1. PROJECT TITLE

SENEGAL RANGE AND LIVESTOCK DEVELOPMENT

PD-AAC-153-A1

2. PROJECT NUMBER: 685-0202

3. MISSION/AID/W OFFICE: USAID/Senegal

4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY): 6850202 (2)

☐ REGULAR EVALUATION ☒ SPECIAL EVALUATION

5. KEY PROJECT IMPLEMENTATION DATES

A. First PRO-AG or Equivalent	B. Final Obligation Expected	C. Final Input Delivery
FY 75	FY 81	FY 81

6. ESTIMATED PROJECT FUNDING

A. Total $ 3,295,000

B. U.S. $ 2,625,000

7. PERIOD COVERED BY EVALUATION (Rpt.)

From (month/yr.) June 1975

To (month/yr.) January 1979

Date of Evaluation Review Jan. 17 - Feb. 1, 1979

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
Mission cable will detail requirements for design team for preparation of the PP Amendment to justify and support a request for additional funding. Mission will prepare a PIO/T for contract design assistance required.		

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

- [X] Project Paper
- [ ] Implementation Plan e.g., CPI Network
- [ ] Other (Specify) _____
- [X] Financial Plan
- [X] PIO/T
- [ ] Logical Framework
- [ ] PIO/C
- [ ] Other (Specify) _____
- [X] Project Agreement
- [ ] PIO/P

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

- A. [ ] Continue Project Without Change
- B. [ ] Change Project Design and/or
- [X] Change Implementation Plan
- C. [ ] Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

Dr. Wilbur G. Thomas, Project Manager Livestock

Dr. Abdoulaye Niang, GOS Project Director

12. Mission/AID/W Office Director Approval

Signature: Norman Schoonover

Typed Name: Norman Schoonover

Date: April 6, 1979

AID 1330-15 (3-78)

PES PART II

13. SUMMARY

This project is one of the principal attempts by USAID and GOS to develop a sector of the agricultural economy in an extremely isolated region of Senegal. It is designed to improve livestock production through controlled year round grazing with improved water resources while protecting the natural resource base. The project serves as a training instrument to promote sedentarization of livestock production balanced against range resources.

Despite early difficulties in recruiting personnel and in support and general administration, there has been considerable progress in achieving project objectives within the last sixteen months. Livestock technicians are training herders and beginning to affect the livestock in the project zone through improved production, management and health programs. Traditional herders have been sensitized to the new developments by Promotion Humaine agents and are being organized into grazing associations. Fire control teams have also been established and are being trained. Construction of base facilities, water reservoirs, fire lanes, fire towers and livestock handling facilities is under way and a nearly complete Senegalese staff is on duty, all of which will permit continued progress in implementation.

The GOS project director has shown considerable competence in administering program activities. He has been trained in range management in the U.S. and has a firm grasp of the project goals and purpose. Now that the project is moving, he is able to devote his principal time to technical and field problems. We believe he is an important asset and will contribute immensely to accomplishment of all project objectives. In discussions with herder families, the evaluation team found that herders understand and accept the initial interventions which the project is promoting. Active participation of herders has been seen through construction of vaccination and holding corrals. They are also adhering to improved herd management and health programs. This sort of herder participation is encouraging and will eventually

realize increased cattle offtake, improving herder incomes and alleviating existing meat shortages in urban areas of Senegal.

14. Evaluation Methodology

The purpose of the evaluation is to review the project's accomplishments, problems, and determine the directions which should be taken to fully attain the designed objectives. Observations and conclusions presented herein are based on reviews of project implementation documents, reports, consultations with the project staff, both Senegalese and American, visits to project sites and visits with herders. The evaluation team consisted of the USAID project manager, the project staff assistant, the mission controller and a deputy program officer. They conducted a comparative study of project implementation activities against the objectives/goals in the project design. The evaluation also attempted to determine what reprogramming would be necessary to improve implementation activities and/or project execution.

While this evaluation summary reflects the views of the AID staff, the evaluation was undertaken as a joint effort with Senegalese officials, including the GOS project director and the findings presented herein have been discussed with them.

15. External Factors. Not applicable

16. Inputs/outputs

A. Construction of Project Buildings

Baniou - The facilities at Baniou are nearly 50% complete and should be available for use by Aug. 1979. The construction phase lagged behind schedule by 5 months due to delays encountered by the GOS in having the facilities designed and in negotiating a contract with the contractor. Distances from supplies and a poor road system have added to the delay.

