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**The Range
Management
Improvement
Project in
Morocco:
An Evaluation**

David Gow
Donald Burzlaff
William Duggan
Roy Martin

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Development Alternatives, Inc. 624 Ninth Street, N.W. Washington, D.C. 20001

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SUMMARY OF ACRONYMS

AID:	Agency for International Development
ANCC:	Association Nationale des Ovins et Caprins
COMAGRI:	Compagnie Marocaine de Gestion des Exploitations Agricoles
COP:	Chief of party
CNCA:	Caisse Nationale de Crédit Agricole
CI:	Centre des Travaux
DE:	Direction de l'Elevage
DPA:	Direction Provinciale de l'Agriculture
DE/SP:	Direction de l'Elevage/Service des Harcours
ELP:	Extensive Livestock Program
COM:	Government of Morocco
INPA:	Institut National de la Recherche Agronomique
INAV:	Institut Agronomique et Vétérinaire Hassan II
MAFA:	Ministère de l'Agriculture et de la Réforme Agraire
ORMVA:	Office Régional de Mise en Valeur Agricole
FCV:	Peace Corps Volunteer
PMC:	Plant Materials Center
FSC:	Programme de Sauvegarde du Cheptel
RMIP:	Range Management Improvement Project
SNDE:	Société Nationale de Développement de l'Elevage
SOGETA:	Société de Gestion des Terres Agricoles
SONACOS:	Société Nationale de Commercialisation des Semences
USU:	Utah State University, Logan, Utah

CHAPTER ONE

THE RANGE MANAGEMENT IMPROVEMENT PROJECT: AN OVERVIEW

Introduction

The Range Management Improvement Project (RMIP), implementation of which began in 1981, has important implications not only for those involved in the process of institution building but also for those concerned with the problems of extensive livestock raising on common rangelands and the resulting "tragedy of the commons" situation. Over the past decade, but particularly over the past five years, there has been an increasing awareness by both international donors and host country governments alike that development assistance, rather than focussing on short-term gains, should concentrate on the achievement of long-term sustainability, that is, the capacity to maintain the provision of services and flow of benefits once such assistance terminates. One way in which such sustainability can be achieved is through the process of institution building--the creation of institutions with the necessary resources, personnel, and experience to plan, manage, and evaluate development activities. Almost by definition, institution building activities are a long term proposition with few appropriate short cuts or "quick fixes" to accelerate the process.

Ever since the Sahelian drought of the early 1970s, and even before, there has been increasing concern expressed about the growing imbalance in many semi-arid countries between the size of the livestock population and the capacity of the rangeland to support that population. As many of the rangelands are communal property, with few restrictions on the number of livestock an individual community member can pasture, overstocking and overgrazing have flourished--a result of increasing population pressure, improved animal health, and the availability of supplemental feed sources.

As a result, communal pastures are, in certain parts of the world, being steadily degraded--thereby reducing their capacity to support extensive grazing, leading in some cases to a tragedy of the commons, whereby such communal resources have been so overexploited that the only way to recapture their productive potential is through a process of range management grazing control. Projects designed to address these problems in sub-Saharan Africa have met with only limited success and some vocal critics now question whether AID should be involved in the extensive livestock sector at all. Unaddressed, however, is the issue of whether this limited success has been due to poor design, the complexity of the problems, or a combination of both. The project under review addresses both institution building and range management concerns.

Project Background

The RMIP project is the most recent of AID efforts to create a range management capability within the Government of Morocco (GOM), specifically the Range Management Service of the Direction of Livestock (DE/SP) within the Ministry of Agriculture and Agrarian Reform (FARA). While earlier efforts

were sporadic and somewhat ineffectual, valuable lessons were learned from these experiences. In 1968, at the request of the GOM, AID financed a range management project with technical assistance provided by a private voluntary organization, International Voluntary Services (IVS). The goal of the project was to develop range management perimeters in two areas, Plaine de l'Aarid and Tafrata. Over time, however, the scope of this project was considerably curtailed--from one of rapid development of each perimeter to one of limited research.

The basic problem, and one that has been well documented for both East and West Africa, was the project's failure to obtain the understanding, consensus, and participation of local livestock producers and their leaders(1). Not surprisingly, the local population effectively resisted the project's attempts to control a part of their communal resources. The problem was exacerbated by the GOM's unwillingness to meet its commitments to the project. Four of the five IVS volunteers resigned before their contracts were completed.

