

AN ASSESSMENT OF THE POTENTIAL
FOR PEACE CORPS--USAID--HOST COUNTRY COOPERATION
IN SOCIAL FORESTRY PROJECTS

MAURITANIA

A Report Prepared by

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EXECUTIVE SUMMARY
MAURITANIA PASA REPORT

I. HOST COUNTRY

The forestry service of Mauritania is called the Protection of Nature Service, a branch of the Ministry of Rural Development. The Protection of Nature Service has few forestry agents and material and financial resources are scarce. The Service has little experience in resource management extension work, though it intends to increase this kind of activity, in part through a major project with AID.

In recent years, Mauritania has experienced serious pressures on natural resources, especially along the Senegal River. This is due in large part to population migration and conflicting land use patterns between agricultural and pastoral people.

The Government of the Islamic Republic of Mauritania (GIRM) has received assistance in natural resource projects from various donors. The Lutheran World Relief has stabilized dunes and built a greenbelt around Nouakchott. The West African Economic Community is providing funds for nursery development. AID began a Renewable Resources Management Project in 1978.

Rural people in Mauritania are interested in tree planting and establishing soil conservation practices.

II. PEACE CORPS/MAURITANIA (PC/M)

Peace Corps is growing rapidly in Mauritania and now has 33 volunteers. There are health and agriculture programs, with a forestry program to be added in 1982. Six forestry volunteers have been requested.

There have been some programming difficulties. The Government of Mauritania has been unable to provide support and counterparts in many cases. Volunteers reported that their Mauritanian supervisors were not fully aware of the tasks volunteers can perform.

Peace Corps and AID are collaborating in Vegetable Production and Rural Medical Assistance Projects. The PC/M forestry program will begin through an amendment to the AID Renewable Resources Management Project. PC/M was involved in writing the project paper.

A number of current volunteers are interested in forestry as a secondary project, often because they have been approached by villagers for help in this area.

III. AID

Environmental restoration is one of the highest priorities in AID's Mauritania program. A three-phase approach is planned. The first, the Renewable Resources Management Project, began in 1978. An amendment to it is the second phase, the AID/PC forestry project, which begins in 1982. The third phase is proposed for FY 83.

Phase two will involve Peace Corps Volunteers (PCVs) in sand dune stabilization, forest reserve management, and forestry extension work.

IV. TRAINING

PC/M has little experience in pre-service technical forestry training. PCVs working in the AID/PC forestry project would be skill-trained for the tasks involved. In-service forestry training could be given to PCVs working in other programs.

V. PROGRAMMING

PC/M could become more involved in forestry/natural resource efforts, both through the context of the AID/PC project and through independent efforts. Rural volunteers working in other programs could take on simple forestry activities as secondary tasks.

PC/M could benefit from clarifying the role of volunteers in the AID/PC Renewable Resources Project and also better informing the Protection of Nature Service about the potential of PC/M contributions.

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LIST OF ACRONYMS

AID	U.S. Agency for International Development
AID/M	AID Mission to Mauritania
APCD	Associate Peace Corps Director
CRS	Catholic Relief Services
FY	Financial Year
GIRM	Government of the Islamic Republic of Mauritania
PASA	Participating Agency Service Agreement
PC	Peace Corps
PCD	Peace Corps Director
PC/M	Peace Corps/Mauritania
PCV	Peace Corps Volunteer
SONADER	Societe Nationale de Riziculture
UNDP	United Nations Development Programme

INTRODUCTION

This report has been prepared for the Forestry Sector in the Office of Program Development of Peace Corps in conjunction with the PC/AID Forestry PASA (#936-5519). This report presents a brief overview of the institutions and activities concerned with forestry and natural resource projects in Mauritania. The information will assist the Peace Corps and AID Washington staff to design and implement future forestry PASA activities through a better understanding of field operations and needs. Also, it is hoped that this report will provide in-country donor agency staff and government officials with an objective perception of current environmental projects, institutional capabilities and relationships, and possible areas for expansion.

The issues presented correspond to an outline (Appendix B) that Peace Corps/Washington provided each assessment team. We suggest that the reader review this outline of issues prior to reading the report to facilitate understanding the format and content. The issues were chosen because they will influence future Peace Corps, AID, and host country agency collaborative forestry efforts.

During the eleven-day assessment visit to Mauritania, interviews were conducted with key personnel from Peace Corps, AID, and host country ministry institutions involved in forestry and natural resource activities. Site visits were also made to representative project areas and institutional facilities within the country.

The content of the report represents the authors' viewpoint resulting from the interviews, site visits, and review of available documents. The authors wish to express their appreciation to all who contributed time and energy to making the visit complete. It is hoped that the results represent a balanced and objective analysis of a complex series of activities.

HIGHLIGHTS

- o The Protection of Nature Service in Mauritania is eager to be involved in resource management projects. The Protection of Nature Service, a relatively new agency, has successfully created nurseries in recent years.
- o The first AID-financed forestry project to include PCVs was approved in June 1981. Volunteers are scheduled to arrive in July 1982 to begin work on the Renewable Resources Project. The APCD for Agriculture and Rural Development will be responsible for forestry volunteers.
- o The AID Mission in Nouakchott will focus increasingly on natural resources, through the Alternative Energy Program and the Renewable Resources Project.
- o There is strong potential for programming forestry/conservation activities into the assignments of all rural volunteers in Mauritania. Many current volunteers are considering forestry/conservation tasks as secondary activities.
- o Technical training for Mauritania's new forestry/conservation volunteers should emphasize practical work on nursery techniques, fence building, dendrology, anti-erosive techniques and dune stabilization.
- o Cross-cultural training for these volunteers should emphasize the ethnic groups living in the regions to which the volunteers will be assigned.
- o Recruitment of forestry/conservation volunteers for Mauritania need not be restricted to men or B.S. foresters, especially if technical and cross-cultural training is appropriate.
- o GIRM personnel do not have a good understanding of the potential contributions of PCVs in all sectors and especially in forestry.

BACKGROUND

Mauritania is a large arid country with a population of less than 2 million. The country has been troubled by climatic difficulties, population migrations, and political problems. Because of arid conditions, there has been a shift of pastoralists toward the south in the past decade. This has crowded the regions along the Senegal River. Pastoralists compete with each other and with agriculturalists over the same shrinking resource base. This has exacerbated ethnic conflicts.

An understanding of ethnic, class, and cultural conflicts is essential for development work in Mauritania. The largest pastoral group, the Maures, has two major classes, the "free" Bidan and the "tributary" Haratin. The "free" Maures are pastoralists and merchants. They continue to exert economic and political control over their "tributaries" who work for them as herders and farmers. Struggles between these classes have increased. For example, Haratin near Magta Lahjar have built small dams to irrigate their fields--and help establish a claim to the land. Pastoral Bidan to whom the "tributaries" are "attached" have destroyed these dams when their basins were full in order to prevent the Haratin from claiming the land. Many Haratin have left the rural areas entirely to escape their bondage, thus depriving the country of its skilled rural labor force. Along the Senegal River there have been Maure --non-Maure conflicts over pastoral versus agricultural uses of resources.

These conflicts affect the work of all Peace Corps volunteers in Mauritania, and will especially affect PCV-foresters. The planting of a tree in Mauritania is not a neutral act. To the contrary, it can be a highly charged political act, since planting trees is a means to stake a claim to a parcel of land. PCVs working in forestry will need to know the implications of their work.

ASSESSMENT

I. HOST COUNTRY INTEREST/EXPERIENCE

A. Mauritanian Priorities in Development Programs

The GIRM plans to adopt its next Five-Year Development Plan (1982-1986) later this year. In the meantime, a two year (1980-1981) transitional program is in effect. In May 1980, a National Seminar on Desertification was convened which established priorities and goals. The conclusions and recommendations of this seminar are included in Appendix C.

The GIRM's priorities include:

- o regeneration of the natural environment,
- o self-sufficiency in food production, and
- o return of Mauritanians to their home region or territory.

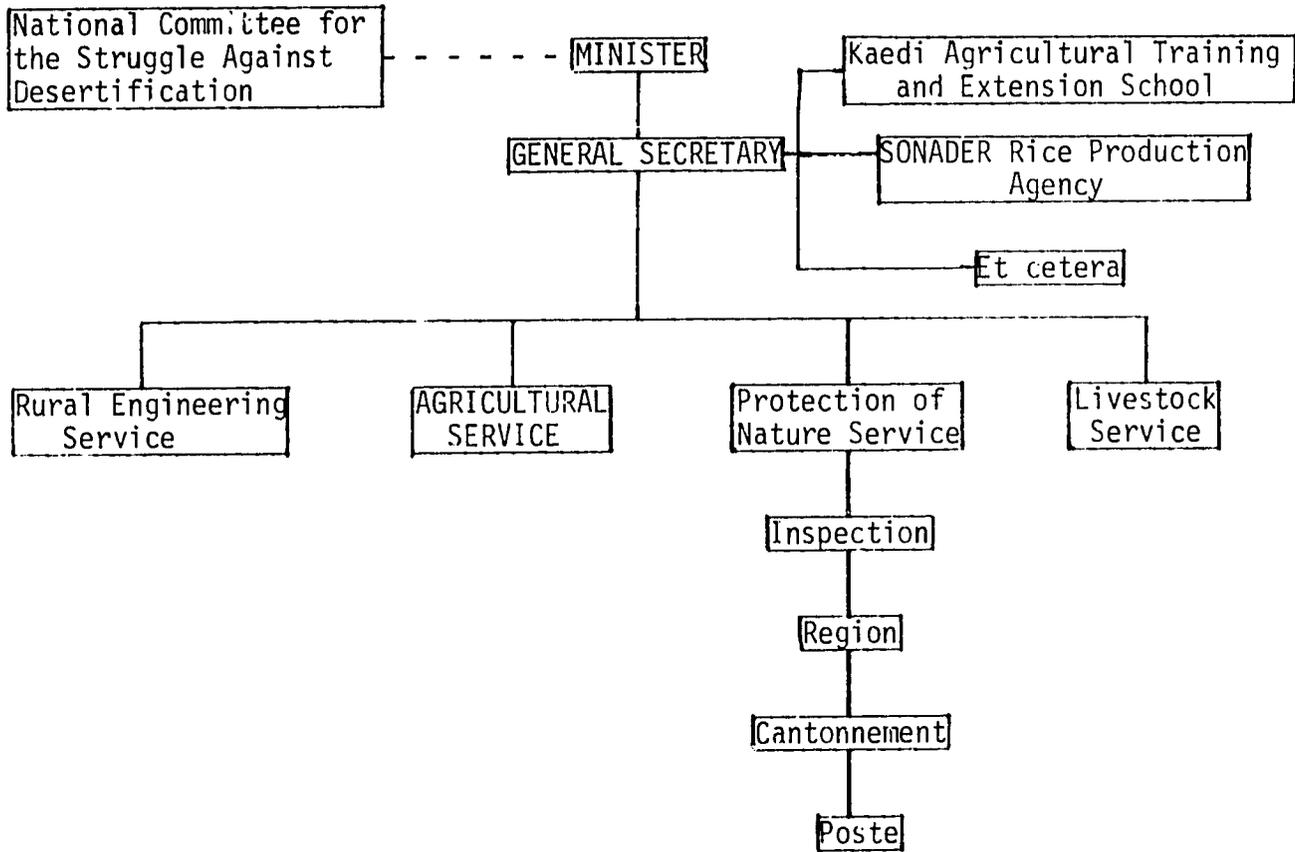
Achieving these objectives will depend on the efforts of the Protection of Nature Service, a relatively new agency in the Ministry of Rural Development. (See organization chart on the next page.)

