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TRIP REPORT

PROJECT MANAGEMENT DEVELOPMENT AND TRAINING

PHASE I

APRIL - MAY 1979

MAURITANIA

Prepared for:  
Development Project Management Center  
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## INTRODUCTION

Phase I of this project entailed the establishment of a framework for project identification, design, implementation and evaluation within the context of needs and socio-economic conditions peculiar to Mauritania.

The specific tasks carried out were:

1. The design of the abovementioned framework in collaboration with Mauritanian counterparts from the Ministries of Plan, Agriculture, and Health and Social Services.
2. Preparation of a training plan and its implementation during a series of five seminars held with the technical directors of various development ministries.

A five member team, comprised of Morris J. Solomon (USDA), David P. Harmon, Jr., Robert Navin (consultants) and Marguerite Bruchesi (secretary-translator) were assigned to implement these tasks. The bulk of the work was carried out in meetings and seminars with various GIRM officials. In addition a three day trip to the Kaedi region was made in order to gain first hand knowledge of various agricultural projects, both successful and unsuccessful. The other purpose of the trip was to seek out a possible pilot project to initiate during the latter stages of Phase I.

### Meeting/Seminar Reports

During the first six weeks of Phase I numerous meetings, conferences and other exchanges took place between the American members of the project management training (PMT) "base team," their Mauritanian counterparts

other Mauritanian government officials and USAID staff members. Prior to the start of Phase I activities, two days were spent in Dakar obtaining background information on the activities of various international organizations in the agricultural/rural development areas in both Mauritania and Senegal.

1. Dakar, Sénégal Meeting with J. Dubreuil,  
FAO FAO Representative  
April 12, 1979

Discussion of the various development programs/ studies being carried out by FAO, UNDP, IBRD and ILO in Senegal and which of these affect or could have transfer implications for Mauritania. Review of the Diama and Manantali dam projects, the creation of Sonader (Mauritanian parastatal for rural development), and of various rice growing projects in the Kaedi region.

2. Dakar, Sénégal Meeting with Messrs. Howe  
USAID- OMVS section & Slocum  
April 13, 1979

Discussion of irrigation projects in both Senegal and Mauritania. Briefing on other OMVS projects/ studies that involve Mauritania;

- Two year aerial mapping project for land use/selected project areas.
- Environmental assessment of the Diama and Manantali dams and associated future irrigation projects.
- Senegal River fishing.

- Evaluation of agricultural research for rice, millet and

sorghum at Kaedi research station (as well as at the research stations in Senegal and Mali).

Nouakchott, Mauritania

Initial orientation meeting

USAID

R. Klein, M. Solomon, D. Harmon,

April 14, 1979

R. Navin

Briefing on current political situation. Background on overall AID mandate, with a view toward using the traditional sector as a "nursery" for project managers. Discussion of donor project determination, and of priority given project management training by GIRM.

Nouakchott, Mauritania

General orientation meeting

USAID

J. Anderson, J. Grayzel, R. Klein,

April 16, 1979

R. Illick, C. Edwards, R. Ritchie,

G. Hawbaker, D. Sheldon, B. Botts,

PHI team (Solomon, Harmon, Navin)

Following are the main areas covered at the orientation meeting:

- Presentation of the general economic situation.
- Salient socio-economic indicators.
- Traditional/modern sector developmental questions and conflicts.
- Sociological profile of country including review of its history.

- Country environmental patterns including soil types, mineral and water resources, makeup of animal herds, types of grasses, shrubs, trees and associated pressures of overgrazing.
- Third Economic Development Plan and sources/directions of funding.
- Role of RAMS project and Fourth Economic Development Plan.
- Human resources in Mauritania including formal education and vocational training.
- Other agencies/organizations active in rural development in Mauritania.

Nouakchott, Mauritania

MOP

April 17, 1979

Meeting with Ministry of Plan (MOP)

A. Diop, B. Cissé, M. Ly, H. Lam,

A. Bâ, R. Ritchie, PMT team

Introductory meeting with the Mauritanian members of the Phase I project management training team. Discussion of what the Mauritians hope to accomplish with this project. Mauritanian economic development strategies and policies outlined, as well as the need for these to be reflected in the design of the project management training program. Meeting set with directors from various ministries to discuss PMT program, its usefulness to them and the need for their active participation in its design.

