operations" who rely heavily on extension work. The ultimate, though indirect, beneficiaries will be the Malian farmers, the poorest section of Malian society, who will receive guidance and supervision in applying more modern agricultural techniques.

7. The provision of training facilities will, through increased numbers of extension agents have a substantial spread effect on the Malian agricultural sector.

II. Financial Plan

Construction estimates for the four centers total MF 1,107,800,000 which equals \$2,769,500 at an exchange rate of 400 MF to the dollar, and this amount should be made available on a grant basis. The GOM will cover all local supervision costs, will make available necessary land and will provide all necessary teachers to staff the expanded training centers.

III. Project Development

1. The ILO has worked with the GOM to develop this package of four facilities. It would be necessary for AID to do an engineering review of the capacity of local contractors to accomplish the necessary construction. An additional review of staffing capabilities should be performed to allow AID to reassure itself that the facilities, once constructed, will be effectively and productively utilized.

2. The PRP for this project should be prepared in October/November 1975 with the PP following in March 1976 for funding starting October 1976. (FY 1977).

3. Resources which will be required for the PRP include an engineer (2 weeks), specialist in agriculture extension training (2 weeks), and an agricultural economist (1 week). The CDO will coordinate the team. Approximately the same skill mix will be required for the preparation of the PP, although the inclusion of a project officer would be most desirable. It is not considered necessary to go outside the Agency to obtain these services.

4. No issues of great importance are raised at this time.

PID - PILOT RURAL MCH CLINIC - TRAINING CENTERS

I. Summary

Mali's population suffers many significant health problems all of which have been severely exacerbated over the previous seven years by the severe drought. The GOM is seriously concerned with these health problems as revealed to the DAP team in November 1974 which concluded that the problems of Mali are related to (1) the nature of the diseases afflicting the population, (2) the state of the health infrastructure and (3) the funding available.

Major Disease Problems - These are succinctly stated as being either communicable diseases or nutritional deficiency. No reporting system exists to allow accurate measurement of the communicable disease problem in terms of morbidity or mortality, but suffice it to state that it is very serious.

Communicable disease problems of Mali are conveniently categorized as vector borne such as Onchocerciasis, Malaria, trypanosomiasis and non-vector borne including water and food borne diseases like severe diarrheas, chistosomiasis, and typhoid fever and person-to-person transmitted diseases like measles and venereal diseases.

Nutritional deficiencies include both protein malnutrition as well as protein calorie malnutrition and vitaminoses. Characteristically these are most severe and sometimes lethal in children in the early post natal period or more notably at the time of weaning at about two years of age. The recent effects of the Sahelian drought are still to be noted in the infants and children.

Health Services Infrastructure - The health services of Mali are administratively decentralized to the regional level and then to the cercle level. The effectiveness of decentralization is hampered by the lack of qualified health administrators. Although each region is headed by a Regional Director of Health, all of whom are currently physicians, those medical services below the region have less qualified staff. It is at the lowest level, the arrondissement, where most of the action occurs, in dispensaries and maternities for the Malian population. It is important to note that the bulk of the medical care in Mali is delivered in the rural areas and those who deliver this care are nurses and para-professionals. Training of personnel occurs in Bamako at the Ecole Supérieur de Medecine, de Pharmacie et Dentistrie, and at the Ecole Secondaire de Sante. The latter trains infirmiers d'etat, sage-femme, sanitary technicians and laboratory technicians. In addition there is also a school for the training of infirmiers at Pointe G Hospital, supplying hospitals, the Grandes Endemies and rural dispensaries.

It is said in the DAP report that the supply of nurses and midwives, who are the backbone of the health system of Mali at the functional level, is indeed adequate and presumably will keep up with the increase in numbers of rural dispensaries and maternities. Apparently many more apply for training than can be accommodated and retention is adequate within the system. Unfortunately, the vast majority end up assigned to outlying facilities without equipment, medications, and supplies necessary to do their jobs.

Funding of the Health System - The annual national health budget has been about \$6 million over the past seven years which constitutes nearly 10 percent of the national budget indicating their priority of interest in the health sector. The Mali Five-Year Plan breaks down the development of the health system into four distinct areas, each with a budgetary estimate for attainment in the area subsections; they were

1. Provision of medicines and supplies
2. Curative medicine
3. Socio-Preventive medicine
4. Liaison between Medico-Social activities and the national

program of Grandes Operations

The DAP recommendations closely reflected the GOM health strategy (see pages B77 to B81 of DAP). And this document requests that AID undertake an initiative to improve and further develop PMI programs in support of the five-year plan and its desire for collaboration in socio-medical activities and the Grandes Operation. It strongly urged that three PMI Community Development Centers be developed as centers of excellence which would serve as models for replication. In addition to delivering traditional maternity and child health preventive and care programs, these centers would also focus on:

- a. Environmental health using a polyvalent team concentrating on potable water development, proper disposal of human waste and insect vector control.

b. Health education using modern training and education techniques directly involving the population served.

c. Public School Health - a health and hygiene program for school children.

d. Nutritional surveillance and emergency assistance program.