In 1980, a National Committee for the Struggle against Desertification was formed. It is directly responsible to the presidency. The Committee is composed of delegates from various GIRM ministries. Any project involved with natural resources must have its approval, and all natural resources projects are supposed to have a forestry component.

B. The Protection of Nature Service

The Protection of Nature Service in Mauritania is a relatively small agency, with a staff of less than 150 people. In addition to a central office with two professionals, there are inspection, region, cantonnement, and poste levels of administration. In principle, these levels are administered by

Organizational Chart, Ministry of Rural Development



inspecteurs, ingenieurs, conducteurs, and moniteurs. In practice this is not the case. Many postes, for example, are run by forest guards rather than by moniteurs. Some postes do not even have a forest guard and are headed by the local prefect. Regional and cantonnement personnel are trained at the Kaedi School. Forest guards or agents receive no training.

At the regional level, forest agents have been trained at the Kaedi Agricultural Training and Extension School. This school offers training in agriculture, livestock, and forestry. The forestry component is being upgraded by UNDP, which has provided an expatriate forester. Four forestry engineers have been trained in France and three technicians were trained at the National School of Rural Cades in Bambey, Senegal.

Though some of the foresters in high-level posts are well-educated, the majority of the Protection of Nature Service staff are inexperienced. Few resource management or development projects have been undertaken since Mauritania's independence.

Lack of support precludes these people from adequately using their training. Many of the regional offices do not have vehicles for use by forest agents. Reforestation work is a new concept in Mauritania; all nursery stock for any reforestation or sand dune stabilization is produced in a few nurseries.

Although the Protection of Nature Service has performed little resource management extension work, it intends to increase this activity. The Protection of Nature Service plans to work with the Volontariat, or local volunteer organizations, in its new efforts.

Since the Protection of Nature Service is relatively new, it can benefit from the research and knowledge gained during the last ten to fifteen years in other Sahelian countries. In short, this relative inexperience of the Mauritanian Protection of Nature Service could be turned into an advantage.

I.C. GIRM Experience with Other Donors

Management of classified forests, erosion control to stop loss of agricultural land, stabilization of dunes, and reforestation are activities that the Protection of Nature Service will pursue via the AID Renewable Resources Project.

The West African Economic Community is providing funds for nursery development. One nursery is organized and supported entirely by Lutheran World Relief which has had five years of experience in dune stabilization and greenbelt work around Nouakchott.

The UNDP is planning some sand dune stabilization projects, but funding has not yet been secured. UNICEF may soon be involved with resource management work, particularly in its projects to restore several ancient cities in Mauritania. FAO is to develop a national reforestation plan. Oxfam has conducted a feasibility study for a watershed management program.

II. PEACE CORPS

Since 1979, the Peace Corps program in Mauritania has grown rapidly from nine to 33 PCVs. The health volunteers work in two programs: maternal and child health care centers and the AID-funded Rural Medical Assistance Project. The agriculture program volunteers work in rice production with SONADER and in vegetable production with village groups.

Roger Conrad is the Associate Peace Corps Director (APCD) for Agriculture. He has been in Mauritania since October 1979 and will stay until April 1982. He was formerly an agriculture PCV in the Central African Republic. A new PCD, Dick Wall, arrived in Mauritania in June.

There have been some programming difficulties in the past few years. The GIRM has been unable to provide support, even in housing, for a number of

PCVs. Because of a lack of personnel, Mauritanian counterparts have not been available to work with most volunteers. This lack of personnel is illustrated in the Agriculture Service, where as much as 50 percent of the extension service staff consists of Peace Corps volunteers.

Several volunteers reported that their GIRM supervisors or counterparts were not fully aware of what roles volunteers can take. The PCVs interviewed do not regularly send reports to the GIRM offices to which they are attached, although this could facilitate better understanding.

PC/M does not have any volunteers working directly with the Protection of Nature Service. The APCD/Agriculture has a good relationship with the Inspector of Kaedi, Commandant Doudou Bal, who is one of the most qualified foresters in the country. Mr. Bal has given talks on land tenure at PC/M training sessions in agriculture. PC/M-Protection of Nature Service relations in Nouakchott are not very strong. The Deputy Director of the Protection of Nature Service knew very little about the potential for using PCVs in forestry work.

PC/M and AID/M are collaborating on two projects, the Vegetable Production Project and the Rural Medical Assistance Project. The latter project is progressing on schedule and PCVs meet with the AID/M contractor. The Vegetable Production Project was delayed because the contractor was not present for the first year. The PCVs proceeded to their sites and have worked without the technical support that the contractor would have provided. Now the volunteers are helping the contractor to reinforce the structure of the project. PC/M wants to continue to collaborate with AID/M, but because of this recent experience, PC/M also wants to insure that volunteers will have a job even if there are delays in AID/M material or personnel support.

PC/M intends to begin its forestry program in 1982 with a collaborative project with AID/M. A request has been made for six PCVs for this project, which is an amendment to the Renewable Resources Management Project. The project itself is described in the next section. PC/M was actively involved in writing the project paper for this project. Both Roger Conrad, the APCD/Agriculture, and Elizabeth Ernst, APCD/Forestry in Niger, worked with AID/M in designing the project. The project paper includes an annex which outlines the involvement and training of the requested PCVs. Several recommendations for PC/M programming in this project are made in the Training and Programming sections of this report. The activities which will involve PCVs are the following:

1. Sand dune stabilization--Four PCVs will work with local populations at three sites in the Brakna region and one at the project at Boutilimit. One of these PCVs will also work on Acacia Senegal (gommier) regeneration.
2. Forest Reserve Management--Four PCVs will work in five classified forests along the Senegal River. The goal is to achieve a sustained yield of charcoal through Acacia scorpioides and eucalyptus plantations and through improved charcoal kilns.
3. Forestry Center at Magta Lahjar--Two PCVs will work with Protection of Nature Service counterparts to establish a nursery for sand dune stabilization and for extension work among the nearby agricultural "barrage (dam) communities." These communities will send representatives to Magta Lahjar for training.
4. Special Forestry Fund--One PCV will work with the Guidimaka Region Forestry Service to identify communities that wish to initiate local forestry projects. A fund will be set up to support these projects, and the PCV will help provide technical as well as extension support.

Volunteers have received support from PVOs and the Ambassador's Self-Help Fund. A very large portion of the Self-Help Fund is used for PCV projects. Lutheran World Relief gave thousands of seedlings to PCVs in 1979 for plantings in their villages. Catholic Relief Services has a "micro-fund" which grants PCVs up to UM5,000 (just over \$100) for such projects as gardens and wells. Three PCVs are currently using CRS micro-funds.

Several of the volunteers interviewed, especially the agriculture PCVs, are interested in forestry as a secondary project. For example, one PCV has approached the local Protection of Nature Service for technical advice because villagers want to plant shade trees; another PCV has collected over 3,000 seeds and plans to plant them in several villages; a third has been approached by the local school director for help in planting trees in the school yard, which is being destroyed by severe run-off erosion. These are encouraging signs, not only for a PC forestry program in Mauritania, but also for forestry as secondary tasks for all PCVs.

III. AID INTEREST AND EXPERIENCE

AID is relatively new in Mauritania. A full mission was established in 1979. The AID goals in Mauritania are restoration of the environment, improvement of agricultural productivity, and improvement of rural life, especially in health care.

AID/M plans a three-phase approach to Mauritania's environmental problems. The first phase, the Renewable Resources Management Project, began in 1978. The second phase is a project in environmental restoration, which will be funded in FY 1982 as an amendment to the Renewable Resources Management Project. This amendment is the PC/AID forestry project. The third phase is the Alternative Energy Program which would create an Applied Energy Center to

develop and disseminate alternative energy technologies. Funding for this phase has been proposed for FY 1983.

The Renewable Resource Management Project has three components: training, resource reconnaissance, and pilot interventions. The first two are concerned with LANDSAT and aerial photography to determine Mauritania's resource base. This aspect of the project will soon be completed. The third component is about to get underway. It involves three pilot interventions. The first is in Mederdra. It has two phases, the management of a degraded forest reserve and the experimental stabilization of a dune system. A forester, John Falconi, arrived in Mederdra in early June to establish a nursery and to begin species trials. The second pilot intervention is a major dune stabilization project at Bouïlimit. A second forester, Steve Seefeld, is scheduled to arrive in mid-June to manage this intervention. The third pilot intervention is an agrosylvipastoral project in the Gogal area. The AID/PC forestry project is an expansion of these pilot interventions (see page 5 for details).

The project amendment also includes a range intervention and a training component which do not include PCVs. The project paper calls for formal contracts to be used in the Guidimaka region and with the Magta Lahjar "barrage communities." The dune stabilization components include Food-for-Work incentives.

The Environmental Restoration Project, which includes the PC/AID collaborative efforts, is funded at \$6m over five years beginning in FY 1982. The Renewable Resources Management Project, begun in 1978, has been funded at \$4.7m through FY 1983. The proposed Alternative Energy Program would be funded at \$4.5m for four years.

The forestry project would be the third AID/M activity involving PCVs. As mentioned above, PCVs work in the Vegetable Production and Rural Medical Assistance Projects. AID/M is interested in using more volunteers in the future, for example, in the Alternative Energy Program and in AID's Integrated Rural Development Project in Guidimaka. Some AID/M requests, such as PCVs to work on a feeder road construction project, are not considered appropriate by PC/M.

AID/M's involvement with GIRM services seems remote, at least in the projects that use or will include PCVs. The projects do not seem to be integrated into the structure of GIRM services and contact between AID/M project personnel and GIRM personnel seems to be slight in comparison with other Sahelian countries. However, many AID/M projects do include training components which should increase the number of GIRM personnel involved in projects.

There are few PVOs in Mauritania, and AID/M's contact with them is limited to Catholic Relief Services, which distributes food aid. A SONADER rice production project is planned with Africare.