Nevertheless, some important preliminary steps were taken in addressing the problems of managing communal rangelands. First, six Moroccans were sent to the US for short-term training and one was sent for an MS degree. With project assistance a Royal Proclamation (Dahir No. 1-69-171) was passed in 1969 which provided the legal basis for the creation of range improvement perimeters on communal lands, thereby ceding control over the management and development of these perimeters to the GOM. Finally, the project demonstrated the feasibility of reseeding and deferred grazing. These three elements--training, perimeters, and deferral and reseeding--have played important roles in the present range management project(2).

Designed in 1979, this project originally focussed on range extension and long and short-term training:

The purpose of the proposed project is to strengthen the technical and administrative capability of the Service of Feeds and Ranges [the precursor of DE/SP] of the GOM Livestock Service to conduct research in range management and to implement its range improvement program. The range improvement program is primarily a program of technical assistance to the grazing associations and extension and demonstration of the benefits of improved range management techniques on their perimeters in the effort to get other tribal groups interested in forming grazing associations(3).

The contract to implement the project was awarded to Utah State University (USU) and in 1981 they fielded a four person team consisting of three range management specialists and a social anthropologist. The former were assigned to work in Cujda (Ain Beni Mathar perimeter), Beni Mellal (Ait Rbaa perimeter) and Meknes (Timahdite perimeter), where the sociologist was also located. The range management specialist in Meknes also served as team leader. A fifth technician, a seed production specialist, was added a year later with primary responsibility for working with the Plant Materials Center (PMC) located near El Jadida. In addition, seven PCVs were assigned to the

project in late 1982--four range management specialists and three sociologists. All told there were a total of 12 Americans actively involved in the project at that time.

Project Redesign

A mid-term evaluation, conducted early in 1984, identified several positive factors resulting from this project--specifically the fact that both long and short-term training in the US was proving to be effective, that over \$400,000 had been spent on commodity procurement for both the PMC and the perimeters, and that morale among the American technical assistance (TA) team, earlier plagued by internal conflict and dissent, was steadily improving. Notwithstanding, a Project Paper Amendment, which was partially based on the evaluation team's findings, did identify the following three design related problems as serious impediments to the implementation process:

- * A concentration of extension activities on range management perimeters which form but one potential source of animal feed. To address this limitation, the project was to focus on the total livestock/crop production system;
- * A lack of coordination between the various perimeters. This problem was to be resolved by concentrating the TA in Rabat and having them provide their specific expertise to each of the perimeters on a regular basis. Collaboration with allied organizations and activities was also to be encouraged; and
- * The institution building component of the project had been downplayed and no specific strategy for achieving this objective had been developed. As a result, institution building became the principal purpose of the project--to be achieved through various types of training (long-term, short-term, non-formal, in-country, and on-the-job) and an increased emphasis on providing DE/SP staff with direct, hands-on experience in the planning, implementation and evaluation of applied research, extension and rangeland development programs(4).

When these recommendations were made, a five-year time frame in which to implement them was proposed. This was unacceptable to AID since USU's performance for the first three years had been poor and AID could not, in good conscience, award them with an extension and an increase in funding. While USU had made some significant changes in the makeup of their TA team, it was too soon to tell how effective the newcomers would be. As a result, by the time the project amendment was signed, the team had approximately two years in which to act. This short time frame must be borne in mind since it flies in the face of reality when dealing with such objectives as institution building and rangeland development, both of which are, by definition, long-term propositions.

Institution building, while highly laudable and worthwhile, is somewhat nebulous and difficult to measure. A simple, straight forward definition of institution building would state that the bottom line is to create

institutions that can do their work more effectively. Such increased effectiveness can only be gauged by results, not potential. In the case of this project, institution building must be gauged in terms of results, but results achieved by Moroccans. The PP Amendment defines the project purpose as follows:

The purpose of this project is not to identify and introduce improved management techniques and forage varieties. It is not to produce needed seed materials. It is not to develop research and extension programs, nor to provide services to livestock owners. Rather, its purpose is to develop the capacity of DE/SP to perform these tasks. If, when the project's technical assistance team leaves, the ability of DE/SP staff to carry out these functions has not improved, the project will not have been a success(5).

In order to assess this capacity, the evaluation team looked closely at the specific activities in which DE/SP--with USU assistance--is presently engaged: the various research activities, range extension, training, and the development of the Plant Materials Center. The assumption underlying this approach is that institutional capacity should be operationalized through these activities which, in turn, should eventually contribute to the achievement of the project goal--an increase in livestock productivity and production efficiency by Morocco's low income livestock producers.

External Factors Affecting the RMIP

The first factor affecting the RMIP and perhaps the most immediate is that of time. Barely 15 months have elapsed since the PP Amendment was signed, hence it would be very surprising if significant changes had occurred in such a short time frame. Nevertheless, sufficient time has elapsed to allow an assessment of whether DE/SP is now pointed in the right direction.

