AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: [A] (A = Add, C = Change, D = Delete) Amendment Number: 1 — DOCUMENT CODE: 3

2. COUNTRY/ENTITY: MAURITANIA

3. PROJECT NUMBER: 682-0201

4. BUREAU/OFFICE: Africa [06]

5. PROJECT TITLE (maximum 40 characters): Guidimaka - Integrated Rural Develop.

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 12 DD — YY 82

7. ESTIMATED DATE OF OBLIGATION (Under "B." below, enter 1, 2, 3, or 4): A. Initial FY 79 B. Quarter [ ] C. Final FY 82

8. COSTS ($000 OR EQUIVALENT $1 =)

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	(800)	(650)	(1450)	(3428)	(2723)	(6151)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
Other U.S. 2.						
Host Country					1670	
Other Donor(s)						
TOTALS	800	650	1450	3428	4393	7821

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	C. PRIMARY TECH. CODE 2. Loan	D. OBLIGATIONS TO DATE 1. Grant	D. OBLIGATIONS TO DATE 2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	E. AMOUNT APPROVED THIS ACTION 2. Loan	F. LIFE OF PROJECT 1. Grant	F. LIFE OF PROJECT 2. Loan
(1) FN	252	245		2250				2250	
(2) SH	252	245		1096		2805		3901	
(3)									
(4)									
TOTALS				3346		2805		6151	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code	BS						
B. Amount	6151						

13. PROJECT PURPOSE (maximum 480 characters)

To develop technically sound and socially acceptable methods for increasing crop and animal yields among the sedentary inhabitants in a limited zone of the Guidimaka Region. To carry out on-farm trials as preparation for broader extension efforts.

14. SCHEDULED EVALUATIONS: IN-DEPTH MM 12 YY 81 — MM — YY — Final MM 12 YY 82

15. SOURCE/ORIGIN OF GOODS AND SERVICES: [X] 000 [ ] 941 [ ] Local [X] Other (Specify) 935

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a 46 page PP Amendment)

$2.8 million is being added to the project LOP and the PACD is being extended 16 months. Some new activities in agriculture, livestock, and forestry are being added whereas some activities proposed under the original PP are being eliminated or deemphasized.

17. APPROVED BY — Signature: Irvin D. Coker — Title: Director, Division of Sahel West Africa Affairs — Date Signed: MM 05 DD 28 YY 81

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION: MM 05 DD 28 YY 81

AID 1330-4 (8-79)

AID/W Revision of the Project Paper Amendment

A number of persons in AID/W worked with the detailed information provided by USAID/Nouakchott after the March 19, 1981 Project Review to produce a revised PP amendment:

G. William Anderson	AFR/DR/SWAP
David Schaer	AFR/DR/ARD
Gloria Steele	AFR/DR/ARD
James Hester	AFR/DR/SDP
Kevin Mullally	AFR/DR/SDP
Joseph Beausoleil	DS/RAD
Timothy Bork	GC/AFR

UNCLASSIFIED

INTERNATIONAL DEVELOPMENT COOPERATION AGENCY

AGENCY FOR INTERNATIONAL DEVELOPMENT

WASHINGTON, D.C. 20523

MAURITANIA -- GUIDIMAKA INTEGRATED RURAL DEVELOPMENT PROJECT

~~(682-0207)~~ Project Paper Amendment

682-0201

(per AFR/DR 10/6/81 hd)

Original LOP $3,346,000

Amended LOP $6,151,000

PP approved 6/17/77

PP amendment approved 6/1/81

JUN 1 1981

ACTION MEMORANDUM FOR THE ACTING ASSISTANT ADMINISTRATOR FOR AFRICA

FROM : AAA/AFR/DR, John W. Koehring

SUBJECT: Mauritania, Guidimaka Integrated Rural Development Project Amendment (628-0201)

628-0201

I. Problem: Your approval is required to execute a grant of $2,805,000 from the SH appropriation to Mauritania to increase the LOP cost of the subject project from $3,346,000 to $6,151,000 and to extend the PACD by 16 months from August 31, 1981 through December 31,1982. It is planned that $800,000 will be obligated in FY 1981. On April 8, 1981, you approved bridge funding of $135,000 of this $800,000 to enable the implementation team for the Guidimaka project to remain in the field until this project amendment could be completed and approved.

II. Discussion:

A. Project Description and Background

1. Project Purpose

The Guidimaka Integrated Rural Development project (GIRD) was originally designed to develop technically and socially sound methods for increasing crop and animal yields among the sedentary inhabitants of the Guidimaka Region of Mauritania. A number of changes are now proposed in the design and funding of the project. Implementation delays, unanticipated costs, experience to date in project activities, and the results of a contracted evaluation have indicated the need for revisions in project activities, for expansion into on-farm testing of promising interventions, and for increased funds to carry out remaining project activities. Opportunities, which this amendment seeks to exploit, have appeared for moving from agronomic and livestock experiments on test sites into wider on-farm trials in activities such as cultivation of new cereal varieties, introduction of animal traction, and activities aimed directly at increasing women's role in food production activities. Because of local demand and its obvious complementarity, a forestry component has also been added. Further, certain components of the GIRD Project as originally justified are to be eliminated or de-emphasized -- such as a seed multiplication program and a land use survey. Many of these changes in emphasis address the findings of the evaluation mentioned above.

The revised project purposes are the following: To develop technically sound and socially acceptable methods for increasing crop and animal yields among the sedentary inhabitants in a limited zone of the Guidimaka Region and to carry out on-farm trials as preparation for broader extension efforts.

2. Conformance to AID Country Strategy

As stated by AID's FY 1983 CDSS for Mauritania, a major program thrust of AID and the Government of the Islamic Republic of Mauritania (GIRM) is to increase food production in environmentally acceptable ways. A second

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aim of AID and the GIRM is environmental restoration. Due to its relatively heavy rainfall, reasonably good soil conditions, and large resident population, the Guidimaka Region is one of the few areas of the country, outside of the Senegal River Basin, that offers opportunities for significant food production. This project, as amended, will develop acceptable techniques for increased rainfed crop and livestock production and will, at the same time, begin limited tree-planting to set the stage for more ambitious reforestation efforts in the future. This project, especially with the additional components under this amendment, is in complete harmony with AID's country strategy in Mauritania.

3. Beneficiaries of the Project

Immediate beneficiaries of the project will be the 2,900 families of the Direct Intervention Zone (DIZ) in the Guidimaka Region near Selibaby who will benefit from the introduction of the improved techniques of crop and livestock production through trials on the farms of selected farmers. However, expansion of the extension services in the Guidimaka Region is expected to benefit the 12,000 families in the region through increased food production and environmental restoration.

B. Financial Summary

AID financing over the life of the project will total $6,151,000 with this amendment, of which $800,000 will be obligated in FY 1981. The dollar breakdown of AID funding is presented below in tabular form:

Category	($000s) Original	($000s) Amendment	($000s) FY 81 (non-add)	($000s) LOP
Technical Assistance	$1,461	$1,051	($321)	$2,512
Training	15	14	(18)	29
Commodities	343	60	(237)	403
Other: local salaries, other support costs, evaluation	225	259	(224)	484
Total	$2,044	$1,384	($800)	$3,428
Local Cost Financing	$1,302	$1,421		$2,723
GRAND TOTAL	$3,346	$2,805		$6,151

The GIRM will contribute counterpart personnel, over 500 hectares for agronomic and range experiment sites, and livestock (both cattle and small ruminants). The estimated value of the GIRM contribution is $1,670,000 or 21% of total project costs.

C. Socio-economic, Technical and Environmental Description

1. Socio-economic Acceptability

By developing and introducing new techniques for increasing crop and livestock production, the GIRD project will help provide farmers in the Direct Intervention Zone (around Selibaby), and later in the whole of the Guidimaka Region, with a more viable system of food production. The process used in introducing new techniques to farmers involves assisting farmers in defining their own needs. Therefore, the response to the project's interventions has been and is expected to be generally positive, since farmers participate in deciding what activities are to be done and in carrying them out. The GIRD project will be introducing only techniques that are judged replicable, such as rainfed cultivation and new cultivation techniques without expensive inputs. Further, a new project activity directed specifically at increasing the efficiency of women farmers' food production efforts will enable these women to maintain their families more successfully in this rural area, rather than to migrate to urban areas as many men have done.

The present project, which consists mostly of experimental activities and limited on-farm trials of promising techniques, does not lend itself to conventional calculation of costs and benefits. There are certainly large economic as well as social benefits. However, quantifiable economic benefits will appear later as additional steps are taken in the Guidimaka Region based on the project's results, such as broader extension of improved agricultural and livestock management techniques. By the end of the project a complete package of techniques will exist for increased cereal, fruit, vegetable, and meat production. The project will also leave behind stronger institutional capabilities in the area, a stronger GIRM Livestock Service, and more effective Agriculture and Environmental Protection Services.

The amended project is the most cost-effective approach to increasing food production in the Guidimaka Region for several reasons. The agricultural techniques introduced include traditional practices to the extent possible and avoid expensive, imported inputs. Small-scale, low-cost technologies will be tested for cultivation, harvesting, and post-harvest tasks. Finally, local labor is being used for most construction except where obviously uneconomic.

In summary, the GIRD project is a prerequisite for future rural economic growth in the Guidimaka Region. Nevertheless, this growth cannot occur unless the GIRD, AID, and other aid donors extend throughout the region the technical packages developed by the project. Nor can significant growth occur without reforestation with appropriate tree species as will be tested by the project or without other improved range management techniques.

2. Human Rights

On the whole, the GIRM human rights record is balanced. Progress is being made in the expansion of both social and economic human rights. No issues of concern to the U.S. exist in this area.

3. Technical Analysis

The activities proposed under this project, as amended, have been judged technically feasible by the project committee and others within AID.

4. Environmental Analysis

A negative determination has been accorded this amended project and no future environmental analyses are necessary except for a pesticide risk-benefit analysis if any further pesticide use is undertaken. As part of the IEE, a pesticide risk-benefit analysis has been done to allow the use of Lindane to control ticks and Gaul flies on project livestock.

D. Conditions, Covenants, Waivers, and Implementation

1. Conditions

There are no new Conditions Precedent proposed for this amendment.

2. Covenants

The amended Grant Agreement will include two further covenants. To assist in the successful implementation of the remainder of this project, the contractor and field participant staff will be required to prepare annual work plans which will include the descriptions of what will be done; methods of action; who is responsible; proposed completion date; and resources required.

To ensure that environmental procedures are carefully followed, a second covenant will require that a pesticide risk-benefit analysis be carried out if any further pesticides are procured or used under this project (other than Lindane, for which a pesticide risk-benefit analysis has been carried out).

3. Waivers

Two additional waivers are requested. A procurement source/origin waiver from Geographic Code 000 to Code 935 is requested for the purchase of animal traction equipment and agricultural inputs. A source/origin and Proprietary Procurement Waiver for vehicles from Code 000 to Code 935 has also been requested. The justification for these waivers can be found in Annex F of the PP Amendment. The Project Review Committee concurred in the need for and desirability of these waivers.

These waivers can be found in the last annex of the PP Amendment (Annex F).

4. Implementation

The revised implementation plan in the Project Paper Amendment has been reviewed by the Project Committee which believes it sets forth a reasonable time frame in which to complete the project.

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5. Implementing Agencies

The principal GIRM agency under whose auspices this project is being carried out is the Ministry of Rural Development. The Agriculture, Livestock, and Environmental Protection Directorates of this Ministry have provided counterparts to the GIRD project staff. Continued, close cooperation has occurred between the GIRD project staff and the local officials of these agencies.

E. Committee Action and Congressional Apprisement

1. The final Project Review on the PP Amendment was held March 19, 1981. The consensus was to recommend this Project Amendment for approval by the AA/AFR after certain additional analyses were added. The Project Review also recommended that bridge funding be provided from the FY 1981 OYB for this project to enable the implementation team to remain in the field until the PP amendment could be revised and approved. Such funding to extend the implementation contract for 60 days was approved by the Acting AA/AFR on April 8, 1981.

2. A Congressional Notification on the GIRD project was forwarded on May 19, 1981; the waiting period will expire COB June 2, 1981.

F. Section 611(a) of the FAA

The requirements of Section 611(a) of the FAA have been satisfactorily met.

G. Officers responsible for this project are:

A.W. Wirtz	G. William Anderson
Project Manager	Project Officer
USAID/Nouakchott	AFR/DR/SWAP

H. Other Items of note:

This was the first project undertaken in the field by USAID/Nouakchott. As such, it encountered implementation delays, unanticipated costs, and other problems, such as the necessary termination of AID's implementation contract with Pacific Consultants, Inc. and its replacement by Experience, Inc. The GIRD project as now amended offers the possibility of significant accomplishment. Barring unforeseen natural disasters, the GIRD project should provide much of the basis for growth and development in the Guidimaka Region as techniques developed can be extended.

III. Recommendation:

That you sign the attached Project Authorization and thereby approve an increase in the authorized amount of grant funding from $3,346,000 to $6,151,000; an extension of the PACD of the grant from August 31, 1981, to December 31, 1982; and the requested waivers.

Clearances:

AFR/DR:NCohen
AFR/DR/SWAP:JMcCabe
AFR/SWA:ICoker
GC/AFR:TBork (draft)
AFR/DP/PPE:HMiles (draft)
AFR/SWA:CRobertson (draft)
SER/CM/ROD:KCunningham (draft)
USAID/Nouakchott:AReed (draft)
AFR/DR/SDP:KMullally (draft)
AFR/DR/SDP:JHester (draft)
DS/RAD:JBeausoleil (draft)
AFR/DR/ENGR:MGould (draft)
AFR/DR/ARD:DSchaer (draft)
AFR/DR/ARD:GSteele (draft)
AFR/DP:JAnderson
SER/COM/ALI:GFuller

DRAFTED: AFR/DR/SWAP:GWAnderson:mon:5/26/81

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PROJECT AUTHORIZATION

Name of Country: Mauritania

Name of Project: Guidimaka Integrated Rural Development

Number of Project: 682-0201

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, (the 'FAA') the Guidimaka Integrated Rural Development Project (the "Project") was authorized on June 17, 1977. That authorization is hereby amended pursuant to Section 121 of the FAA, as follows:

a. The second paragraph is deleted in its entirety and the following paragraph is substituted in lieu thereof:

The project shall consist of providing technical assistance, goods and services required for (a) the development of three agricultural and one livestock demonstration sites that will be used to test a series of interventions in range management, livestock control, animal health and agronomy in the Selibaby area of the Guidimaka Region; (b) on-farm trials of promising interventions; (c) on-farm trials of animal traction; (d) strengthening of the GIRM's Animal Health Service in the Selibaby area and the provision of animal health equipment and supplies; (e) the construction of water catchment basins and a limited number of firebreaks for the livestock demonstration site; (f) assistance to communities in carrying out small infrastructure projects; (g) the establishment of a tree nursery and limited tree planting in the Selibaby area; and (h) the training of livestock, environmental protection, and extension agents.

b. The third paragraph is deleted in its entirety and the following paragraph is substituted in lieu thereof:

I approve a total level of A.I.D. appropriated funds planned for the Project of not to exceed Six Million One Hundred Fifty One Thousand United States Dollars ($6,151,000), Grant, during the period FY 1979 through FY 1982, including the amount authorized above and additional increments, subject to the availability of funds and in accordance with A.I.D. allotment procedures.

c. Two covenants are added to subparagraph b. entitled "Covenants:"

1. The Cooperating Country will agree to prepare annual work-plans which will describe (a) activities to be undertaken, (b) methods of action, (c) parties responsible for actions, (d) completion dates of activities, and (e) resources required.

2. The Cooperating Country will agree to comply with A.I.D. regulations on the use of pesticides prior to the procurement or use of any pesticide under this project.

d. A subparagraph c. entitled "Waivers" is added as follows:

c. Waivers

1. Notwithstanding subparagraph a. above the following waivers are authorized:

(a) The requirement under Handbook 1, Supplement B, Chapter 5 that commodities procured with grant funds have their source/origin in the U.S. is waived based upon the justification set forth in Annex F to the Project Paper to permit procurement of approximately $150,000 of miscellaneous equipment, seeds, and supplies which may have as their source and origin countries included in AID Geographic Code 935. It is hereby determined that exclusion of such procurement from Free World Countries other than the Cooperating Country and countries included in the Code 941 would seriously impede attainment of U.S. foreign policy objectives and objectives of the foreign assistance program.

(b) The requirements set forth in Handbook 1, Supplement B, Chapter 5, that commodities procured with grant funds have their source and origin in the U.S. and the requirement under Section 636(i), of the FAA of 1961, as amended, that vehicles financed by A.I.D. be manufactured in the U.S. are waived based upon the justification set forth in Annex F to the Project Paper Amendment, to permit procurement of a Mercedes MB 11/13 truck, 4 Landrover four-wheel drive vehicles, and 12 Suzuki 125cc motorcycles and spare parts, at an approximate cost of $160,000 which have as their source and origin, countries included in A.I.D. Geographic Code 935. It is hereby determined that exclusion of procurement of project vehicles from Free World Countries other than the Cooperating Country and countries included in Code 941 would seriously impede attainment of U.S. foreign policy objectives and the objectives of the foreign assistance program; and that special circumstances exist which justify a waiver of the requirements of Section 636(i) of the FAA of 1961, as amended. In addition, A.I.D.'s competitive procurement rules are waived to permit proprietary procurement of the above-described vehicles.

e. Except as amended herein, the above cited authorization remains in force.

Date: 6/1/81

W. Haven North
AA/AFR, Acting

Clearances:

SER/COM:GFuller (draft)
AFR/SWA:ICoker (draft)
AFR/DR:JMcCabe (draft)

Drafted by: GC/AFR:TBorkman:5/28/81

CONTENTS

PP AMENDMENT - GUIDIMAKA INTEGRATED RURAL DEVELOPMENT (682-0201)

I. INTRODUCTION AND SUMMARY

The Guidimaka Integrated Rural Development (GIRD) project was orginally designed to develop technically and socially sound methods for increasing crop and animal yields among the sedentary inhabitants of the Tenth Region of Mauritania (now known as the Guidimaka Region). In addition, the project was intended to generate the necessary data to undertake, in a follow-on project, an expanded extension program. However, implementation delays, unanticipated costs, and the results of the GIRD project evaluation conducted May 1980 have necessitated an increase of funds to carry out original project objectives.