IV. TRAINING

Other than a recent training session on improved wood-burning stoves, PC/M has not conducted a forestry/conservation training. For health, vegetable production, and rice production volunteers, rudimentary in-service forestry training in small-nursery techniques, planting techniques, and erosion control would be most effective if given four to six months after the volunteers' arrival at their posts.

One of the forestry professors at the Kaedi School has given presentations at PC/M training sessions. PC/M could ask that he continue to participate in any in-service forestry/conservation training sessions. The facilities

of the Kaedi School could be a possible site for the technical training of these volunteers (and their counterparts, if available).

The cross-cultural training usually given to PCVs in Mauritania stresses Maure culture. The cross-cultural training given to forestry volunteers in 1982 should be more balanced, giving exposure to other important ethnic groups in Mauritania. The forestry PCVs will often be involved in controversial situations due to the legal/cultural significance of tree-planting and of resource management. Therefore, the PCVs will need a particularly strong understanding of how the different ethnic groups view their environment and their relationships with one another.

Training in West African arid land forestry/conservation techniques would adequately prepare most people who had both an interest and experience in outdoor/agricultural work. This training would be necessary for generalists and degreed foresters alike, as an American B.S. or M.S. in forestry does not usually prepare a volunteer for work in arid West Africa.

Experience with the vegetable production volunteers has shown that females and males are equally likely to have success.

V. PROGRAMMING

The Protection of Nature Service in Nouakchott is poorly informed about the Peace Corps. It would benefit PC/M to establish a solid working relationship with the Protection of Nature Service in Nouakchott.

The opportunity for PC/M to include forestry/conservation activities into the projects of other volunteers is great. Many of the volunteers visited by the assessment team were already planning to work with interested groups or individuals to produce seedlings on a small scale or to set up tree-planting projects of some sort. The PC "Reforestation of Arid Lands" manual was being

referred to widely and technical assistance was often sought from the assessment team. The volunteers working on vegetable or rice production have contact with organized groups and local level government officials interested in planting trees. Health volunteers, also, have many opportunities to encourage tree-planting (and other anti-erosive efforts) near their dispensaries, their homes, and public places in their towns.

PCVs could be assigned to work with the Protection of Nature Service to develop village level nurseries (annual production: less than 2,000 plants) and an extension network if the GIRM provided PCVs with transport (motorcycles) and nursery materials (fences, plastic bags). This sort of small-scale volunteer project is only suggested for areas which have a reliable source of water. For example, women's vegetable gardens along the Senegal River would be good sites for nurseries as they already have fencing and a water supply. Both male and female PCVs could work effectively with women groups, as in the Vegetable Production Project. The reforestation and anti-erosive techniques that technically-trained volunteers could impart to Mauritanian foresters could build on the experiences of other Sahelian countries (e.g., creation of village-level nurseries rather than large centralized nurseries, and family plantations rather than large hectare-sized plantations, which require a high level of group organization to assure their maintenance). The Special Forestry Fund component of the AID Renewable Resources Project forestry amendment could be an example of this kind of activity.

Other forestry programming issues include the need for improved communication between the GIRM and both PC/M and AID/M concerning project development and the specific roles of PCVs in projects.

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ITINERARY

May 28

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John Grayzel, AID/M, anthropologist

Garet Ten Valde, Lutheran World Relief

Roger Conrad, APCD

June 2

Garet Ten Valde, Lutheran World Relief

Teresa Shaver, PCV/Health

Ann Cousineau, PCV/Health

Site visit to Nouakchott Greenbelt and Ksar Dune Stabilization Project

June 3

Linda Spink, PCV/Health

Jean Murphy, PCV/Health

Ricky Nevins, PCV/Vegetable Production

Richard Haavisto, PCV/SONADER

Doudou Bal, Commandant, Protection of Nature Service, Kaedi

June 4

Mamadou Alassane Sall, Conducteur, Protection of Nature Service, Kaedi

Sidi Mohamed ould Sidi El-Mochtar, Conducteur, Protection of Nature Service, Kaedi

Forestry Guard, Kaedi

Jim Gage, PCV/SONADER

Brad Favor, PCV/Vegetable Production

Barry Mochtar, Protection of Nature Service, Bobhe

Nursery Workers, Boghe

Site visit to Diorbivou Classified Forest and Boghe Nursery

June 5

Nancy Kauper, PCV/Vegetable Production

Peter Gorman, PCV/SONADER

M. Ba, School Director, Tekane

Keith Kearney, PCV/Health

Mbodj Malick, Controlleur, Protection of Nature Service, Rosso

Nursery Workers, Rosso

Site visit to Rosso Nursery

June 6

Kate Teer, PCV/Health
John Falconi, AID/M Forester
Wyndham James, Field Director, Coastal West Africa, Oxfam

June 7

Wyndham James, Oxfam

June 8

Sidyiaould El-Hadji, UNDP Programming Officer
Diack Taleb, Protection of Nature Service
Jacques Montouray, Director, Catholic Relief Services

APPENDIX B

ASSESSMENT TEAM BRIEFING ISSUES
TO BE DISCUSSED
WITH
PEACE CORPS, AID AND HOST COUNTRY MINISTRY STAFF

The following topics should be discussed with Peace Corps staff and volunteers, AID mission staff and Host Country Ministry staff. The discussion on the topics should follow the outlines as closely as possible in order to obtain comparable data from each country. All information obtained should be cross referenced as much as possible from other sources for an objective viewpoint.

I. HOST COUNTRY MINISTRY COMMITMENT/EXPERIENCE

A. Host Country Government's priorities in development programs

1. What have been Host Country Government's development priorities in the past 3 - 5 years: Forestry/Natural Resources, Education, Health, etc?
2. What types of programs (Education, Health, Water, etc.) has Host Country Government most actively pursued from donor agencies in the last 3 - 5 years?
3. What are the current developmental priorities of the Host country Government? Give examples.
4. What are projected needs as perceived by Host Country Ministry?
5. What are the projected developmental priorities for the Host Country Government in the near future (1 - 3 years)? Give examples. To what extent are donor agencies involved in accomplishing those priorities?
6. If answer to 5 is different than 1 or 2, why?

B. Forestry Department or other Government supported forestry efforts

1. What is the institutional structure of the Department of Forestry? (Include an organizational chart.)
2. What type of support does the Forestry Department receive from the parent ministry and the Host Country Government in general?
3. What are the staff/material resources of the current Forestry Department?
 - o budget
 - o education of employees
 - o training of employees
 - o forestry schools in the country
 - o research capabilities/current research activities (involving whom, what is major thrust of research)?
 - o staff stability
 - o audio-visual, technical files/library, forestry equipment
4. What types of forestry programs and projects has the Department of Forestry focused on in the past 3 years? Currently involved in? (Anticipate next 3- 5 years.) Where are these located? List examples, e.g., village woodlots, watershed management.
5. How is the Forestry Department perceived by the general public? e.g., tax collector, enforcement officer, public servant?
6. Future plans.

- C. Host Country Department of Forestry past/current experience in forestry projects with PC or AID (Separate response for each agency)
1. What type of forestry programs/projects has this arrangement usually entailed? Examples.
 2. Is there a geographical focus/distribution of these projects?
 3. What segment of society (ethnic, social, sex) have these programs/projects benefited the most? Is this going to change to any degree?
 4. What type of support has the HCM provided PCVs in these projects?
 - o material
 - o labor
 - o office space/support
 - o technical support (use of labs, etc.)
 - o dollars
 - o transportation
 - o training
 5. What are Host Country Department of Forestry's attitude and actual resource capability toward providing counterparts for PCVs?
 6. Have PCV counterparts been used? Seldom, usually, almost always?
 7. What is the institutional level of the PCVs' counterparts?
 8. What type of qualifications does the Department of Forestry require of its PCV counterpart?
- D. Host Country Department of Forestry past/current experience with private voluntary organizations and other international donor agencies
1. What are the organizations and key personnel that have been involved (past 3 years)?
 2. What type of programs/projects have taken place/are taking place?
 3. What are future expectations for programs/projects (within 5 years)?

II. PEACE CORPS INTEREST/EXPERIENCE

A. Personnel Resources

1. Are there currently staff members involved in forestry and/or related projects?
2. If so, what are their backgrounds and terms of service?
3. What plans exist for replacing them?
4. If there currently are no such staff members, what, if any, plans exist for responsibility for a forestry project?

5. What are the names and numbers of volunteers, by project, and their completion of service dates and replacement plans?

B. Material Resources

1. What type of project material support is available to volunteers from Peace Corps?
2. What type of audio-visual, technical files, library, support is easily accessible to PCVs from the Peace Corps office?

C. Peace Corps experience in forestry/natural resources projects

1. What types of forestry projects has Peace Corps been involved in in the last 3 years? Examples.
2. What are the current projects Peace Corps is involved in?
 - o are they progressing as planned? If not, what changes have been necessary?
 - o how many volunteers are involved in these projects?
 - o what degree of counterpart participation exists?
 - o what level of technical support do the PCVs/counterparts receive from PC/HCM?
3. Is there a geographical focus to PC forestry projects? If so, why?
4. To what degree does PC in-country see itself capable of programming/support for new project development or expansion of old projects?
5. What constraints do they see? What PC/Washington support will they need?

D. Peace Corps experience in collaborative projects, of any kind, with AID

1. Within the last 3 years, what type of programs/projects have been developed jointly by PC and AID?
2. Who initiated this activity and at what level (central, regional, local)?
3. What degree of involvement (money, labor, material) has existed from both parties?
4. What is Peace Corps' general perception of this type of activity?

E. Peace Corps' relationship with Host Country Ministry and AID

1. What has been Peace Corps' relationship with Host Country Ministry and AID in general?
2. Are there foreseeable changes in this relationship due to changes in budget, staff, or program priorities by any entity?

3. Are there specific issues in common/different?
- F. Peace Corps' relationship with PVOs, NGOs, and other donor agencies.
1. What is Peace Corps' current relationship and past experience with PVOs, NGOs, and other donor agencies (including key personnel)?
 2. Has Peace Corps been able to effectively utilize PVOs, NGOs, and other donor agency personnel/material resources?
 3. What is future potential for material/technical support from these agencies?

III. AID INTEREST/EXPERIENCE

A. Staff Resources

1. Does AID currently have staff dealing with forestry?
2. If so, what is their background and terms of service?
3. What, if any, plans for replacing or adding forestry related staff exist?

B. Technical Resources

1. What technical resources (e.g., libraries, connections with research organizations, private consultant resources) does AID have that could assist PASA related activities?
2. Who has or does not have access to these technical resources?