While the temporal factor is more important in the short run, there have been several other external factors over which the project has exercised no control--specifically climatic conditions and the macroeconomic situation. Since 1980 Morocco has suffered from irregular rainfall conditions, in terms of timing and quantity. Rainfall has tended to be much lower than "average". These variations have had a differential impact but, particularly in the early 1980s, several parts of the country were hit by drought. As a result, both herds and rangelands were severely affected. For example, in the province of Safi where the perimeter of Sidi Chiker is located, the following fluctuations in herd size were recorded for the period 1979 through 1985:

Table 1: Livestock Variation in Safi, 1979-1985

Species	1979	1980	1981	1982	1983	1984	1985
Cattle	145,191	150,799	139,625	79,779	77,391	80,731	111,000
Sheep	890,506	977,785	845,541	383,837	543,999	541,604	723,500
Goats	88,255	91,926	73,844	30,838	41,887	49,466	78,000
Camels	15,590	18,000	17,000	15,000	12,362	12,071	10,200
Rainfall	345.5mm	268.5mm	196.8mm	262.2mm	173 mm	239.8mm	364.6mm

Source: DE/SP, "L'Elevage dans la province de Safi," Safi: DPA, 1985, p. 3.

Another area that was severely affected was Oujda where the Ain Eni Mathar perimeter is located. The other perimeters where the project works were also hit. Hence, it is unrealistic to expect dramatic changes or dramatic results as a consequence of project activities, given these severe environmental constraints.

A third factor that must be borne in mind is the deteriorating macroeconomic situation--which has been exacerbated by years of successive drought. Budget deficits and balance of payments problems have also been aggravated by the world-wide recession which reduced Morocco's export earnings, particularly from the sale of phosphates, as well as by an expensive war in the Sahara. As far as the range management project has been concerned, this has meant that the level of GOM support has remained relatively constant over time--even though project activities have been expanding.

Table 2: Budgetary Expenditures for RMIP, 1981-1985

<u>Item</u>	1981	1982	1983	1984	1985	<u>Total</u>
Salaries	333,840	511,660	566,400	611,280	660,480	2,683,660
Investments	4,096,000	5,753,000	3,820,000	2,350,000	2,251,000	15,270,000
Operating Costs	1,035,000	650,000	1,545,000	1,351,000	2,365,000	6,946,000
<u>Total</u>	5,464,840	6,914,660	5,931,400	4,312,280	5,276,480	27,899,660

Source: Figures supplied by DE/SP. The 1985 figures are estimates based on budgetary allocations.

Consequently, this budgetary constraint has somewhat limited both the expansion of activities and the hiring of additional personnel to implement these activities at the various project sites.

Evaluation Methodology

For the first three weeks in which the evaluation team was in Morocco, its movements were largely dictated by an ambitious, somewhat rigid schedule of travel and interviews arranged by AIL and DE/SP. While this readily identified all the key players to interview and strategic places to visit, it did not allow for much flexibility or in-depth interviewing, given the "rural tourist" aspect of the whole undertaking. Be that as it may, however, a lot of information was gathered in the process, some of it very worthwhile and extremely relevant.

The first week was spent in Rabat talking to various people and institutions involved in RMIP and the livestock sector in general. The second two weeks were spent visiting the four project sites as well as the Plant

Materials Center at El Jadida. At each site visits were made to observe specific project activities and interviews were conducted--on an individual or group basis--with both Moroccan and American personnel at each site. The same types of questions were asked across the four sites--to the extent that they were relevant. Documents and reports were also consulted. The fact that the team was accompanied by the DE/SP coordinator, as well as an AID representative who had worked on the project redesign, greatly facilitated the team's comprehension and appreciation of the process under review. The final week was spent in Rabat where the team drew its own tentative conclusions which were discussed in detail with the interested parties--specifically AID, USU, and DE/SP. The recommendations listed at the end of this report are those of the evaluation team which assumes sole responsibility.