In addition to support to the rural mobile medical services to maximize existing Grandes Endemias and other mobile medical teams in existence, are requests including personnel support, drugs, supplies and equipment, and operating cost.

II. Financing Requirements

It is anticipated that this ensemble of initiative centered on PMI development will require funding of \$1,640,000 over a three-year period. AID grant funding is required for \$1,520,000 with the host government contributing approximately \$120,000 in salaries over the three-year life of the project.

III. Development of the Project

Major feasibility input would relate primarily to the sites chosen for the demonstration PMI Community Development Centers. Consultation with the MOH officials by local USAID staff will undoubtedly result in area and site selection balancing political realities and population needs. Data should be collected about the population and geographic area to be served, as to numbers of people and their disease burden, boundaries, villages, numbers of nomads and age distribution of the population. In addition, an analysis on what additional staff needs to be recruited should be developed with the MOH. Necessary architectural

and engineering support as well as medical support will be necessary. The submission of PRP is recommended for October 1975 and the PP for March 1976.

Consulting services to assist local USAID staff and the MOH as indicated above would include architectural, engineering and public health or community health planning. Maximum time required for each is estimated at 15 days.

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT IDENTIFICATION DOCUMENT FACESHEET
 TO BE COMPLETED BY ORIGINATING OFFICE

1. TRANSACTION CODE (X) APPROPRIATE BOX)
 ORIGINAL CHANGE
 ADD DELETE
 PID DOCUMENT CODE 1

2. COUNTRY/REGIONAL ENTITY/GRANTEE
 Mali GOM

3. DOCUMENT REVISION NUMBER

4. PROJECT NUMBER

5. BUREAU
 A. SYMBOL AFR B. CODE

6. PROPOSED NEXT DOCUMENT
 A. PRP PP B. DATE MO. 12 YR. 75

7A. PROJECT TITLE - SHORT (STAY WITHIN BRACKETS)
 []

8. ESTIMATED FY OF AUTHORIZATION/OBLIGATION
 A. INITIAL FY 77 B. FINAL FY 79

7B. PROJECT TITLE - LONG (STAY WITHIN BRACKETS)
 [Small Ruminants Study and Pilot Initiative]

9. ESTIMATED COST (LIFE OF PROJECT) (\$000. OR EQUIVALENT, \$1 = 400)

PROGRAM FINANCING		AMOUNT
A. AID APPROPRIATED		530
B. OTHER U.S.		
C. HOST GOVERNMENT		120
D. OTHER DONOR(S)		
TOTAL		650

10. ESTIMATED COSTS/AID APPROPRIATED FUNDS (\$000)

A. APPROPRIATION (ALPHA CODE)	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE	FIRST YEAR		ALL YEARS	
			D. GRANT	E. LOAN	F. GRANT	G. LOAN
FN			135		530	
TOTAL			135		530	

11. OTHER U.S. (\$000)

A. PROGRAM TYPE	B. FIRST YEAR	C. ALL YEARS
TOTAL		

12. PROJECT GOAL (STAY WITHIN BRACKETS)
 [To enhance the production of small ruminants within the livestock sector, determine their ecological impact on grazing resources with the overall goal being increased meat production in Mali.]

13. PROJECT PURPOSE(S) (STAY WITHIN BRACKETS)
 [To produce an overall review of the sheep and goat situation in Mali and to assist the GOM in developing a pilot project initiative in sheep and goat production.]

14. PLANNING RESOURCE REQUIREMENTS (STAFF/FUNDS)
 Short-term requirement (three weeks each): livestock economist, a small ruminants veterinarian and a statistician.

15. ORIGINATING OFFICE CLEARANCE
 SIGNATURE: Ronald D. Levin *Ronald D. Levin*
 TITLE: Country Development Officer
 DATE SIGNED: MO. 06 DAY 25 YR. 75

16. DATE RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
 MO. DAY YR.

PID - SMALL RUMINANTS STUDY

I. Summary

1. The GOM has invested and will continue to invest large amounts of money into the livestock sector. Substantial knowledge has been acquired concerning the production of cattle, their effect on the ecology, their diseases, etc. Little is known concerning the potential, the problems and the impact of goats and sheep in Mali. As these animals constitute a substantial resource for protein, milk and other by-products and utilize much of the same grazing space as do cattle, the GOM intends to undertake a thorough investigation of the situation concerning sheep and goats in Mali with the view to launching production initiatives related to existing cattle projects. This document requests AID consideration in funding a study to thoroughly analyze the small ruminants aspect of the Mali Livestock Sector, to analyze special animal health problems and to undertake an initiative in sheep and goat production in relation to the cattle production activities already authorized by AID.

2. The project will produce an overall review of the sheep and goat situation in Mali, including an inventory, and will assist the GOM in developing a pilot initiative in sheep and goat production related to existing AID cattle production activities. Some short-term technical assistance will be necessary to assist OMVEBI in conducting the study, but it is not likely that specific technical assistance will be required in the pilot initiative which can be melded with cattle production activities; the animal health analysis can be accomplished by CVL using minimal inputs. It is expected that the study and pilot initiative will take three years.