C. AID experience in forestry/natural resources projects

1. What types for forestry/natural resources related programs/projects has AID been involved in in the last 3 years?
 - o degree of involvement
 - money
 - labor
 - material
 - o principle beneficiaries in society
 - o most important outcome
2. What type of forestry/natural resources related programs/projects is AID currently involved in?
 - o degree of involvement
 - money
 - labor
 - material
 - o principle beneficiaries in society
 - o anticipated outcomes

3. Is there a general philosophical orientation of these programs/projects?
 4. Is there a common development strategy to these programs/projects (e.g., institution building)? Give examples.
 5. Who is primarily undertaking program/project activities? Give examples.
 6. What is AID's philosophical orientation toward the use of counterparts?
 7. Is the orientation reflected in the actual projects?
 8. With what priority does AID view future/expanded efforts in the forestry area? How is that commitment evidenced?
 9. Is there a geographical focus to AID activities?
- D. AID experience in collaborative projects, of any kind, with PC, PVOs, and NGOs
1. What types of programs/projects have taken place?
 2. What organization initiated this collaborative effort and at what level (i.e., central, regional, mission)?
 3. What was the degree of involvement by each participating organization (i.e., money, labor, material)?
 4. What were/are the outcomes of these activities (e.g., primary beneficiaries in society)?
 5. What is AID general perception of this type of activity?
- E. AID's relationship with HCM and Peace Corps
1. What has been AID's relationship with PC and HCM in general (e.g., assess AID's attitude and understanding of 3 goals of Peace Corps)?
 2. Are there foreseeable changes in this relationship due to change in budget, staff, or program priorities by any entity?
 3. Are there specific issues in common/disagreement?
- F. AID's relationship with PVOs
1. What is AID's current relationship and past experience with PVOs, NGOs and other donor agencies?
 2. What type of contributions have existed in these efforts (e.g., key personnel, material, dollars, technical resources)?

IV. TRAINING

A. Peace Corps Volunteer Training

1. What is the attitude of PC, HCM, and AID staff toward skill trained volunteers in Forestry/Natural Resources programs/projects?

2. Have PC, HCM, and AID worked with trained volunteers? If yes, what type of project, if no, why not?
3. If Peace Corps has used skill-trained volunteers in any sector, where has the skill-training taken place (i.e., SST or in-country)?
4. What suggestions do PC staff and volunteers, HCM and AID have for pre-service and in-service PCV training (especially skill training) for forestry programs/projects (e.g., skill areas)?
5. What type of in-service forestry training could be provided for PCVs currently working in other programs?

B. Peace Corps volunteer counterpart training

1. What degree of involvement do counterparts have in current or projected PC, AID, or other PVO or donor agency forestry projects?
2. What is the attitude of PC, HCM, and AID toward PCV counterpart involvement in PCV pre-service and in-service training?
3. What are each entity's principal concerns about this issue, such as financial, support, technical material presented, language, travel, time away from work, etc.?
4. Are there appropriate training facilities, either Peace Corps, AID, HCM, or private, in-country or within the geographical region?

FORESTRY PROJECT PROGRAMMING

1. What are the tentative forestry programming issues that PC, HCM, and AID perceive as needing to be addressed before an actual new or expanded project could be implemented?
2. Which entities need to address which of these issues?
3. What further information does each of these entities feel it needs from Peace Corps/Washington, in order to determine the feasibility of further participation in the FASA?

SEMINAIRE NATIONAL POUR LA LUTTE CONTRE LA DESERTIFICATION

EN

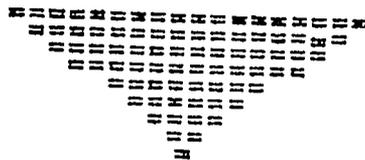
REPUBLIQUE ISLAMIQUE DE MAURITANIE

NOUAKCHOTT, 26 - 28 MAI 1980

CONCLUSIONS ET RECOMMANDATIONS

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APPROUVEES PAR LE CONSEIL DES MINISTRES LORS
DE SA SEANCE EN DATE DU 1er 10UT 1980



Le séminaire pour l'élaboration d'un plan national pour la lutte contre la désertification en Mauritanie organisé par le Ministère du Développement Rural avec l'aide du Bureau des Nations Unies pour la Région Soudano-Sahélienne s'est tenu du 26 au 28 Mai 1980 à Nouakchott.

La séance inaugurale du séminaire a été présidée par son Excellence Monsieur Mohamed OULD AMAR Ministre du Développement Rural de la République Islamique de Mauritanie qui a souligné notamment la gravité du problème de la désertification dans le pays ainsi que les actions mises en oeuvre par le Gouvernement pour y faire face. Il a en outre précisé les objectifs du séminaire dans le contexte de l'action entreprise par son Gouvernement et celui de l'effort international déployé dans le domaine de la lutte contre la désertification.

Le séminaire a regroupé les responsables des différents services du Ministère du Développement Rural ainsi que les représentants de plusieurs autres ministères et organisations gouvernementales mauritaniennes. Ont également participé aux travaux du séminaire, les représentants de pays et organismes d'aide, d'organisations régionales, des institutions scientifiques et techniques ainsi que des représentants d'organisations appartenant au système des Nations Unies.

Les participants aux travaux du séminaire ont eu à examiner quatre rapports préparatoires :

- un rapport général définissant les éléments d'une stratégie nationale de lutte contre la désertification ;
- trois rapports sectoriels traitant des problèmes spécifiques des secteurs suivants :
 - . agriculture et aménagements hydroagricoles
 - . écologie-forêts
 - . élevage et pastoralisme.

Ces documents ont été préparés par un groupe de travail constitué des responsables mauritaniens des principaux services concernés, et de spécialistes et consultants de la F.A.O. de l'U.N.E.S.C.O et de l'U.N.S.O.

Partant de l'analyse des documents soumis à leur examen, les participants ont mis l'accent sur un certain nombre de points contribuant ainsi à développer, compléter et enrichir, les propositions contenues dans ces documents.

I. En ce qui concerne le rapport sectoriel Agriculture et Aménagements Hydroagricoles les principales idées maîtresses qui se dégagent peuvent être résumées comme suit :

- 1) la lutte contre la désertification doit se placer dans le cadre général du développement intégré qui vise à assurer la mise en valeur rationnelle des différentes ressources naturelles.
- 2) malgré des conditions climatiques peu favorables, la culture sous pluie occupe une place importante dans la production agricole. Il apparaît difficile de réduire de façon sensible les superficies réservées à cette culture qui ont eu tendance à se concentrer dans les bas-fonds pendant les saisons de pluies déficitaires. D'autre part il a été souligné la nécessité d'accorder plus d'attention à l'amélioration des techniques culturales et notamment aux méthodes de défrichement de sorte que celles-ci n'entraînent pas une destruction irrémédiable de la végétation naturelle.
- 3) si l'irrigation reste le moyen le plus efficace pour développer la production, le recours à cette technique pose un certain nombre de problèmes auxquels il faut apporter des solutions appropriées. Parmi ces problèmes figurent notamment les problèmes fonciers qui présentent ^{une} acuité considérable dans le cadre de grands périmètres, des mesures législatives doivent ^{être} prises pour faciliter leur extension.

Il apparaît d'autre part nécessaire d'inclure dans les différents programmes d'aménagements hydroagricoles toutes les actions nécessaires en matière de protection du sol et de la végétation et de prévoir les modalités de mise en oeuvre de ces actions.

En outre il est proposé un programme spécial de reboisement pour compenser les pertes résultant de la disparition de peuplement de Gonakiens situés dans les zones qui seront inondées à la suite de la construction du barrage de DIAMA sur le fleuve Sénégal.

Une diversification de la production végétale dans les périmètres irrigués devra non seulement contribuer à la réalisation de l'objectif d'autosuffisance alimentaire, mais aussi à dégager un excédent de production fourragère permettant d'assurer l'intégration de l'élevage à l'agriculture dans les périmètres irrigués et de soulager les zones pastorales avoisinantes.

- 4) en ce qui concerne les ressources en eau, il y a lieu de noter l'insuffisance des données disponibles relatives à la réalimentation des nappes souterraines et aux effets de la régularisation du régime du fleuve Sénégal sur cette réalimentation. Des études doivent être entreprises pour améliorer les connaissances dans ce domaine.

Par ailleurs, le coût très élevé de l'eau provenant de ces nappes limitera considérablement leur utilisation pour la production agricole. Il faudrait rechercher d'une part les moyens permettant d'assurer la meilleure valorisation possible de ces ressources.

Une attention particulière doit être accordée aux eaux de surface dont la mobilisation doit être favorisée par des actions d'aménagements appropriés des bassins versants et par la construction de petits ouvrages de retenues. De telles actions peuvent être développées dans le cadre de la mobilisation des populations.

- 5) Dans le domaine institutionnel, il apparaît nécessaire de mieux définir les attributions et les rôles respectifs de la SONADER d'une part et des Directions de l'Hydraulique et de l'Agriculture d'autre part de façon à assurer une meilleure mise en oeuvre des programmes d'aménagements hydro-agricoles.

II. Concernant le rapport sectoriel Ecologie-Forêts, les principaux éléments qui ont retenu l'attention des participants sont les suivants :

- 1) la dégradation des différentes formations ligneuses a atteint un degré de gravité alarmant au point qu'il devient très urgent de mener des actions permettant d'assurer la régénération du couvert végétal.
- 2) cette action de régénération nécessite une mobilisation générale des efforts des populations dont la majorité est consciente de la gravité de la situation, mais qui se trouve démunie en face de l'ampleur du problème.
Toutefois certaines communautés, malheureusement peu nombreuses, telles que la communauté de Boudeit, sont parvenues à mener des actions efficaces de protection de leur milieu en s'astreignant à une discipline rigoureuse. De tels cas ont une valeur d'exemple et méritant d'être multipliés^à travers le pays.
- 3) la dégradation des formations végétales liée à la sécheresse d'une part et à l'accroissement de la pression humaine et animale d'autre part, ainsi qu'à des méthodes d'exploitation non appropriées a eu des conséquences considérables à la fois sur l'équilibre écologique et sur la situation socio-économique engendrant la dislocation des structures sociales traditionnelles.
- 4) malgré l'importance des formations ligneuses pour la protection des sols : pour l'alimentation du bétail, et pour la fourniture de combustible, les mesures de protection de ces formations ont été très limitées et inopérantes ; d'autre part, aucun plan de reboisement de grande envergure n'a été entrepris au cours des 20 dernières années.

Ainsi, on a assisté à une exploitation abusive des maigres ressources existantes, en vue de la satisfaction de besoins de plus en plus élevés en combustibles ligneux et bois de service.

Les moyens mis à la disposition des services de la protection de la nature ont été particulièrement insuffisants au regard du besoin de conservation et de développement d'un secteur aussi important.