Bakel - The facilities at Bakel are nearly 80% complete and should be available by April 1979. The same problems as at Baniou were encountered in Bakel

B. Stock Water Ponds

According to the Project Agreement dated Feb. 26, 1975, "Water resources in the grazing area (would) be exploited through the most efficient means available: i.e., the construction of deep pits, shallow wells, deep wells, and water spreading dikes or a combination of these devices". After considering each of these options the project management, both GOS and AID, opted for ponds. Giving the problem of maintaining pumps, the uncertainty of finding water at a reasonable depth, the large amounts of time villagers must spend drawing water from conventional wells, the long useful life of the ponds with little or no maintenance (10 to 15 years), and the fact livestock fluid in-take would be limited by the amount of water available from wells, and by the time necessary to lift the water, it was determined that ponds, even though initially more costly, would, in the long run, be more efficient and less expensive than wells.

The decision to opt for ponds appears sound. Also, the type of pond being constructed, the pit type, is preferable over other types as there will be no problem with dams or spill ways washing out during very heavy rains. This should add to the useful life of the pond and to a deduction in maintenance costs and time. At the time the team was in the field 3 of the 21 ponds to be built by the project had been completed. Four additional ponds are expected to be completed this year. The one completed prior to the rains is being used by cattle from nearby villages. Two years will be required for completion of all the ponds.

Work on the ponds began in April-May 1978, after the heavy equipment had been delivered to the project site but due to the rainy season only two ponds were dug in 1978. The one that was completed prior to the rains had water in it at the time of the evaluation and cattle from nearby villages had been watering there. The project stock water specialist stated that there should be water for cattle until April after which time the herds would have to be watered from village wells It was indicated that this was preferable, as there was danger of overgrazing the area around the pond if cattle were allowed to water during the entire dry

season. The stock water specialist pointed out that some of the soil had been pushed out to form the pond has washed back in. He indicated that in future, this soil would either be pushed further away from he ponds or a berm would be built around the ponds to prevent this from recurring.

In looking at a map placement of the remainder of the ponds, it was pointed out that several of the locations would likely be changed in order to place ponds in the most advantageous site to catch the maximum run off. This change was necessary as experience is showing that the topography of the area is such that larger catchment basins will be required to fill ponds as runoff does not always occur as the topographical maps would indicate. This will have no affect in assuring that all areas of pasturage have water.

C. Fire breaks and Towers

At the time of the evaluation approximately 34 of the 311 kms of fire breaks required for the project have been built. During this present working season, we expect completion of an additional 66 kilometers for a total of 100 kms. The building of fire breaks proceeds in conjunction with pond construction to take advantage of equipment availability at the site.

The sites for the three fire towers have been established and the contract for their construction is in the process of being let. Construction is expected to be completed by April 1979. The fire breaks and towers are essential to the success of the project to control the fires that burn off up to 70% of the forage during the dry season. Many areas of the project zone had already been burned at the time of the evaluation. The main problem, villagers setting fires to frighten away predators, is being

addressed by the Promotion Humaine education programs.

D. Other Construction Activities

During the evaluation in the project zone, at least 3 village livestock pens were observed. These pens had been constructed by the villagers from local materials and with technical advice by the USAID range and livestock specialist. At least one of the pens had been equipped with a scale that will be used to weigh cattle to check weight gains that are expected to result from improved access to forage and water.

E. Commodities

The majority of essential equipment envisoned in the project design has been procured from local and U.S. sources. Items procured up to this time are as follows:

(1) Heavy Equipment - 2 Caterpillar Bulldozers;
1 Grader, and 1 Farm Tractor

(2) Vehicles

a. Livestock Service
4 - Landrovers
1 Peugeot Station Wagon
3 Peugeot Pick-up Trucks
5 Mobylettes

b. Promotion Humaine
4 Volkswagens
1 Landrover

(3) Furniture for equipping the offices and cadre housing

(4) Garage furnishings and mechanic hand tools

(5) Veterinary supplies and equipment

(6) Farm implements

(7) Office supplies

Problems encountered with equipment procurement included delays in purchasing and port difficulties stemming from GOS exoneration procedures.