- 2 -

3. The major assumption of this project is that it is inappropriate to view the Livestock Sector as simply a cattle production sector and that to address the whole sector requires substantial information and experience related to sheep and goats.

4. There are no present activities in sheep and goat production but the FAC has drawn up a scope of work for OMBEVI to use in performing the survey.

5. Although one can perhaps ignore the existence of sheep and goats as users of Malian grazing resources, this is an alternative fraught with danger due to the ecological impact of these small ruminants. Thus the realistic approach is to include the small ruminants in any coherent project of grazing capacities, which in turn requires the additional information and experience this project is designed to provide.

6. The direct beneficiary of this project would be the GOM and OMBEVI which would gain a coherent overview of the Livestock Sector. Indirectly, all Malian herders, among the poorest sections of Malian society, would benefit from the knowledge obtained, though those herders directly related to AID-financed cattle production initiatives would likely feel the relative benefits of this project before other herders.

7. The spread effect of this project is very substantial. Once a knowledge base concerning sheep and goats has been established on a national basis, and pilot initiatives have commenced related to AID-financed cattle production activities, the opportunity for replication

of initiative exists with the IBRD, FED, and Libyan cattle projects in other parts of Mali.

II. Financial Requirements

1. It is estimated that this project will cost approximately \$335,000 for the national study, \$150,000 for the pilot production initiative related to AID-financed cattle production activities and \$45,000 to provide a parallel research initiative into the special diseases of sheep and goats in Mali. It is proposed that USAID grant fund the total of \$530,000. The GOM contribution will be the salaries of the participating Malian personnel estimated at \$120,000.

III. Project Development

1. The project involved is substantially a study with pilot initiative attached. As the study will take three years covering one third of Mali each year, the pilot initiative will commence only after the completion of the first year's study in the area where AID-financed cattle production activities are taking place. The animal health work will commence shortly after the study has started utilizing samples drawn from the study. The GOM presently has a detailed scope of work for the study which will require review by qualified AID technicians.

2. It is intended to submit the PRP in November, at which time it will be determined whether it will be necessary to establish a full PP.

3. It is assumed that a livestock economist, a small-ruminants veterinarian and a statistician could establish an appropriate PRP in

approximately three weeks using the existing documentary base provided by the GOM.

IV. Issues

There are no issues of substance to be brought to the attention of AID/W at the present time.

PID - HAUTE VALLEE

I. Summary

The Haute Vallee area of Mali is composed of approximately 13,800 km of area along both banks of the Niger River from the Guinea border downstream to Koulikoro (60 km east of Bamako). The potential of the area for intensification of agriculture, both dry and irrigated, is among the highest in Mali. The GOM has designated the integrated agricultural development of Haute Vallee as a high priority objective in its present five-year plan.

The Haute Vallee zone with its proximity to the capital city has traditionally been a supplier of food products for consumption in the major urban areas to which it is adjacent. Its rural demographic density is among the highest in Mali. This fact, along with its great potential for irrigated agriculture, enhances the suitability of the zone as a priority zone for intensive agricultural production. Haute Vallee is also the area in which the Selingue Dam will be built. This project, which is scheduled to begin in 1975, will vastly enlarge the irrigable area and is an enormous agricultural impact in the long term. But the dam's impact will not be felt for the next five years or so, and the immediate and medium-term objective is to begin to develop the necessary agricultural infrastructure to enable the area to prepare for this longer-term development.

"Operation Haute Vallee," which is an attempt to undertake full scale rural development in the area through projects involving local persons, cooperative, credit, and market strategies, was created by the

GOM in September 1972. The best description of existing conditions and activities of the operation is contained in the FAO-IBRD Report No. 11/74 MLI dated May 3, 1974, titled "Rapport de la Mission de Preparation Pour le Project de Development Rural Integre en Haute Vallee du Niger-Mali" in two volumes. Since the GOM is at present seeking donor financing of the operation, implementation has not begun.

The GOM Five-Year Plan for Haute Vallee dated May 1974 contains descriptions and estimated costs of specific irrigated perimeters which the GOM desires to have financed. Eight of the perimeters totalling 2,900 hectares at an estimated cost of \$1,950,000 were proposed for financing by the IBRD. The IBRD has, however, declined this participation in favor of the Selingue Dam Project which is in the same region but more capital intensive.

The GOM has requested AID grant financing of three perimeters for integrated agricultural production of rice, millet, sorghum, fruits, vegetables, corn and peanuts. To accomplish this project, AID would finance three perimeters for integrated and variegated agricultural production as follows: (a) Kanaba - 200 hectares; (b) Figuiratime - 500 hectares; and (c) Nanguila - 140 hectares. Total hectares - 840. The financing would provide support to the local institution, Operation Haute Vallee which is similar in structure and intent to Operation Mills-Mopti of the Mali Crop Production Project.