At the same time, opportunities have appeared for moving from agronomic and livestock experiments on test sites into wider on-farm trials of a number of new productive activities. These new activities include: (1) cultivation of new cereal varieties, fruits and vegetables; (2) introduction of animal traction and other new cultivation techniques; (3) expanded veterinary services for farmers' herds; (4) a component oriented directly at women farmers to increase their food production; (5) carrying out of small infrastructure projects such as well digging and primary school construction; and (6) limited tree planting.

Further, certain components of the GIRD Project as originally justified will be eliminated or deemphasized: (1) seed multiplication, (2) land use survey, (3) mechanical cultivation, (4) new harvesting techniques, (5) crop drying and storage techniques, and (6) firebreaks.

The proposed changes to the project require a 16-month extension of project life from the end of August 1981 through December 1982, and an increase in the Life of Project (LOP) budget of $2.8 million. This raises USAID funding to a total of about $6.1 million from the originally authorized amount of $3.3 million.

The major change is an increase of $1,017,000 in the Experience, Inc., contract to finance an additional 96 person-months of technical service (including additoinal personnel). Direct and operational support of the EI team will increase by $169,000 and $419,000 respectively. Funding for demonstration and extension activities will increase by $1,014,000 to $1,952,000. The revised budget funds hiring of local laborers and additional project staff, compensation for GIRM counterparts, and purchase of a tractor/trailer.

With this amendment, the GIRD project will end December 1982. Any follow-on project or activities will be based on a separate project paper prepared by a full design team. No further project amendments will be proposed for additional funding.

The revised Summary Cost Estimate for Revised Life of Project is:

U.S. Contract Team	$2,353,000
U.S. Contract Team direct support	650,000
Project operational support	770,000
Other personnel and support costs	265,000
Demonstration/extension	1,952,000
Training of GIRM counterparts	79,000
Evaluation	82,000
Total AID Funding	$6,151,000
Total GIRM contribution	$1,670,000
Total Project Funding	$7,821,000

II. PROJECT DESCRIPTION

A. Background

The GIRD Project Paper was approved on June 17, 1977, and on September 16, 1977, the Project Agreement was signed. After long delays, USAID contracted with Pacific Consultants (PC) to implement the Project in the Guidimaka Region of southern Mauritania (subsequently replaced by Experience, Inc., on November 27, 1980).

Field activities began in April 1979 upon arrival in Selibaby of the PC Chief of Party. Project implementation has, since then, been jointly undertaken with a Government of the Islamic Republic of Mauritania (GIRM) counterpart team. The GIRD's activities are likewise, closely coordinated with those of all GIRM Agriculture, Livestock and Environmental Protection Services based locally in the Guidimaka Region.

Experimentation and demonstration of improved agronomic and livestock technological packages were the underpinnings of the GIRD project, the design of which assumed an insufficiency of existing proven techniques on animal-assisted crop production and range mangement to warrant the immediate need for extension activities. Thus, a follow-on project was envisioned for the initiation of existing activities.

During the first year of project field activities (April 1979-April 1980), however, it became clear to USAID/GIRM officials and the contract team, Pacific Consultants, that an exclusively demonstration/research effort would provide too little too late. Guidimaka farmers and herders were eager to acquire and try out interventions, rather than merely participate in their testing. Also, the implementation team affirmed that contrary to the original project design, various interventions in Guidimaka had already been proven effective and adaptable (e.g., Souna III, an improved millet variety), while others would only require one or two rainy season demonstrations for verfication. It was decided, therefore, that extension agents would be trained to carry out field trials on a number of interventions.

Thus, in early 1980 the Mission requested an evaluation in preparation for this Project Paper Amendment, which would modify the project approach. A two-person team composed of a livestock expert and an agricultural economist visited Mauritania in May 1980 to assess project achievements and to offer recommendations on future programming.

For the most part, this PP amendment will describe and analyze new activities not previously justified. Readers wishing more information on interventions planned under the original PP should consult the earlier document.

Of the $2.8 million being added to the Life of Project (LOP), all but $825,000 is for continuation of activities already authorized under the original PP. Almost $2 million is needed for already authorized activities under the project for a number of reasons.

One of the most important factors raising costs for the originally envisaged activities was the long delay in the arrival of the contract team. The original PP projected the team's arrival in August 1977. In fact, the Chief of Party (COP) did not arrive until April 1979, and a full team was not present until August 1980, over three years behind schedule. An annual inflation of approximately 15% in local costs therefore had added substantially to many project costs before the project had even begun.

The original PP provided for 30 months of contract team presence; however, that was not enough to provide for three growing seasons, even if the team had arrived on time in August 1977. Without at least three growing seasons, results of the planned experiements would have had little validity. The proposed extension of the contract team for 16 months (from September 1981 through December 1981) will allow for a third rainy season and some validity to the agronomic, livestock, and other experiments.

A further general problem was the poor backstopping of the contract team provided by the original contractor, Pacific Consultants, Inc. The most serious problem, which adversely affected the team's morale, was long delays in salary payments. These problems eventually required that AID terminate Pacific's contract and engage Experience, Inc. to take over implementation.

A number of other factors resulted in cost increases for the activities envisioned in the original PP:

- renovation of housing in Selibaby	$100,000
- two additional landrovers	+ 50,000
- construction of offices in Selibaby and purchase of office furniture not budgeted for	+ 20,000
- hiring of 200 local laborers (not foreseen)	+ 24,000/month
- rental of office in Nouakchott	+ 1,000/month
- compensation for GIRM counterparts	+ 2,000/month
- truck rental	+ 3,000/month
- underestimation of TDY time needed in Nouakchott for Selibaby team	
- extra freezers for veterinary medicines	

B. New Activities

The Guidimaka project's new activities amount to approximately $825,000 out of the amendment total of $2,805,000. The largest portion of the funding for new activities will support a variety of agricultural and livestock interventions.

1. Agriculture and Livestock Activities

extension agent salaries	$ 63,000
revolving funds	217,000
vehicles	125,000
sector support	21,000
vegetable and fruit production	92,000
	$518,000

On-Farm Trials: Some of the most significant work that the Guidimaka Integrated Rural Development Project (GIRD) team will be carrying out is on-farm trials of new cereal varieties, new cultivation techniques, animal traction, and vegetable and fruit production. These new activities will be introduced to farmer participants in the 32 villages of the Direct Intervention Zone (DIZ) by 18 agricultural extension workers who will be selected and trained by the GIRD project team in two-month periods. The training emphasizes on-the-job experience, and prospective extension workers must pass a test to be hired permanently. Extension workers will disseminate improved technologies and techniques, assist farmers in acquiring and managing project-provided commodities, monitor results of their on-farm trials, and carry out research tasks assigned by project staff.

Farmer participants will be volunteers. They will work with GIRD extension workers and other staff in testing new crops and cultivation techniques. Participant farmers will receive no payment for the use of their land; however, all production from their land will go to them.

The types of new cereal varieties to be used for on-farm trials will include Souna III millet, Sidinieliba sorghum, and others. Analysis of the feasibility of these varieties is found in the Technical Analysis Section of this paper (Section III.A.).

In combination with the trials of new cereal varieties, the GIRD staff will teach farmer participants a package of simple innovations that are compatible with their traditional techniques. These improved cultivation techniques include planting in line, controlled spacing of plants, early thinning, trimming secondary heads (cereals), seed treatment, protection from cantharis beetles, composting, manuring, and others.

Results from animal traction experiments on the GIRD experimental sites have encouraged project staff to begin on-farm trials. The project will set up centers for training animals and for training farmers in using and maintaining the equipment and in the special care their animals will need to cope with the increased workload. The project will also bring in animal traction equipment for sale and supervise farmers in the use of that equipment. The basic package will consist of a plow and a cart, since there is much hauling that needs to be done on and off the farm.

For training farmers in using animal traction equipment, the project will establish 6 training centers in the DIZ, including Selibaby. These centers will be in the most accessible villages. Each center will have an extension agent, an animal trainer and a project laborer to help out. Villagers who already own equipment or who have bought equipment from the Project or from the agriculture agency in Selibaby will bring their animals to these centers. They will be responsible for feeding their own animals, as well as for coming to the center and feeding and lodging themselves. There, project personnel will demonstrate animal traction and teach the villagers to use their own equipment and project animals. At the same time their animals will undergo training and farmers will begin using them to practice with. Project technicians will also be at the centers periodically to train the farmers in anti-erosion methods, timing of operations, and maintenance of equipment, among other things.

The last activities under this category of on-farm trials involve vegetable and fruit production. People in the area have long grown and eaten vegetables, but their cultivation of vegetables is inefficient. The GIRD will provide small quantities of seeds to interested farmers as well as small tools. GIRD personnel will visit participating villages regularly to show farmers techniques such as making beds, planting in rows, early weeding, thinning, transplanting, letting certain varieties go to seed for the next year, hoeing, staking tomatoes and beans, proper intervals between plants, watering frequency, and other methods. Fruit trees and small orchards have existed in the region for years. The GIRD will assist farmers in fruit production by making seedlings available to selected farmers, by grafting seedlings, by visiting local orchards to advise farmers, by establishing an orchard to supply seed and graft material, and by demonstrating techniques such as planting, fertilizing, trimming and pruning, spacing, and elimination of diseased or unproductive trees. Some new varieties, such as Guava trees, will also be introduced.

Animal Health and Husbandry. The revised project will assist the GIRM's Animal Health Service in the Guidimaka region. Vaccines and other veterinary drugs will be used and distributed, and village veterinary pharmacies will be established based on village cooperative groups and village veterinary health workers.

Livestock nutrition and productivity efforts are basically the same as those proposed in the original PP. Different nutritional regimes will be tested: natural pasture alone, natural pasture with local supplements (hay and agriculture by-products), and natural pasture and concentrated feeding including agriculture by-products. Nutritional systems will be evaluated on

the basis of animal productivity, feeding costs and replicability. Herd productivity will be improved at the range site through proper feeding, culling and health interventions. Data will be collected on herd composition and different production parameters. The GIRM Livestock Service will be heavily involved in this intervention.

Range Management. The PP amendment modifies the range management program as outlined in the original PP to reflect recommendations of the livestock evaluator on the May 1980 evaluation team.

Livestock stocking rates for the range unit proposed in the PP are too high, given current estimates of carrying capacity in the Guidimaka Region. The new plan provides for 73 animal units (one animal unit - 250 kilos) comprised of approximately 91 heifers, 18-24 months old, weighing on average 200 kilos. Twenty to thirty cows will be purchased as a permanent herd and the remaining 70 will be borrowed from villagers. These 70 cows will be turned over annually. Three full-time paid herders will accompany the cattle, one per grazing unit.

The proposed formation of livestock herders associations is premature at this time, given the needs of other project requirements and the complexities of organizing such an association. As the project proceeds, the range management adviser on the contract team will work with villagers to ensure integration of extension activities in the DIZ with demonstrations being carried out on the range management site. Farmers will visit the site regularly. Project staff will organize meetings in the DIZ villages to discuss results.

Grazing trails will be established on the Katamanghe site to identify the grazing systems appropriate for the Guidimaka Region. While the GIRM Livestock Service will be involved in the nutritional and animal health aspects, the GIRM Environmental Protection Service is the counterpart agency for the environmental improvement of range land. Since required fencing for more thorough testing is not yet in place, the trails will be limited to the effects of overall stocking rates on animal and vegetative performance. Three of the four parcels for grazing trials will be stocked at different stocking rates utilizing deferred grazing patterns with both cattle and small ruminants. One parcel will be stocked at a conservative rate which allows maintenance in all but severe drought years. The second parcel will have a concentrated stocking rate which will require supplemental feeding, while the third parcel will have an intermediate stocking rate. The fourth parcel will be utilized for production of hay, as well as for identification and evaluation of forage plant utility. Water spreading and reseeding of desirable local forage species will be attempted on the three managed parcels during the 1980-1981 dry season.

The preliminary data gained from these integrated trials will be utilized to outline more thorough trials. Proven interventions will be extended to farmers/herders, but at the present, extension in this field will be limited to animal health and selling revolving fund supplies.

2. Women in Development (WID) Component $106,000

A component to involve more actively women farmers in project activities has been added. The addition of this activity responds to questions raised by the project committee that reviewed this amendment. An analysis of the feasibility of this component is found in Section III.C., the social analysis of this PP amendment. A more detailed description of this component is found in Annex A of this paper.

This project component, oriented toward women, will provide on-farm training and demonstrations to women farmers in ways by which food production may be increased, efficiently and effectively stored and used to provide a more nutritionally balanced diet for the people in the project area. A team of women agricultural experts, both American and Mauritanian, will carry out on-farm demonstrations and introduce new technologies, such as grain threshers and winnowers, grinding mills, peanut shellers, and other equipment. They will also experiment with improvements in traditional local techniques and tools made with local materials such as water carrying devices, food processing and storage equipment, more efficient stoves and nutrition advice aimed at effective utilization of food produced, introduction of a limited number of new vegetables or food crops suitable for the area, and use of local fruits and vegetables traditionally grown but not now being used. These technologies should give women more efficient production, more efficient use of products already consumed, and more time for productive activities through the use of labor-saving devices.

3. Small Infrastructure Projects $45,000

The project will assist communities in the DIZ to carry out small infrastructure projects (such as wells, schools, and vaccination corrals) which are necessary to extend planned project interventions and promote project impact. The project will fund construction materials and expertise, where needed, up to a total of 25% of the cost of the activity, or UM 50,000 ($1100), whichever is lower. All other inputs such as labor, locally acquired materials, and skills will be supplied by the concerned community.

Most villages are interested in wells, but some are interested in building more school classrooms. In the case of a well, the project will supply the cement and steel for the well casing. The village will provide the well-digger (several of whom are available in the Selibaby area), the labor, the sand and gravel, the wood and all the tools. The wells enable gardens, trees, and animals to be watered in the dry season and thus, help make villages more permanent settlements by providing drinking and domestic water. The construction of additional school classrooms will be assisted by the project where villages have completed official application procedures for more classrooms and where the area's governor and education officials are committed to finding teachers for the additional classrooms.

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4. Forestry Component $120,000

A tree nursery has been established and limited tree planting will be carried out under the project. This initial activity under the Guidimaka project will lay the basis for a broader program in the future to plant a large number of multiple purpose tree species. During the remainder of the project's life, the nursery will supply seedlings to interested farmers for planting in their fields primarily for shade and protection. Seedlings will also be planted in the experimental sites. In the experimental range areas, the tree plantings will serve the purpose of helping to determine the correct mix of species for maintaining the maximum numbers of livestock in a given area. Trees will also be planted around the borders of cereals testing plots. These trees will serve as live fencing and as windbreaks for cultivated crops.

C. Revolving Fund

A revolving fund with an initial value of $217,000 (noted above under the description of agricultural and livestock activities) has been established to put locally unavailable inputs and commodities at the disposal of farmers. The $217,000 fund is allocated as follows:

$65,000 for animal traction equipment and accessories (harnesses, yokes, etc.)

$15,000 for other agricultural commodities (small tools, seeds, etc.)

$137,000 for livestock-related materials (veterinary medicines, food supplements, mineral blocks, clinic supplies such as bandages, disinfectant, etc.)

This money is sent to Selibaby for expenses as needed or spent through purchase orders issued by the AID Mission. When it is sent to Selibaby it is accompanied by Project or other AID personnel. In Selibaby it is kept in a locked case in a locked room at the COP's house. The Experience Inc. (EI) COP is solely responsible for the money and is bonded by his company. He is in sole control of deciding what is spent when, although decisions of this type are taken in collaboration with the competent and reliable Mauritanian COP. Each month a summary of expenses with receipts as justifications are submitted to the AID/N comptroller's office. There each expenditure is analyzed. Copies of all receipts are kept in the AID/N comptroller's office. The GIRD office in Nouakchott keeps complete double-entry records of each expenditure by budget category and by date. In addition, each month a summary of budget category is submitted to AID/N by the Project as well as an estimate of projected need for the next two months. On this basis, the revolving fund's advance balance can be adjusted up or down to compensate for changes, mostly seasonal, in spending patterns.

The money and goods are the responsibility of the EI COP, and, particularly for goods which according to the Pro-Ag become Mauritanian property after purchase, the Mauritanian COP. After the goods have been purchased, they are stored in Project warehousing until they are sold. As the goods are sold, the money is returned to the EI COP, who signs for the cash as he receives it. The money is kept in a locked case in a locked room at the COP's house. The decision to disburse this money is made by the EI COP in consultation with the Mauritanian COP. AID/N must approve all purchases, through the usual procedures of issuing Purchase Orders and controlling the accounts at the end of each month. Records on this material and the money it generates are kept at two levels. The technical division of the Project concerned with the use of the material (e.g., the agriculture division for animal traction equipment) keeps the inventory of the material as it arrives and is distributed. They have the help of the logistics division of the project for this task. As they sell the material, they give the receipts to the EI COP and advise him when the stocks are low. At this point the EI COP sends the money to Nouakchott, where it is either used directly to purchase local materials or else given to AID to re-order materials from overseas. This second procedure has not yet been carried out, as operations are in their infancy. However, for local materials, such as locally available tools, seeds, and veterinary medicines, the project team has partially turned the fund over without problems. The usual records are kept in ledgers — entry of materials, distribution of materials, cash in, cash out, with dates and recipients.

D. Use of Bulldozer — $36,000

bulldozer cost	$17,000 (excess property)
transport to Nouakchott	$ 5,000
POL and parts	$14,000

The Guidimaka IRD Project proposes the purchase of a reconditioned D-6 bulldozer from U.S. excess property to carry out the catchment basin and limited fire-break construction called for in the original PP. The Project has dug three catchment basins using hand labor. The excavation of these basins took 120 man-months apiece, and each cost more than $12,000 for basins which hold less than 1000 cubic meters of water. By comparison, the AID-funded Bakel livestock project dug catchment basins with equipment that cost $6,000 and had 10,000 cubic meter capacity. Thus, the GIRD project basins cost 20 times as much per cubic meter displaced. The firebreak figures were similar - GIRD hand-hewn firebreaks around our sites cost about 10 times as much per kilometers as those constructed in Bakel. The Bakel Project used a D-6 wheeled dozer and a motor grader. Since ground near Selibaby is much harder than the sandy soil around Bakel, the GIRD Project staff feel that they need a tracked dozer with a ripper behind it to do the same job.