F. Project Staff

(1) U.S. Technical Assistance: The project design called for a U.S. university to provide the required technical assistance and the Peace Corps to provide two technical volunteers. The Consortium for International Development, the selected contractor, had difficulties in locating technicians with the needed expertise, the French language capability and an interest in working in the isolation of Bakel and, after an 18 month delay, a decision was made by the mission to recruit technicians under Personal Service Contracts. It is the opinion of the evaluation team that the lack of technical assistance during the important beginning stages of implementation are the primary cause for the delay in implementation of the project. This is particularly true for the engineer provided by AID. The locating, design and supervising of construction of water ponds, the key to the range management aspects of the project, were his responsibility and could not begin until his arrival.

The first U.S. technician, the Range Management specialist, was not in place until March, 1977. Two Peace Corps Volunteers (Fire Control Specialist, Diesel Mechanic) assumed duties during June 1977. The fourth technician (Conservation Engineer) came aboard in May of 1977 on a short-term contract and permanently in October of the same year. A livestock Specialist was recruited in May 1978. Two other technicians are presently being recruited; a Range Management Specialist and a Maintenance Supervisor.

(2) Peace Corps Senegal

The project design called for recruitment of two Peace Corps volunteers, one to serve as fire control specialist and radio technician and the other as project heavy equipment mechanic. Two volunteers were recruited and arrived in June 1977. Unfortunately, the level of technical expertise of the volunteers was not sufficient to meet the demands of the

project. The mechanic had served as a naval engine man but his knowledge was not directly transferable to his tasks as project mechanic. For this and other personal reasons he returned to the U.S. after only a few months on the job.

The fire control specialist had worked summers for the U.S. Forest Service as a fire fighter. His experience also was insufficient to prepare him for his assigned duties: organization and training of village volunteer fire control committees, overall coordination of large and small scale fire fighting activities, training of look outs, and educational work with villagers as to the role and dangers of uncontrolled fire. Furthermore, he is not a trained radio technician. Shortly after completion of the PES, this volunteer was removed from the project when he lent his project landrover to an unauthorized Senegalese who in turn wrecked the vehicle. This is not intended as a criticism of the individuals involved or of their motivations. Rather it points out the difficulty of the Peace Corps in recruiting highly skilled persons. In the context of most AID funded projects, a high level of technical qualifications is usually prerequisite. Future acceptance of P.C. volunteers in similar roles should only follow careful review by AID of an applicant's credentials to ensure the selection of qualified individuals.

(3) GOS Support

Project assistance from the Ministry of Rural Development and the Office of Livestock Services has been good in supplying personnel for the project as required by the Project Agreement. As American technical assistance became available, the GOS reciprocated by recruiting counterparts; twenty five Senegalese technicians have been assigned to the Bakel project site. GOS direct support was at first limited to providing personnel. However, a recent allocation of 80,000,000 CFA for CY's 1979 and 1980 will provide the necessary support to maintain the project at a satisfactory level. The equivalent funds

in U.S. dollars represent $380,950 or 57% of the matching funds set forth in the project agreement. The GOS has forecasted 70,000,000 CFA ($333,350) for budget support in FY 1981. The project's local costs should thus be satisfied.

The GOS Project Manager was appointed in 1977 and has been devoting full time to the project since that time.

As this is a new type of project within the Livestock Service, the GOS project director has had to spend much of his time in Dakar to sort out administrative problems that arise in the GOS Ministries. However, as more experience is gained and project activities are regularized, that director is spending greater amounts of time in Bakel supervising day-to-day activities. When housing for him is completed, it is estimated that he will be in Bakel 80% of the time. Although the livestock service was slow in assigning agents a full staff of technicians has now begun interventions in improved livestock management and herd health techniques with advice from the U.S. Livestock Production specialist.

The members of the livestock staff appear to be committed to project purposes and are working to make the project succeed.

Promotion Humaine's cadre were the first GOS personnel input into the project. Agents were assigned to Bakel during December of 1976 or approximately six months after the final design by the CID team.

Promotion Humaine cadre have been successfully fulfilling their intended role. They have done the needed sensitization and orientational work to prepare the population to understand and participate in project activities. They have also been instrumental in organizing women's groups for skill training,

conducting health and nutritional surveillance and sociological studies, and forming rural cadre. These accomplishments were cited in the evaluation report of Promotion Humaine's activities conducted in April 1978.