- 5) Parmi les goulots d'étranglement essentiels figure en premier lieu le manque de personnel spécialisé, d'où la nécessité d'accorder la priorité aux actions de formation à tous les niveaux. En effet, la pénurie actuelle de cadres forestiers ne permet même pas d'envisager une restructuration des services relevant de la Direction de la Protection de la Nature, notamment d'accroître le nombre et de renforcer les inspections régionales. Ainsi tous les projets qui seront entrepris dans ce secteur doivent prévoir un volet de formation et d'expérimentation de manière à lever ces deux contraintes essentielles.
- 6) En ce qui concerne la législation forestière, celle-ci est totalement inadaptée à la situation actuelle ; il est donc nécessaire de procéder au plus tôt à sa refonte de façon à ce qu'elle constitue un support adéquat pour une meilleure protection de l'environnement.
- 7) Parmi les actions prioritaires qui ont retenu l'attention des participants il y a lieu de mentionner notamment :
- la fixation des dunes en vue de la protection des infrastructures vitales et zones particulièrement exposées aux effets de l'érosion hydrique et éolienne ;
 - le renforcement de la campagne de reboisement à l'occasion de la fête nationale de l'arbre ;
 - le renforcement du programme de formation forestière en mettant l'accent sur une formation pratique qui vise à la conservation et au développement des ressources renouvelables ;
 - la poursuite de la ceinture verte de Nouakchott ;
 - la reconstitution de gomméraires, la réhabilitation de pâturages, et la protection de points d'eau.
 - la mise en place des centres forestiers et pépinières au niveau des communautés rurales, afin de promouvoir des actions collectives et individuelles de reboisement (bois de village, brise-vents, plantation d'arbres fruitiers) et de conservation des eaux et des sols (petites retenues, digues anti-érosives)

- la protection efficace de l'aménagement de toutes les forêts classées et la création de la mise en défens d'autres réserves forestières et sylvo-pastorales;
- la conservation de la faune sauvage dans le cadre des projets d'aménagement intégré des zones sylvo-pastorales;
- la mise à point et la vulgarisation des modèles de foyers améliorés pour la cuisson au bois et l'amélioration de techniques de carbonisation de bois
- la mise en place d'un Fonds Forestier National afin de soutenir les actions de lutte contre la désertification.

III. En ce qui concerne le secteur de l'Elevage et du pastoralisme, l'attention des participants a été portée sur les points suivants:

1) Tout en étant un agent de la dégradation du couvert végétal, le secteur de l'Elevage est le premier à en subir les conséquences. Le maintien des effectifs à un niveau compatible avec les ressources fourragères disponibles devra constituer un objectif essentiel en tant qu'élément de lutte contre la désertification.

Des efforts particuliers doivent être entrepris afin que le déséquilibre soit corrigé dans des proportions qui évitent des chocs socio-économiques et qui garantissent une plus grande rentabilité.

2) Les pertes considérables enregistrées pendant la sécheresse ont eu des conséquences sociales et humaines particulièrement graves; en effet, beaucoup de petits éleveurs nomades en perdant leur cheptel, ont perdu leur unique source de subsistance et de revenus ainsi qu'un mode de vie similaire, puisqu'ils ont été dans l'obligation de se reconvertir en agriculteurs ou à émigrer vers les centres urbains.

3) Les interventions de l'Etat dans ce secteur ont porté essentiellement sur le domaine de la prophylaxie sanitaire et dans une certaine mesure, sur l'hydraulique pastorale et la protection des pâturages contre les feux de brousse. Il apparaît de plus en plus nécessaire d'entreprendre des programmes d'action beaucoup plus intégrés englobant les aspects zootechniques et visant principalement la rationalisation de la conduite des troupeaux et l'amélioration de l'environnement technique et économique des éleveurs.

4. Pour être efficace, l'intervention dans le secteur, doit reposer sur la participation des communautés pastorales, et sur une bonne connaissance des caractéristiques et du mode d'exploitation de l'espace pastoral. Une restructuration de ces communautés paraît nécessaire, en raison de la dislocation des structures traditionnelles, qui a été précipitées à la suite de la rude épreuve à laquelle a été soumis le secteur pendant les années de sécheresse.

Cette restructuration doit viser non seulement à rendre les pasteurs et éleveurs plus responsables de la gestion des territoires qu'ils exploitent traditionnellement, mais aussi de créer un cadre propice pour l'introduction de nouvelles rationalités dans le secteur.

5. La valorisation optimale des potentialités du secteur de l'élevage ne pourra être pleinement assurée que dans la mesure où l'on parviendrait à préserver au moyen d'une exploitation rationnelle les ressources pastorales à assurer une meilleure intégration entre l'élevage et l'agriculture dans le cadre d'un programme cohérent et intégré de mise en valeur des ressources naturelles.
6. En ce qui concerne l'encadrement technique et économique du secteur l'accent a été mis sur la nécessité de développer les structures de recherches et de formation, d'accroître les moyens mis à la disposition des services de l'élevage et d'étendre leurs domaines zootechniques et pastoraux. L'opportunité de la mise en place d'un organisme de développement du secteur, chargé de mener des actions ayant trait directement aux problèmes de production et de commercialisation a été également souligné.

IV - En ce qui concerne les mesures d'ordre général, ayant trait à la mise au point et à la mise en oeuvre du plan national d'action de lutte contre la désertification en Mauritanie il convient de souligner notamment :

1) Sensibilisation et mobilisation des populations

La nécessité de mener une action de très grande envergure en vue de parvenir à une meilleure prise de conscience de l'ampleur et de la gravité du problème et une mobilisation effective de tous les moyens disponibles pour y faire face a été reconnue. Tous les participants s'accordent sur la priorité à donner à la mobilisation de la population qui malgré sa perception profonde du phénomène, ne peut assurer à elle seule toutes les actions nécessaires pour lutter efficacement contre la désertification.

Ainsi l'Etat est appelé à jouer à travers toutes les institutions nationales (radio, presse écrite(chaab), jeunesse, armée, écoles, institutions religieuses et politiques, services centraux et régionaux des différentes administrations) un rôle d'incitation en vue de favoriser les initiatives des populations et les aider à entreprendre les actions efficaces pour la conservation et l'amélioration du milieu naturel.

Les actions de sensibilisation ne doivent pas se limiter aux populations directement concernées mais doivent s'adresser également aux cadres et responsables politiques directement impliqués dans la mise en oeuvre du plan de développement économique et social du pays.

2) La Formation

Le rôle essentiel de la formation a été mis en relief par l'ensemble des participants. Les actions de formation doivent concerner aussi bien les populations rurales et urbaines (formation à partir de la base) que les jeunes dans les écoles. En outre il est indispensable d'assurer la formation à tous les niveaux des différents cadres techniques nécessaires pour la promotion de l'ensemble du secteur rural.

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Jusqu'à présent la formation pour le secteur rural n'a pas reçu toute l'attention qu'elle mérite compte tenu de la priorité accordée à ce secteur. Il est donc nécessaire de prévoir des mesures d'incitation pour encourager les élèves et les étudiants à s'intéresser aux carrières du secteur rural d'une part et d'accroître les capacités d'accueil de la seule structure de formation existante qui est l'Ecole Nationale de Formation et de Vulgarisation de Kaédi (E.N.F.V.A.) d'autre part. Pour satisfaire à moyen terme les besoins en cadres moyens et subalternes du secteur, il faudra doubler les capacités actuelles de cette école.

Outre l'augmentation de la capacité de l'école, il y a lieu de prévoir l'amélioration des programmes pour mieux tenir compte des réalités socio-économiques du pays ; quelle que soit la spécialité suivie, tous les élèves et étudiants devront recevoir une formation appropriée en matière de protection de l'environnement et de lutte contre la désertification.

Par ailleurs il y a lieu de prévoir des sessions de recyclage et de perfectionnement pour les cadres déjà en exercice et ceci dès la rentrée prochaine.

D'autre part tous les projets de développement doivent comporter un volet de formation destiné au perfectionnement des cadres qui exercent au sein du projet ainsi qu'à d'autres agents concernés par les activités du projet.

D'autres mesures telles que la création d'un centre de documentation ayant trait au problème de l'environnement, la mise en place d'une unité d'expérimentation et vulgarisation au sein de l'établissement, d'un parc zoologique et d'un arboretum, doivent être mises en oeuvre dans les meilleurs délais.

En ce qui concerne les cadres supérieurs il faudra augmenter le nombre d'étudiants dans les différentes disciplines du secteur rural par l'octroi de bourses leur permettant de suivre des études dans les établissements spécialisés.

3/ Recherche et expérimentation

Etant donné que la Mauritanie ne dispose que de très peu de résultats de recherche et d'expérimentation adaptés à ses conditions particulières, il importe de renforcer ses capacités dans ce domaine.

En matière de recherche agricole et forestière il est nécessaire d'étendre les activités aux zones de cultures sous pluies, et aux palmeraies et de prévoir également des programmes spéciaux dans la domaine de la sylviculture.

En matière de recherche animale, les activités en cours se limitent aux aspects sanitaires, il est indispensable de les étendre à l'alimentation des animaux, à l'amélioration et la gestion des parcours, ainsi qu'aux cultures fourragères et pastorales.

Dans tous les cas, il s'agira de développer des recherches appliquées, devant déboucher rapidement sur des résultats répondant aux besoins de la vulgarisation en vue d'apporter des solutions aux différents problèmes qui entravent le développement du secteur rural.

Par ailleurs, il serait utile de prévoir des actions de suivi écologique permettant de suivre l'état de l'évolution du couvert végétal et des sols. De telles programmes sont de nature à aider à mieux évaluer l'impact des différentes actions qui sont menées dans le domaine de la lutte contre la désertification.

Compte tenu de l'importance vitale de l'eau aussi bien pour l'alimentation humaine et animale que pour le développement de la production agricole, il est nécessaire de renforcer les études concernant l'évaluation des ressources en eau et les conditions de leur utilisation.

Pour tenir compte de l'insuffisance des ressources énergétiques traditionnelles dans le pays et notamment de l'état de dégradation avancé des ressources ligneuses, un programme appliqué de développement des énergies alternatives devra être mis en place rapidement en tenant compte des expériences acquises par ailleurs (biogaz, énergie solaire, énergie éolienne). De plus des actions doivent être menées pour améliorer l'utilisation des énergies traditionnelles (méthodes de carbonisation, foyers améliorés).

4. Mesures institutionnelles et structurelles :

Pour permettre la mise en oeuvre efficace des différentes actions proposées, il est nécessaire de renforcer, d'adapter et de rendre plus opérationnelles les structures existantes.

L'objectif des actions proposées est d'assurer une meilleure participation des populations, une coordination accrue des activités à tous les niveaux en vue d'une meilleure utilisation des différents moyens disponibles.