NOTES

1. For West Africa, see Michael M. Horowitz, The Sociology of Pastoralism and African Livestock Projects. Washington, D.C.: Agency for International Development, 1979. For East Africa, see Walter Goldschmidt, "The Failure of Pastoral Economic Development Programs in Africa". The Future of Pastoral Peoples. J.G. Galaty, D. Aronson, P.C. Salzman and A. Chouinard, eds. Ottawa: International Development Research Center, 1981, pp. 101-118.
2. USAID/Morocco, Range Management Improvement Project (608-0145): Project Paper Amendment. Rabat: USAID, 1984, pp. 11-12.
3. USAID/Morocco, Range Management Improvement Project (608-0145): Project Paper. Rabat: USAID, 1980, p. 9.
4. USAID/Morocco, Range Management Improvement Project (608-0145): Project Paper Amendment, pp. 16-20.
5. Ibid, p. 20

CHAPTER TWO

PROJECT PURPOSE ACCOMPLISHMENT: ROLE AND FUNCTION OF DE/SP

Introduction

In assessing the role and function of DE/SP and its performance to date, it is important to evaluate the specific activities in which the institution is presently engaged. While the role of DE/SP is ostensibly to plan and implement applied research, extension, and range management programs, achievement of this can best be understood in terms of specific functions undertaken. These include the following:

- Applied forage and animal production research;
- Applied sociological research;
- Applied economic research;
- Range extension;
- In-country training, and
- Development of a plant materials center.

Each of these will be discussed in detail below.

Applied Forage and Animal Production Research

Work plans for the revised RMIP called for a broadened scope for applied research activities. Consequently interventions were selected that could be implemented at all sites. These included:

- Species and variety adaptation trials;
- Grass seeding with conventional seedbed preparation compared with seeding with rangeland drill;
- Site production data;
- Herd monitoring for production systems information; and
- Herd health activities.

Other activities were more site specific. Their implementation depended upon local interest and the expertise of DE/SP, PCV and USU technicians. Some of these included:

- Legume seedings;

- Shrub plantings;
- Development of benchettes and contour furrows;
- Use of fertilizers to increase production;
- Mechanical treatments to increase water infiltration; and
- Ram sterilization by means of the "short scrotum technique".

Field visits to the research sites at Beni Mellal, Timahdite, Midelt and Cujda confirmed that the interventions were appropriately conceived. The time constraint from implementation to project completion date dictated that the activity show short term benefits. Since the implementation techniques for field research were part of the institution-building process, they also had to be considered as training experiences.

Grass and legume seedings were delayed by availability of seed. In spite of high rates of germination and emergence, seedlings failed to become established at some locations. The rate of seedling mortality was enhanced by extensive and severe drought in the area. In some instances the effects of the drought were intensified by extremely "loose" seedbeds. The condition of the seedbed allowed evaporation of soil moisture before the grass seedling was adequately developed to permit establishment. The importance of firm seedbeds cannot be overemphasized when seeding grasses on critical sites under adverse conditions.

Certainly grass and legume adaptation trials and seeding techniques must be continued. Much rangeland has been plowed and planted to cereal crops by persons whose judgment has been distorted by ignorance as well as by the overwhelming desire to achieve some type of land ownership. There must be a concerted effort by DE/SP and associated agencies to convert these ill-advised farmlands back to productive ranges.

Shrub plantings within benchettes, contour furrows, and other water harvesting structures were accomplished at selected sites. These practices show much promise since they can be implemented with minimum equipment needs. Local people can be taught the procedures quickly and technical assistance is needed only in production of seedlings, surveying of level terraces, and in creating appropriate schemes for utilization. Their importance lies in the fact that they can both help control erosion and increase moisture retention, thereby improving the potential for natural vegetative growth.

These plantations were considered to be successful in spite of the drought and appear to be a successful step in improving rangelands as well as the feed budget of range livestock production systems. In addition, there are soil and water conservation benefits which have long term improvement potentials for the rangeland resources of Morocco.

Field visits and interviews verified that activity has been initiated at all locations to meet work plan objectives in animal production systems

research. DE/SP and technical assistance personnel were involved in the implementation and maintenance of the data base. As might be expected the activities were more complete at some locations than others. The exceptions to a fully integrated approach occurred at a work site where there appeared to be inadequate personnel. Overlapping work responsibilities dictated priorities in schedule. Work preferences of personnel also enter into the decisions. It is in these circumstances that technical assistance in planning and budgeting resources plays an important role. It is not unusual for national as well as local representatives of various governmental agencies to agree to work loads beyond their resource capability to fulfill stated obligations.

The study of the "short scrotum technique" for sterilization of male sheep has long range implications for the industry in Morocco. The technique allows opportunity for breed improvement through selection for rates of gain, wool quality, and other desirable characteristics in each flock.

Applied Sociological Research

The applied research program in sociology outlined in the PP Amendment identifies the following items to be assessed in all project areas:

- Perception of producer needs, issues, opportunities and limitations;
- Producer expectations;
- Producer perceptions of current production systems; and
- Social and cultural influences on livestock/crop production and on acceptance of new technology.