GOS Project Staff

Promotion Humaine Staff

Position	Date of Assignment
Project Coordinator	December 1976
Animateur	"
Animatrice	"
Monitrice	"
Monitrice	"
Chauffeur	"

Livestock Service Staff

Project Director (Veterinarian)	October 1977
Assistant Project Director (ITE)	May 1978
Zone Chief (ITE)	October 1978
Accountant	May 1978
Forestry Agent (Nursery Specialist)	June 1978
Forestry Agent (Fire Control Specialist)	September 1978
Livestock Technician (ATE)	November 1978
Livestock Technician (ATE)	November 1978
Livestock Technician (ATE)	November 1978
Heavy Equipment Operator	March 1978
Heavy Equipment Operator	March 1978
Heavy Equipment Operator	April 1978
Mechanic	September 1978
Mechanic's Helper	July 1978
Chauffeur	February 1978

Chauffeur	April 1978
Chauffeur	April 1978
Chauffeur	November 1978
Chauffeur	November 1978

Rural Extension Cadre (Maison Familiale)

Animateur	July 1978
Animatrice	"
Monitrice	"
Monitrice	"

The Maison Familiale is an extension group active in the project which is supported almost entirely by the GOS. The Maison Familiale Center is to be constructed from the Promotion Humaine component of the project but personnel and support costs are borne by the GOS. The center is staffed by four instructors who are offering training to young adults (15-25 years old). Two weeks instruction is offered at the center in a variety of subjects including literacy, health, home economics, household gardening, construction and repair, and investment and management. These two weeks are followed by a period of supervised application at home prior to another training period at the center. The group began activities in the project during July 1978, and are effectively presenting the programs to a large number of participants.

F. Training: Two technicians have received short term training in the U.S. and a third is currently in training. These participants, with the help of their U.S. counterparts, will be capable of developing extension classes and other delivery packages for herders within the project.

G. Project Financial Status

The project was approved for $2,225,000. Amendment No. one to the Project Paper increased funding by $400,000 for Promotion Humaine activities. Subsequent revisions made line item changes in the budgets of both the

TABLE I

SENEGAL RANGE AND LIVESTOCK DEVELOPMENT PROJECT

FUNDING EVOLUTION FEBRUARY 26,1975-OCTOBER 31,1979

	Original Grant February 26,1975	Amendment ## 1 March 5,1976	Amendment ## 2 March 17,1977	Amendment ## 3 (By Implementation Letter ## 3 November 30,1977)	Amendment ## 4 (By Implementation Letter ## 7 January 9,1979)	Amendment ##5 Proposed Amendment ## October 1979	$: (1 1
Contract Services	890,000	890,000	936,000	571,459	746,459	886,459	1
Commodities	625,000	625,000	700,000	759,200	466,575	506,575	
Participants	74,000	86,000	40,000	40,000	40,000	65,000	
Other Costs (Construction, Local training, Budget support)	636,000	1,024,000	949,000	1,254,065	1,371,966	1,666,966	:
	2,225,000	2,625,000	2,625,000	2,625,000	2,625,000	3,125,000	:

ACTUAL AND ESTIMATED EXPENDITURES

	Obligation	Disbursed 12/31/78	Estimated Cumulative Disbursements thru 10/1/79	Estimated Cumulative Disbursements thru 6/30/80
Contract Services	746,459	356,000	603,959	700,000
Commodities	466,575	440,000	466,575	466,575
Participants	40,000	16,000	40,000	40,000
Other Costs	1,371,966	605,000	1,167,000	1,328,686
Total	2,625,000	1,417,000	2,277,534	2,535,261
% Total		54	87	97

Livestock Service and Promotion Humaine.

In view of the increased project activities, and the declining value of the dollar, increased funding will be necessary. It is proposed that supplemental funding of $500,000 be provided to the project in FY 79, to be used according to the budget outlined on Table I. A Project Paper Amendment should be prepared immediately to support and justify this requirement.