In addition to the economic justification, there is the fact that hand-dug catchment basins and fire-breaks are not replicable in the Guidimaka because the population density is too low and because there are great distances between villages. The catchment basins are quite far from villages.

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The GIRD project staff knows of few, if any, villages in the DIZ which could muster 120 effective man-months in a two-three year period for digging a catchment basin 25 kilometers from their homes. However, the local villages could provide the incidental labor for digging such basins with a bulldozer and could do the maintenance work needed each year before the rains fall. The maintenance involves clearing out the bushes and dirt that has washed in during the rains and will require a number of man-days rather than man-months.

The project intends to dig at least three and possibly six catchment basins in the DIZ before December 1982.

E. Deemphasized or Eliminated Activities

A number of the components of the GIRD project as originally justified in the earlier project paper will be eliminated or deemphasized. These decisions have been made on the basis of experience and the evaluation.

1. Eliminated Activites

Seed Multiplication. Although the PP provided for a scientific seed multiplication program, the GIRD team has judged that this is not feasible for the present program, given available staff resources and the highly technical nature of seed multiplication. However, the project, within existing resources, will produce small amounts of seeds, mainly for use on the agronomic demonstration sites and for sale to farmers, if there is an excess. Close liaison with the regional SAFGRAD project will be maintained and any other additoinal resources needed by this activity will be provided through SAFGRAD.

Land Use Survey. The Mission is recommending that the Land Use Survey be dropped as a GIRD project activity, since USAID's Renewable Resources Project, covering southern Mauritania, will be carrying out many of the functions programmed for the survey.

Mechanical Cultivation. In general, no intervention using mechanized cultivation techniques will be introduced, since replication of this technology is not feasible. However, in order to demonstrate that animal traction compares favorably with mechanical cultivation, a strip of land in one of the demonstration sites will be cultivated using a tractor. It will be noted, however, that the tractor which will be purchased for the project will be used primarily for hauling and for land-clearing in the demonstration sites.

2. Deemphasized Activities

Development of More Efficient Harvesting Techniques. The project will continue to investigate the adaptation of animal-drawn technologies for efficient crop harvesting.

Crop Drying and Storge Techniques. For crop drying and storage, the Soninke currently keep millet and sorghum in local granaries for up to five years, with minimal losses. The project will extend the Soninke storage techniques as needed. There is no immediate storage problem with vegetables, as production has not reached surplus levels. Onions and gumbo are sundried and if surpluses develop, this technique can be used.

Firebreaks. Construction of firebreaks, which has not been proven effective in other parts of Mauritania, is being deemphasized. Time and staff resources permitting, the project may elect to build firebreaks by hand around the perimeter of the range site, and maintain them by means of animal traction or tractor.

III. PROJECT ANALYSES

A. Technical Feasibility

A comprehensive technical description was completed and approved in the original project paper (pp. 19-46, plus Annex G-M). The project was evaluated in 1980 and further technical comment was made.

Authors of this section have verified that the original technical base is sound for interventions of an experimental or on-farm-trial nature. The majority of funds for this project amendment will be used to continue such originally planned activities. Some initial activities will be eliminated or reduced; as stated in Section II. Other activities were effective sooner than anticipated, and the project will begin extension of these interventions during the period covered by this amendment.

As a result of questions raised in project reviews, a detailed request for information went to the field (State 094896) in mid-April 1980, and a response was handcarried to AID/W. Subsequent discussions have determined/concluded that:

1) The activities/interventions to be extended are technically feasible and;

2) Approximately $825,000 can be attributed to the new activities.

1. Cereal Production

a. Souna III Millet

This variety, originally from Senegal, has been grown for two years on about 100 farms in the project area. It has also been grown in the project experimental sites.

A comparison of cultural practices and yields for traditional Sorghum and Souna III millet follows:

Cultural Practice	Traditional Sorghum	Souna III Millet
1. Ground Selection	low clay (scarce)	high sand (plentiful)
2. Ground preparation and planting	traditional	same
3. Weeding	traditional	easier (less labor)
4. Thinning & ridging	Traditional	easier (due to sand)
5. Pests	Resistant to beetles	Beetles controlled (slightly more labor)
6. Harvest, storage and marketing	traditional	same
7. Transport	traditional carts	easier (more grain per cart)

8. Cycle	90-180 days	70 days
9. Genetic potential	high	lower
10. Yield	200-400 kg/ha	300-800 kg/ha

Result: Production costs are approximately the same; yield is roughly double.

b. Sidinieliba - Sorghum

This is a lower yielding short cycle sorghum whose main advantage is that it grows well on high, dry soils which would otherwise be unutilized.

2. Animal Husbandry/Health

As part of extension activities, the project promotes and facilitates the utilization of proven items such as vaccines, injectible and non-injectible veterinary medicines and mineral blocks. Project personnel work with the GIRM animal health services to obtain and store these items, organize field visits, and oversee the proper utilization of the items. Farmers/herders pay for these items and efforts are planned to organize village veterinary cooperative units which will take over the procurement, handling, distribution and related financial functions in conjunction with the private sector to make this activity self-sustaining. This approach has worked successfully in some other developing countries.

The small infrastructure portion of the project includes the financing and construction of a permanent vaccination chute for about $2,000. This will permit vaccinations to be done on a timely basis some distance from Selibaby.

3. Animal Traction

Research will continue on this activity while extension begins based on early project results and experience gained during previous projects.

The following is planned:

— Set up training centers to:

  (a) train animals to use plows, hoes, carts;

  (b) train farmers to use and maintain equipment and to give animals special care to cope with their new workland.

— Make additional animal traction supplies available to farmers (bring in and sell equipment to farmers).

— Follow up supervision of farmers after they are trained and using new equipment.

— Encourage the following practices:

a. planting in rows
b. plowing perpendicular to the slope
c. proper animal feeding
d. equipment maintenance
e. plowing to proper depth.

— Provide technical advice to farmers as to which animal/tool/land combination is appropriate.

The animal traction extension activity will encourage farmers to invest in a plow/cart combination in order to obtain the following advantages:*

— Plowing diminishes rain water run-off on flat land and increases the chance of getting a harvest even on marginal land.

— Land which has been out of cultivation since the drought can now be cultivated if needed.

— Larger areas of sandy soil for groundnuts or Souna III millet can be cultivated. Groundnuts require a deep over turning of the soil which is difficult and time consuming by hand.

— Labor bottlenecks in traditional agriculture between last planting and first weeding are reduced because animal traction prepares land more quickly and retards the first weeds.

— Once the animals are trained, extra money can be earned or time and money saved using the carts to haul residues, firewood, hay, silage, manure, compost, passengers, etc. This practice of using the cart is necessary to reinforce the animal training during periods of normal inactivity.

A plow/cart combination costs about $400. Sorghum sells for about $.70/kg. If the farmer can increase his sorghum yield by 120 kg/year for 5 years (minimal life of plow/cart), he will break even. Earnings or savings from the cart are additional. The above increase in yield is within reach in the Guidimaka area.

4. Cultural Practices

The following new cultivation techniques will be encouraged:

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*Most farmers already own the necessary animals.

-- planting in rows
-- early thinning
-- trimming secondary heads (millet and sorghum)
-- proper spacing
-- seed treatment
-- protection from cantharis beetles
-- composting
-- use of manure

5. Vegetable Production

The project will facilitate the sale of seeds and small tools supported by frequent visits of project technicians and extension agents (usually once a week) to DIZ villages to assist with the following techniques:

-- seed bed preparation
-- planting in sows
-- early weeding
-- thinning
-- transplanting
-- seed production (letting selected plants to to seed)
-- staking (tomatoes, beans)
-- proper plant internals
-- watering frequency and amount

There is a strong demand (waiting list) of farmers who want to participate in gardening even though a small investment of $50 and 3-4 days labor for a shallow well are required (Gardening is done on low lying land.). Many families spend over $1/day for greens and the immediate return from a garden is dramatic. Also important is the potential for improved nutrition and maintaining people in rural areas during this season (November-March) when they often go to the cities.

6. Fruit Production

There have been small orchards in Guidimaka for years and the Kaedi National Agricultural Research Station has been experimenting with fruit varieties for about 15 years. Some varieties are ready for farm trials and extension and the project proposes to help people with fruit culture by:

-- making seedlings available to farmers;
-- demonstrating and advising the following:

a. planting
b. fertilizing
c. trimming/pruning
d. spacing
e. culling/selection

-- establishing a project orchard to eventually supply seed and graft material.

Varieties recommended are from the Kaedi Station. Farmers need to invest in:

--fence	$50 +
--well	$500
--fertilizer/yr	$20
	$570-$650

Prices are high for fruit in Selibaby (e.g., mangos $.60 @) and the work on fruit trees falls in the non-cereal season. Currently fruit trees produce a poor crop one out of two years, and the potential exists to improve production and obtain a crop each year.

7. Range Management/Environmental Improvement

Most range management interventions fall into the research category however, early work in Guidimaka has shown that Nim trees prosper if watered carefully for a year or two. They provide shade, some fruit, wood for construction or fuel. Seeds are available without cost. The project produces them in their nursery and distributes them to villages. Additional comment is contained under the forestry section.

8. Forestry-Limited Tree Planting

The forestry activities to be undertaken under the amendment were not previously described in the original project paper. However, for a number of reasons, a nursery was established and limited tree planting activities were started within the original project. These activities will be continued and increased under the amendment.

a. Description

These limited forestry activities were instituted for a number of reasons:

— as a response to repeated requests by Guidimaka farmers for assistance in planting trees;

— because it was felt the inclusion of a nursery and tree planting activities would have synergistic effects on both the pastoral and the agricultural activities; the integration of those activities with the other components was a logical and necessary thrust;

— because the GIRM insists that some degree of reforestation is a necessary component of development activities in Mauritania, and is essential for the protection of the environment;

— because the Environmental Protection Service assigned foresters to the project team, these GIRM technical counterparts could continue and expand on work begun by the project.

The objectives of the tree planting component include:

— The establishment of a nursery for the Guidimaka region. The intent is to prepare the basis for a campaign, now on a limited scale, that will facilitate the planting of a maximum number of multiple purpose species.;

-- The supply of seedlings to any interested individual or family for planting in their fields and yards, primarily for shade and protecting.;

-- Seedlings planted in the demonstration/research areas. Those plantings will be, for the range areas, a source of forage while providing perennial ground cover. The importance in planting trees and shrubs as forage lies in the fact that certain species will maintain their nutrient content throughout the dry season, and may also function as shelter belts, or fix nitrogen in the soil for use by other plants. These plantings fall under the purview of applied research, as the correct mix of species to maintain the maximum numbers of livestock is not known for this area.;

— Planting around the borders of cereals testing plots. The objective of this planting will be protection as live fencing, and also as windbreaks for the cultivated crops. Depending on the species planted, these border plantings may also serve as fire resistent barriers.;

— Synergistic effects will result from the multiple functions of the trees and shrubs, and the anticipated crop production increases. Again, these efforts are an integral part of the crop research and verifiable objective data will be kept.

An important reason for the integration of tree planting in the area and the use of extension agents to disseminate the seedlings is to help the villagers conceptualize how the problems of increased crop production, soil structure modification, nutrient levels, grazing resources and wood resources interact. An integrated and properly conceptualized set of management adjustments will be necessary to make an improvement. To be of optimal use, these integrated systems should be developed in conjunction with the villagers. The distribution of other tree species for use in individual compounds or of fruit trees will serve the purpose of introducing the local population to the new nursery. They will also become aware of the re-orienting of the Environmental Protection Service away from a purely policing role.

Considering the time remaining in the project there can be no final results obtained from the testing and research done in the tree planting program. The GIRM plans to continue the testing upon project completion, possibly with

other donor support, with the aid of an agricultural sector grant, or through the regular funding of an improved Environmental Service. Another option would be the take-over of the research monitoring by the Peace Corps Volunteer forester who will be stationed in Selibaby under the amended Renewable Resources Project.

b. Relationship of the GIRM Environmental Protection Service to the Project

Cooperation with this service is similar in structure to the interrelations of the project with other services. The service has assigned foresters to the Project team primarily as cooperators for the range management activities. The senior forester has 15 years professional experience and has been with the project since its inception. He has six years post primary schooling and is a Controleur des Eaux et Forets. A second counterpart has 20 years of professional experience and has been with the project for one year. However, he is an Agent des Eaux et Forets, which means he has only a primary school education. There are also five extension agents who have been trained in tree planting techniques ad conservation* philosophies. They will assist with the sensitization of the farmers and provide technical advice to those wishing to plant trees.

c. Financial Return in Investment

Until the tree stock is improved genetically, productivity will remain low. It should not be forgotten however, that although the return on capital is poor, any financial commitment represents a very real investment. Another form of capital is created in the form of productive stands which will supply fuelwood, forage, service.wood, as well as help produce a new environment in the DIZ.

d. Training

Training has been discussed in other portions of the paper. In general, however, the objective is to reorient the traditional "protectionist" and authoritarian philosophies of the present employees to a service-oriented farmer assistance attitude. To do this a mix of short term training visits to other projects, and seminars will be instituted. Project technicians will reinforce this training of the extension agents and other local staff and counterparts with on-the-job training.

e. Forest Resources - Strategies for Tree Plantings

The Guidimaka region is one of the more favorable regions in Mauritania for the growing of trees, allowing for a greater diversity in the species of trees which can be grown. A final selection of species will be

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*This refers to the managing or developing land or natural resources for maximum returns while protection the resources.

dependent on the desires of the local population and on the objective of the various plantings. The mix will include both indigenous species and promising exotics.

Nim (Azadiracnta indica) provides shade, and is a good source of construction wood and fuel. In addition, it can be pollarded* several times, producing a long term supply of wood.

Leucaena (eucaena Leucoephala) has been planted and appears to be surviving. However, a rigorous analysis of the species production capabilities in the Guidiaka region is necessary to determine whether other species might not be more desireable.

Gum Arabic (Acacia senegal) is an indigenous species, and is highly desired by the local population because of its many uses (gum extrusions, fooder, live fencing, rope, well reinforcements, etc.).

Paloverde (Parkinsonia aculaeta) is a small, shrubby tree with extremely hard wood which will be used as live fencing and first-line windbreak material.

Other species already being planted in the nursery include Acacia radiana, Pterocarpus spp., Cajanus cajan, Bauhina rufescens, and Acacia nilotica. Euphorbia balsamifera is being planted as cuttings along fence lines and will eventually reinforce or replace the sheep fencing.

f. Nursery

The forestation portion of the nursery is approximately 0.5 ha. in size, has two wells and sufficient area for anticipated expansion. This is the only nursery in the region and will, upon completion of the project, become part of a network of regional nurseries administered by the GIRM. Its anticipated output of 130,000 seedlings for the two rainy seasons will necessitate a nursery production of 150,000 trees. This additional quantity of trees is necessary to account for losses during the nursery growth stage and losses entailed during transport.

g. Implementation Schedule

The planning and supervision of the tree planting activities will be done jointly by the project range manager and the GIRM Environmental Protection Service technicians. In addition, additional expertise outside the capabilities of project technicians, such as grafting and pruning of fruit trees, can be requested from the agricultural school at Kaedi, as in the past.

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*Pollard — To cut back a tree nearly to the trunk so as to produce a dense mass of branches.

The nursery work is performed by eight permanent workers assigned to the nursery. During peak labor periods of seed collection, filling containers, seeding and seedling transport, other workers are detailed to the nursery from other project components.

The scheduling of the primary forestation activities is as follows:

April - June 1981

Euphorbia cutting collection and planting
Direct seeding trials

July - September 1981

Seedling planting
Euphorbia planting

October - December 1981

container filling
sensitization of farmers

January - March 1982

nursery seeding (containers)
seed collection
sensitization of farmers

April - June 1982

collect Euphorbia, Euphorbia planting
direct seeding

July - September 1982

planting Euphorbia cuttings

October - December 1982

sensitization of farmers

B. Administrative Feasibility

The GIRM Project was conceived as a coordinated effort between an AID-funded contract team and a counterpart team provided by the GIRM under the general auspices of the Ministry of Rural Development. Because of its physical isolation (1-1/2 days from Nouakchott by car) and its well-financed infrastructure, the project could have easily set itself up as a separate entity, detached from the local government services. However, this has not happened. From the very beginning the local GIRM Agriculture, Livestock and

Environmental Protection officials have participated fully in all major project decisions, both formally, through the project's Regional Coordinating Committee, and informally, by means of almost daily interaction with project staff. The GIRD office and the Livestock Service, for example, are next door to one another. As implementation proceeds, this emphasis on integrating GIRM activities with the local GIRM infrastructure will be continued and reinforced (See the original Project Paper, pp. 69-76, for discussion of the administrative arrangements for the project and the original job descriptions of the implementation team).

To illustrate the close coordination between the GIRM project and the local GIRM Agriculture, Livestock and Environmental Protection Services, institutions to be utilized for extending the GIRM project innovations beyond the DIZ have already been set up by the latter. These GIRM services will utilize their extension agents to extend project innovations upon project completion. In fact, they have already begun extension efforts utilizing project-provided innovations.

AID: The project officer will assist the contractor in coordinating their actions with those of other AID projects. The USAID will also assist in the procurement of some of the higher priced items which are required for project implementation.

Project Implementation Team: The team composition is basically the same. The rural sociologist, however, will also function as chief of party. The duties of team members have all been increased to meet unanticipated or changing circumstances as noted below:

a) Rural Sociologist: As chief of party, the rural sociologist will be expected to use the major part of his time in administrative and liaison activities. This will undoubtedly have little time for writing up the results of his sociological research. At the time of the evaluations scheduled for December of 1981 and 1982, assistance will be provided to help analyze and document his findings.

b) Extension Agronomist and Animal Husbandryman Specialists: Now have added responsibility for setting up on-farm trials and evaluating the results.

c) Extension Range Management Specialist: Will take on responsibility for the tree planting program.

d) Administrative Aide/Mechanic: Has added responsibility for managing the vehicle repair, carpentry/plumbing shops.

e) Administrative/Liaison Assistant: Has added responsibility of supervising a staff of six carrying out his administrative responsibilities.