The project has given general direction to the PCVs and the Moroccan technicians assigned as sociologists on the type of data to be collected and how to collect it, based on the recommendations made by a consultant. No uniform questionnaire has been supplied to the technicians at each site but data is of generally the same type and it may be possible to combine the common features for analysis. The PCV sociology technicians were concerned about the lack of coordination from the project and about how the information would be used. They expressed a feeling of wasted time and effort in the data collection process.

Most of their efforts are presently concentrated on the Agro-Pastoral Systems Study which was really initiated in July 1985 after a consultant's visit. This study consists of regular visits to an average of 12 households at each site every two to three weeks. Data on family activities, consumption habits, livestock and crop sales, and herd production are collected during these visits. Plans are for this to be carried out during an entire crop year, that is until the end of the present project.

A study of the market is conducted by going to the souks held in

communities near the perimeters. This information is used to determine market trends.

One of the efforts which was started early in the project and which still continues is the preparation of a lexicon of words related to agriculture and livestock. This type of exercise will allow better understanding of such specialized terms but is worthwhile only when done in conjunction with other activities.

The data collected certainly has value in developing an understanding of the systems employed by the livestock producers who were interviewed. Direct application to others may be limited by the lack of uniformity of data collected between sites, by the size of the samples, and by the method of sample selection. There also may be errors in the data resulting from wrong answers provided by the producers, especially during the early stages of data collection before the PCVs gained their confidence.

Allowing for the above stated weaknesses in the program, the collected data could be useful in the design of extension programs. The most serious problem appears to be the lack of analysis and application of data which has already been collected. The data from the 1982 Timahdite survey, for example, should have been developed into usable information long ago. Probably more important than the data, however, is the working knowledge of the PCV and Moroccan sociology technicians and the rapport they have developed with the contact families. They should be involved in the development of any implementation programs which use sociological data.

The sociology program has developed the capabilities of the DE/SP staff at the adjoint technique level to collect sociological field data but little effort has been made to train any at the level required for analysis and application. In all cases but one, the local administrative staff does not understand why this type of data is being collected and merely tolerates the presence of sociology technicians on the staff. Almost certainly there will be little further sociological work done by DE/SP after completion of the project, unless those Moroccans returning from the U.S. with training in sociology are given the opportunity to redesign this component.

Much of the information collected by the sociology technicians could probably have been obtained through a literature search and better use of Moroccan staff. At least three documents were identified by PCVs which contained social information related to Moroccan livestock producers in general and, in some cases, to the specific development sites(1). A thorough investigation of this literature would have provided a good beginning and might have allowed a considerable savings of time.

The better use of Moroccan DE/SP staff might have also saved a significant amount of time. Familiarity with customs, thorough knowledge of the language, and ability to better identify the reliability of responses given, provide the local technician with a distinct advantage over foreign technicians. Given the same transportation, a well designed questionnaire and freedom to work on the data collection task, the Moroccan technicians would

probably have had little trouble in obtaining in a few weeks the same data obtained over the period of a year by the PCVs--had these technicians been working on their own.

To date none of the data has been integrated into production system models and extension programs as was projected for June 1985 in the logframe. It is conceivable that the USU staff could accomplish this by the end of the project but direct involvement by DE/SP staff is unlikely. Available evidence indicates that the social science component has never been well integrated into the RMIP. In addition, it appears that the research priorities established after the mid-term evaluation were established by USU, through the use of a consultant, with little participation by DE/SP staff.

Applied Economic Research

Although a clear distinction was made in the PP Amendment between applied economic research and applied sociological research, a distinction maintained in the most recent RMIP Annual Report, what has actually been implemented is a program of applied socio-economic research which has already been discussed in some detail above. The fact that the two programs have been integrated makes eminent sense and underlies, once again, the importance of having a chief of party (COP) who is concerned full time with the administration and management of the project, with no technical responsibilities whatsoever. This is particularly true for the RMIP where there is a relatively large TA team working in five distinct parts of the country. The present COP is also a range economist and had hoped to be actively involved in economic research, but his managerial responsibilities precluded this. A similar dilemma also befell the first COP, who was also responsible for managing one of the perimeters with his Moroccan counterpart.

Range Extension

Although the redesigned project indicated a need existed for "applied" research before extension work could really start, the project staff initiated several extension activities while the research was being conducted. These have often been at the request of private land owners and livestock producers. Extension programs have included the following:

- Seeding of perennial forages;
- Extension program for users of perimeters;
- Cooperative formation;
- Field days;
- Development of printed training materials; and
- News releases for regional and national newspapers.