17. PURPOSE: To develop a replicable system of integrated range and livestock management which is socially acceptable and economically viable. As outlined above, after a slow start, the project has over the past year taken substantial steps forward in achieving its purpose. Efforts to establish a range management system emphasizing these points. First, the construction of supplemental watering points will reduce the pressure on grazing land around existing sources of water. Three of the planned water ponds have been constructed and are in use. An additional four points are now being dug. The remaining 14 have been sited, engineering planning has been completed for 2 of them and, if construction goes as planned, should be finished within two years. There is strong evidence that the new watering points are being utilized. It is estimated that approximately 2,000 cattle have moved from traditional watering points to the new points. Sight observation at traditional water points indicates that range land is in good condition; this is due in part to exceptionally good rains over past year but also attributable to reduced numbers of cattle grazing at these points. A more exact evaluation of the effect on the range land of diversification of watering points will be able to be made next year when substantially more new watering points will have been constructed. It is encouraging to note, however, that the idea of diversifying watering points and the necessity for doing this has been accepted by herders. This is evidenced by their use of these points even before water at traditional points has disappeared and even though the new ponds are more distant from the village(s) and

require more walking and travel time than before. In the future herder camps will be established in the grazing zones to maximize energy gain by the cattle.

The second factor important to good range management is the control of bush fires. This aspect of the program is just beginning. It does not appear that the incidence of bush fires decreased over the past year but the apparatus for preventing and combating fires has been slow to be put into place. A beginning has been made on the construction of fire breaks (35 km. constructed) and work should progress at a much more rapid pace over the coming year. The equipment is in place; the operators have been trained and they have one year of field work under their belt. There is evidence that the concept of fire breaks is a good one for the project area. Those constructed have apparently reduced the damage done by fires by slowing or stopping the rate of advance of the fires.

The education program has been slow. Villagers/herders are beginning to realize the devastating effects that bush fires have on forage but the ingrained belief that fires in fact help generate new grass will be hard to die. A more serious impediment to reducing bush fires is the fact that high grasses hide snakes, and wild animals and permit them to approach close to village compounds. Other means of predator control will be necessary if the bush fire program is to succeed.

The organization of villagers into fire fighting units has also been slow to take hold. While the organization is there, villagers have been slow to report fires and reluctant to get out to fight distant fires from their villages. This is mainly due to the problems outlined above and can only be corrected through a more thorough and more vigorous education effort. We might add that bush fires are nationwide problem which the government is attacking on a large scale through radio publicity and other information methods.

The third important element in a range management program is the increased offtake of non-productive cattle. This will be a long-term effect of the project and cannot be evaluated at this time. Smaller, quality herds will occur only after herders are assured that there will be adequate water and health measures for a limited number of cattle. Otherwise, they will continue to maintain large herds, thus hedging against future droughts which would kill off large numbers of cattle.

In sum, the evaluation team believes that the purpose of the project will be achieved over time. Herder cooperation, once the various components of the program have been fully explained to them, has been good. Though it is too early in the project for the herders to realize real benefits, nevertheless they are enthusiastically contributing their attention, their time and their labor in cooperation. It is felt that when more watering holes are in use, when the firebreaks are sufficient to have a major effect on the preservation of forage and when the animal health measures are fully operable, one will begin to see a change in herder practices along the lines which the project is trying to establish.

Relative to the ability of the Senegalese to implement a range management system in the project area, the evaluation team is much encouraged. One must remember that range management is peculiarily an American concept. The European livestock system, upon which modern techniques in Africa borrow, is not built on vast rangelands such as are available in the southwest and western parts of the United States. Nor are ecological conditions in Europe similar to those found in the U.S. southwest (and in Senegal) which necessicated the formulation of range land practices as we know them today. Senegalese technicians and managers have been quick to realize the necessity for good range management practises.

Herder organization and education by field technicians has begun. To date, 13 villages have formed herder organizations. These organizations form the basis for the fire control units and for community development actions being undertaken under the direction of Promotion Humaine agents. The herder organizations are important for future in that it is within the context of these organizations that herders will make common decisions relative to limitation of herds, the use of watering points and for the submission of cattle to such project interventions as health measures, vaccinations, etc. The herder organizations have already begun to participate in the herder education program. This consists of herd surveillance to identify diseases, point out to herders the symptoms of the more prevalent diseases.and instructing them on preventive measures which can be taken and curative measureswhich are available.

The herder organizations, once fully operational and including the vast majority of herders in the project area, will serve as the forum for important decisions such as culling off of excess and non-productive livestock, methods of commercialization, prices to be requested, etc. The importance of the herder associations cannot be underplayed. It is the voice of the individual herder vis a vis the government and the middleman/merchant, and for that reason, this initial period of association formation is crucial.