In addition to the original six person team, a biologist/agronomist will be hired. (See Annex A and the Social Analysis for more discussion of this component.) The responsibilities of this technician will be:

a) to involve women in all aspects of the agricultural program,

b) to research women's attitudes and roles;

c) to evolve ways for women to benefit from the presence of the project;

d) to coordinate women's organizations in Selibaby with project activities;

e) to participate in the agronomy divisions experiments and on-farm trials, with particular responsibility for women farmer-participants;

f) to conduct intercropping and associated cropping trials under the supervision of the Project agronomist.

For short term assistance, the project plans to use:

a) an agricultural economist for three months to do a marketing study; and

b) a surface water expert for two months to develop a water spreading and small dams program.

GIRM: The GIRM ministry offices are substantially the same as described in the PP. In addition to working with people in the Livestock, Environmental, and Agricultural Directorates, six people have been assigned as counterparts to the team. The six include a chief of party, a livestock specialist, two range management/environmental protection specialists, and two agronomists. In addition, an agriculturalist, an animal husbandryman and a range and forestry specialist will be assigned to counterparts as the work load increases.

C. Social Feasibility

The Social Analysis section of the Guidimaka Integrated Rural Development (GIRD) Project Paper describes in detail the socio-cultural context of the Guidimaka Region and the sociological implications of experimental/research interventions in selected agronomic and livestock programs, animal traction, and range management (pp. 52-63). This section will therefore highlight major developments to date that affect the social feasibility of the proposed additional project interventions.

1. Beneficiaries and Benefit Incidence

The proposed refocusing of project approach to include direct population participation in GIRD activities will benefit both the male and female inhabitants of the DIZ, which total about 20,000 (including Selibaby). Furthermore, since project activities are limited to interventions which are proven replicable in the Guidimaka Region, it is envisioned that eventually, through spread effect and an expanded/upgraded extension force, the total population of the Region will adapt and benefit from the improved technologies introduced through this project.

The introduction of Souna III and other improved crop varieties, coupled with improved cultivation techniques, should result in improvements in crop productivity for sedentary agriculturalists. In addition, farmers will be trained in the use of animal traction techniques. Most farmers already own the animals for plowing and cart-hauling. Thus, the only investment required, albeit substantial, will be for the purchase of plows and cart. Animal traction has several advantages: (1) it increases farmers' chances of getting a harvest, even in marginal lands; (2) it increases cultivable land areas; and (3) it eliminates the labor bottleneck which traditionally occurs between the last planting and first weeding. Furthermore, farmers can earn additional income and/or save time and money from using animal-pulled carts in hauling agricultural residues, hay, firewood, manure and and compost for gardens, bricks for construction, and in carrying passengers and evacuating the sick. Since carts are normally driven by children, no undue strain on labor supply is anticipated.

Vegetable production was not originally programmed as a separate project activity. However, because of its popularity in the Guidimaka Region, increased emphasis will be given to this intervention. Since vegetable production begins at the end of the cereal production season, it will not compete for scarce labor nor for land resources with cereal production. While no statistics on traditional vegetable production yields are currently available, it can be gauged, based on the population's favorable response to this intervention, that improvements are being derived in this area. In the 5 villages of the DIZ, there are currently about 75 participants, only 10 of whom have ever gardened in the past. In Selibaby, 50 women belonging to two cooperatives, none of whom has ever gardened before, are currently participating in GIRD's vegetable production activity. The benefits from vegetable gardening are obvious, both in nutrition and the potential savings that may accrue to families who will now be able to grow their own vegetable requirements instead of purchasing them. It is hoped that eventually, with increased

participation and expansion of this activity, vegetable production and marketing will provide additional incomes to the growers and help stem the tide of seasonal migration to the cities, which often occurs particularly after the cereal harvest season.

A small-scale tree-planting program, mainly aimed at reforestation, is the principal component of the environment protection activity. Considering the limited time left in project life, however, no definitive results are expected from the research and plantings carried out. Nevertheless, some benefits are anticipated from the introduction of fast-growing tree species. The project has established a small nursery which provides seeds for trees with multiple uses, such as forage, natural fencing, shade for animals, soil fixation, and windbreaks. Growing of fruit trees has also been initiated, an activity quite popular in the project area. These trees should eventually provide fruit for nutrition, and possibly serve as a source of additional income for the growers.

Interventions in livestock production/nutrition and in range management are basically the same as outlined in the original PP. These interventions represent the greatest departure from the current traditional practices of the herding population, which is made up primarily of the nomadic Peuls and Maures, and to some extent, the sedentary Soninke. Though still at the experimental stage, it is hoped that livestock raisers/herders will develop basic understanding and acceptance of the new principles offered in this area, in order to improve livestock productivity and control rangeland degradation which has resulted from years of continuous overgrazing. In order to derive the longer term benefits anticipated from improved livestock and range management practices, cooperation of not only the herders but the GIRM itself (i.e., through the enforcement of socially acceptable range management regulations) will be required.

Finally, the project will provide assistance to communities in the DIZ to conduct small infrastructure projects, such as wells, schools, and vaccination corrals. It will be noted that the inhabitants of villages with no permanent wells generally leave for Selibaby or other towns during the dry season to seek jobs. However, the availability of wells as sources of water for human and animal consumption and for maintaining vegetable gardens and orchards, is expected to enable villagers to continue being productive in the rural areas throughout the duration of the dry season. The literacy rate in the Guidimaka Region is currently among the lowest in the country. It is hoped that the availability of additional village schools will (1) promote rural education that will encourage the youth to remain in the villages; and (2) improve receptivity to better production techniques, through improved literacy levels.

2. Local Participation/Socio-Cultural Feasibility of Interventions

Because of the reorientation of GIRD project toward involving farmers in the DIZ through on-farm trials, it is obvious that the active support and involvement of the population are essential. In order to solicit

support, a great deal of effort is being expended in the villages by the project staff and extension agents to sensitize the people to the project goals and the problems that need to be resolved. These sensitization campaigns are generally conducted in village or group meetings where proposed interventions and the potential benefits to be derived from them are presented. Participants' perceived needs and views are likewise solicited during these meetings. A two-way learning process occurs, which has been proven to be quite effective.

Motivation for local participation exists. Developments to date have demonstrated the relative openness of Guidimaka's population to the proposed project interventions, many of which they are already familiar with, although in a limited way. For instance, some local farmers already practice inter-cropping and do minimal rotation from year to year on certain types of fields. They have expressed interest in trying out the project's proposals in this area. In addition, some of the farmers of the region are eager to be trained to use animal traction equipment. Small quantities of expensive, black-market equipment have been in use in the region for a number of years, and the farmers appreciate their advantages. In range management, both sedentary and semi-nomadic herders have shown interest in learning how they can improve and protect rangelands. They appear receptive to the Project's proposal of setting up small range protection and improvement perimeters near villages in which to keep small numbers of animals all year around. However, they have requested that the Government guarantee them against encroachment from nomads travelling through from other regions. By existing Mauritanian law, these nomadic herders have the right to graze their animals in any pasture they pass through. The Project staff is currently discussing this concern with the Governor, with the hope of coming to an enforceable and socially acceptable solution.

Participation in the animal health program was solicited on the basis of the villagers' recognition of the proven worth of certain vaccines and medicines. It will be noted that these have been available, to a limited extent, in Guidimaka since the French Colonial times.

It can be reasonably concluded that while there are some variations in receptivity to the proposed interventions, on the whole, the response has been positive. This is primarily due to the fact that the interventions address the general need of the population for measures to improve their productivity and maximize utilization of available resources (e.g., labor, animals owned, land). In addition, while the project interventions may be clearly defined, some flexibility is incorporated in their implementation, to take into account local sentiments, existing constraints, and cultural values. This information is obtained through the sensitization campaigns conducted in the villages, the individual interaction with participants by the project staff and its extension agents, and from the anthropological research conducted by the Chief of Party, who is a sociologist. All these serve to provide the project staff with a better understanding of local social and economic processes (e.g., land tenure system, village social relations, local politics and economics, inter-ethnic relations, labor availability and composition, attitudes toward development and change, role of women and others) which are crucial to the successful implementation of

the project interventions.

3. Impact

The GIRD project activities are designed with the objective of introducing only those interventions with potentials of replicability. Thus, for example, only rainfed production techniques will be initiated, since there is sufficient rainfall in Guidimaka to support dryland agriculture, and no major bodies of water around the region to make irrigated farming economically feasible. Also, no agronomic intervention requiring mechanization will be introduced, except for comparison purposes (to demonstrate that animal traction is just as productive), since mechanized technology is not replicable in Guidimaka.

It is the GIRM's desire to be able to eventually provide communities outside the DIZ with the services and innovations which the Project now makes available. To this end, the Government has insisted on maintaining a close coordination between the Project staff and the local GIRM Agriculture, Livestock and Environmental Protection Services. It is envisioned that these services will carry on dissemination of the GIRD project innovations throughout the region upon completion of the GIRD project. It will be noted, however, that the GIRM capacity to provide support in rural development activities is quite limited. Without foreign aid, there will virtually be no development activity in Mauritania. A USAID Agricultural Sector Grant, now in the planning stage, should enable the Ministry of Rural Development to continue the work now being done by the GIRD project. In addition, the proposed AID project to expand the Kaedi Agricultural School will provide more agricultural extension agents to promote the dissemination of improved agronomic techniques.

4. Involvement of Women in the GIRD Project Interventions

The Social Analysis section of the original PP describes the socio-economic role of women in the Guidimaka Region. This, together with the recently published study by Melinda Smale* on women in Mauritania, underscores the critical role of women as food producers and income earners.

Over time, the responsibility of feeding the family has been increasingly shouldered by women because of low production in family fields, high male out-migration rates, and rising costs of living. It is obvious therefore, that if the GIRD project is to effectively achieve its goal of promoting improvements in food production, productivity, and consumption, it is crucial that the proposed interventions reach the women.

Smale's study points out that: "Rural women, who are required to remain with land, housing, and the children, are necessarily the fulltime

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*Women in Mauritania: The Effects of Drought and Migration on their Economic Status and Implications for Development Programs, by Melinda Smale, distributed by the Office of Women in Development, A.I.D., October 1980.

residents of rural areas. For this reason, women should be provided with new techniques, training, and inputs, in order to sustain production in the absence of men, and in order to train their own children as future producers. Otherwise, women, like men, may choose to definitively abandon rural areas." (p. 98) It is a fact, however, that many development assistance efforts have provided meager support to women, particularly as income earners and producers.

The involvement of women in the GIRD project is minimal in animal husbandry and range mangement/tree planting activities. Women traditionally do not work much in these areas, although they do own animals and help take care of those that are kept around the house. However, in village meetings, they have yet to express any desire to participate beyond having their animals vaccinated or treated for diseases.

In agriculture on the other hand, women's involvement is expected to be substantial. In Selibaby for instance, the only gardening activities supervised intensively by the project were those carried out by two women's cooperative groups. Plows and hoes for animal traction will be purchased by family groups which include women. While women are not expected to learn how to plow or to train animals, they are expected to cultivate fields plowed by their husbands, brothers, and sons. Thus, technical innovations, particularly improved cultivation techniques, will be demonstrated and taught to them. No problems are anticipated in identifying female volunteers for this, just as no difficulty has been encountered thus far in recruiting women participants for the vegetable on-farm trials.

In addition to improved agricultural techniques, new technologies such as grain threshers, winnowers, grinding mills, and peanut shellers will be introduced to women and sold to those who are interested. Smale determined in her study that informal savings and credit societies for women already exist in the area, which serve as sources of financing for them to purchase agricultural tools. This avenue will be tried in selling the above mentioned equipment. Experimentation with improvements in traditional indigenous techniques and locally available tools will be undertaken to develop water carrying devices, food processing and storage equipment, and more efficient cooking stoves. Likewise, nutrition education campaigns will be conducted to demonstrate effective utilization of food produced and to introduce a limited number of new types of vegetables or food crops suitable for the area. The use of local fruits and vegetables traditionally grown but not currently being consumed will also be demonstrated.

There is a two-track system in soliciting the involvement of women in the project activities. Project ideas are first presented during the village meetings which they attend, together with the men. However, they do not actively participate or ask questions during these meetings. Thus, the female project workers follow up with the women after these large meetings and introduce specific techniques and technologies to them directly on-farm. It is also during these interactions that women's views are solicited by the female project staff.

While initially male technicians, by local custom, cannot work directly with women, it has been demonstrated that the male members of the project team can work with women in their plots (usually to be accompanied by the female extension workers of the project) on subsequent farm visits.

Throughout the life of the project, the GIRD female staff, which is headed by an expatriate micro-botanist/agronomist hired locally, will closely monitor the progress of the activities participated in by women. This, together with the constant exchange of views with the women's participants, should allow for a smooth and effective implementation of the proposed project interventions.

D. Economic Analysis

The original Project Paper included an economic analysis (pp. 64-68) that continues to apply to most of the activities being undertaken under this project. Moreover, the original PP (pp. 49-50) stated that the project could not be expected to provide a "return" in the conventional sense. The returns or economic benefits of the project would come in the future as specific investments were made in the areas of agriculture, livestock, and range management based on the information gathered and the techniques developed under this project.

With the amendment proposed by this paper, it is expected that by the end of the project (December 1982) there will exist a fairly complete package of specific techniques to extend to farmers and herders in the Guidimaka region. This will include improved cereal varieties combined with improved cultivation techniques as well as animal traction; improved methods for vegetable and fruit production as well as new varieties; and a functioning animal health service with concomitant measures for increasing milk and meat production per animal. The project will have developed information on the maximum number of animals that can use range areas without degrading the environment and without exposing animals to undue danger from hunger, thirst, and disease. In forestry, the project will have usable information on what trees should be planted for what ends, such as forage, shade, land fixation, live fencing, windbreaks, fuel, and animal feed, as well as the relative importance of these objectives.

Therefore, at the end of the project, the basis will have been set for full extension of the above set of techniques and activities over the 110 villages and camps of the Guidimaka region, comprising over 100,000 people. If an expanded program to extend these techniques and activities were undertaken (and assuming no natural disasters), the results would be increased food production (cereals, milk and meat, vegetables, and fruit) and a substantial beginning at reforestation in the Guidimaka region. A major expected economic and social benefit from an expanded program would be declining migration of Guidimaka residents to cities such as Nouakchott. Therefore, the government would enjoy reduced costs in public services such as education, medical care, and water supplies which are provided to the population of the capital.

In developing this package of techniques, the GIRD project is taking the most cost-effective approach. For example, local labor is carrying out most of the construction (except for the catchment basins) rather than using machines. In agricultural production, the project staff is developing packages using traditional techniques as much as possible and not adding expensive inputs such as fertilizer. But the improved packages still offer a doubling of production per hectare in millet, for example. Therefore, except for animal traction, farmers should be able to adopt the improved technical packages at their current levels of income without subsidies or credit. In addition, the recurrent cost implications of extending the techniques throughout the Guidimaka are less formidable than if expensive inputs were used.

By providing a base on which can be built an expanded program of food production and environmental restoration, the Guidimaka project is setting the stage for substantial economic benefits in the future as the GIRM and other donors make use of the information and technical packages developed by the project.

E. Enviromental Analysis

The Initial Environmental Examination, including a Pesticide Risk-Benefit Analysis, is included as Annex C. When this project was originally approved, an IEE was not required. Since this amendment was a major change to the project, an IEE was prepared including a Pesticide Risk-Benefit Analysis for Lindane, which is to be sprayed on the project's small herd of cattle to control ticks and Gaul flies.

The IEE, including the Pesticide Risk-Benefit Analysis, found that no adverse environmental consequences would result from this amended project and therefore requested a negative determination.

IV. REVISED FINANCIAL ANALYSIS AND PLAN

A. Budget Presentation

The project budget format has been revised from the cost component basis used in the original PP to a project-specific input basis for more effective managerial control over project resources. The revised format permits project costs to be monitored in categories which correspond to actual cost centers. The inputs are sub-divided into categories and line items as required for implementation monitoring purposes. The revised budget inputs are as follows:

Input 1: U.S. Contract Team

This input includes all costs included under the AID contract with Experience, Inc., and represents the personnel and personnel-related costs of the expatriate team.

Input 2: Contract Team Direct Support

This input pertains to the direct housing support which USAID is providing directly in-kind to the U.S. contract team. This input is subdivided into three categories for control purposes: (a) housing recurrent costs, covering rents, utilities, security guards, and maintenance; (b) housing-related commodities, including furniture and appliances; (c) housing renovation, pertaining to all costs incurred in renovating the project housing to make the units suitable for occupancy.

Input 3: Project Operational Support

This input describes costs which pertain to operational aspects of the project, as opposed to direct support of the technicians. This input is subdivided into four categories: (a) local employees, salaries/benefits; (b) operational commodities, which include vehicles, office furniture and equipment, garage commodities, and communications equipment; and (d) miscellaneous support, which includes such items as local employee travel and transportation, communications, office supplies and materials, and miscellaneous services.

Input 4: Other Personnel and Support Costs

This input reflects other personnel and personnel-related costs for project-related employees other than those considered as local employees or covered under the direct Experience, Inc., contract. There are three sub-categories: (a) GIRM counterpart compensation; (b) short-term consultants, which covers TDY assistance, and (c) other personnel costs.

Input 5: Agro/Pastoral Demonstrations and Extensions

This input covers costs allocated to the interventions, the demonstration sites and extension activities to be undertaken by the project. Costs are broken down by sectoral activities in agriculture, range management and livestock. (See table for detailed budget.)

Input 6: Training

The training component provides funds for short and medium-term training of the GIRM counterpart team and other appropriate GIRM officials in Mauritania, third countries, other African countries, and the U.S. for project-related purposes.

Input 7: Evaluation

This input provides funds for the final project evaluation. The Mission will seek AID/W or REDSO assistance for the second interim evaluation.

B. Increase in Life of Project Budget

This Project Paper Amendment envisions extending the project through December, 1982, which requires an extension in the contract team presence of 96-person months. Additional cost in prolonging the project through December, 1982, are therefore defined as: 1) costs related to the extension of the contract team; and 2) costs pertaining to other activities.