Forage seeding. In the Timahdite and Boumia areas a number of farmers

requested that seeding of perennial forage species be done on their land. The most obvious successes were an intermediate wheatgrass seeding on a very well suited site and an alfalfa seeding near a stream where it could be irrigated. These two areas have stimulated a great deal of interest and have resulted in requests by other farmers for seedings this season.

Other seedings had been on seedbeds that were not firm enough for the best grass establishment and, coupled with a drought period soon after germination, this resulted in spotty or failed stands. Because of these failures, some farmers indicated that they will go back to cereal production. Overall, however, the extension effort for private land seeding has had a favorable impact. A season of successful establishment could provide a basis for greatly expanded activity by DE/SP beyond project completion. At the present time, this is a small scale activity with the farmer preparing the land and DE/SP providing the seed and planting it.

Grazing Systems. An extension program is being developed for use at the Plaine de l'Aarid to explain the purposes of the grazing systems being used on the perimeter. Since the water system is not complete, the herders have their camps near the central watering area where they are a natural audience for extension activities.

Cooperative formation. A cooperative has been functioning for some time on the 10,000 ha. pilot perimeter at Ain Beni Mathar. Now there are requests from adjacent areas for similar organizations and efforts are being made to organize them. As this happens, control of grazing land in the area should expand. It should be pointed out, however, that the cooperative in question has only 60 members and has a permanent DE/SP director.

Field days. Several field days have been organized for extending range management techniques. These have included shrub planting and contour furrowing at Ain Beni Mathar, and revegetation with perennial grasses at Plaine de l'Aarid. Unfortunately, many of the areas have little to show for these efforts. Nevertheless, there are at least some results at El Faija and at Ait Rbaa which may be effective in letting producers know that the project can get something to grow. Increased bermuda grass at Ait Rbaa, for example, may be enough to encourage the setting aside of more land for treatment.

Printed Materials. Some printed materials have been developed but these are very limited and have not been produced in Arabic. The project staff might find that wordless, illustrated brochures can be developed which would have meaning even for the illiterate. The project has not reached its work plan goal in this area.

News releases. Good quality news releases have been prepared and provided to national and regional newspapers.

The extension program is not well coordinated and consists mostly of bits and pieces conducted at the various perimeters. More coordination from the central office and a concerted effort towards extension could produce good results, if range extension were high on the priorities of the MNP and if it were, in fact, part of DE/SP's mandate.

DE/SP staff, especially those who have had US training, seem very eager to apply their knowledge and to extend it to the range users. PCVs have been active in extension activities. Even the interest generated by the questions asked during sociological interviews and during animal production studies has a useful extension function. Staff members conducting these studies are now viewed favorably by the producers and should be used in an extension capacity as much as possible. This would not only be effective in extension of ideas for improvement of livestock and range management, but would also make the PCVs and their counterparts feel more useful and thereby serve to provide a continuation of Moroccan involvement following project completion.

Training

DE/SP field staff and main office staff have been beneficiaries of specific in-country training activities. These activities were developed under the institutional building activities of the project. They included:

- * Language Training opportunities;
- * Semi-annual training seminars;
- * TDY visits and workshops; and
- * Attendance at professional meetings.

DE/SP training recipients were most complimentary and appreciative of these training opportunities. For example, the project training program held at Kasba Tadla in September 1984 included a variety of speakers from different institutions as well as some from RMIIP. Formal presentations were complimented by field trips to various sites. Perhaps the most enthusiastic response to questions about effectiveness of the training in program planning and work scheduling was encountered at the Oujda location. The very extensive and diverse demands on DE/SP resources required higher levels of organization than at other sites.

Intended goals and needs for institutional development through in country training have been adequately addressed by the TA team.

The Plant Materials Center

The Plant Materials Center was originally conceived as a facility to produce, process, and distribute foundation seed. It became apparent that the need for grass and legume seed for field plantings was more urgent than production of certified seed. Consequently PMC purpose was modified to one of multiplying and processing grass and legume seed for intended grass seedings at project sites and other DE/SP locations in Morocco.

The process of developing the PMC reflects a very coordinated effort

between the GOM and the RMIP. Planning, design and construction have been well organized and were completed in a timely manner. The unit is complete except for some cleaning equipment that is yet to be delivered.

Implementation of the production and processing of seed has been orderly. Both the PMC director and the farm manager have completed intensive short-term training in farm management and seed production in the US. They have also received intensive one-on-one training from the American technician responsible for PMC development.

Location of the PMC in a frost-free zone limits its usefulness in production of cool season grass seed. The Agropyrons and perhaps other grasses do not set seed at this location because there is no low temperature dormancy (vernalization) of the plants.