The principal beneficiaries of the Operation Haute Vallee integrated agricultural development project will be the small rural farmer of the Haute Vallee zone. This zone includes approximately 156,000 rural inhabitants. The benefits to these disadvantaged will be in the form of

increased incomes as agricultural production is maximized through new farm techniques, improved seeds, fertilizers, tools, and credit facilities. The secondary beneficial effect is the contribution of the project in (a) supplying Malian food needs and (b) discouraging rural migration to urban areas. An additional benefit will be that the administrative structures of GOM and the Operation will gain invaluable experience on project planning and implementation and creative interaction with the poorest of farmers.

II. Financial Requirements

The U.S. contribution for this project will be \$8,700,000 in grant funding over three years (FY 1977-1979). The GOM contribution would approximate \$2,600,000 for local salaries. At the end of two years, an AID/GOM evaluation of the project should be undertaken, and a decision as to continued AID financing for an additional three years should be made at that time.

III. Development of the Project

The aforementioned FAO-IBRD report on the Haute Vallee should be utilized as a basic analytical document on the project. It is anticipated that the following personnel will be required to conduct the required analysis:

An agronomist with experience on irrigated land and in cereals production, especially rice.

An agricultural economist.

A sociologist preferably with experience in Bambara.

An extension specialist.

A civil engineer to determine the status requirements, for topographic and cadastral surveying, leveling and mapping.

An irrigation engineer to determine water requirements, availabilities and necessary irrigation and drainage works.

The PRP for this project will be submitted in November 1975 with the PP projected for submission in March 1976.

IV. Issues

No substantive issues are brought to the attention of AID/W at this time.

PID - WHEAT PRODUCTION (UPPER NIGER DELTA)

I. Summary

The GOM primary objective in its present Five-Year Plan, 1974-78, is to assure the achievement of self-sufficiency in cereals production by 1980. Substantial effort, both in funds and in personnel, is being directed toward increased rice, millet and sorghum production. Wheat production has, to the present, received little attention despite the ever increasing requirement to import flour for bread. The GOM is aware of its potential to plug this import gap by substituting wheat in designing and implement logical development in the Upper Niger Delta. This project would be a two-phase five-year project which would ultimately bring 11,000 hectares under irrigated wheat production in the Fifth Region using land that is presently used only for casual grazing.

2. There is some local wheat grown in the region at present, but yields are low and could be greatly increased by the introduction of North African or Mexican varieties. Climatic conditions, (adequate water, cold nights, abundant sunshine, low disease incidence, heavy soils), are highly promising for substantial success in increasing wheat production. It is anticipated that the potential output of this project will provide the majority of the wheat required for Mali's domestic needs. Project inputs would include technical assistance, investment in irrigation infrastructure, equipment, participant training and support for operational costs. The project would last for five years, with the first phase (testing and pilot production) lasting three years and the second phase (commercial full-scale production) continuing thereafter.

- 2 -

3. The major assumptions in seeking AID financing for this project is that AID has a sufficient depth of experience in arid-land irrigated wheat production to contribute greatly to the success of a project such as this.

4. The GOM presently has no notable commercial wheat production ventures. FAC is considering a project which will utilize approximately 5,000 hectares of irrigable land for wheat production. The FAC project will utilize land in which infrastructural improvements were made long ago for rice and sugar cane production, and thus is not comparable to what is envisioned in the project.

5. There are, of course, alternatives to initiating substantial wheat production in Mali, one can emphasize traditional millet and sorghum crops or one can focus on irrigated rice production. However, the climatic conditions appear so ideal for hybrid wheat production, and the opportunity for import substitution is so evident, that this project should clearly be justified as additive to other cereals initiatives.

6. The major beneficiaries of this project would be the poor farmers of the northern reaches of the Fifth Region, an area which frequently suffers from cereal deficits.

7. The potential spread effect could be dramatic since comparable climatic condition occur in the upper reaches of the Canal du Sahel (Office du Niger) where double cropping (rice then wheat) could greatly increase the viability of operations by the Office du Niger.

II. Financial Requirements

It is proposed that the first three years be funded by an AID grant of \$3,070,000 to provide those inputs outlined above. It is assumed that the input of the GOM will include salaries of extension workers and will be on the order of \$150,000. The second phase (commercial production) is expected to cost in the neighborhood of \$11,200,000. A formula for sharing these costs can be worked out with the GOM once they are convinced of the efficiency of the investment based on the first three-year experience.

III. Project Development

1. It is anticipated that a number of analyses will be required for this project including wheat agronomy, hydrology, and engineering. A portion of the first phase of the project would be devoted to expanding studies which would be identified or initiated in the PRP and PP stages.

2. It is anticipated that the PRP for this project would be submitted in February 1976 with the PP developed by August 1976. Document preparation will require the services of an agronomist (3 weeks), an agricultural economist (3 weeks), an irrigation engineer (3 weeks), and a project development officer (4 weeks).

IV. Issues

The principal issue at this time is whether AID should attempt to enter the wheat production aspect of the cereals sector. It is submitted that AID, with resources of CIMMYT to draw upon, is in an excellent

position to make a substantial and productive input into wheat production in the Sahel.