Costs Pertaining to Extension of Contract Team	Amount ($000.)
Contract team personnel costs (Input 1)	1,017
Direct support of the contract team (Input 2)	169
Project operational support (Input 3)	419
Costs pertaining to other Activities	
Other personnel and support costs (Input 4)	95
Training (Input 6)	39
Evaluation (Input 7)	52
Agro/Pastoral Demonstration and Extension (Input 5)	1,014.0
TOTAL INCREASE IN LOP BUDGET	2,305

C. GIRM Contribution

GIRM contributions to the project remain the same as outlined in the PP, but are adjusted to reflect the prolongation of the project to December, 1982. The new figure for Mauritanian counterpart salaries totals $960,000. Overhead costs for the Ministry of Rural Development in Nouakchott, and the Agriculture, Livestock, and Environmental Protection Services in Selibaby are estimated respectively at $56,000, $133,000, and $73,000. Labor supplied by farmers in the DIZ is estimated to be worth $157,000, while the value of land donated by farmers on the demonstration sites in the DIZ totals $83,000. Cattle donated for range site demonstrations are valued at $51,000.

It is hoped that if there is a follow-up effort, the GIRM national budget will assume progressively more of the counterpart salary payments, and eventually be responsible for most, if not all, indigenous personnel costs.

D. Obligations

As of September 30, 1980, all the $3,346,000 authorized in the original project had been obligated. Obligations for FY 1981 and 1982 will be as follows:

FY 1981	$ 800,000
FY 1982	2,005,000

REVISED PROJECT BUDGET, USAID CONTRIBUTION ($000's)

		Original Project Funding	Increased Project Funding	Revised LOP Funding
Input 1	U.S. Contract Team	1,336	1,017	2,353
Input 2	U.S. Contract Team-Direct Support	481	169	650
	Housing, Recurrent Costs	180	139	
	Housing, Related Commodities	169	3	172
	Housing, Renovation	132	27	159
Input 3	Project Operational Support	351	419	770
	Local Employees, Salaries & Benefits	114	245	359
	Operational Commodities	150	86	236
	Vehicle Support	68	69	38
	Misc. Operational Support	19	19	38
Input 4	Other Personnel & Support Costs	170	95	265
	GIRM Counterpart Compensation	-	64	64
	Short-Term Consultants Local Contract	-	117	117
	Other Personnel Costs	170	(86)	
Input 5	Agro/Pastoral Demonstrations and Extensions	938	1,014	1,952
	Agriculture and Animal Traction	422	381	803
	Range Management & Environmental Protection	220	394	614
	Livestock Interventions	296	239	535
Input 6	Training	40	39	79
Input 7	Evaluation	30	52	82
	Total Project	3,346	2,805	6,151

FINANCIAL IMPLEMENTATION PLAN

AID CONTRIBUTION ($000's)

		Revised LOP Budget	Expenditure as of 9/30/79	Projected Expenditures FY-80	FY-81	FY-82	FY-83
Input 1	U.S. Contract Team	2,353	477	500	600	600	176
Input 2	U.S. Contract Team-Direct Support	650	284	152	114	85	15
	Housing, Recurrent Costs	319	61	73	85	85	15
	Housing Related Commodities	172	127	16	29	-	-
	Housing Renovation	159	96	63	-	-	-
Input 3	Project Operational Support	770	110	230	234	159	37
	Local Employees, Salaries & Benefits	359	9	80	120	120	30
	Operational Commodities	236	74	83	79	-	-
	Vehicle Support	137	24	40	32	36	5
	Misc. Operational Support	38	3	27	3	3	2
Input 4	Other Personnel & Support Costs	265	70	30	99	60	6
	GIRM Counterpart Compensation	64	-	16	21	21	-
	Short-Term Consultants/Contracts	117	-	-	78	39	-
	Other Personnel Costs	84	70	14	-	-	-
Input 5	Agro/Pastoral Demonstrations and Extensions	1,952	-	285	694	800	137
	Agriculture and Animal Traction	697	-	148	244	350	61
	Range Management & Environmental Project	614	-	34	258	258	61
	Livestock Interventions	535	-	103	192	192	48
Input 6	Training	79	-	-	40	39	-
Input 7	Evaluation	82	-	-	-	50	32
		6,151	941	1,197	1,781	1,793	439

SUMMARY COST ESTIMATE ($000's)

	USAID			GIRM	PROJECT TOTAL
	FX	L/C	TOTAL		
Contract Team	2,353		2,353		2,353
U.S. Contract Team Direct Support	159	491	650		650
Project Operational Support	120	650	770		770
Other Personnel Support Costs	165	100	265		265
Agro/Pastoral Demonstration & Extension	520	1,432	1,952		1,952
Training	29	50	79		79
Evaluation	82	-	82		82
GIRM					
Project Personnel				960	960
Agriculture Service				157	157
Livestock Service				133	133
Environmental Service				73	73
Ministry of Rural Development				56	56
Donated Labor				157	157
Donated Animals				51	51
Donated Land				83	83
	3,428	2,723	6,151	1,670	7,821

DETAILED LOP BUDGET - AGRO-PASTORAL DEMONSTRATION AND EXTENSION

Agriculture and Animal Traction			**$802,900**
Animal Traction		$100,400	
Trainers	$32,000		
Labor	20,000		
Equipment	23,000		
Animals	3,000		
Feed	22,400		
Tractor		$ 52,000	
Agronomic Trials (on site)		$235,000	
Labor	$210,000		
Tools	20,000		
Seeds	5,000		
Vegetables/Fruit		$ 92,000	
Labor	$ 74,000		
Seeds	17,000		
Trees	1,000		
DLZ Extension		$217,000	
Extension Agents	$ 21,000		
Sector Support (vehicle, tools, operations)	7,000		
Transportation (hand rover and shared cost of truck	48,000		
Revolving Fund (farmer small purchases)	15,000		
Animal Traction Equipment	105,000		
Small Development Projects	15,000		
Sociological Research	6,000		
Women in Development Component			**$106,000**
Consultants	40,000		
1 long-term; 22 months at $15,000/yr	(27,000)		
1 short-term nutrition expert—60 days at $150/day + per diem and expenses	(13,000)		
Vehicles	45,400		
1 Land Rover + 25% spare parts	(25,000)		
2 Suzuki 125cc motorcycles with 25% spare parts	(3,600)		
1 driver for 22 months	(3,800)		
P.O.L.	(13,000)		

Extension Agents	6,800		
Materials for Experiments and on-farm trials	9,500		
Office materials & visual aids	2,000		
Range Management and Environmental Protection			$613,500
Nursery		$ 53,000	
Labor	$35,000		
Seeds	8,000		
Tools/Equipment	10,000		
Wells		$ 56,000	
Labor	$29,000		
Cement and Repair	27,000		
Catchment Basins		$192,000	
Labor	$180,000		
Handtools	3,000		
Wheelbarrows	2,000		
Cement and Rebar	7,500		
Fencing (to protection demonstrations)		$111,000	
Labor	$ 27,500		
Barbed Wire	20,000		
Woven Wire	28,000		
Posts	26,000		
Material (cement, mails, gloves, goggles, etc.)	9,500		
Tree Planting (on site)		$ 67,000	
Labor	$ 60,000		
Seeds	3,000		
Tools/Equipment	4,000		
DIZ Extension		$ 97,000	
Extension Agents	$ 21,000		
Sector Support (vehicle operates, tools, etc.)	7,000		
Transpotation (hand-rovers & share of trucks)	48,000		
Small Development Projects	15,000		
Sociological Research	6,000		
Research (Survey)		$ 30,000	
Labor	$ 24,000		
Surveying Equipment	6,000		
Pumps		$ 7,000	

Livestock Interventions			**$535,200**
Animal Health		$102,200	
Equipment (site)	$ 15,000		
Medicines/vaccines (site)	15,000		
Clinic	10,000		
Vaccination corral, chutes, & scales	7,200		
Anti-parasitic medicines (DIZ)	40,000		
Vaccines (DIZ)	15,000		
Animal Production		$433,000	
Construction (sheds, financing)	$ 6,000		
Equipment (sprayers, pails, dehorning, et.)	50,000		
Herd	15,000		
Labor, herders	20,000		
Labor, workers	75,000		
Feed supplements	40,000		
DIZ extension: Extension agents	21,000		
Sector support (vehicle, operations, tools, etc.)	7,000		
Transportation (hand rover and share of truck	48,000		
Revolving fund (small purchases)	130,000		
Small development projects	15,000		
Sociological research	6,000		
Total - Agro-Pastoral Demonstrations and Extension Budget			**$1,951,600**
Funded to Date			937,600
Additional Funding Required			1,014,000

V. IMPLEMENTATION PLAN

The implementation plan in the original PP (pp. 76-80) should be consulted for an indication of the pre-project and early project tasks that were to be undertaken.

As indicated above, the COP of the contract team did not arrive on-site until April 1979, and a complete team was not present until the Extension Range Management Specialist arrived in August 1980. This was three years later than estimated by the implementation schedule of the original PP (see pg. 80 of original PP).

An implementation workplan follows which indicates the nature of tasks planned to be performed for the rest of the project's life (through December 1981). Since the combined team of contractors and Mauritanian counterparts are to perform all tasks in concert, the implementation workplan simply indicates the GIRD project division responsible for particular tasks and their timing.

IMPLEMENTATION/WORKPLAN
3RD QUARTER FY 81 - 1ST QUARTER FY 83

GIRD Project Division Responsible	FY 81		FY 82				FY 83
	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter
Agriculture & Animal Traction Division-Activities							
1	(1) arrival of animal traction equipment				(1) arrival of animal traction equipment		
2	(2) animal traction farmer training				(2) animal traction farmer training		
3		(3) on-site trials				(3) on-site trials	
4		(4) on-farm trials (DIZ)				(4) on-farm trials (DIZ)	
5	studies; sensitization of farmers		continues throughout period----------				----------
6	vegetable production site experiments		continue throughout period----------				----------
7	vegetable on-farm trials (DIZ)		(7) vegetable on-farm trials in DIZ				(7) vegetable on-farm trials in DIZ
8	orchard/fruit culture on-site and		on-farm trials continue throughout		period----------		----------
Range Management & Environmental Protection Division							
1				(1) village perimeters (continues through December 1982)			
2	(2) tree planting on sites					(2) tree planting on sites	
3			(3) tree planting in DIZ				(3) tree planting in DIZ

IMPLEMENTATION/WORKPLAN
3RD QUARTER FY 81 - 1ST QUARTER FY 83

GIRD Project Division Responsible	FY 81		FY 82				FY 83
	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter
Range Management & Environmental Protection Division (cont'd)							
4		(4) haying and silage				(4) haying and silage	
5	(5) catchment basins on sites				(5) catchment basin clearing on sites		
6			(6) DIZ catchment basins and firebreaks				(6) DIZ catchment basins and firebreaks
7	(7) range experiments continuing throughout period----						
Livestock Division							
1	(1) thin herd				(7) thin herd		
2	(2) Select village volunteers		(2) Select Village Volunteers				
3	(3) train village volunteers			(3) train village volunteers			
4				start village pharmacies----			
5	(5) vacinnations in DIZ		(5) vaccinations in DIZ----				
6	Sale of veterinary products continues throughout period----						
7	Feeding experiments continue throughout period----						

IMPLEMENTATION/WORKPLAN
3RD QUARTER FY 81 - 1ST QUARTER FY 83

GIRD Project Division Responsible	FY 81		FY 82				FY 83
	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter
Training by GIRD Project Staff							
1		(1) train Kaedi school students				(1) train Kaedi school students	
2				(2) train counterparts outside of Mauritania			
3			(3) 3 more counterparts added				
4	Counterpart team at planned level		throughout this period----------				
5	Train extension agents throughout		this period----------				
6	Train counterparts on project throughout this period----------						
Logistics (EI Responsible)							
1		Landrovers arrive					
2		Truck Arrives					
3		Bulldozer Arrives					
4		motorcycles arrive					

VI. EVALUATION PLAN

A mid-project evaluation performed in May 1980 provided a number of recommendations for re-orienting the GIRD project's activities. Many of these recommendations were followed by the GIRD project team and by the Mission in preparing the PP amendment.

Two further evaluations of the GIRD project will be carried out: one in December 1981 and an end of project evaluation in December 1982. The first of these evaluations will assess progress toward meeting project outputs and purpose and will make appropriate recommendations for any feasible project adjustments during its final year. The December 1981 evaluation team will also (1) examine the impact of the various kinds of on-farm trials on farmer participants and (2) provide any assistance needed by the GIRD Project team sociologist (who is also the COP) in analyzing the data he has collected in various surveys and in writing up his findings and recommendations by early 1982. The evaluation report and the sociologist's findings and recommendations (even though still tentative and preliminary) should be available for any design team which may be formed to plan follow-on activities in the Guidimaka region or to design the proposed agricultural sector grant.

An end-of-project evaluation will take place in December 1982. This evaluation should make final judgments on the degree of fulfillment of project outputs, purpose, and goal (if appropriate) and analyze why such progress did or did not take place. In keeping with the December 1981 evaluation, this evaluation team will investigate the impact of project activities on farmer participants and any other project beneficiaries. This evaluation team should also provide further assistance to the project team sociologist in analyzing and writing up any additional material he has collected in the preceding year. Particular attention should be given to writing up his recommendations for the design of future activities in the Guidimaka region and to comparing his recommendations to those of the evaluation team's with some discussion of differences between the two.

So that sufficient outside expertise can be provided for the December 1981 and December 1982 evaluations, $52,000 has been added to the $30,000 originally budgeted for project evaluation. Only about $15,000 of that $30,000 now remains, having been used for the earlier evaluation (May 1980). An effort should be made to obtain the same outside persons for both these evaluations so that the second team does not have to relearn everything that the first team learned.

VII. COVENANTS, AND NEGOTIATING STATUS

The grant agreement for amending this project is expected to be negotiated and signed in the third quarter of FY 1981.

No conditions precedent will be required.

The amended grant agreement will include two further covenants. One covenant will require that the annual work plans to be prepared by the contractor and field counterpart staff will include the following information: what will be done; methods of action; who is responsible; proposed completion date; and resources required. The second covenant will state that no pesticides are to be procured or used under this project unless a pesticide risk-benefit analysis is carried out.

A WOMEN'S COMPONENT IN THE GUIDIMAKA INTEGRATED RURAL DEVELOPMENT PROJECT OF MAURITANIA

BACKGROUND:

During 1980, under a PASA agreement with the U.S. Department of Agriculture, Melinda Smale was contracted by the Mission, in cooperation with PPC/WID, to undertake a study of the effects of drought and migration on the economic status of women in Mauritania and to draw implications for development programs. Smale's study was completed in October 1980, and a brief set of seminars were held in Mauritania by the Mission where Smale presented a synopsis of her findings. Subsequently, her study was published by PPC/WID in Washington.

The study included substantial material on the women in the Guidimaka area which documents the participation of Mauritanian women, especially in the river area, in agriculture and other economic activities in that area. Smale, for example, points out that the "dominant ethnic group in the Guidimaka region of Mauritania is the Soninke....(who) preserve a historical image of patriarchal social structures, institutionalized male migration, and, for women, comparative agricultural expertise." (p. 28) She goes on to describe the system of working collective fields and of men and women each having their own small plots, in addition, for cultivation. "On the collective fields, women's labor contribution consists almost exclusively of planting and harvest activities. Occassionally, men may aid women with clearing and preparation of their fields, and in return, women may work temporarily on the salumo (men's fields). Women are specialized in the production of peanuts and rice, cotton, indigo and gumbo.....Traditionally, these small women's plots furnish the sauces which the women are responsible to provide, the cash for the purchase of other household necessities, such as soap and cookware, and the cash for women's personal savings. In the past, women tended to sell rice, using groundnuts for sauce and soap-making, gumbo for sauce, and cotton/indigo for the weaving of cloth.

"Over time, the migration of men has diminished the size and productivity of men's and collective fields and the ability of men to provide staple grains through cultivation.

"Moreover, while women's labor on family and men's fields does not appear to have increased, women have begun to produce staple grains on their own fields.... women have expanded their production into new lands, as consistent with the change in crop production." The 1979 war on want study of the region shows a relatively small size of women's individual plots. These figures do not "express the total land areas, or number of fields on which women may be producing."

"...Soninke women engage in various mutually supportive activities... One woman recounted that her age-set saved together in order to provide or purchase agricultural tools and plows for a field they had succeeded in obtaining....

Smale concludes this section with the observation: "While women tend to cultivate and dispose of their income individually, they are inclined to form work-groups and savings associations for agricultural investment. For the Soninke women, agriculture is a profession."

Thus, there is an excellent basis for including a women's component and almost a prerequisite for including women in any agricultural activities undertaken in this region.

The women's component proposed, then, would seem to be demanded by the circumstances and would stand to be consistent with traditional economic activities.

DESCRIPTION OF THE COMPONENT:

The goal of the women's component is to help increase food production in the Guidimaka area by including women, who already participate in farming activities.

The purpose of the women's component is to provide on-farm training and/or demonstration to the women farmers in ways by which food production may be increased, efficiently and effectively stored and used to provide a more nutritionally balanced diet for the people in the project area.*

The outputs of the project include not only introducing increased production techniques to the women farmers, along with the men, but having an American/Mauritania team of women agricultural experts following up with on-farm demonstrations plus introducing new technologies such as grain threshers and winnowers, grinding mills, peanut shellers and other equipment. They will also experiment with improvements in traditional local techniques and tools made with local materials such as water carrying devices, food processing and storage equipment, more efficient stoves and nutrition advice aimed at effective utilization of food produced, introduction of a limited number of new vegetables or food crops suitable for the area, and use of local fruits and vegetables traditionally grown but not now being used. These technologies should give women both more efficient production, more efficient use of products consumed, and more time for productive activities through the use of labor saving devices.

PROGRAMMING CONCEPTS:

Male technicians cannot, under local customs, work directly with the women in the project area in introducing new techniques and technology, although it is anticipated that the women will attend group meetings with

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*This would seem to answer the questions posed in the cables relating to the project. Note item 10 in State 13018 which asks: "How will project affect socio-economic position of rural women? Has use been made of the Smale work in the Selibaby area?" Also, note reftel State 94896, April 82, item 6C which asks for more specific information on involvement of women.

their men. Using female workers--American and Mauritanian working as a team--to provide demonstrations on-farm of labor saving techniques and improved production techniques parallel to those offered to men, should increase women's active participation in the project and aid in meeting project goals. Thus, there will be a two-track system for working with the women. First, they do attend meetings called by the project team for the on-farm demonstrations but they stand around the periphery and do not actively participate or ask questions. Thus, the female workers will follow up with the women after these larger meetings and then will, in addition, introduce specific techniques and technologies to the women directly on-farm. This should assure an almost equal, if sometimes separate, participation of men and women in the project both at the meetings and at the on-farm demonstration sites. It is also anticipated that the female extension or demonstration workers will work with the male members of the project team both on the women's plots and on the collective plots.