Many of the adapted grasses for all sites do produce seed and this has been harvested and processed with the first major distribution to be made in 1985. The quality of seed and production procedures reflect appropriate training of personnel.

The PMC is also developing a capability for production of shrub seedlings for transplant to perimeter sites. Currently they have 250,000 or more Atriplex seedlings available with the capability to produce 400,000 or more per year. This, together with the nursery at Oujda and the production capability of the Direction des Eaux et Forêts, would make available some one million seedlings per year. This would seem adequate to meet the field site demands that exist today.

The anticipated role of "ley farming" in the rainfed agricultural areas will create a demand for seeds of the annual medics. The PMC is appropriately situated to be a site for producing seed for this aspect of agriculture. This may well be the most consistent demand and, consequently, consistent source of funds for the PMC operation.

As the efficiency of production and development of PMC increases, it is logical for the Government of Morocco to consider "privatization" of that facility. Perhaps it should function as a parastatal to assure that it is maintained as a seed production facility and not diverted to dairy or other extensive agricultural production.

According to PMC personnel, the PMC has the capacity to generate its own income and operating capital through the following types of activities:

- The production of certified seed through SONACOS;
- The production of forage;
- The cleaning of custom seed;
- Seed sales to local consumers such as COMAGRI, SOGETA, SNDE, SODEA, SONACOS and other AID supported projects; and

- The coordination of seed production activities with other entities involved in similar activities such as INRA, SOGETA, and the Direction des Eaux et Forêts.

The project goals for development of a Plant Materials Center with appropriate training of personnel to operate the institution have been met by the contracting institution.

NOTES

1. For example, see the following: W.P. Boyle, Jr. Contract and Kinship: The Economic Organization of the Beni Mquild Berbers of Morocco. Ph.D. dissertation. Los Angeles: University of California, 1977; J. Chiapuris. The Ait Ayaah of the High Moulanya Plain: Rural Social Organization in Morocco. Ann Arbor: University of Michigan, Museum of Anthropology, 1979; and J. Couleau. La paysannerie marocaine. Centre National de la Recherche Scientifique, Paris, 1968.

CHAPTER THREE

PROJECT PURPOSE ACCOMPLISHMENT: INSTITUTIONAL CAPACITY

Introduction

In assessing DE/SP's institutional capacity to plan, manage, and implement these activities, care must be taken to distinguish the various levels of institutional capacity involved. In this case three levels must be considered:

- At the national level in Rabat;
- At the managerial level on the four project sites and the PMC; and
- At the level of the field personnel actively involved in the implementation.

The National Level

At the present time DE/SP has a staff of 26 working on RMIP, three of whom are based in Rabat. The most important is the Chef de Service, who is responsible for all DE/SP activities throughout the country. At present, DE/SP is working at 16 different locations. The major responsibility for monitoring RMIP field activities for DE/SP lies with the project coordinator, who is the main link between national and field offices. He is also the major link between DE/SP and the TA team based in Rabat. Although he has no formal counterpart on the American side, he is an almost de facto one to the present acting OOP. Both the Chef de Service and the project coordinator were trained in the US and both are highly motivated, dynamic and diligent, but grossly overworked.

The increased emphasis on planning, information gathering, analysis, and report production appears to have originated primarily from the TA team, with the active support of the DE/SP, but with little indication that such activities will be expanded beyond the immediate project sites. One of the major contributions to the RMIP made by DE/SP has been the provision of personnel and resources to implement project activities. As discussed earlier, such provisions have been limited by budgetary constraints, exacerbated by the fact that the investment budget is invariably late. Furthermore, DE/SP is in no position to assure that funds actually reach their designated destination, given the vicissitudes of the present administrative structure.

While the national office handles administrative and managerial matters affecting RMIP, it is not in a position to provide much technical assistance--whether in range research, range extension, or socio-economic research. Some has been provided in range research--but little has been provided in the latter two fields, primarily because they lie outside DE/SP's traditional mandate and hence personnel with the necessary expertise are not

found on their staff. Without the American presence, there would be little interest in either range extension or social research and the odds are that such activities might well be dropped when, and if, American assistance is phased out. There may, however, be some hope for social research when the present trainees in sociology return from the US.

The Project Level

At the level of the individual project sites, a much healthier situation prevails--since DE/SP has wisely chosen to concentrate its personnel in the field and thus avoid the temptation to create a top-heavy bureaucracy in the capital. As discussed earlier, the PMC is up and running and could, over the next two years, become a private concern since the capacity and increasing experience of the personnel there make this feasible. Establishing the PMC as a viable institution has been one of the major achievements of the RMIP: a combination of resource availability, training, the calibre of the Moroccan staff, and intensive, experienced TA on a one-to-one basis. While establishing a PMC may be a little easier and more straight forward than establishing a rangeland development program, its creation is no mean achievement.