Au niveau local, il est suggéré d'inciter les communautés rurales à s'organiser en comités locaux et d'encourager les comités déjà existants en vue de leur permettre de jouer un rôle moteur dans la mise en oeuvre des actions intéressant leur territoire.

Au niveau régional, des comités régionaux de lutte contre la désertification associant les populations, les cadres administratifs et techniques régionaux seront également mis en place pour assurer la concertation, la mobilisation des ressources locales, et la mise en oeuvre des programmes de lutte contre la désertification intéressant leur région.

Au niveau national, un comité national de lutte contre la désertification sous l'autorité directe du Chef de l'Etat sera également mis en place. Ce comité regroupera les principaux départements ministériels intéressés ainsi que les représentants d'organismes ou institutions directement impliqués dans la lutte contre la désertification.

Ce comité sera doté d'un secrétariat permanent qui veillera à l'application des décisions qui seront prises.

Il a été également suggéré la création d'un Centre National de Recherche pour la lutte contre la désertification.

Ce centre devra coordonner et promouvoir les différentes activités de recherche ayant trait à ce problème, aider à l'acquisition et la diffusion des informations scientifiques et techniques et travailler en collaboration étroite avec l'Institut du Sahel.

Dans l'immédiat, il est nécessaire d'assurer une meilleure coordination entre les différentes institutions de recherche existantes (CNERV, CNRADA, IMRS, LNTP) et de prévoir la création d'unités de documentation au sein du Ministère de Développement Rural afin de centraliser toutes les informations et données disponibles.

Sur le plan institutionnel, la mise en place d'un code de l'environnement dans lequel devra s'insérer le code pastoral, le code forestier, et le code foncier, s'avère indispensable pour instaurer le cadre juridique nécessaire pour assurer la protection de l'environnement.

Par ailleurs, la création d'une unité d'étude et de planification en matière d'aménagement du territoire est nécessaire pour l'élaboration de plans cohérents de mise en valeur des ressources du pays.

5. Rôle de la communauté internationale

Outre les efforts importants qui seront déployés par les autorités et la population mauritaniennes, une aide internationale accrue sera nécessaire pour se rapprocher des objectifs visés, tant en matière de lutte contre la désertification, qu'en matière de développement économique en général. Cette aide internationale est d'autant plus justifiée que la Mauritanie, de par sa situation géographique, est l'un des pays les plus affectés par le problème de la désertification, et que les efforts qui y seront déployés profiteront directement ou indirectement à l'ensemble des pays voisins.

Le séminaire lance un appel pressant à la Communauté Internationale pour mobiliser les ressources nécessaires à la mise en oeuvre rapide du Programme National d'Action de Lutte contre la Désertification.

Il est à souligner que les actions dans ce domaine ont peu suscité jusqu'à présent l'intérêt des donateurs qui privilégient les actions à rentabilité immédiate.

6. Mise en oeuvre des actions et suivi du séminaire

Il appartient aux autorités nationales d'examiner et avec la plus grande attention les propositions et les recommandations de ce séminaire et de :

- prendre les décisions requises pour leur mise en oeuvre ;
- assurer la diffusion des résultats des travaux du séminaire ;
- mobiliser les moyens nécessaires pour démarrer les actions prioritaires ;
- poursuivre l'élaboration des dossiers de projets retenus par le séminaire avec le concours des organismes d'aide bilatérale et multilatérale ;
- tout mettre en oeuvre pour assurer le financement des actions proposées, notamment avec le concours d'organismes spécialisés des Nations Unies et des organisations inter-africaines et arabes.

En outre en attendant la mise en place des différentes structures préconisées, il est proposé la création d'un comité de suivi qui doit veiller à l'application des recommandations issues du séminaire. Ce comité sera placé sous l'autorité du Ministre du Développement Rural et sera composé de cadres nationaux ayant pris une part aux travaux du séminaire et d'experts des organisations régionales et internationales.

U.S. ECONOMIC ASSISTANCE PROGRAM-OVERVIEW

U.S. Economic assistance to Mauritania began in 1961, following independence with the participation of the Government of the Islamic Republic of Mauritania (GIRM) in AID-funded regional activities--smallpox eradication, measles control, poultry production and university training. There was a brief break between 1967 and 1970 when Mauritania broke diplomatic relations with the U.S. in the wake of the 6-day Arab-Israeli war. Diplomatic relations were restored in 1970 and the U.S. economic assistance was renewed in 1973 with PL 480 Title II Emergency Food Assistance followed by a recovery and rehabilitation program to assist the GIRM in overcoming the devastating effects of the 1968-1974 drought. During this period, USAID economic assistance totalled \$11.3 million.

By 1974, however, it was clear to both Sahelian and donor governments that longer-term development programs must be initiated throughout the Sahel if the devastating results of the 1968-1974 drought were to be avoided in any future drought. To focus on this need Mauritania joined the six other Sahelian nations in September, 1973 to form the Comite Inter-etat de Lutte Contre la Secheresse dans le Sahel or the CILSS. The purpose of the CILSS is to provide a Sahelian coordinating organization to promote regional and national development leading toward the goals of food self-sufficiency and improved rural life. To support the CILSS program through more effective donor coordination, the donors, including the United States and the CILSS member nations joined together in 1976 to form the Club du Sahel, an organization designed to encourage and coordinate greater donor participation in Sahel development programs. In response to the request of the government for assistance within the framework of the CILSS/Club du Sahel development strategy, the United States established a USAID office in Nouakchott in 1974 and raised it to full USAID mission status in 1979. Since its establishment USAID/Mauritania has assisted the GIRM through a development assistance program centered on the agriculturally productive southern third of Mauritania. As reflected in the USAID Country Development Strategy Statement, the USAID program concentrates on restoring the badly degraded environment, improving the productivity of rain-fed agriculture, and assisting in the development of improved rural living conditions, especially rural primary health care, both to increase the food supply and to reduce urban migration.

The pages which follow describe the current and proposed program in Mauritania. USAID is currently implementing eight projects in Mauritania for a total life-of-project cost of \$26.32 million. In addition, there are five projects for 1981-82 currently being designed for a total of approximately \$46.0 million. In addition to this assistance, USAID furnished \$12,700,000 of food assistance in 1980 on an emergency basis and \$1,200,000 of food assistance through Catholic Relief Services for its maternal and child health

program. A PL 480 Title II Section 206 program is being designed which will furnish \$35 million of food assistance over three years to assist the GIRM to stabilize food prices and stimulate production. This bilateral program assistance is complemented by a series of regional projects which also provide USAID-funded development assistance for Mauritania.

SUMMARY OF USAID ASSISTANCE TO MAURITANIA

1977 - 1980

	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
I. Technical Assistance				
A. Grants	1.7	5.6	6.3	3.8
B. Loans	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub-total	1.7	5.6	6.3	3.8
II. Food for Peace Assistance				
A. Grants				
1. Emergency Relief	.3	1.7	.6	9.7
2. World Food Program	.8	1.1	.2	1.9
3. Voluntary Agency	.6	.1	.9	1.1
B. Loans	-	-	-	-
	<hr/>	<hr/>	<hr/>	<hr/>
Sub-total	1.7	2.9	1.7	12.7
III. Grand Total Economic Assistance	=====	=====	=====	=====
A. Grants	3.4	8.5	8.0	16.5
B. Loans	-	-	-	-

SUMMARY OF USAID ASSISTANCE TO MAURITANIA

1977-1980 BY SECTOR/PROJECT

<u>SECTOR</u>	<u>PROJECT TITLE (NUMBER)</u>	<u>U.S. FISCAL YEARS (IN U.S. \$000's)</u>			
		<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
I. Technical Assistance Agriculture	Integrated Rural Development- Guidimaka (682-0201)	1,450	800	1,096	-
	Vegetable Production (682-0204)	-	1,470	-	-
	Oases Development (682-0207)	-	-	-	1,142
	Sahel Food Crop Protection (625-0916.6)	150	100	-	-
Health	Rural Medical Assistance (682-0202)	-	-	1,662	-
	Expanded Program of Immunization - AIP (625-0937)	-	-	-	400
	Health Services & Maternal & Child Health Care AID (698-0410-04)				
Human Resources	Sahel Manpower Development (625-0936)		62 ^{1/}	105	199

1/ Funded under African Manpower Development Project

<u>SECTOR</u>	<u>PROJECT TITLE</u>	<u>U.S. FISCAL YEARS (IN U.S. \$000's)</u>			
		<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
Ecology and Reforestation	Renewable Resources Management (682-0205)	-	1,000	1,300	1,100
Other	Rural Assessment/Manpower Survey (682-0211)	-	2,000	2,000	500
	Planning, Management and Research (625-0929)	-	73	23	36
	Special Self-Help (682-9901)	-	56	65	65
	Sub Total	1,740	5,561	6,251	3,842
II. Food For Peace Assistance	PL 480, Title II Grants				
	- Emergency Relief ^{1/}	300	1,700	600	9,700
	- World Food Program	800	1,100	200	1,900
	- Voluntary Agency ^{2/}	600	100	900	1,100
	Sub total	1,700	2,900	1,700	12,700
III. Grand Total Economic Assistance Grants		3,440	8,461	7,951	16,542

1/ Includes Transportation

2/ Does not include grant to U.S. volag-CRS- of \$218,000 (FY 79) and \$280,000 (FY 80) to expand its MCH programs further into the interior areas of Mauritania.

DESCRIPTION OF CURRENT AND PROPOSED PROGRAMI. BILATERAL PROGRAMA. Current Projects1. Integrated Rural Development - Guidimaka - (682-0201)

Location	: Selibaby, Guidimaka Region
Life of Project Funding	: \$4.2 million approved to date additional \$1.8 million requested
Duration	: 5 years (9/77-12/82)
Implementors	: Formerly Pacific Consultants; .since 12/80, Experience Inc

Project Purpose: To assist the GIRM to increase food production among the inhabitants of the Guidimaka Region in the area of Selibaby. The Project is designed to develop and extend technically and socially sound dry-land farming and livestock interventions that can be introduced to farmers and herders to increase their yields. The project activities include the establishment of agricultural demonstration sites, livestock demonstration units, a tree nursery, dry land vegetable production and range management system. It also provides training for the GIRM personnel.

This project is now progressing well. Most of the technical assistance team arrived in Selibaby in mid-1979. The project was evaluated in late May 1980, and progress toward meeting the prescribed goals was found to be satisfactory. USAID has recommended that the project be extended by 18 months to allow appropriate testing and initial extension of the new techniques developed.