Involvement of Soninke in women animal husbandry is minimal since they are primary agriculturists. Women do own animals and help care for those that are kept around the house. In village meetings, they have not yet expressed any desire to participate beyond having their animals vaccinated or treated for diseases along with everyone else's animals.

In agriculture, women's participation is expected to be substantial. The first on-farm trials involved vegetable gardening during the cold season of 1980-81. In every village where vegetable gardening was introduced, women took advantage of the program to create gardens. In Selibaby, the only gardening activities supervised intensively by the project were those carried out by two women's cooperative groups. An agronomic micro-biologist hired locally, is involving women in agricultural activities. Plows and hoes for animal traction will be purchased by family groups which include women. Women are not expected to learn to plow or to train animals, but they are expected to cultivate fields plowed by their husbands, brothers and sons. Women are expected to adopt technical innovations and scheduling proposals as readily as men and be among the volunteer participant farmers for on-farm trials. No problems are expected in getting women volunteers for this, just as there was no trouble getting them for the vegetable on-farm trials.

ADMINISTRATIVE/IMPLEMENTATION ARRANGEMENTS:

The expert/consultant, assisted by two locally-recruited Mauritanian interpreters/rural extension agents, will travel to some 20-30 villages within a 20 km. radius of project headquarters at Selibaby to work with village women in the area on:

1) demonstrating ways to improve production of both food and cash crops, cereals, and vegetables;

2) introducing and demonstrating technologies such as grain threshers and winnowers, grinders and mills, peanut shellers and other equipment which will help to lighten women's workload both on household tasks and in field work and in processing and storage of food;

3) follow-up with village women to amplify and demonstrate production ideas and techniques set forth in village meetings at which both project personnel (male and female) and male and female villagers will be present;

4) work with the nutrition-expert to determine what foodstuffs and cash crops are currently grown or gathered and used, what has fallen into disuse, what is available that is not now being used (items that grow wild and could be eaten or used) and what could be introduced that would be accepted into the diet and the daily or seasonal routine;

5) test out, demonstrate, train in the construction and use of Lorena stoves, and evaluate acceptance and utilization of them;

6) help insure the participation of farm women in the animal traction training put on by the project by working with the women in the cultivation of plots after plowing with animal traction;

7) help inform the women and train them in the advantages of the use of animal traction equipment;

8) set up revolving funds for purchase, either through direct sales or through cooperative or individual credit mechanisms, of additional labor saving or production-improving technologies;

9) devise, with the women's participation, simple adaptations of current technologies or techniques which will result in increased production or labor saving;

10) training and demonstration in preparation and feeding of old and new foods.

Currently the project has an all male staff except for the agronomic micro-biologist. With the addition of more female staff, more people can be reached in the project. Since women already participate heavily in agricultural work, they must be reached during the on-farm demonstrations. The women already attend project on-farm and village demonstration meetings but hang around the periphery and do not speak up or ask questions. With

female agents, both Mauritanian and American working in teams, the women farmers can be reached and will participate more effectively in the project.

After recruiting female Mauritanian agents, the American agents will train the Mauritanian female recruits in demonstration techniques and methods and elcit from them information that can only be obtained by or through an area resident. This process will be carried on throughout the life of the project.

Since the women in the Selibaby area already are active in agriculture, working on both the collective plots and their own, raising both cereals and vegetables and have traditionally gathered items and raised condiments for sauces, there is a strong base on which to build this component. Since also, the women have their own plots and do participate, by their presence, in project meetings, there is already the demonstrated incentive for the women to accept the proposed interventions. Also, since the women's plots are relatively large--ranging from ½ to 1 hectare--there is sufficient base on which to build increased productivity. What is required are the personnel, transport, and the technologies.

One expert consultant, French-speaking, with some field experience and training in agronomy and extension work is needed. Such a person is currently on site, a dependent of a project team member. Recruiting of Mauritanian interpreters/rural extension agents is feasible, given an American female as head of the team.

A Land Rover, with driver, is necessary for transport as well as the motorcycles for reaching areas not accessible by larger vehicles. The original purchase of the labor-saving machines will be financed by the project. The mills are expected to increase the grinding of millet at twice the speed of hand-methods, and at five times that of traditional methods for grinding wheat. An average mill costs $250. This cost can be borne by individuals or groups in one of two ways. Some families can buy them outright using emigres remittances or savings. Others can pay one-third when the machine is delivered, one-third after the first harvest, one-third after the second harvest.

It is anticipated that the revenues from the sale of the original machines can be used to purchase additional machines. Since, according to the Smale paper, informal savings and credit societies already exist in the area, the introduction of group and individual credit schemes will be in accord with tradition and the culture.

Materials for experiments with improvements of local, traditional techniques and tools will include experiments using simple shoulder yokes or poles with suspended containers for carrying water; using simple solar dryers for preservation of food; and materials for construction of the Lorena

or other stoves, to save wood and diminish poaching of wood or using vegetation needed for environmental preservation.

Visual aids, including posters and writing materials for the demonstration workers, will be used in the group training and demonstration sessions in the villages, including materials on nutrition as well as cereals and vegetable production.

There are some local fruits and vegetables the women are not now using. For example, the fruit of the "Nim" tree can be, but currently is not, eaten. The families like vegetables and eat them and have accepted new vegetables in the past. The nutritionist, in cooperation with the other staff, will determine the local fruits and vegetables now being eaten and recommend others suitable for the terrain and the rainfall, which could contribute to a more nourishing diet. The nutritionist, along with the demonstration workers, will introduce these new foodstuffs into the program and would train the workers in the preparation of these new foods. The project has already developed a cooperative mechanism with the Mauritanian mother and child care center in Selibaby, operated by a Mauritanian mid-wife, and has been supplying the center with vegetables for nutrition demonstrations. The nutrition expert and demonstration workers will build on this experience.

PROJECT SPECIFIC ANALYSES:

The Smale study (1980): Women in Mauritania: The Effects of Drought and Migration on their Economic Status and Implications for Development Programs, and the study by Barbara Abeille (1979): A Study of Female Life in Mauritania, provide the background analyses for the project. Mauritania's socio-cultural situation is unusually complex. These two studies spell out the complexities as they affect women's situation.

Abeille points out that, in general, "Mauritanian women are rightly considered as among the most independent of traditional Muslim women, and they are often less materially dependent upon their husbands than their counterparts in industrialized societies. They are adaptable and flexible...very smart and assimilate very easily and change their mentality very quickly." (p. 49)

In Mauritania ethnic groups are based on a feeling of shared identity on the part of people who possess a common life style, language, religion, or other major cultural institution. Smale's study included the Guidimaka area, the site of this project, and her study included a good deal of material on the Soninke, the major group in the area. The Soninke (Sarakolle) are predominant in the Guidimaka region bordering eastern Senegal and Mali. Their social structure and organization closely resemble that of the Malian Bambara and stresses hard work, close cooperation and extremely light extended family relations under the authority of a patriarch. From the beginning of their history, they have beenclosely associated with male exploitation of migratory economic activities, either as traders or laborers. Local power was traitionally allotted and maintained by several powerful lineage groups.

Perhaps the greatest reversal they have suffered since independence is to see their region of Mauritania, which was in colonial time a favored commercial outlet to the river trade, become a backwater area now dependent on a marginal road system which links them to a distant coastal capital. (Introduction, p. ix)

"Among the Soninke men there is an organized migration system, with the men migrating to France or to Senegal, leaving the women and children behind in the Guidimaka area. "The Soninke are the thoroughbreds of the river migrants, recruited by maritime enterprises and later as manual laborers, and holding, in fact, the largest ethnic representation among blank African migrant workers in France. Both their migrant social structure in the foyers of Paris and their village social structure are adapted to streamlined economizing and substantial village transfers of wealth. The system is reinforced by social institutions related to emigration. These include patriarchal management of the compound, and social pressures emanating from the strident competion among male migrants."

"Despite the adaptability of Soninke society, the rigid adherence to these social institutions has contributed to a steady deterioration of the Guidimaka's agricultural production. In this region, more so than in the western river region, agricultural production is sustained by women and servile producers of grains, peanuts and some vegetables. There are striking contradictions in enforcing property indivisibility over migrants' individual enrichment, and in retaining a patriarchal decision-making system over a heavily female and servile agricultural force.

Although women theoretically retain the product of their labor on their own fields, more and more of their individual production is destined for family use because of the low production of family fields and the rising cost of living. While the overwhelming portion of the family monetary revenues is provided by the migrant males, their lack of specialization and low wage on the European scale cannot keep pace with the rising costs of maintaining the consumption patterns they bring home." (p. 53)

"The Soninke preserve a historical image of rigid patriarchal social structures, institutionalized male migration, and, for women, comparative agricultural expertise. Indivisible fields are separated into collective fields (te-khore), men's fields (salumo) and women's fields (ya-kharinte). Work time is regulated closely between these fields; each morning, all family members work on the te-khore, each afternoon men collectively work the salumo by the order of genealogical seniority, and on Fridays, youngest men are free to work their own salumo."

"Soninke women engage in various mutually supportive activities, defined closely by age-sets, which in village areas are categorized by three to four year intervals. One woman interviewed recounted that her age-set saved together in order to purchase agricultural tools and plows for a field they had succeeded in obtaining. The women married, and, obliged to follow their husbands who departed for the city, they abandoned their enterprise. While

women tend to cultivate and dispose of their income individually, they are included to form work-groups and savings associations for agricultural investment. For the Soninke women, agriculture is a profession: without her cultivation a Soninke woman is nothing...agriculture is her 'metier'." (p. 30) Smale comments on Soninke women's changing conditions: "Tinker writes that 'the persistence of sex segregation both in occupations and responsibilities means that even the woman (of the family) is expected to provide food, clothes and education for her children and food for her husband from her own separate budget.' However, 'as men's earnings have increased through cash crops or urban employment, they often feel no obligation to increase their share of child support.' In other words, in certain societies where the division of labor and duties is very strict, the increase of men's income does not necessarily relieve women's burden.

"Among the Soninke, the War on Want*noted that 'women are producing more and more sorghum at the expense of their former traditional crops (peanuts, cotton, indigo),' and in some cases, 'the total grain production from the women's plots was much higher than that of the collective field' (p. 114, 1977). In the Soninke production system, although women theoretically retain rights over the disposal of produce from their own fields, the Kagumme** may appropriate produce in periods of shortfall. Accordingly, as collective yield production declines through systematic loss of male labor, dipping into women's production becomes more necessary in order to sustain consumption levels."

"Soninke women...consider the men's responsibility to provide staple foods and housing. The women claim that money sent back to them is far from enough to cover costs now that grain production has faltered and prices have risen. During the rainy season, they produce soap, weave and tint cloth, weave mats, repair houses, and take care of household ruminants and chickens. They are responsible, in theory, for the provision of soap, mats, clothes and their sauces for daily dishes. In the past, their home production was sufficient to meet these needs. Now, with the decline in productivity of their fields and the scarcity of the tree used for making soap (myrobalan), they grow millet in order to sell it for the purchase of household necessities.

The women of the Katamange village feel that the woman whose production is falling has no more place in the community, and were indignant that the project of the region addresses men as cultivators, but not the women. In the past, however, male extension agents have been prohibited by village elders and marabouts from speaking directly with women cultivators. Further, in the Selibaby area, while the project last year provided the only crop of vegetables, the vegetables could not be sold. While men produced the vegetables, women, unused to the use of these vegetables in the preparation of sauces, felt no inclination to purchase them. The introduction as a men's crop of vegetables for use in sauces is contrary to the usual division of production and responsibility. Since the women prepare and provide the sauces, they must either: 1) be encouraged to produce the vegetables themselves; or, 2) be convinced of the efficacy of using them in their meals, or both." (p. 73-74)

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*Phillip Bradley et al., The Guidimaka Region of Mauritania: A Critical Analysis Leading to a Development Project, a study sponsored by War on Want (United Kingdom), May 1977.

**Kagumme--head of the household or family community.

In her section, "Observations and Project-Related Recommendations," Smale points out:

> "The major drought-period focus of government and donor assistance efforts has been the provision of food and medical services and goods to urban and rural populations. Women have been addressed, through the extension of health care and nutritional services, as part of a services recipient population.... Projects addressing women as income earners and producers have received meager support." (p. 95)

She adds: "Rural women, who are required to remain with land, housing and children, are necessarily the fulltime residents of rural areas. For this reason women should be provided with new techniques, training and inputs in order to sustain production in the absence of men and in order to train their own children as future producers. Otherwise, women, like men, may choose to definitively abandon rural areas." (p. 98)

As to the use of extension agents, Smale states: "In rural areas, use of male extension workers is not likely to be welcomed by rural women as immediately beneficial to them. Certain sets of women's problems may be better addressed through female extension workers. Currently, young women in some areas express a desire to work in extension positions. With either male or female extension workers, government institutions often experience difficulty in obligating trainees to voyage to and work in the interior, where the need for fulltime workers is great." (p. 107)

Therefore, Smale suggests: "Young women should be trained in the interior with the intent of working in their region of origin. Courses should be specific (vegetable plot production, marketing, accounting) and they should be short-term. These women may be employed through Women's Educational Centers as agricultural animists, whose duties may not be so much to instruct, but rather to offer fulltime help in locating clinets and procuring transport and inputs for women producers." (p. 107)

The project proposes to recruit, hire and train two local Mauritanian women to assist the American female team member. The American team member will travel with the Mauritanian women. This is sanctioned by the community. It asserts their professionalism and provides the sanction and protection required by traditional community standards.

As the question of women's use of money and ability to enter into credit transactions required, in some cases, for the purchase of the mills and other machines and equipment, Smale points out that there is a tradition behind and experience with credit. In her section on savings and investment networks, she points out that: "River women are currently involved in a range of savings and investment networks. These networks are usually located in neighborhoods among women who share a common trusts and interest, providing a unique base for small community action." (p. 106) These associations or networks provide a basis on which to build the revolving fund of the project for acquiring equipment.

PROPOSED BUDGET FOR WOMEN IN DEVELOPMENT

IN THE GUIDIMAKHA

1.	One expert/consultant (Christine PEREY)	
	22 months at $ 15,000/year	$ 27.500
2.	One Land Rover station wagon	
	with 25% spare parts	$ 25.000
3.	Two motorcycles (Suzuki 125)	
	with 25% spare parts	$ 3.600
4.	One driver	
	22 months at 7,000 UM/month (including 15% CNSS)	$ 3.800
5.	P.O.L. ; 600 litres/month at 35,5 UM/litre for 22 months ..	$ 11.000
	oil	$ 1.000
	miscellaneous	$ 1.000
6.	Two interpreters/rural extension agents	
	2 x 22 months x 6.000 UM/month (including 15% CNSS)	$ 6.800
7.	Revolving Funds:	
	7 a - grain threshers & winnowers (10 x $ 250)	$ 2.500
	7 b - grinders, mills (10 x $ 250)	$ 2.500
	7 c - peanut shellers (10 x $ 250)	$ 2.500
8.	Materials for experiment with improvements of local techniques/tools with local materials (e.g. water carrying, food processing, storage, prep, etc...)	$ 2.000
9.	Visual aids and office materials (including a typewriter English)	$ 2.000
10.	2 months nutrition-expert services	$ 13.000
	1 roundtrip - U.S.-Nouakchott ..... $ 2.000	
	Transport in U.S. and Mauritania ..... $ 300	
	10 in Nouakchott per diem @ $77/day ..... $ 770	
	50 days in Selibaby @ $15/day per diem .. $ 750	
	60 days consultation fee @ $150/day ..... $ 9.000	
	Telephone, supplies, misc. ..... $ 180	
	TOTAL	$ 104.200
	ROUNDED TO	$ 106.000

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AID 1020-28 (1-72)

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK (REVISED)

Life of Project:
From FY 79 to FY 83
Total U.S. Funding $6,151,000
Date Prepared: 5/13/81

Project Title & Number: Mauritania, Guidimaka Integrated Rural Development (682-0201)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: The broader objective to which this project contributes: To promote expansion in domestic food production, productivity and consumption Sub-Goal: Increase agricultural and livestock production.	**Measures of Goal Achievement:** 1) Increased per capita food production. 2) Increased per capita domestic food consumption. Measures of Sub-Goal Achievement: 1) Increased domestic agriculture & and livestock production. 2) Increased per capita domestic agriculture and livestock production.	1) Statistics and surveys of food production and consumption by other donor agencies. 2) GIRM statistics, where available and valid. Sub-Goal Means of Verification: 1) Surveys as above. 2) GIRM statistics, if available, or reliable.	**Assumptions for achieving goal targets:** 1) Continued GIRM priority support to this sector. 2) Population growth rate does not increase. 3) No major natural disasters. Sub-Goal Assumptions: 1) GIRM will support expanded projects using capabilities. 2) GIRM will support favorable trade, price, tax policies.
Project Purpose: Develop technically and socially sound methods for increasing crop and animal yields among sedentary inhabitants of the 10th Region. Carry out on-farm trials of proven technologies and techniques as preparation for broader extension efforts.	**Conditions that will indicate purpose has been achieved: End of project status.** 1) Improved agronomic/livestock techniques demonstrated to 2500 farmers in the DIZ by on-farm trials. Participants from each DIZ village. 2) GIRM animal health services fully operational. 3) 27 extension workers & animal trainers working full-time (18 of former, 9 of latter). 4) Tree planting for multiple uses.	1) Project and contractor reports; results of evaluations. 2) GIRM records and results of evaluations. 3) Project, contractor reports and results of evaluation. 4) Site visits, project and contractor reports; results of evaluations. NOTE: Evaluations to be done in December 1981 and at end of project.	**Assumptions for achieving purpose:** 1) Herders/farmers responsive to price incentives. 2) GIRM places no further disincentives on agriculture. 3) Qualified resident staff personnel can be found who are willing to reside in Selibaby who can interact successfully with indigenous population.
Outputs: 1) Demonstration sites established; improved agronomic, livestock management, range management, and vegetable/fruit production practices tested. 2) Farmer participants trained in new technologies and techniques. 3) Nursery for tree seedlings established and tree planting requirements carried out. 4) Small infrastructure projects carried out. 5) Competent animal health services es established. 6) GIRM personnel trained in livestock, agronomy, extension methods, animal health and environmental protection.	**Magnitude of Outputs:** 1) Demonstration sites established: three 6-8 ha. agronomic sites, one 400 ha. livestock demonstration unit 2) 150 farmer participants thoroughly trained. 3) 100,000 trees planted. 4) 20 small infrastructure projects. 5) Functioning GIRM livestock service in 10th Region. 6) 27 extension workers trained.	ALL: Staff reports, site visits, GIRM records, and evaluations.	**Assumptions for achieving outputs:** 1) Farmers/herders will accept changes from traditional agricultural and livestock practices. 2) Counterparts will remain in Selibaby after training completed. 3) GIRM will continue to budget sufficient funds to assure outputs. 4) Equipment supplied will continue to be used for the purpose for which intended and not diverted.
Inputs: U.S. -- technical assistance, commodities, vehicles, training. GIRM -- personnel, land, livestock.	**Implementation Target (Type and Quantity)** U.S.: 1) 276 p.m. of L-T advisory services 5 p.m. of TDY services. 2) 9 Landrovers, two 7-ton trucks, 1 tractor, 1 bulldozer, 20 motorcycles. 3) Other equipment, supplies, and construction. GIRM: 1) 7-16 livestock, ag extension, and environmental protection agents. 2) 500+ ha. of range/crop land. 3) 50 cattle; 100 small ruminants.		**Assumptions for providing inputs:**

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ANNEX B

Annex C

INITIAL ENVIRONMENTAL EXAMINATION

Project Location:

In a Direct Intervention Zone of 20 kilometers radius surrounding Selibaby, the capital of the Guidimaka Region in Mauritania.