Nouakchott, Mauritania

B. Cissé, A. Ba<sup>^</sup>, PMT team

MOP

April 19, 1979

Discussion of various means and methods of project evaluation, taking into account the precariousness of Mauritania's economy and the concomitant impact on project selection, i. e., acute need for short-term, high return projects. Established agendas for first working meeting of the Mauritanian-American base team and for the first seminar for technical directors of various ministries.

Nouakchott, Mauritania

B. Cissé, A. Ba<sup>^</sup>, PMT team

MCP

April 20, 1979

Clarification of certain questions raised vis-a-vis the Third Economic Development Plan. Discussed the reasons for project success and failure in Mauritania, and set up a preliminary plan of project identification and evaluation for the first seminar (April 21, 1979).

Nouakchott, Mauritania

A. Diop, B. Cissé, A. Ba<sup>^</sup>

MCP - seminar

PMT team, Technical Directors - various ministries

April 21, 1979

Initial meeting of Mauritanian-American Base Team with Technical Directors. Project management training program's background and objectives outlined to audience, stressing need for close

collaboration between the Mauritanian and American counterparts. Requirement that the output of this program be framed in the context of Mauritanian conditions, needs and developmental problems. The need for flexibility in the program, to reflect the dynamics of Mauritania's politics and economic situation, was emphasized.

Nouakchott, Mauritania

J. Anderson, J. Grayzel

USAID

April 25, 1979

Discussion of agricultural projects in the private sector, namely a successful chicken raising operation and a mixed agricultural (rice, beans, tomatoes) venture in the Rosso area. Examined country's legal system, both traditional and modern with particular reference to land tenure systems and associated development project problems. The principal problem is the government's lack of firm policy for compensating the people from whom land is taken, and the lack of an adjudication process. These factors result in the refusal of farmers to participate further in such projects (see section on Kaédi visit). In short, farmers often view agricultural projects as a government means of expropriating their lands.

Discussion of Peace Corps efforts to institute new programs in the Health sector requiring training in health/medical procedures. A serious inability to comprehend innovations and apply new techniques requires constant monitoring of projects and offers little assurance that new procedures will be adhered to once supervision is removed.

Nouakchott, Mauritania

Abdul ould Daddah

USAID

April 25, 1979

Discussion of country's current development policy and political situation. Daddah expressed concern that emphasis on rural sector somewhat misplaced. He also expressed hope that a more moderate, stable regime will evolve in the near future. It should be noted that Mr. Daddah is related to the former President, Moktar ould Daddah.

Nouakchott, Mauritania

PMT team, R. Ritchie, R. Klein

USAID

J. Grayzell

April 27, 1979

Update on Phase I of project management training program given. Outlined plans to visit Kaedi region with A. Ba<sup>^</sup> (MCP) in order to see the Gorgol project as well as "small rice perimeters."

Nouakchott, Mauritania

PMT team, B. Cissé, A Diop, A. Ba<sup>^</sup>

MOP

April 26 - 27, 1979

Preparation for April 28 seminar for the Technical Directors, Presentation and reformulation of project identification and evaluation methodology, including the need for specific criteria for individual sectors.

Nouakchott, Mauritania

PMT team, B. Cisse, A. Ba, A. Diop

MOP Seminar

Higher Level Technical Personnel

April 28, 1979

An overview of project management was presented emphasizing how the entire project management cycle derives from national and sectoral goals, strategies and policies. Following was a discussion of the MOP's role in project planning and evaluation relative to other ministries. A sample irrigation project was presented outlining the relationship between specific criteria (used to judge the applicability of a project to national/sectoral goals) and the procedures employed to identify, evaluate and, if necessary, modify projects. This topic engendered a great deal of interest among members of other ministries, especially the Director of Public Health, who, at present, has no effective way of planning and evaluating health care projects.