(2)

2. Vegetable Production - 682-0204

Location	: Brakna, Trarza and Assaba Regions
Life of Project Funding	: \$1.47 million
Duration	: 4 Years (8/78-7/82)
Implementors	: Frederickson, Kamine & Associates, Inc., U.S. Peace Corps

Project Purpose: To establish a vegetable production service within the Ministry of Rural Development and to promote vegetable production among small farmers and cooperatives in rural southern Mauritania. The project is part of the GIRM effort to broaden the food base of its populace which is heavily dependent upon meat, milk products, and cereals. The project is being implemented by a U.S. consulting firm and U.S. Peace Corps Volunteers. The project provides the establishment of 200 hectares of small-scale subsistence vegetable plots; the training of 30 Mauritanian Agricultural agents, and the establishment of a Vegetable Production Service within the Ministry of Rural Development. The five U.S. Peace Corps Volunteers assigned to the project are working directly with small farmers in the Brakna, Trarza and Assaba Regions and are supervised by the AID contractor team.

The technical assistance team, consisting of an horticulturist, extension advisor, agricultural economist and nutritionist, is currently in the field providing advice and assistance to the vegetable producers, the GIRM agriculture extension agents and the five Peace Corps Volunteers. It is anticipated that this project will continue to July, 1982.

3. Oasis Development - (682-0207)

Location : Assaba Region
 Life of Project Funding : \$5.99 million
 Duration : 5 Years (7/80-9/85)
 Implementors : Personal Services Contractors
 Institutional Contract for
 services

Project Purpose: To help oases dwellers achieve greater self-sufficiency through the introduction of technologies in agricultural production and water resources utilization that will improve their agricultural yields. The activity will be carried out in the Assaba Region over a 5-year period and will select, test and evaluate various measures which oasis communities can undertake at relatively low-risk and cost and which can significantly improve the productivity and sustain the vitality of the oases. This activity is one of the several USAID projects which focus on stabilizing the population in the rural areas to reduce urban population pressures through the improvement of living conditions and increasing food production capabilities in the rural interior.

The project envisages the following interventions during the life of the activity:

- demonstrations of efficient water resource usage
(well construction and irrigation)
- variety trials and improved techniques of date production
- diversification of grains and vegetable production
in oases
- improvements in animal husbandry
- living fences to protect grain crops from livestock

This activity will train 12 agricultural agents. 600 oases farmers in date palm techniques and 250 farmers in other agriculture and water technology techniques. The initial technology trials will take place at the Sani Research station and then 4 oases in the Assaba Region. Subject to third year evaluation, two additional oases will be added to the project. Subsequently, the successful techniques can be extended to all Mauritanian oases.

4. Renewable Resources Management - (682-0205)

Location : Trarza Region
Life of Project Funding : \$4.7 million
Duration : 5 years (6/78-8/83)
Implementors : South Dakota State University

Project Purpose: To inventory Mauritania's renewable resource base in order to devise a plan for the rational use of these resources and to demonstrate the validity of an integrated program of renewable resource management and conservation for Mauritania.

This project supports the GIRM effort to prevent further degradation of its renewable resources base.

The project will produce, over the life of the activity a resource survey of the southern agriculturally productive third of Mauritania and a national plan for conservation of renewable resources; pilot interventions in reforestation, range management and sand dune stabilization; 6 Mauritians trained in resource inventory and use of satellite imagery. 57 Mauritians in sand dune stabilization, range management and reforestation.

The South Dakota State University (SDSU) is implementing this activity and has completed the training of six Mauritians in satellite imagery and resource evaluation at the University in Brookings, South Dakota. These Mauritians are working with the long-term SDSU technical advisors in Mauritania to develop the national inventory of resources and the national plan for effective utilization of such resources in the agricultural zone of the southern third of Mauritania.

5. Rural Assessment Manpower/Employment Survey
 (RAMS - 682-0211)

Location : Impact on entire country
 Life of Project Funding : \$5.6 Million
 Duration : 3 years (3/78 to 8/81)
 Implementors : Checci & Company/Louis Berger

Project Purpose: To assist the GIRM to develop the information and data base for decision making among alternative development strategies and to translate these strategies into policy options and specific project proposals. Through its research this project is helping the GIRM to develop this information base as well as training Mauritians to perform the same type of data collection and analysis research at the completion of AID funding. The project has particular significance as the information generated will form the basis for the GIRM Fourth Economic Development Plan and will enhance the possibility of projects obtaining other donor financing. The GIRM implementing agent for this activity is the Ministry of Economy and Finance Division responsible for the development plan. The project was authorized in February, 1978 and will produce (1) a series of interlocking studies and related policy papers; (2) the design and development of specific projects and (3) the development of policy options. Fifteen studies were produced in Phase I which ended September, 1980. Five option syntheses studies will be completed in Phase II. The project is on schedule and all studies will be completed by August, 1981.

6. Rural Medical Assistance - (682-0202)

Location	:	Trarza Region
Life of Project Funding	:	\$1.66 million
Duration	:	3 Years (8/79-4/83)
Implementors	:	DIMPEX Peace Corps Volunteers Mauritanian Red Crescent Society

Project Purpose: To assist the GIRM to improve the health services in the rural areas in Mauritania through the development, implementation and evaluation of a pilot, affordable, community-based rural health delivery system in the Trarza Region. It is anticipated that the development and evaluation of this pilot system will lead to GIRM replication of this system on a national basis. The project will (1) train health workers on all levels who participate in the delivery of health services to the rural populace; (2) establish a supply system of medicines using government licensed agents; (3) initiate a village level preventive health system and placement of village and encampment-supported health agents. The initial effort is being implemented in the Trarza Region and will benefit approximately 8,600 families in 192 villages. Training activities by the Red Crescent Society and a Togo-based OMS team have begun and are progressing on schedule.

(7)

1. Expanded Program of Immunization - (625-0937)

Location : Nationwide
Life of Project Funding : \$400,000
Duration : 2 years (6/80-9/82)
Implementors : WHO

Project Purpose: To assist the GIRM to expand its national program of immunization against communicable diseases affecting children 0-5 years--tuberculosis, measles, diphtheria, pertussis, tetanus and polio. These communicable diseases constitute the principle causes of infant mortality in Mauritania and contribute to childhood and maternal morbidity. U.S. assistance is allowing the GIRM to expand its current immunization program to all 12 regions of Mauritania. USAID is financing the purchase of vaccines, spare parts for vehicles, POL (petrol, oil, lubricants), cold chain equipment, renting of warehousing facilities and training of local health personnel. At the end of the project, the GIRM will have 12 mobile vaccination health teams functioning in all regions of the country in addition to vaccination activities at all maternal child health centers.

This activity is a multi-donor effort also supported by UNICEF and the Council of Arab Ministers and implemented by the GIRM. The project is funded as an Accelerated Impact Project (AIP) with an expected high impact over the two-year life of the project. The project agreement was signed in June, 1980 and implementation is on schedule.

8. Food for Peace, Title II

Location	: Throughout the country
Life of Project Funding	: Approximately \$3.0 million/year
Duration	: Continuing
Implementors	: Catholic Relief Services

Project Purpose : To assist the GIRM in improving nutritional levels of children 0-5 and other nutritionally deprived persons. This activity is being implemented through CRS which receives Title II commodities (soy supplements, dry milk, vegetable oil) for use in its maternal/child health, nutritional rehabilitation and adult health programs.

B. Proposed Projects

1. Rural Land Reclamation - (682-0203)

Location	:	Brakna and Gorgol Regions
Life of Project Funding	:	11.4 million
Duration	:	5 years (1981-1985)

Project Purpose: To develop a capacity in the GIRM Rural Works Department to develop national standards in site evaluation, design engineering, quality control, contractor supervision, and the construction and maintenance of rainwater run-off retention dams affiliated with recessional agriculture. This activity will instruct GIRM technicians in small dam construction and maintenance and the farmer/herders in dam maintenance and health aspects of water usage affiliated with recessional agriculture. Approximately twelve rain-water retention dam sites have been identified in the Brakna and Gorgol Regions for potential financing under this project. In-depth technical studies at each dam site have already been undertaken and final selection of dams to be constructed will depend on the evaluation of these studies. The GIRM has already financed the construction of 20 water retention dams in the Brakna Region under the drought rehabilitation program. The West Germans have financed 14 dams in the Tagant Region, the FED is financing the construction of 12 dams in the Hodh Occidental and Oriental Regions and UNSO is financing the construction of several dams in the Assaba Region.

2. Rural Roads Improvement - (682-0214)

Location : Guidimaka Region primarily, but
also Gorgol Region

Life of Project Funding : \$6.5 million

Duration : 5 years (1981-1986)

Project Purpose: To stimulate the development of rural areas by providing transport improvements that will facilitate the flow of agricultural commodities into potentially high production areas and provide access to markets. This activity will finance approximately 300 kms of improved farm-to-market roads in the Guidimaka Region. USAID is collaborating with UNSO to finance the construction of the M'bout-Selibaby road network in this area. Other feeder road links in the Guidimaka Region are also to be improved through this project.

The Guidimaka Region has been identified as the area with the most agricultural potential and the proposed improvement of the M'bout-Selibaby network (including farm-to-market feeder roads) will provide reliable access to the major all-weather roads in the area thereby opening up this highly productive agricultural area. In addition to the construction of the road network, the project envisages the training of mobile brigades which will be responsible for maintenance of the roads.

3. * Environmental Restoration - (682-0220)

Location : Brakna and Gorgol Regions
Life of Project Funding : \$7.0 million
Duration : 5 years (1981-1985)

Project Purpose: To assist the GIRM to address its environmental problems and to protect dryland recessional agriculture production through increased tree production, improved forestry management and extension services.

This project has five elements: (1) strengthening of Protection of Nature Service through creation of planning unit and institutional support; (2) a series of activities along the Aleg-Sangrafra corridor of the major east-west axis highway comprising the following: regeneration of acacia Senegal; the stabilization of sand dunes to protect communities and agricultural fields at Magta Lahjar, the establishment of a forestry center at Magta Lahjar; and agro-sylvo-pastoral management activities in the barrage area; (3) improved management of classified forests along the Senegal River to demonstrate effective forest management techniques including sustained yield production of charcoal; (4) appropriate training for GIRM personnel as well as community level training aimed at the sensitization and mobilization of local population; and (5) establishment of a special fund to support and encourage appropriate local initiatives in forestry interventions and sylvo-pastoral management.