PID - IPR - AGRICULTURAL FARM

I. Summary

1. The successful implementation of the Malian Five-Year Plan (1974-1978) for rural sector development is integrally linked to the simultaneous development of trained manpower with practical experience to meet the manpower requirements of planned rural activities. Adequate numbers of properly trained people will be crucial to the success of our integrated rural development, food production, and livestock projects for Mali.

Mali's proposed expansion of middle and higher level training institutions over the next five years to meet anticipated manpower requirements is modest and probably realistic. The strategy for manpower and formal training in the 1974-1978 Plan period countenances a moderate increase in some technical areas with a levelling off in general education. In such a way, the GOM recognizes the hard realities of Mali's high cost of education as a percentage of public expenditure, while taking account of rural job opportunity anticipated within the plan period. Eight percent of new personnel required by 1978 would be trained at the university level. The skills composition of this high level category would be influenced primarily by the government's plans to build up industry and power facilities and to intensify exploitation of mineral resources. Thus only 20 percent of the total high level manpower sought for 1978 would be trained for rural production (agriculture, livestock). Of the five principal institutions of higher education,

each offering four-year courses after the baccalaureate, AID proposes to assist the one which expressly trains students in the disciplines of integrated agricultural rural development.

The Rural Polytechnic Institute (IPR) at Katibougou (40 miles from Bamako) not only administers the rural "ingenieur" degree at the university level, but also operates the main training facility for agricultural technicians, a four-year course at the secondary level. The total enrollment in the "ingenieur" course was 227 students in 1972-73. The average annual rate of expansion of enrollments is projected at 19 percent. Of those entering the course, it is estimated that 82 percent would finish in the four years allotted.

AID proposes to finance an extension agro-livestock farm for the school. This farm is the main priority for the IPR. The farm will be used to provide the practical application and extension experience which is necessary in the education of agricultural technicians.

The IPR farm will occupy a total area of 300 hectares. There are 200 hectares of arable land, 28 hectares of irrigable land along the Niger River and 80 hectares of natural pastures.

The farm will have three component activities, agricultural production, animal production and forestry. The agricultural component will emphasize the production of cereals, rice, fruits, and vegetables. The animal production will concentrate on cattle, sheep, pigs, and poultry with meat, milk, and eggs being the important products.

The beneficiaries from the building of this farm will be:

1. The students of the IPR who will gain practical experience from their application, research, and extension efforts. Also, actual food production at the farm will provide food to the student and reduce present exorbitant fees for meals;
2. The farmers in the nearby regions of Katibouga and Koulikouro will benefit from the extension and training activities which the farm is to provide to local farmers;
3. Rural farmers as a whole in Mali will benefit from the increased knowledge of IPR students as they enter rural development positions throughout the country. In the long term, the project will be a link to the GOM plan for a national increase in food production.

II. Financial Requirements and Plans

Over a three-year period it is proposed that AID grant funding will be \$1,500,000. Approximately \$1,100,000 will be for the building and irrigation of the farm site. \$400,00 would provide for technical assistance including the purchase of farm machinery and instruction in its operation and maintenance. The GOM contribution is expected to be approximately \$158,000.

The FED is providing the financing for the building of dormitories and classroom facilities at the school; the precise amount of this funding is not known at this time.

III. Development of the Project

As a basic document for reference, the GOM document entitled "Project du Creation d'Une Ferme d'Application a l'L.P.R. de Katibougou" should be utilized. The necessary analyses should require an irrigation engineer (4 weeks), an agronomist (2 weeks), a livestock production specialist (2 weeks), and a farm machinery specialist (3 weeks). The PRP for this project will be presented in December 1975 with the PP being done in March 1976.

PID- SAHELIAN TRACKS

I. Summary

The GOM has long had a severe transport problem in the Sahelian portion of Mali. Roads are sandy and difficult to transverse, with resultant very high user costs. With the emergence of a series of development projects in the Sahel by a variety of donors, the problem of getting to project sites and getting production out of the project area has become a serious impediment. The GOM realizes all roads in the Sahel do not merit up-grading as traffic is relatively light, but it has selected a key skeleton of roads, which, when improved, will give access to a substantial portion of the Sahel. Realizing that no donor, even the World Bank, is interested simply in improving Sahelian roads, the GOM has selected roads which are special interest to other specific projects. Thus, the GOM has properly noted that the Kilokani-Mourdiah-Nara Road is of high interest to AID because of the location of the Sahel grazing activities at Dilly, just off this road. Also of very high interest is the Kayes-Nioro-Nara which would tie this project to possible outlets in the Kayes Region and ultimately to Senegal. This document proposes that AID finance improvement to the sections of the road identified above.

The project will undertake to improve approximately 130 km from Nara toward Kilokani, 270 km from Kayes to Nioro, and 251 from Nioro to Nara. For 60 percent of the distance from Nara to Kilokani, i.e., from Nara of Mourdish, road work financed by an earlier IBRD project has resulted in a road of adequate standard. It is anticipated that the GOM would do the Mourdish-Nara work under the direction of Public Works, using a specially constituted road brigade funded by AID. It is suggested

that the other two road segments be locally contracted. It is expected that the disbursement period would be three years. The road brigade constituted to work on the Mourdish-Nara would continue to serve as a maintenance unit for all roads in this project.