TRIP REPORT

Kaédi, Mauritania  
May 2-5, 1979

Mr. Morris J. Solomon  
Mr. David Harmon, Jr.  
Mr. Woody Navin  
Mr. A. Bâ

We visited several small perimeters to the West of Kaedi (with Tall Abdoulaye, the region's agricultural works engineer) including a 25-hectare rice seed multiplication site run by GIRM. Currently, three high yielding varieties are being cultivated including IR-1161. Seeding is carried out by transplanting seedlings instead of broadcasting the seed. With its forecasted expansion to 100 hectares over the next 2-3 years, this site will be the sole source of rice seed for Mauritania. Interestingly, another 25 hectares opposite the seed multiplication site are being cultivated using the identical cultural practices employed at the multiplication site. In contrast to those who work the multiplication site (paid 110 UM/day), the farmers working the opposite site are paid out of the harvest. To date, the only problem encountered at either site has been the large volume of irrigation water required by land that has not been cultivated before. They report no disease or pest problems but are alert to the possibilities of some once rice becomes established as a crop. There is a potential problem with rats in the future given the cyclical nature of their "population."

The first small rice perimeter visited was Rindiaou Sylla which was devoid of any crops. This perimeter is perhaps typical of failure when the necessary infrastructure for agricultural

development is absent and enunciated government policies are not carried out. In brief, the problems center about lack of grain storage facilities, lack of sales/distribution channels, (Office des Céréales Mauritanienes), lack of farm to market transport (SONIMEX), inability to get spare parts in time because of long bureaucratic delays (up to 12 months) in Nouakchott, and most important, lack of government funds to purchase the rice at the end of the last "hivernage" harvest. As a result the farmers (and villagers) consumed the harvest and now refuse to work the rice perimeter until the foregoing problems are resolved.

The second small rice perimeter visited was Sinthiou Cooperative which was in operation. Individual sites had been prepared (see following comments re land preparation) in advance for the introduction of seedlings. Seedlings are preferred to the broadcast method, because optimal plant spacing is possible, as is better weed control. In spite of these advantages, it should be noted that some of the individual sites had been overplanted/crowded while others had been sparsely planted. Approximately one half of the of the individual sites appeared to have been optimally planted. This perimeter has, as do the others, two individuals responsible for helping the farmers put effective rice farming methods into practice - (vulgarisateurs) - ranging from seedling preparation and transplanting to proper irrigation methods/timing, and harvesting. N. fertilizer (urea) is currently applied by broadcast at the

rate of 80 kilos/hectare 10 to 15 days after transplanting. The application rate will increase to 100 kilos/hectare in the near future. Both Mr. Tall and the head of the cooperative were unaware of the "mud-bell" method of fertilizing rice seedlings at planting time, i. e., nitrogen fertilizer encased in a hand shaped (made) ball of mud is placed directly under the plant at the time of transplanting. This method has been known to be much more effective in increasing yields and less wasteful than the broadcast method.

Soil tests at Sinthiou indicate that there is sufficient phosphorus and potassium in the soil for the next 4-5 years, after which time the soil will have to be supplemented with P and K fertilizers. Trace elements are said to be sufficient in quantity and quality.

The only "disease problem" that has occurred is an algae at some of the individual sites. The algae can hinder the oxygen transfer from atmosphere to plant roots if it becomes pervasive. Control is possible, though, with an available copper-based algicide.

With respect to financial arrangements, each farmer is required to allocate 1/3 of his harvest to cover input costs including depreciation. After the first year of operation, Sonader, the controlling parastatal, attempts to give the cooperatives as much autonomy as possible in fulfilling their own needs.

The problems the cooperative faces are partly technical and partly "institutional." For example, the individual sites

had not been particularly well prepared which caused some loss of water. The pumping system itself (from the Senegal River) was leaky. The farmers have not yet come to the realization that efficient water movement and use result in savings on diesel fuel (to run the pump), spare parts and depreciation costs (although these facts have been pointed out to them). Institutional/infra-structural problems similar to those encountered at Rindiaou Sylla exist at Sinthiou, such as inability to get spare parts on a timely basis. The government funding and market channel problems may or may not arise depending on whether the funds and marketing channels are available at the time of the "contresaison" - (June-July) harvest.