18. Goal: To assist in the rapid recovery of the livestock sub-sector as a source of food and income while taking steps to insure the maintenance and development of range resources.

The goal outlined above is a long-term goal of Senegal's total efforts in the livestock sector. Evaluation of the achievement of this goal will require an in-depth evaluation of all donor projects in Senegal, including the World Bank project in Eastern Senegal, FED, AID and Canadian programs in the Ferlo zone, the Canadian project in the Casamance and national projects in mixed farming with the regional development agencies.

While there has not been an increase in off-take of cattle in the project zone which would contribute to increased availability of animal products in Senegal, this is in large part explained by the late start of the project, the felt need on the part of herders to build up after the high percentage of loss during the drought, and the drought of 1977 which has given herders pause in increasing the rate of off-take.

The evaluation team is encouraged, however, by the realization on the part of herders that quality rather than quantity herds will be ultimately necessary and their acceptance of the principle of reducing the head of cattle/to reasonable numbers which water and range resources can support.

The evaluation mission is especially encouraged by the steps which have been taken to disperse water points and herder acceptance of the practice of rotating the use of water points according to an agreed upon schedule. A more complete evaluation will be able to be made over the next year of the effect of the new watering points on range utilization in the project area.

19. Lessons Learned

1. Projects such as the Eastern Senegal Range and Livestock production program should be more interdisciplinary in the future, an approach which is planned for Phase II. The GOS livestock service infrastructure was not prepared to effectively handle several interventions of the project at the beginning of Phase I; particularly, the digging of stock water ponds

and the magnitude of support and maintenance needed. A separate contract or assistance from an agency or private company would have alleviated much of the time spent by the project manager in training GOS livestock technicians to handle this requirement. The GOS Water and Forest Service will be given a greater role in range management and possible reseeding programs in Phase II.

2. Recruitment of U.S. technicians to live in remote areas requires adequate lead time and implementation cannot await their arrival to begin. The direct-hire project manager working with the host country project director must effect the intial stage of implementation according to the Project Paper design. The design must be complete enough to permit this.

3. In view of financial constraints, livestock or other long-term programs should be implemented as rapidly as possible. Host country contributions in critical projects should be available annually and on a timely basis.

4. When fielding host country project technicians from more than one govenmental agency, sound administrative agreement prior to project implementation activities should be established. This action will insure a consistent effort in accomplishing project goals.

5. A livestock marketing study and a subsequent livestock offtake system would further increase attainment of project goals. As herders improve management techniques, we will expect increased offtake of unproductive adult animals and male calves. There exists no structured market system in the project zone for local herders to rely upon. Often they are exploited by "Dioula" cattle traders, which reduces their incentives to market on a regular basis. An effective offtake system would result in an increase in meat availability in Senegal's markets and a corresponding reduction in meat imports.

6. One activity under the project which has not met design requirements is that dealing with the sociological survey that was to provide base line data. Even though a survey was conducted (Etude Socio-Economique; Zone de Toulékédi et Sarré, July 1978), it does not adequately furnish the base line data on which future progress of the project can be evaluated. A more thorough mechnanism for collecting base data for future evaluation of social acceptance and economic factors should be begun.

20. Changes in Design or Execution

Although the project suffered through approximately two years without an adequate staff, present activities are progressing in a manner to achieve the goal of the project. In view of the project's history and present progress being made, the evaluation team has concluded that the following recommendations should be adopted to further accelerate activities and the achievement of the project purpose.

1. More funds are required to carry out the project due to external factors which were recruitment delays, inflation, and devaluation of the dollar. These funds will be used to extend the services of the conservation engineer, and an additional support for the Livestock Service and Promotion Humaine interventions. Increased funding is necessary to train participants in range management and extension practices.

2. A GOS counterpart should be assigned to the conservation engineer to gain skill in reservoir construction and maintenance.

3. Promotion Humaine's assignment to the project zone has been worthwhile since the agents have effectively sensitized the villagers on the technical interventions to come. The advisability of continuing this group's activities for the duration of the project should be investigated Additional funding would be required.

4. A greater effort must be made to refine administrative procedures. The lack of an operating base in Bakel during the first thirty months and enormous administrative detail in Dakar prevented the GOS project director from day to day activities in the project zone. Completion of the bases at Bakel and Baniou should alleviate most of the administrative difficulties.