Project Title:

Guidimaka Integrated Rural Development Project

Life of Project Funding: Fiscal Years 1977-1982, $6,151,000

IEE Prepared by: Date:

Anthony H. Wirtz, RD/Nouakchott March 8, 1981

Revised by: James S. Hester, AFR/DR/SDP May 19, 1981

Environmental Action Recommended:

Negative Determination

Concurrence:

John A. Hoskins
Mission Director
USAID/Mauritania

Bureau Environmental Officer's Decision:

Approved: _____

Disapproved: _____

Date: _____

Clearance:
GC/AFR _____

I. Description of Project

Overall climatic conditions coupled with environmental deterioration in Mauritania have severely limited the economic opportunities of the rural population in two third's of the country, most of which are dependent on subsistence agriculture and livestock. However, the overall situation is much more favorable in the southern third of the country, particularly in the Guidimaka Region which is located in the southcentral part of the country and which represents more potential for increasing agricultural/livestock production due to its relatively heavy rainfall, reasonably good soil conditions and large resident population. It's for these reasons that the Guidimaka Region was chosen as the site for this project.

Despite the Guidimaka Region's recognized potential for successful development as an agriculturally productive region, there remained a lack of sufficient knowledge about proven techniques/methods to warrant the initiation of extension efforts. For this reason, the project was originally approved in 1977 as the first phase of a long-term effort to assist the GIRM increase food production, through the development of technically and socially sound methods for increasing crop and animal yields among sedentary inhabitants of the Guidimaka Region and generation of necessary data required to launch an expanded extension program. To accomplish this purpose, the project was designed to test a series of interventions in agronomy (including animal traction and crop rotation), range management, livestock control and animal health in order to determine the acceptability of these interventions by the local population. Based on the results of the test interventions, a firm knowledge basis would then be made available for planning further activities. These interventions are tested and demonstrated by a joint expatriate-GIRM team; and fully integrated with activities of the local agriculture, livestock and environmental protection services.

USAID finances technical assistance, goods and services required for the testing of interventions at the various sites in conjunction with GIRM Rural Development personnel. Interventions are now tested in a Direct Intervention Zone (D.I.Z.), an area covering 32 villages and camps within a 20 km radius of Selibaby, the capital of the Guidimaka Region.

After one year of project implementation (field activities commenced in 4/79)periodic evaluations by USAID/GIRM project personnel revealed that both parties were sufficiently confident in the technical reliability and social acceptability of the proposed interventions to begin on-farm trials with willing farmers and herders in the Guidimaka Region as part of a first phase rather than wait for a follow-on project for the extension component. An evaluation was held in May, 1980 to evaluate progress to date and make recommendations on future actions. The recommended changes, which have been incorporated into a Project Paper Amendment, are in three basic areas: first, redefinition of project's purpose to include on-farm trials as well as development of technically and socially sound methods for increased food production among same target population and limited (D.I.Z.) area and the training of villagers as extension workers as well as animal trainers to carry them out; secondly a streamlining of categories of interventions to concentrate on such key areas as agriculture and animal traction, livestock, range management and environmental protection and the elimination or deemphasis on less important ones; and third providing for administrative and logistic changes in the implementation of the project.

The project seeks to improve agricultural production without the use of expensive commercial inputs, hence animal traction is utilized instead of tractors; use of manure, crop rotation and intercropping is being extended instead of promoting commercial fertilizers.

No pesticides are provided to farmers by the project, but companion planting is under consideration as a project intervention to help control insect damage. The goal is improved crop/animal production along with an improved environment.

It should be mentioned that the introduction of on-farm trials and other changes in interventions does not change the experimental nature of this project.

II. Examination of Nature, Scope and Magnitude of Environmental Impacts:

A. Land Use

1. Changing the character of the land through:

a. Increasing the population of people or animals in an area. Although the project will gradually improve living standards there should be no significant in-migration of people. There is presently a large out-migration to urban areas and abroad and the improvement of the economy will hope-

fully slow this migration. Animal numbers will be adjusted to the carrying capacity of the range.

b. Extracting of Natural Resources such as minerals or water. No natural mineral resources will be extracted. Wells dug or improved in the DIZ will be multi-purpose for drinking and culinary use as well as for the watering of animals and to a lesser extent for watering family vegetable plots by hand. Effect of the wells on drawdowns from acquifers will not be significant as no irrigation systems are involved.

c. Land Clearing. Land clearing is insignificant and consists only in clearing overgrown former agricultural land for project demonstration sites and providing combination roads and firebreaks in the project range demonstration site.

d. Changing the character of the soil.

There will be no change in the character of the soil except that present agricultural land will be improved by the addition of manure through tillage.

2. Altering some of the significant natural defenses provided by an area. Tree and shrub planting for shade, natural fencing and forage will increase natural defenses by stabilizing soils as will controlled grazing.

3. Foreclosing important and better uses of land.

The lands to be affected by the project are best suited for the planned interventions. No wildlife habitats will be altered or destroyed and no construction will foreclose use of the land. Every intervention is designed to conserve and protect the land.

4. Jeopardizing man or his works because either is put into a zone of potential disaster. The project is in the Sahelian zone of Mauritania where people have been living for centuries. The only known potential disaster is another prolonged period of drought. Project interventions are designed to help the area and its people increase the chances of surviving such another disastrous occurrence.

B. Water Quality

1. Changing the physical state of water. There will be no change in the physical state of the water in the project. No deforestation is to take place and there will be no sedimentation or contamination of water used or obtained for project purposes.

2. Changing the chemical or biological states of the water. There will be no change in the chemical or biological states of the water. There are no plans to procure or use any pesticides in the extension of project interventions.

C. Atmosphere

1. Air Additives. No air additives of any kind will be introduced to the project area.

2. Air Pollution. No air will be polluted by the project as no major pollutants are incorporated.

3. Noise Pollution. Noise pollution will not be a problem.

D. Natural Resources

1. Diversion, storage or increased use of water. There will be no diversion of water and only very minor storage of rainwater through the use of catchment basins on the grazing reserves.

2. Irreversible or inefficient commitments of natural resources. There will be no irreversible or inefficient commitments of natural resources. The project conserves the natural resource base--the land and its vegetation.

E. Cultural

1. Altering or destroying important physical symbols of a culture. There will be no alteration or destruction of important cultural symbols.

2. Diluting or adulterating the indigenous culture and traditions. As with most projects, there will be requirements for changes put on some of the cultural practices, for example, introducing crop rotation and use of animal traction.

These required changes will not have any negative effect on traditional cultural structures.

F. Socioeconomic

1. Changes in patterns of economic growth and and employment. The Project will result in increased food production and improved economic growth through crop/range interventions. This is expected to occur gradually over many years.

2. Movement, resettlement, or changes in population. Improved economic conditions will gradually lessen the present pronounced out-migration of male laborers seeking work in Mauritanian urban areas and abroad.

3. Changes in cultural patterns that could affect socioeconomic patterns in a major way. There will be no changes required which will affect the socioeconomic patterns in a major way. Production/economic changes will be introduced gradually through the traditional cultural structures to limit any potential for adverse impact.

G. Health

1. Altering or destroying a natural environment. There will be no destruction of a natural environment. The only alterations will be the renegeration of lost vegetative cover on rangeland, improved soil in cropland and the planting of trees and shrubs for shade, forage and natural fencing.

2. Eliminating an element in an ecosystem. No ecosystem elements are in danger of being eliminated.

3. Effect on exposure to water-borne diseases. A number of catchment basins or stock ponds will be dug for the range management component of the project to provide water for the project's small cattle herd. These basins will be dug from farm villages or camps (more than 15-20 km) where there is grass but usually no availble water. There will be little effect on the population from increased mosquito breeding. With

regard to schstosomiasis, medical personnel in Selibaby indicate that little schistosomiasis is present in the dry zones of the region, where the catchment basins will be built. There will be little or no increased incidence of schistosomiasis as a result of the catchment basins.

H. General

1. Activities that will affect the United States or other nations. There are no significant impacts of regional or international concern or interest attached to this project.

2. Activities that are matters of controvery locally, nationally or globally. There are no activities of a controversial nature locally, nationally, or globally.

3. Activities that are part of a longer program whose total effect would require an appraisal of environmental impacts. The project is complete as described in the project paper. The experience gained could eventually provide the basis for similar projects in other areas of Mauritania.

III. Pesticide Risk-Benefit Analysis

A. Introduction

The Guidimaka project amendment will be using a pesticide on its small herd of cattle to control ticks and Gaul flies. The pesticide requested in Lindane which is sold locally under the brand name Lindix. Lindane, the gamma isomer of BHC, is the only form of BHC which is still allowed to be used by the USEPA. This pesticide has been successfully used in the first phase of the project and is requested for this amendment because of a continuing need.

B. Analysis

1. USEPA Registration Status. Lindane is registered for the same or similar use in the U.S.

2. Basis for selection. Lindane has been used to control ticks and Gaul flies on the project's cattle since the beginning of the main project. It has been found completely effective and no adverse health effects on those handling it

have been observed. Lindane is recommended for tick control on cattle in the U.S. as well.

3. Extent of integrated pest management program. At this time, there is no integrated pest management program developed in Mauritania for tick control.

4. Method of application and safety equipment. A rail fenced chute has been constructed on a barren mounded area, not near any streams or water courses. A mechanism is installed which is tripped by the cattle as they pass through the chute and automatically sprays the Lindane onto them. No people are near the spray. This operation is carried out as needed which usually means once every one to two months. All pesticide handlers have and wear goggles, gloves and smocks and are under direct supervision of project specialists. An added safety feature will be the building of a low earthen berm all around this chute area. This will prevent any Lindane residues from being washed off the site during the rain.

5. Long-term toxicological hazards and mitigative measures. Lindane is a cumulative poison in humans and animals causing hepatic and renal lesions and disturbances of the central nervous system. Infants are especially susceptible and are exposed primarily through milk. The average daily intake for humans, established by the World Health Organization is 0.01 mg/kg body weight. The rate of spraying the cattle in this project would not cause these concentrations of Lindane in the cow's milk. Lindane breaks down into components by soil microbial and chemical actions and by photo-oxydation. In a warm tropical climate, these processes should be accelerated. In addition, the small area involved with its berm around it will severely limit the impact area. People will undergo minimal exposure to the spray since the operation is semi-automated.

6. Efficacy of proposed use. Lindane has been used successfully in this project for this use without any noticed adverse effects.

7. Compatability with target and non-target eco-systems. Lindane is highly toxic to aquatic eco-systems, but as stated above, precautions have been taken to keep Lindane out of any water. The only predator of ticks are birds which sit on the cattle. These birds could be poisoned by eating the sprayed ticks but it would be unlikely that the birds would find many ticks on the cattle since the

cattle are sprayed whenever they begin to get reinfested. A part of the monitoring component of this project will be to observe this and determine the extent of the potential problem.

8. Conditions under which pesticide will be used. The Lindane will be used in an area which is a previously non-productive, non-vegetated laterite mound. There is no water or water courses on or near the site. The spraying chute area is located within a 480 hectare fenced experimental farm area and no wildlife, other than birds, has been present.

9. Availability and efficacy of alternatives. There are no other chemical controls of ticks and Gaul flies which are as effective and as safe as Lindane. The alternative is to use nothing and accept lower productivity and higher mortality. The experimental nature of this project will determine which alternative is best for Mauritania.

10. Requesting country's regulatory ability. Mauritania has no regulatory ability for pesticides. Since the requested pesticide is under complete control of the project personnel, who have access to expertise from the USAID/Mauritania's Regional Crop Protection Project's specialist, this will suffice.

11. Training in proper use. The above mentioned crop protection specialist will be invited to give periodic advice and training talks to Guidimaka personnel.

12. Monitoring. Records of insecticide spraying have been and will continue to be kept.

IV. Recommendation for Environmental Action

The total impact of proposed changes in this project will not result in any adverse environmental consequences. Rather the project activities, which are of an experimental nature, should have a positive effect. Therefore, a negative determination is requested.

IMPACT IDENTIFICATION AND EVALUATION FORM

Impact Areasand -Areas	Impact Identification and Evaluation *
A. LAND USE	
1. Changing the character of the land thoough:	
a. Increasing the population	N
b. Extracting Natural Resources	N
c. Land clearing	N
d. Changing soil character	N
2. Altering natural defenses	M+
3. Foreclosing important uses	M+
4. Jeopardizing man or his works	N
B. WATER QUALITY	
1. Physical state of water	N
2. Chemical and biological states	N
3. Ecological balance	N
C. ATMOSPHERIC	
1. Air additives	N
2. Air pollution	N
3. Noise pollution	N
D. NATURAL RESOURCES	
1. Diversion or altered use of water	N
2. Irreversible commitments	N
E. CULTURAL	
1. Altering physical symbols	N
2. Dilution of cultural traditions	N
F. SOCIOECONOMIC	
1. Changes in economic patterns	L+
2. Changes in population	L+
3. Changes in cultural patterns	N
G. HEALTH	
1. Changing a natural environment	L+
2. Eliminating an ecosystem element	N
3. Effect on exposure to water borne diseases	L
H. GENERAL	
1. International impacts	N
2. Controversial impacts	N
3. Larger impacts	N

*Use the following symbols:

N - No environmental impact
L - Little environmental impact
M - Moderate environmental impact
H - High environmental impact
U - Unknown environmental impact

ANNEX D

5C(1) - COUNTRY CHECKLIST

Listed below are, first, statutory criteria applicable generally to FAA funds, and then criteria applicable to individual fund sources: Development Assistance and Economic Support Fund.

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

No 1. FAA Sec. 116. Can it be demonstrated that contemplated assistance will directly benefit the needy? If not, has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights?

No 2. FAA Sec. 481. Has it been determined that the government of the recipient country has failed to take adequate steps to prevent narcotics drugs and other controlled substances (as defined by the Comprehensive Drug Abuse Prevention and Control Act of 1970) produced or processed, in whole or in part, in such country, or transported through such country, from being sold illegally within the jurisdiction of such country to U.S. Government personnel or their dependents, or from entering the U.S. unlawfully?

Yes 3. FAA Sec. 620(b). If assistance is to a government, has the Secretary of State determined that it is not dominated or controlled by the international Communist movement?

No 4. FAA Sec. 620(c). If assistance is to a government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) the debt is not denied or contested by such government?

No 5. FAA Sec. 620(e)(1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?

No 6. FAA Sec. 620(a), 620(f), 620D; FY 80 App. Act. Sec. [511, 512 and 513.] Is recipient country a Communist country? Will assistance be provided to Angola, Cambodia, Cuba, Laos or Vietnam? Will assistance be provided to Afghanistan or Mozambique without a waiver?

No 7. FAA Sec. 620(i). Is recipient country in any way involved in (a) subversion of, or military aggression

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against, the United States or any country receiving U.S. assistance, or (b) the planning of such subversion or aggression?

No

8. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction, by mob action, of U.S. property?

N/A

9. FAA Sec. 620(l). If the country has failed to institute the investment guaranty program for the specific risks of expropriation, inconvertibility or confiscation, has the AID Administrator within the past year considered denying assistance to such government for this reason?

N/A

10. FAA Sec. 620(o); Fishermen's Protective Act of 1967, as amended, Sec. 5. If country has seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters,

a. has any deduction required by the Fishermen's Protective Act been made?

b. has complete denial of assistance been considered by AID Administrator?

No

11. FAA Sec. 620; FY 80 App. Act Sec. [518.] (a) Is the government of the recipient country in default for more than six months on interest or principal of any AID loan to the country? (b) Is country in default exceeding one year on interest or principal on U.S. loan under program for which App. Act appropriates funds?

N/A

12. FAA Sec. 620(s). If contemplated assistance is development loan or from Economic Support Fund, has the Administrator taken into account the percentage of the country's budget which is for military expenditures, the amount of foreign exchange spent on military equipment and the amount spent for the purchase of sophisticated weapons systems? (An affirmative answer may refer to the record of the annual "Taking Into Consideration" memo: "Yes, taken into account by the Administrator at time of approval of Agency OYB." This approval by the Administrator of the Operational Year Budget can be the basis for an affirmative answer during the fiscal year unless significant changes in circumstances occur.)

Yes*

13. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?

*Diplomatic relations have been resumed and a bilateral assistance agreement currently is being negotiated.

Mauritania regularly meets is UN obligations.

14. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget?

No

15. FAA Sec. 620A, FY 80 App. Act, Sec. [521.] Has the country granted sanctuary from proscription to any individual or group which has committed an act of international terrorism? Has the country granted sanctuary from prosecution to any individual or group which has committed a war crime?

No

16. FAA Sec. 666. Does the country object, on basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. there to carry out economic development program under FAA?

No

17. FAA Sec. 669, 670. Has the country, after August 3, 1977, delivered or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards? Has it detonated a nuclear device after August 3, 1977, although not a "nuclear-weapon State" under the nonproliferation treaty?