The problems encountered at the two perimeters must be resolved soon if the small perimeters are to prepare farmers for larger agricultural operations which will be possible upon completion of the Diama and Manantali dams.

The third agricultural operation visited was Roufi Awdi, a combination banana/vegetable growing site, at which villagers are being trained to grow bananas using methods developed at the research station.

Mr. M. L. Bâ, Chef de la Direction Fruitière of the Kaédi agricultural research station, accompanied the PMT Team. The banana "plantation" at Roufi Awdi comprises six hectares and was said to be producing satisfactorily (approx. 35 tons/hectare)

for an initial effort. By contrast, the research station (with better controlled agriculture) obtains yields of 50 tons/hectare. The principal problem at Roufi Awdi is the lack of wages paid over the past year to the villagers working the plantation

In addition to the banana operation the team visited the fruit tree section of the research station itself. Research is ongoing for a variety of citrus trees as well as for many varieties of mangos. This section has been operated by the Mauritians since 1976, at which time the French relinquished control.

The last project seen was the Gorgol. As everyone knows, the project is replete with problems:

1. In general the installation was poorly planned and executed.

- a. Poor construction of irrigation canals and drainage ditches which has resulted in severe erosion. Soil at site is not suitable to withstand water erosion. No effort made to obtain suitable soil to be mixed with site's soil so that walls could be properly compacted. Little cement available (and very high priced) to line canal and drainage ditch walls.

- b. Dam itself has settled so that water exit

vanes (doors) will not shut completely causing a loss of 30% of Gorgol river flow : full flood and virtual total loss after the rainy season. Current fixed speed pumps not powerful enough to draw from Senegal River at low water. No adequate motor pumps available to draw from the Senegal River.

c. Pump house has four fixed speed pumps which means a loss of flexibility in volume of water that can be supplied.

d. Gorgol project dependent on Sonelec (parastatal-utility) for electricity- which at times is unreliable.

e. Spare parts virtually unobtainable. What spare parts are able to be financed often sit at the Nouakchott wharf for 4-5 months.

f. Some of the farm machinery is poorly adapted to the project.

g. Goats are allowed inside the project area with consequent damage to canal, drainage and flood dike walls.

h. Rice husking plant not operating owing to poor design and faulty construction - supposedly being redesigned.

i. Gorgol River Valley reservoir improperly planned. Up-river depth only 1-1/2 meters with resultant pumping difficulties and silting problems.

j. With inactivity, land dries out and then can not absorb water when finally applied.

2. The principal institutional problem is that of land tenure. Without a settlement that is satisfactory to the owners of the land the farmers will not work. Government proposals to date have been rejected. The farmers indicate a possible interest in renting their lands to the government. Of course, there is the perennial problem of lack of funds. The result is evident when one sees 5 hectares being farmed in "contresaison" out of a total of 567 hectares available. 3 of the 5 hectares are under crops for the Kaedi agricultural school. The other 2 hectares are devoted to rice and corn trials.

Other institutional problems are:

a. Pressure by Senegalese River fishermen to release water from the Gorgol into the Senegal at low water times, thus cutting into the availability of water for irrigation.

b. Farmers reluctant to plant seedlings by hand since they know that Senegalese rice planting is mechanized.

c. Advances for season's inputs required from farmers were felt to be too high - 1/6 of harvest.

d. Government has done little to make the farmers aware of the potential benefits of the project.

e. Little attention is paid to existing village land tenure arrangements and actual division of land. Senegal does pay attention to this relationship in that it subdivides its large perimeters into 100-150 hectare units which correspond some or less to existing individual village arrangements.

To summarize, the Gorgol project is currently inoperative. However, the per hectare investment cost is estimated at 500,000 UM (\$11,000) or three times that of comparable projects in Senegal, in large part due to the greater amount of infrastructure required.

Nouakchott, Mauritania

PMT team, Higher Level Technical  
Personnel

MOP - Seminars

May 8, 1979

Discussion of how a project is structured from planning through implementation stages, including explanation of how, in the planning stage, inputs are derived from desired project outputs. Presentation of a sample small rice perimeter project with criteria, data required, possible bottlenecks, and where relevant, applicable findings from the Sinthiou cooperative (Kaédi trip).