The major assumption in this project is that the improved road will greatly facilitate project operations in the Sahel grazing activity of the Mali Livestock Sector Grant and will also facilitate the movement of food supplies into the northern portion of Bamako Region and of Kayes Region which have a history of grain deficits.

The GOM, with funding from the IBRD, has already undertaken the up-grading of the first 90 km of the Kolokani-Nara Road.

If these roads are not improved, considerable difficulty will be experienced in supervising activities in the Sahel grazing area, and substantially greater ton/km freight rates will be incurred for any equipment and supplies needed or food moved into the region.

The major direct beneficiaries of the project will be the principal road users, i.e., the commercial interests in Nara and Nioro, and those persons involved in managing the Sahel Grazing Activity. Indirect benefits would come to the whole Sahelian population of Nara, Nioro, and Dilly cercles since a secure transport link would be available.

The effect of this project can only be identified as the service it provides to other activities in the area. A second impact could also come about, since if AID shows a willingness to do these road segments other donors such as the Canadians, the Libyans, FED and IBRD would be encouraged to undertake roads nearby their respective Sahelian development projects.

II. Financial Requirements and Plans

It is estimated that the Mourdish-Nara Road can be brought up to adequate standard with a total input of \$1,307,500. AID will be asked to provide \$1,240,000 for equipment procurement and for operating expenses for the constituted brigade. The GOM will be able to pay the salaries of the approximately 75 brigade workers at a total of \$67,500. It is estimated that the contracts for the Kayes-Nioro and Nioro-Nara segments will be approximately \$7.3 million, all to be financed by AID. Approximately \$52,500 will be provided in kind and services by the GOM in preparing the necessary detailed road work specifications and program. Thus AID will provide a total of \$8,540,000 and the GOM a total of \$120,000.

Road brigades could be substituted for contracts on the Kayes-Nioro and Nioro-Nara segments. Cost would be substantially reduced to the neighborhood of \$1,600,000 per segment but time to accomplish work would probably be doubled. It is submitted that once these segments are brought up to standard, the road brigade constituted for Mourdish-Nara work could maintain all three segments.

III. Project Development

There exists a standard pattern of equipment required for road brigades in Mali. It will be necessary for AID to review these requirements as pertains to the Mourdish-Nara Road segment. Summary road feasibility and economic feasibility studies will also be required by AID for all road segments.

It is anticipated that the PRP will be submitted in November with the PP being complete by the following June.

Document preparation will require the services of an engineer (3 weeks), a transport economist (2 weeks), and a project officer (3 weeks) for both the PRP and the PP stages. It is anticipated that these personnel resources will be available from existing AID technical and personnel resources.

IV. Issues

The only issue to be raised at this time is the appropriateness of undertaking transport infrastructure projects. It is submitted that these road segments constitute the most appropriate infrastructural input for AID in Mali since they are so closely tied to rural development in the Sahel, and may serve as a catalyst to induce other donors to pursue similar investments.

PID - FUNCTIONAL LITERACY

I. Summary

The GOM has realized that a critical constraint in the mobilization of human resources for development is the very high illiteracy rate in the rural areas. Lack of functional literacy acts as an effective brake on the transfer of more modern techniques in agriculture as well as the development of a system of adequate preventive health practices. As a consequence, the GOM has decided to increase its efforts in extending a functional literacy program throughout Mali. The DAP has recommended that AID consider assisting the GOM in this effort. This document requests that AID provide the necessary funding to install and/or reinforce functional literacy programs in the Operation Mils and Operation Peche areas of the Fifth Region (Mopti) and the Action Riz-Sorgho of the Sixth Region.

The purpose of this project is to bring functional literacy to one member of every family living in the areas under the jurisdiction of Operation Mils, Operation Peche and Action Riz-Sorgho. Such an achievement would greatly facilitate extension efforts being carried on by Operation Mils (USAID financing) and Action Riz-Sorgho (IBRD financing). It is intended that the project will capitalize on the wealth of functional literacy program experience already existing in Mali and in this way would require negligible inputs of technical assistance. It is anticipated that the output goals expressed above could be reached in two years.

The critical assumption within the project is that functional literacy is the critical facilitator for the transfer of modern techniques to the rural areas.

This project will build upon an existing pool of GOM experience in functional literacy and will extend it into areas not presently covered, FAC and FED are presently financing similar activities within the confines of their "Operations" and USAID would work closely with them to gain whatever insights they may have gained.

The GOM urges that a functional literacy initiative be included in every production activity to facilitate the transfer of modern technology from the extension agent to the rural farmer. The GOM has shown strong support for the central core of the functional literacy program.

The major direct beneficiaries of the project would be the illiterate rural poor who would be given a tool with which they might begin to tap the wealth of modern technology available to them.

The spread effect of functional literacy is incalculable in extent and in value. Once an awareness of modern technology is brought to the rural poor through functional literacy, such awareness can serve as a basis for agriculture extension, health education, etc., to better the life of the common man. Once the beneficiaries achieve functional literacy, the GOM has a wide range of technical printed materials available for them through its "Rural Press" pamphlet distribution activity.