B. FUNDING SOURCE CRITERIA FOR COUNTRY ELIGIBILITY

1. Development Assistance Country Criteria.

Yes

a. FAA Sec. 102(b)(4). Have criteria been established and taken into account to assess commitment progress of country in effectively involving the poor in development, on such indexes as: (1) increase in agricultural productivity through small-farm labor intensive agriculture, (2) reduced infant mortality, (3) control of population growth, (4) equality of income distribution, (5) reduction of unemployment, and (6) increased literacy.

N/A

b. FAA Sec. 104(d)(1); IDC Act of 1979. If appropriate, is this development (including Sahel) activity designed to build motivation for smaller families through modification of economic and social conditions supportive of the desire for large families in programs such as education in and out of school, nutrition, disease control, maternal and child health services, agricultural production, rural development, assistance to urban poor and through community-based development programs which give recognition to people motivated to limit the size of their families?

2. Economic Support Fund Country Criteria.

No — a. FAA Sec. 502B. Has the country (a) engaged in a consistent pattern of gross violations of internationally recognized human rights or (b) made such significant improvements in its human rights record that furnishing such assistance is in the national interest?

N/A — b. FAA Sec. 533(b). Will assistance under the Southern Africa program be provided to Angola, Mozambique, Tanzania, or Zambia? If so, has President waived prohibition against the assistance by determining that such assistance will further U.S. foreign policy interests?

N/A — c. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made?

No — d. FY 80 App. Act Sec. [510.] Will assistance be provided for the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights?

N/A — e. FAA Sec. 620B, P.L.94-329 Sec. 406. Will ESF be furnished to Argentina or Chile?

5C(2) - PROJECT CHECKLIST

Listed below are statutory criteria applicable generally to projects with FAA funds and project criteria applicable to individual funding sources: Development Assistance (with a subcategory for criteria applicable only to loans); and Economic Support Fund.

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

A. GENERAL CRITERIA FOR PROJECT

(a) An advice of program change was submitted May 19, 1981.
(b) Yes

1. FY 80 App. Act Unnumbered; FAA Sec. 634A; Sec. 653(b); (a) Describe how authorizing and appropriations Committees of Senate and House have been or will be notified concerning the project; (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than $1 million over that figure)?

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

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N/A

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

N/A

4. FAA Sec. 611(b); FY 80 App. Act Sec. [501.] If for water or water-related land resource construction, has project met the standards and criteria as per the Principles and Standards for Planning Water and Related Land Resources dated October 25, 1973?

N/A

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

No

6. FAA Sec. 209. Is project susceptible of execution as part of regional or multilateral project? If so why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.

See (*) below.

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

Project will finance purchase of services and commodities from US private firms.

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

Mauritania's contribution is the maximum possible, given its relative poverty.

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

No

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

* This project will improve the efficiency of agriculture by providing more productive technical packages which will increase cereal, fruit, vegetable, and livestock production.

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Yes

11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

N/A

12. FY 80 App. Act Sec. [521.] If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity?

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

The project will enable small producers with specific attention to women, to increase food production at a minimum of additional cost and through appropriate technologies; will assist the formation of village veterinary cooperatives; and will help Mauritania make progress in reducing its food deficit.

a. FAA Sec. 102(b); 111; 113; 281a. Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries?

N/A: Sahel funds being used.

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

(1) [103] for agriculture, rural development or nutrition; if so (a) extent to which activity is specifically designed to increase productivity and income of rural poor; [103A] if for agricultural research, full account shall be taken of the needs of small farmers, and extensive use of field testing to adapt basic research to local conditions shall be made; (b) extent to which

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assistance is used in coordination with programs carried out under Sec. 104 to help improve nutrition of the people of developing countries through encouragement of increased production of crops with greater nutritional value, improvement of planning, research, and education with respect to nutrition, particularly with reference to improvement and expanded use of indigenously produced foodstuffs; and the undertaking of pilot or demonstration programs explicitly addressing the problem of malnutrition of poor and vulnerable people; and (c) extent to which activity increases national food security by improving food policies and management and by strengthening national food reserves, with particular concern for the needs of the poor, through measures encouraging domestic production, building national food reserves, expanding available storage facilities, reducing post harvest food losses, and improving food distribution.

(2) [104] for population planning under sec. 104(b) or health under sec. 104(c); if so, a. extent to which activity emphasizes low-cost, integrated delivery systems for health, nutrition and family planning for the poorest people, with particular attention to the needs of mothers and young children, using paramedical and auxiliary medical personnel, clinics and health posts, commercial distribution systems and other modes of community research.

(4) [105] for education, public administration, or human resources development; if so, extent to which activity strengthens nonformal education, makes formal education more relevant, especially for rural families and urban poor, or strengthens management capability of institutions enabling the poor to participate in development; and b. extent to which assistance provides advanced education and training of people in developing countries in such disciplines as are required for planning and implementation of public and private development activities.

(5) [106] for technical assistance, energy, research, reconstruction, and selected development problems; if so, extent activity is:(i) (a) concerned with data collection and analysis, the training of skilled personnel, research on and development of suitable energy sources, and pilot projects to test new methods of energy production; and (b) facilitative of geological and geophysical survey work to locate potential oil, natural gas, and coal reserves and to encourage exploration for potential oil, natural gas, and coal reserves.

(ii) technical cooperation and development, especially with U.S. private and voluntary, or regional and international development, organizations;

(iii) research into, and evaluation of, economic development processes and techniques;

(iv) reconstruction after natural or manmade disaster;

(v) for special development problems, and to enable proper utilization of earlier U.S. infrastructure, etc., assistance;

(vi) for programs of urban development, especially small labor-intensive enterprises, marketing systems, and financial or other institutions to help urban poor participate in economic and social development.

Yes — c. [107] is appropriate effort placed on use of appropriate technology? (relatively smaller, cost-saving, labor using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor.)

Strict adherence to the 75% rule is not required of SDP-funded projects. — d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or has the latter cost-sharing requirement been waived for a "relatively least developed" country)?

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

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

Yes — g. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?

*The project aims at increasing food production in environmentally acceptable ways; it strengthens livestock and agricultural experimentation capacities of Mauritanians; and it trains extension agents who will enable small producers to gain more control over their economic environment.

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2. Development Assistance Project Criteria (Loans Only)

N/A a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan, at a reasonable rate of interest.

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

3. Project Criteria Solely for Economic Support Fund

N/A a. FAA Sec. 531(a). Will this assistance promote economic or political stability? To the extent possible, does it reflect the policy directions of section 102?

N/A b. FAA Sec. 531(c). Will assistance under this chapter be used for military, or paramilitary activities?

5C(3) - STANDARD ITEM CHECKLIST

Listed below are statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by imposing limits on certain uses of funds.

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. Procurement

Yes 1. FAA Sec. 602. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed?

Yes 2. FAA Sec. 604(a). Will all procurement be from the U.S. except as otherwise determined by the President or under delegation from him?

N/A 3. FAA Sec. 604(d). If the cooperating country discriminates against U.S. marine insurance companies, will commodities be insured in the United States against marine risk with a company or companies authorized to do a marine insurance business in the U.S.

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N/A 4. FAA Sec. 604(e). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity?

Yes 5. FAA Sec. 608(a). Compliance with requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S.-flag commercial vessels to the extent that such vessels are available at fair and reasonable rates.

Yes 7. FAA Sec. 621. If technical assistance is financed, to the fullest extent practicable will such assistance, goods and professional and other services from private enterprise, be furnished on a contract basis? If the facilities of other Federal agencies will be utilized, are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

Yes 8. International Air Transport. Fair Competitive Practices Act, 1974. If air transportation of persons or property is financed on grant basis, will provision be made that U.S.-flag carriers will be utilized to the extent such service is available?

Yes 9. FY 80 App. Act Sec. [505.]. Does the contract for procurement contain a provision authorizing the termination of such contract for the convenience of the United States?

B. Construction

N/A 1. FAA Sec. 601(d). If a capital (e.g., construction) project, are engineering and professional services of U.S. firms and their affiliates to be used to the maximum extent consistent with the national interest?

N/A 2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable?

Yes 3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed $100 million?

C. Other Restrictions

1. FAA Sec. 122(b). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter? — N/A

2. FAA Sec. 301(d). If fund is established solely by U.S.? contributions and administered by an international organization, does Comptroller General have audit rights? — N/A

3. FAA Sec. 620(h). Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries? — Yes

4. FAA Sec. 636(i). Is financing not permitted to be used, without waiver, for purchase, sale, longterm lease, exchange or guaranty of motor vehicles manufactured outside the U.S. — Yes

5. Will arrangements preclude use of financing:

a. FAA Sec. 104(f). To pay for performance of abortions as a method of family planning or to, motivate or coerce persons to practice abortions; to pay for performance of involuntary sterilization as a method of family planning, or to coerce or provide financial incentive to any person to undergo sterilization? — Yes

b. FAA Sec. 620(g). To compensate owners for expropriated nationalized property? — Yes

c. FAA Sec. 660. To provide training or advice or provide any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? — Yes

d. FAA Sec. 662. For CIA activities? — Yes

e. FY 80 App. Act Sec. [504.] To pay pensions, etc., for military personnel? — Yes

f. FY 80 App. Act Sec. [506.] To pay U.N. assessments? — Yes

g. FY 80 App. Act Sec. [507.] To carry out provisions of FAA section 209(d) (Transfer of FAA funds to multilateral organizations for lending.) — Yes

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Yes

h. FY 80 App. Act Sec. [511.] To finance the export of nuclear equipment, fuel, or technology or to train foreign nationals in nuclear fields?

Yes

i. FY 80 App. Act Sec. [515.] To be used for publicity or propaganda purposes within U.S. not authorized by Congress?

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ANNEX E

PROCUREMENT SCHEDULE

The original PP (p. 80, Annexes E and F) discussed implementation and logistic arrangements in some detail.

For the rest of the project's life, it is proposed that responsibility for procurement will lie with Experience, Inc., the present firm administering the technical assistance contract (having taken over from Pacific Consultants, Inc. in December, 1980).

Necessary waivers for non-U.S. origin vehicles and other commodities have been requested as part of the attached authorization package for this project amendment.

A list of major commodities and equipment to be procured under the remaining life of this project follows:

Item	Quantity	Estimated Cost	Source
1. D-6 bulldozer	1	$ 36,000	USA
2. 7T truck	1	50,000	West Germany
3. 125cc motorcyles	12	36,000	Japan
4. 4WD vehicles	4	100,000	United Kingdom
5. catchment basin liners	3	20,000	USA
6. vet drugs & supplies		120,000	USA/Senegal
7. animal traction equip.		65,000	Senegal
8. camping equipment		3,000	USA
9. ag seeds, tools, supplies		20,000	USA/Senegal
10. range/forestry supplies		8,000	USA
12. generators	5	45,000	USA
13. air conditioners	10	6,000	USA
TOTAL		$539,000	

All prices delivered Nouakchott.

ANNEX F

SUBJECT: Mauritania Integrated Rural Development Project (682-0201) - Waiver Request

REFS: (A) Nouakchott 1070 (B) Nouakchott 881 (C) State 58877

Problem: Your approval is requested for a procurement source/origin waiver, from Geographic Code 000 (U.S. only) to Geographic Code 935 (Special Free World) for the purchase of animal traction equipment and agricultural inputs.

A. Cooperating Country: Mauritania

B. Nature of Funding: Grant 682-0201

C. Project: Mauritania Integrated Rural Development

D. Description of Goods:
1) Animal Traction Equipment
2) Local Seeds
3) Animal Feed, Supplies
4) Paint, bolts, nuts
5) Tools

E. Approximate Value: $150,000

F. Probable Source/Origin: 941 and 935 countries

Discussion: The authorized geographic code for this project is Code 000 and the cooperating country. During the course of project implementation, however, the Mission has found that limiting procurement of certain commodities to the authorized code would cause serious delays. U.S. procurement of the limited amount of commodities needed was determined to be impractical and too costly. None of the items to be procured were manufactured locally. The only reliable source for these commodities was in nearby Bakel, Senegal. Most of the items found in Bakel were of Code 935 origin.

Under Handbook 1, Supplement B, Chapter 5, Section 4B4b(7) a waiver may be granted in "such other circumstances as are determined to be critical to the success of project objectives". To achieve project objectives, this project must have adequate flexibility to procure the small amounts of project goods described above in a timely manner. These items are not available from the host country and the requirements in terms of volume, relative value, and frequency of delivery of such items makes consideration of U.S. procurement unrealistic. Goods of Code 941 and Code 935 source origin are available in nearby Senegal and procurement from that source will enable the project to be implemented in a timely manner. Accordingly, it is concluded that project objectives can be met only if procurement of commodities of Code 935 is permitted.

It is noted that the original PP had a prior waiver for $150,000 based on a similar justification.

SUBJECT: Mauritania Integrated Rural Development Project (682-0201); Source/ Origin and Proprietary Procurement Waiver for Vehicles

Problem: The Guidimaka project will require the procurement of Mercedes, Landrover, and Suzuki vehicles and spare parts. You are requested to authorize such procurement by granting:

1) A source/origin waiver from Geographic Code 000 (U.S. only) to Geographic Code 935 (Special Free World).

2) A waiver of the provisions of Section 636(i) of the FAA.

3) A proprietary procurement waiver.

FACTS:

(a) Cooperating Country: Mauritania

(b) Project: Guidimaka Integrated Rural Development Project (682-0201)

(c) Nature of Funding: Grant

(d) Source of Funding: SDP

(e) Description of Goods: One seven ton truck -- Mercedes MB 11/13
Four four-wheel drive Landrover vehicles
Twelve Suzuki motorcycles -- 125 cc
Appropriate and sufficient spare parts for the above vehicles

(f) Approximate Value: $160,000

(g) Probable Origins: Truck and spare parts -- Germany
Four wheel drive vehicles and spare parts -- Great Britain
Motorcycles and spare parts -- Japan

(h) Probable Sources: Germany, Great Britain, and Japan

Discussion

A. Source/origin Waiver

In accordance with AID Handbook 1B, procurement of commodities from Code 935 sources and of Code 935 origins under a grant financed project requires a waiver. Under Handbook 1B, Chapter 5Bb(2), a waiver may be granted if "the commodity is

not available from countries included in the authorized geographic code." The authority to make such a determination and grant a waiver has been delegated to you by AID Delegation of Authority No. 40.

Guidimaka project personnel will use the requested vehicles for a number of important project activities. The Mercedes MB 11/13 truck will be used to deliver project supplies purchased in Nouakchott and Bakel, Senegal, as well as to transport laborers from Selibaby to project sites. The Landrover vehicles will be used by project management personnel to manage and oversee project activities and to haul seeds and project personnel. The 125 cc Suzuki motorcycles will be used by all project personnel to visit participating farmers and villages where farmer training and group discussions are to take place, and to supervise activities on the three experiment sites, in the nursery and in vegetable garden areas.

Under earlier waivers approved for the project's PP, five four-wheel drive Landrover vehicles, one seven-ton Mercedes MB 11/13 truck, and eight 125 cc Suzuki motorcycles were purchased. These vehicles have been in constant use under the extremelydifficult road conditions in Mauritania. Experience has shown that vehicles normally withstand constant use in Mauritania for up to two years, after which time major overhaul or replacement vehicles are required. A careful review of the project requirements by USAID/Nouakchott has concluded that the vehicles requested under this waiver are required in order to avoid total vehicle breakdown under the project. A reliable complement of vehicles is crucial to project implementation because the project site is a small isolated area located approximately 325 miles southeast of the capital city, Nouakchott, with an extremely poor road network.

Four-wheel drive vehicles and seven ton trucks with adequate spare parts supplies and repair and maintenance services are not available from the United States or from Code 941 countries. There are no U.S.-manufactured 125 cc motorcycles. Therefore, the necessary criteria to permit purchase of vehicles of Code 935 origin are satisfied.

The origins of the truck, Landrovers, and motorcycles are Germany, Great Britain and Japan, respectively. Since procurement will be done through competitive practices, the source providing the least cost will be sought. Therefore, the source may be either local or a Code 935 country.

B. Waiver of Section 636(i)

In addition to the general source/origin limitations on the procurement of commodities, Section 636(i) of the FAA prohibits the procurement of vehicles of non-U.S. manufacture. However, the provisions of Section 636(i) may be waived when special circumstances permit it. Under Handbook 1B, Chapter 4C2d(1)(a), special circumstances are deemed to exist if there is an "inability of U.S. manufacturers to provide a particular type of needed vehicle." The authority to find such circumstances and grant a waiver has also been delegated to you by AID Delegation of Authority No. 40.

Since, as discussed in the source/origin context, U.S. manufacturers are unable to provide vehicles of the type needed for the Guidimaka project, the special circumstances criterion set forth above is satisfied.

C. Proprietary Procurement Waiver

In AID projects, proprietary procurement requires a waiver of the normal requirement for using formal competitive bid procedures. Under Handbook 15, Chapter 3C4c, a waiver may be justified by the following factors: (1) standardization; (3) compatibility with equipment on hand; and (5) service availability and dependability. Handbook 15, Chapter 3C4e(2) cites the appropriate Geographic Bureau as the AID/W approval office for proprietary procurement for projects.

The Guidimaka project currently has one seven-ton Mercedes MB 11/13 truck, Landrover vehicles and Suzuki 125 cc motorcycles and wishes to standardize its vehicles of each type in those brands. In addition, the new Mercedes seven-ton truck, as well as the Landrovers and Suzuki motorcycles would be compatible with the vehicles the project currently possesses. The project has developed a limited vehicle maintenance facility, whose personnel are familiar only with Mercedes, Landrover, and Suzuki vehicles. Finally, mechanics in the Selibably area as well as in Mauritania are generally familiar only with the types of vehicles in question, and spare parts can be reliably found only for these types of vehicles in their classes. These circumstances satisfy the factors set out above.

Conclusion: The waivers authorizing the procurement of one seven-ton Mercedes truck from West Germany, three Landrover vehicles from Great Britain, and ten Suzuki 125 cc motorcycles from Japan are justified because:

1. Such vehicles, together with adequate spare parts and service facilities, are not available from countries included in the authorized geographic code.

2. Mercedes, Landrover, and Suzki are the only manufacturers of the required types of vehicles for which in-country maintenance and spare parts are available.