Nouakchott, Mauritania

PMT team, Higher Level Technical  
Personnel

MOP - Seminar

May 12, 1979

Example of demand analysis given for both market and non-market situations. Presentation of Material and Cash Flows, including inputs and outputs on a common, comparable basis, i. e., described in terms of monetary units. Detailed investment and cash flow tables for three levels of an agricultural project were presented, i. e., governmental, cooperative and individual farmer (member of cooperative).

Nouakchott, Mauritania

Dr. A. Hacen, Director of  
Technical Services

Ministry of Health and  
Social Services

May 16, 1979

Discussion of Ministry's efforts in health sector, which are severely

hampered by lack of funds, and how the Ministry currently goes about project selection.

Nouakchott, Mauritania  
Ministry of Health and  
Social Services

Dr. A. Hacen, Director  
of Technical Services

May 18, 1979

Preparation of a sample health project including financial statements for presentation at May 19, 1979 seminar. Health project selected to demonstrate differences in market and non-market project selection criteria and evaluation.

Nouakchott, Mauritania

PMT team,

MOP - Seminar

May 19, 1979

Presentations of sample agricultural, industrial and health sector projects with profit and loss, cash flow, and sources and uses of funds statements where applicable. Sample projects to be used in connection with following three day seminar treating various financial measures of project acceptability.

#### Summary/Conclusions

Despite the current political uncertainty in Mauritania, the first half (6 weeks) of Phase I was relatively successful. From all appearances the Mauritanian members of the base team and the Technical Directors from the development ministries are beginning to see the value of project management training and are increasingly

willing to put in time and effort. With their continued enthusiasm and effort Phase I will be successfully completed and can provide a framework for the expansion of the project management training program over the next three years (Phase II). The word "can" is stressed because there are many obstacles which may present the success of the overall effort. The major obstacles, most of which can only be partially overcome within the relatively short (three year) scope of the project, are:

1. The lack of Mauritians qualified to undertake, or learn to undertake, project management. This will be a constant problem, only remedied by time - as more Mauritians are educated and enter government service - and by a shift in attitudes toward teaching/training as a profession (see item 6). Of course, capable and willing Mauritians must be sought out from all ministries and parastatals in order to assure a wider success for the PMT effort.

2. Concomitantly, the extreme pressures of day to day administrative work on a very limited number of qualified government personnel.

3. "Enchantment" with economic modelling and other sophisticated analytical techniques which, at this early stage of development and given the precarious nature of their economy, are not particularly appropriate. It should be noted, however, that by the end of the first half of Phase I, the Mauritians were beginning to appreciate that simpler, more effective measures are necessary if the right

projects are going to be found and carried out on a timely basis.

4. Difficulty in recognizing and adapting to the dynamics of Mauritania's economic and social situations. Part of this difficulty arises from the formal, rigid nature of the French higher education of most Mauritanian bureaucrats. This was particularly evident in the first meetings and seminars at which an inordinate amount of time was spent wrangling over definition of such terms as goals, objectives, criteria, purpose, etc. By contrast, those few Mauritanians who have been exposed to American (or Canadian) training/education had little difficulty in understanding the need for flexibility, and the requirement for simple, effective, teachable methods of project selection and management.

Obstacles three and four are less serious than the first two, and can be largely overcome by the success and spread of the PMT effort.

5. Because of the lack of talent, both in quantity and quality, Mauritanians are unable to "Negotiate" effectively with donors. They perceive an urgent need for personnel trained in the use of sophisticated economic and financial "tools" because they feel the need to control the direction, quality and rate of their development. This is quite correct, even laudable, however, the fact is that their very basic needs (food, health care, basic infrastructure) must be met first, and this argues for a combination of logic and simple evaluative tools. For example, "logic" would dictate a very hard

look at Atlantic Ocean fishery resources and how best to exploit them. It is estimated that Mauritania's ocean fishing grounds could yield a yearly catch of \$500 million to \$1 billion in market value from four pelagic species of fish. Two critical elements are missing, viz: a Mauritanian capability of harvesting these fish and a means of policing the waters. At this writing, Atlantic Ocean fish are the only large, renewable "resource" that Mauritania has, but it could provide a large portion of her development.