II. Financial Plan

It is estimated that a project to cover Operation Mils (80,000 participants); Operation Peche (30,000 participants); and Action Riz-Sorgho (18,000 participants) would be \$2,040,000 which would be AID grant funded.

The GOM contribution would be vast, if difficult to calculate. The present system of volunteer village teachers would, of course, be continued. An estimate of the volunteer's time alone would reach \$1,020,000 over the life of the project.

III. Development of the Project

It is intended that AID review the existing GOM functional literacy program to assure adequate central support for the project.

A PRP should be submitted in October 1975 with the PP to follow in April 1976.

It is assumed that the PRP team should include an expert in rural education (3 weeks) and in agriculture extension work (2 weeks). No assistance outside the Agency is expected.

IV. No issues of substance are foreseen at present.

J-1

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT IDENTIFICATION DOCUMENT FACESHEET
 TO BE COMPLETED BY ORIGINATING OFFICE

1. TRANSACTION CODE (X APPROPRIATE BOX)
 ORIGINAL CHANGE
 ADD DELETE

PID
 DOCUMENT CODE 1

2. COUNTRY/REGIONAL ENTITY/GRANTEE
 Mali GOM

3. DOCUMENT REVISION NUMBER

4. PROJECT NUMBER

5. BUREAU
 A. SYMBOL AFR B. CODE 1

6. PROPOSED NEXT DOCUMENT
 A. PRP PP B. DATE MO. | YR. |
 0 | 7 | 76 |

7A. PROJECT TITLE - SHORT (STAY WITHIN BRACKETS)
 [Northern Land Use Capability Inventory]

8. ESTIMATED FY OF AUTHORIZATION/OBLIGATION
 A. INITIAL FY [77] B. FINAL FY [78]

7B. PROJECT TITLE - LONG (STAY WITHIN BRACKETS)
 []

9. ESTIMATED COST (LIFE OF PROJECT)
 (\$000 OR EQUIVALENT, \$1 = 400)

PROGRAM FINANCING		AMOUNT
A. AID APPROPRIATED		1,500
B. OTHER U.S.		
C. HOST GOVERNMENT		27
D. OTHER DONOR(S)		300
TOTAL		1,827

10. ESTIMATED COSTS/AID APPROPRIATED FUNDS (\$000)							11. OTHER U.S. (\$000)		
A. APPRO- PRIATION (ALPHA CODE)	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE	FIRST YEAR		ALL YEARS		A. PROGRAM TYPE	B. FIRST YEAR	C. ALL YEARS
			D. GRANT	E. LOAN	F. GRANT	G. LOAN			
FN			800		1,500				
TOTAL			800		1,500				
							TOTAL		

12. PROJECT GOAL (STAY WITHIN BRACKETS)
 [To provide to the GOM information required to permit the best possible decisions to be made on alternative possible land uses.]

13. PROJECT PURPOSE(S) (STAY WITHIN BRACKETS)
 [This project will complement the AID/FAC/GOM project which inventories the southern half of Mali by providing the resources to inventory the northern half.]

14. PLANNING RESOURCE REQUIREMENTS (STAFF/FUNDS)
 None.

15. ORIGINATING OFFICE CLEARANCE

SIGNATURE: Ronald D. Levin *Ronald D. Levin*

TITLE: Country Development Officer

DATE SIGNED: MO. | DAY | YR. |
 06 | 5 | 75 |

16. DATE RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
 MO. | DAY | YR. |

PID - NORTHERN MALI LAND USE CAPABILITY INVENTORY

I. Summary

1. The GOM faces the developmental problem of attempting to ascertain the location, nature and quantity of various developable resources which may then be developed to promote rural employment, national consumption and/or export requirements. To attempt a rational utilization of these resources it will first be necessary for the GOM to inventory the land use capabilities of the nation. The GOM has already entered into discussions with FAC and AID to commence such a study in FY 1976 for the southern half of Mali. This document requests that a similar inventory be performed for the northern half as well, subsequent to the successful completion of work in the south.

2. The project outputs are best described in the FY 1976 Mali Land Use Capability Inventory PRP with the location of work being all that area in Mali excluded by the referenced PRP. It is expected that the estimated disbursement of the project would be fourth quarter FY 1977 through first quarter FY 1979 or approximately 18 months.

3. The assumptions in the project are the same as those set forth on page 2 of the referenced PRP.

4. The GOM will undertake a land use capability inventory in the southern half of Mali in collaboration with AID, and FAC. Cooperation may also be obtained from CIDA, FED, UNDP and UNESCO.

5. Since plans are going ahead to do the inventory on the southern half of Mali, there are only two realistic alternatives (a) complete the northern half to provide the GOM with an ensemble of inventoried resources

or (b) omit the northern half and have a knowledge gap which may be reflected in poor or non-utilization of the land to its best purposes.