*Expected to be funded as part of renewable resources management

4 Alternative Energy Program - (682-0223)

Location : Center located in Nouakchott
but will impact all regions

Life of Project Funding : \$4.5 Million

Duration : 4 years (1981-1985)

Project Purpose: To create an Applied Energy Center (1) where developments in alternative energy can be adapted to the Mauritanian environment; (2) where Mauritanians can be trained in alternative energy development and; (3) which will assist in promoting widespread acceptance of these innovations providing cheaper and more readily accessible forms of energy for rural and low-income populations. The project will test energy/fuel saving in wood and charcoal stoves, solar cookers/grinders and wind power equipment

5. Agriculture and Human Resources Development (Kaedi)
(682-0224)

Location : Kaedi
Life of Project Funding : \$23.0 million
Duration : 5 years (1982-1987)

Project Purpose: To strengthen the Mauritanian capacity to train rural development workers, particularly in extension and research, by strengthening the agricultural training school at Kaedi on the Senegal River, and to develop within the Kaedi institutional framework a branch center in a dryland environment. With the GIRM's increased priority on the development of the rural interior, there will be an increased demand for agricultural extension agents to both design and manage agricultural activities. This project envisages upgrading the Kaedi school in the fields of agriculture, livestock improvement, range management, nature protection and forestry. The project calls for the establishment of one or more small scale subsidiary agriculture, zone specific training centers and research stations to provide students with the field experience in various ecological zones, thus preparing them for the variety of problems they will eventually encounter in their future work. The project will also develop and implement a program link with elementary schools, providing a basis for an immediate transfer of technology to a greater number of recipients, while also identifying potential students to attend the Kaedi School. The Project will finance the expansion/upgrading of existing facilities to allow the didactic training required. This activity will have a direct link with a U.S. Title XII institution (American agricultural university).

6. Food for Peace, Title II, Section 206

Location : Throughout Mauritania
Life of Project Funding : \$34.6 million (incl. Transport)
Duration : 3 years (1981-1983)

Project Purpose: To provide Mauritania with an assured contribution of 20,000 MT of U.S. food grains under section 206 (food for development) of U.S. PL 480, Title II and to assist the GIRM to formulate and implement an effective grain price stabilization policy which will remove constraints to an equitable expansion of production. Under this project, the GIRM will import approximately 20,000 MT of U.S. food grains yearly for three years. The local currency generated from the sale of these grains, estimated at 3.5 million UM per year, will be applied in assisting the GIRM to implement a food production/price stabilization program through a purchase/sales program offering price incentives to encourage local production, to improve cereals transportation handling and storage facilities, and to provide training programs in cereals marketing and logistics.

7. Operational Program Grants (OPG's)
to Private Voluntary Organizations

(a) Small Irrigated Perimeters - (682-0226)

Location : Guidimaka Region
Life of Project Funding : \$.500
Duration : 18 months (1981-1983)
Implementors : AFRICARE
SONADER (National Organization
for Rural Development)

Project Purpose: To introduce village level farmer-managed irrigated crop production on small irrigated perimeters in the Guidimaka Region of Mauritania along the Senegal River to contribute to the GIRM's long-range goal of increasing food production and reducing its dependence on food aid in this area. To accomplish this, the project proposes to assist SONADER to develop new irrigated perimeters under village cooperative control. Project components include the provision of irrigated agriculture extension personnel, installation of motor pumps, initiation of village cooperatives of a long-term training program for villages and pump operators. Technical assistance to oversee and advise on all aspects of the project will be provided by AFRICARE.

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(b) Small Enterprise Productivity - (682-0227)

Location : Urban Areas throughout country
Life of Project Funding : \$.200
Duration : Two years (1982-1984)
Implementors : To be identified

Project Purpose: To expand employment opportunities in rapidly expanding urban areas through stimulation and strengthening of the economic capacities of productive small-scale enterprises. Chronic drought conditions in Mauritania have resulted in heavy rural-urban migration leading to a lack of sufficient employment opportunities in urban areas. To help solve this problem, the proposed OPG would finance an appropriate, non-profit organization to strengthen small-scale enterprises in those urban areas where most unemployed persons are living. With both a modest capital investment loan fund and technical advice on improved business management techniques and methods, local urban entrepreneurs could strengthen and expand their business activities to better their own conditions, increase employment opportunities for others and make urban areas better places in which to live.

(c) Urban Migrant Community Development - (682-0228)

Location : Urban centers throughout country
Life of Project Funding : \$.200
Duration : Two years (1982-1984)
Implementors : To be identified

Project Purpose: To improve living conditions of urban migrants through the stimulation and support of local community development activities, including the fostering of self-help efforts to improve housing, health and employment opportunities. Chronic drought conditions have resulted in heavy massive rural to urban migration, thus creating large squatter settlements at the edge of Nouakchott and other urban centers. In addition to limited employment opportunities, the living conditions are poor with sub-standard shelter, hazardous health and sanitation conditions and inadequate nutrition. In response to this need, the proposed OPG would finance an appropriate private, non-profit organization in promoting community development and self-help efforts by groups of urban migrants for the improvement of shelter, health and sanitation conditions, and nutrition and urban services in order to improve their overall living conditions.

8. Accelerated Impact Program (625-0937)

(a) Land Tenure

Location : Brakna and Gorgol Regions
Life of Project Funding : \$300,000
Duration : Two years (1981-1983)
Implementors : To be identified

Project Purpose: To assist the GIRM to establish and implement in the Brakna and Gorgol Regions a land tenure policy. This activity will serve as a "broker" activity for on-going and proposed activities in which land tenure is a concern and has implications for project design and implementation, e.g., Rural Land Reclamation and Environmental Restoration.

(b) Family Health/Family Planning

Location : Urban Centers
Life of Project Funding : \$250,000
Duration : Two years (1982-1984)
Implementors : To be identified

Project Purpose: To assist the GIRM to develop family health activities including family planning through the provision of training for health personnel, basic family planning services, and commodity assistance.

II. SAHEL REGIONAL PROGRAM

(U.S.A.I.D.-financed regional programs of which a portion are implemented within Mauritania).

A. Current Projects

1. Integrated Pest Management - (625-0928)

Location	: Southern half of country
Life of Project Funding	: \$25.3 million (for 7 participating countries)
Duration	: 5 years (2/78-12/82)
Implementors	: FAO, CILSS, Sahel Institute

Project Purpose: To develop through research and agriculture practices the means of enabling the farmer to reduce food losses due to pests. This activity is designed to establish an integrated pest management capability for the protection of food crops within the CILSS member states. Mauritania is one of eight countries participating in this Regional Project. This project is not as yet fully operational as all the participating countries have not complied with the conditions precedent for the disbursement of funds.

2. Regional Food Crop Protection (625-0928.6)

Location : Southern half of country

Life of Project Funding : \$8.3 Million (for 7 participating countries)

Duration : 4 years (3/79-12/82)

Implementors : U.S. Department of Agriculture (USDA) (In addition, support is provided by FAO, WARDA, IITA, OECD)

Project Purpose: To strengthen or establish the National Crop Protection Service in Mauritania with a mobile field service capable of conducting demonstrations and combating local pest infestations within national boundaries; training a crop protection cadre to be capable of training other personnel and farmers in practical application of pest management technology, and creating domestic capacity to share and utilize regional and international research results, techniques and policies relating to crop protection activities. Major thrust of project is institution-building, using USAID-funded crop protection specialists under a PASA with USDA (one of which has been assigned to Mauritania), training in the U.S. and third countries, provision of vehicles and other required equipment. Mauritania is one of the seven CILSS member states participating in this regional activity, which is part of CILSS 5-year \$68.0 million comprehensive program for protection of crops in the Sahel and is complementary to the Integrated Pest Management Project.

3. Sahel Manpower Development (625-0936)

Location : Nationwide
Life of Project Funding : \$8.5 Million for all of Sahel
Duration : 5 Years (1979-1984)
Implementors : Participant Trainees

Project Purpose: To meet critical development requirements for managerial and technically skilled manpower in Sahelian countries by providing training in Africa, third world countries and the United States.

Most country nationals have received both short and long-term academic training in the United States and Africa in such fields as agricultural economics, macro-economics, development economics, human resources planning, public administration/management, etc. A Total of \$362,000 has been obligated as of 30/9/80 to finance these and other human resource development efforts. A total of \$528,000 has been requested for 1981 in order to address lack of trained manpower which represents one of major constraints to successful developments in Mauritania.

(22)

4. Senegal River Basin Development Organization - OMVS

(a) OMVS Agronomic Research II - (625-0605)

Location : Gorgol Region (Kaedi)
Life of Project Funding : \$6.2 Million
Duration : 4 Years (9/78-12/83)
Implementors : Consortium for International
Development (U.S. Universities)

Project Purpose: To assist the OMVS to carry out improved crop research and adaptive agriculture programs by upgrading research and adaptive agriculture programs by upgrading research centers in Mauritania, Mali and Senegal. This activity is a follow-on to the Phase I project in which AID and the UN funded varietal trials in irrigated rice and cereals and explored possibilities for crop diversification. This Phase II activity will continue research begun under Phase I, and will include identification of more productive plant species, introduction of farming practices appropriate to irrigated agriculture, and a research component on the adaptation of small farm machinery. This Phase II will finance the construction of research facilities and related buildings. The project also provides for long and short-term training in research. The agronomic research center in Kaedi receives assistance under this project. The Kaedi Research Center also receives USAID assistance under the regional USAID-funded SAFGRAD Project.

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(b) OMVS Data & Institutional Development - (625-0620)

Location : Senegal River Basin

Life of Project Funding : \$14.8 million

Duration : 8/76 to 1/83

Implementors : Teledyne Geotronics, carrying out OMVS Basin survey and mapping, sub-project which is being monitored by the U.S. Defense Mapping Agency.

Project Purpose: To improve OMVS capability to collect and utilize data needed to plan and execute development programs in the Senegal River Basin. It will help OMVS establish a unit capable of gathering and analyzing hydrogeological data. The mapping sub-project is scheduled for completion in FY 1981. The Ground Water Monitoring sub-project will enable the OMVS to monitor and investigate problems of ground water development and management in the Senegal River Valley including water logging and salinization in irrigated perimeters, and changes in the ground water table resulting from construction of the Diama and Manantali dams. A third sub-project in fiscal allocation responsibility will assist the OMVS develop a rational method of allocating costs to OMVS member states according to identifiable benefits.

B. Proposed Projects

Senegal River Basin Development Organization - OMVS

OMVS Integrated Development (625-0621)

Location : Senegal River Basin Area
Life of Project Funding : \$56.0 million
Duration : 5 years (9/81-9/86)

Project Purpose: To participate with OMVS in an integrated development of those lands in Mauritania, Mali and Senegal which lie within the Basin. The long-range development of the Basin calls for the construction of a salt water intrusion dam at Diama, Senegal and an upstream dam and reservoir at Manantali, Mali. The funding for these dams has been identified and construction will be initiated in the near future. These dams will permit double-cropped irrigated agriculture and continuous river navigation. The OMVS is preparing corollary plans for economic development along the river and resettlement of persons who will be displaced by the Manantali reservoir. The development programs are to encompass food production and social services to prepare the small farmers for irrigated farming and maintenance of canals, dikes and pumps required for double cropping. This proposed activity will finance studies and plans for the Basin development and will finance interventions called for in these studies, including irrigated perimeters and rural development.