Logic would also dictate the examination of why certain small rice perimeters succeed and others fail, because with the completion of the Diama and Manantali dams, Mauritania must be ready to exploit the potential of year round irrigation, and shift from the age-old agricultural strategy of risk minimization to one of self sufficiency in basic foods. These two examples are indicative of the kinds of decisions Mauritania must make, and raise policy considerations such as who fishes in Mauritanian waters, how the matters of land tenure are to be resolved, and how should a farm to market distribution system be put into place. These are questions relating to a country's survival and call for "go - no go" type policy decisions. Once the country is on the road to development, the need for more sophisticated evaluative tools in project selection then becomes apparent.

6. The teaching/training "profession" stands in very low esteem among Mauritians. It is not a route to "personal success. In time, this attitude can probably be changed by a conscious decision on the part of the Mauritanian government to reward those who undertake project management training, both financially and in terms of prestige - e.g., eligibility for scholarships to study project management in the

United States, better chances for promotion within the government, etc. In other words, to break the stigma attached to this work, special, real, consideration must be given those who undertake this work. PMT is probably the most rapid, effective, hands-on way for a country such as Mauritania to develop a cadre of trained personnel across its entire spectrum of ministries.

Even so, there is the delicate question that the most likely candidates for such positions will be blacks, and the White Moors who hold the dominant positions, will be averse to another "increase" in the growing power of the blacks. It should be remembered that in May 1979 there were two serious riots in Nouakchott because of blacks' displeasure over the importance to be accorded the Arabic language in the receipt of one's high school diploma.

7. There is a great difference in level of expertise and understanding of concepts basic to project management. In part, the solution will be to start with the rudiments for everyone, and in part, have these concepts reinforced by work on a pilot project (s). The pilot project will start almost everyone on the same level, since very few Mauritians have had hands-on experience.

To conclude, a project identification and selection framework is being developed in collaboration with the Mauritians, with documentation, worksheets, computation procedures and criteria, based on existing Nigerian and Jamaican frameworks adapted to Mauritanian conditions. This framework is to be applied to a small pilot project, the experience from which should be transferable to other development projects. It will most likely be in the agricultural sector because this sector has social, infrastructural and industrial

(small scale) requirements. Specifically, a small rice perimeter might be chosen - one that is operative, with problems, but with a high chance of success - such as the cooperative rice perimeter at Sinthiou. A successful pilot project might then be transferable to other perimeters - perhaps to even a failure case such as Rindiaou Sylla.

If a second pilot project is to be considered, the health sector is a logical and urgent candidate. Mauritania has the second highest infant mortality rate (~ 200/1000 live births according to knowledgeable people at the Ministry of Health and Social Services) in the world, the fifth lowest life expectancy (~ 39 years), and the sixth lowest per capita caloric supply. Her population is also deficient in key vitamins, and per capita protein availability (which formerly was adequate) has declined with the drought-caused migration of nomads into urban areas. In fact, in the last ten years the nomadic/sedentary ratio of 64/36 has exactly reversed to 36/64 with a concomitant urban demand for social services that can not be met .

Conversations with Dr. A. Hacen, Director of Technical Services of the Ministry of Health and Social Services, indicate that approximately 80% of all equipment used in health/medical care, ranging from vehicles to stethoscopes, is inoperative. In addition, an extremely small fraction of the government budget is actually allocated to this sector. The lip service paid this sector is even worse than that given the rural sector. Any written information, in French or Arabic, on project selection and management

in the health sector, would be truly welcomed by Dr. Hacen.

With its meager resources, and with one of the highest average risk factors in the world, PMT can help Mauritania concentrate on areas of development where there is, or likely will be, potential. It will also help Mauritania recognize those areas where not to place efforts/finances. PMT for Mauritania must be seen in the light of the fact that this country will have to proceed slowly, simply and carefully in its development because, on one hand, it has so little, and on the other, it is subject to an extremely harsh climate/environment.