6. The beneficiaries of the project will be (a) the farmers and herdsmen who participate in projects identified by this activity; (b) the GOM as resource information will be available to serve as a timeless base for land use planning; and (c) the people of Mali, as the information is utilized to increase agriculture production.

7. The "spread effect" is not anticipated to have much effect until projects identified using the inventory are in process of implementation. At this point the spread effect will be incalculable since it will effect the use of all national land.

II. Financial Plans

It is estimated that the northern half of Mali could be inventoried for approximately \$1,800,000 of which \$1,500,000 would be provided by an AID grant.

It is anticipated that the GOM would provide approximately 90 man-months of technical level personnel to the project valued at approximately \$27,000. FAC will also contribute approximately 72 man-months of technical level personnel valued at approximately \$300,000.

III. Development of the Project

As the project is essentially an add-on to the PRP cited above, it is considered that no further studies, and analysis will be necessary. Furthermore it is hereby requested that the PRP for this project be waived and that a PP amendment be established in July 1976 as the document of record.

- 3 -

To develop the PP, it is assumed that the personnel in place under the project to inventory the southern half of Mali can be called upon to provide necessary inputs to the PP amendment. The services of a project design officer for three weeks would greatly assist in the preparation of the PP amendment.

IV. Issues

There are no issues to be brought to the attention of AID/W at this time.

PID - TRAINING AND CONTINUING EDUCATION FOR HEALTH
PROFESSIONALS AND PARA-PROFESSIONALS

The health delivery system of Mali is administratively decentralized, such that health care for the ordinary citizen beginning at the level of the rural dispensary or maternity, passes up the hierarchy through the arrondissement to the regional level. Although an ideal organizational arrangement, it requires effective administration of funds and qualified manpower resources to supply reasonable delivery of health services to the rural areas. The constraints caused by limited availability of supplies are addressed elsewhere. This document is an effort to identify the need for medical and paramedical re-training to maximize the delivery of health services in the rural areas. Although slightly less than two-thirds of the cercle level activities are covered by MD's at present, other health professional and para-professionals deliver health services at the rural dispensary or maternity level. These health personnel are the vanguard responsible for the bulk of Mali's medical care delivery and are hampered by insufficient training to update, improve and maintain their medical care skills.

It is proposed that AID assist the GOM in training and continuing education for health professionals and para-professionals on two levels.

1. Central - involving the medical, dental, pharmacy school and the Secondary School of Health. The objective would be to present on a periodic basis a major education input given at these schools allowing the infirmier d'Etat, Infirmier, Sage Femme or traditional assistants an opportunity for in-residence education. In preparation for this program and the one to follow certain key selected health personnel

- 2 -

would be sent to the United States for brief periods of in-residence training. Physicians, dentists and pharmacists would be eligible for such training insofar as it would apply to increasing the efficiency of their community health practice, proficiency, as well as their abilities in preventive medicine and public health.

2. Peripheral - this aspect would be accomplished through utilization of the three new PMI-Community Development Centers and by means of a mobile team education program. In view of the desire to replicate the activities and programs within the three centers of excellence, these centers and their concentrations of skills and programs should ideally serve as a training ground for other personnel throughout the land. The mobile teams would operate at the regional level primarily, maintaining periodic opportunities for updating technical aspects of community health care. This regular periodic contact would be essential identification with the central driving force of the health care system and at the same time would serve as a quality control mechanism. The mobile teams would be the primary mechanism at the same time for evaluation through the maintenance and collection of data regarding disease and nutrition surveillance.

This proposed response to the plans and intent of the GOM to focus on the 80 percent of the population living outside the population centers. Likewise it meets their need and request for an ongoing educa-

tion and training program for personnel manning the rural centers. The host government input to education and training to date is limited to the two educational and training institutions in Bamako. Expansion of this capability through this program has an obvious spread effect.

II. Financial Requirement

It is anticipated that the necessary technical assistance, participant training in the United States, and local training and support costs will total \$828,000. Of this total it is intended that AID provide grant financing for \$626,000 while the host government will provide the salaries estimated at \$202,000 for those persons, both trainers and trainees, involved in the project.

III. Development of Project

Initially an overseer group composed of representatives from the MOH, the Medical, Dental and Pharmacy School and the Secondary Health School should be formulated and with adequate health consultation input develop objectives. Each of the three aspects of the program should be designated as to its range of these goals and objectives.

A curriculum format should then be established for the central (Bamako) aspect of the program, a format of practical experience established for the exposure at the PMI Community Development Centers and lastly, the program format designed for the mobile teams.

- 4 -

Following the above, training and education should be identified for overseas education and institutional arrangements made for their training experience.

Meanwhile facilities should be identified at the institutions at Bamako and outfitted to deliver the central program experience. The same would be done for the three PMI Community Development Centers. And lastly, vehicles, equipment and supplies, and support would be put in place for the mobile training surveillance and evaluation teams.

At the MOH a central place would be established to house a small administrative staffed locally, for distribution, scheduling personnel actions, travel and record keeping purposes. Periodic meetings of the overseer group would survey project progress and plan for future activities.

It is proposed that the PRP be submitted in December 1975 and the PP in July 1976.