At the level of the individual RMIP project managers at the specific project sites one factor strikes the disinterested observer smack between the eyes: those managers who do have the capacity to plan, manage, and implement RMIP activities are precisely those who have been on the job the longest, since before the RMIP started. For example, M. Fagouri has been in Midelt since 1971 and M. Laraisse in Oujda since 1979. The fact that they have been at the same location for some time has obviously contributed to the institution-building process at the local level. The fact that they both believe strongly in what they are doing (though both use radically different methodologies) has also contributed. The fact that they both are strong personalities who have learned how to operate well within the present existing administrative structure of the DPA has also contributed.

This latter capability cannot be overemphasized. Since one of the acid tests of the effectiveness of institution building is the capacity not only to manage resources but also to have:

- Access to sufficient resources to do the job at hand;
- Control over these resources; and
- A specific awareness of future resources needed and a realistic awareness of where they will come from(1).

In the case of rural Morocco, the ability to do this calls for a considerable amount of political acumen--since resources allocated at the national level may be "diverted" or "hijacked" at the provincial level. This is particularly true of budgetary allocations for operating costs. The "bottleneck" in this process may be the DPA director, the provincial Chef d'Elevage, or the bureau head to whom individual project managers are directly responsible, or both. In the words of one recent study:

An important vehicle for policy development is the annual budget process. These policy statements are communicated from the Service des Parcours and from the Division de la Production Animale in Rabat. At the same time, the Direction Provinciale de l'Agriculture (DPA) or ORMVA develops local policy, including that developed by the provincial governor, and coordinates the activities of local offices. In theory, this development of policy serves to refine national policy to local circumstances. In practice, it often serves to counteract policy generated in Rabat. This is particularly true in the budget process where funds may be earmarked for one service and are reallocated to another(2).

Thus, in order to function effectively the existing organizational structure must be massaged in order to obtain the necessary resources to execute RMIP activities. In Midelt, the project manager works well with his immediate superior who, in turn, does his best to support his colleague. In Oujda, the project manager there has succeeded in gaining control over his own budget and creating his own Bureau de Parcours which responds directly to the DPA.

On the other two project sites, at Beni Mellal and Timahdite, the project managers do not enjoy a good working relationship with their immediate superiors and are continually fighting over budgetary allocations. Both received MS degrees in the US under the RMIP and both, immediately on their return, were assigned to the perimeters as project managers--with little or no previous experience in either project administration or management and no opportunity for on-the-job training. Suggestions that they be given time to serve an apprenticeship under someone more experienced were turned down because they were not feasible at the time. However, experiences with other returning MS people has convinced DE/SP of the importance of this on-the-job training before such technicians assume posts of responsibility.

The Field Level

The human, physical and financial resources of the DE/SP are rather thinly dispersed. There needs to be a continual priority for growth in all three resource areas. The effectiveness of the individual DE/SP units within the project is affected by the motivation, personality, seniority, priorities, and experience of the responsible managers. But these managers are only as effective as the staff they have to work with. The 26 DE/SP personnel presently working on the RMIP are assigned as follows:

Table 1: Distribution of DE/SP Personnel in the RMIP

Rabat	3
PMC	5
Beni Mellal	4
Midelt	4
Oujda	6
Timahdite/Midelt	4

Source: DE/SP, Amenagement et Mise en Valeur des Terrains de Parcours, Rabat, 1985, p. 72.

The consensus of the evaluation team is that the field level personnel do have some capacity to implement short-term range improvement and livestock management interventions, as discussed earlier in Chapter Two. However, as might be expected, there is some considerable variation from site to site. For example, in the case of Beni Mellal, the sociology technician is working well and is enthused about the work but there appears to be little chance that he will be able to continue after the PCVs leave as he will have no support from his superiors and no transportation. There is no apparent extension work by DE/SP except with direct involvement of American TA staff.

In Midelt, the sociology technician is strong and, with some support, might be able to continue studies after project completion. There is some doubt that the senior technical staff will provide such support as they seem to question the validity of sociological work.

Extension efforts are being conducted by the DE/SP staff, directed toward the producers using the Plaine de l'Aaride. These efforts, however, seem to be presented in a very paternalistic fashion. The attitude of the staff is that they must force good management on the producers, which is contrary to effective extension work. It also raises the critical question: should those enforcing grazing controls also be doing extension activities?

At Timahdite the entire staff seems to be overwhelmed by the presence of the Moyen Atlas project. There is little chance of continuing sociological work or extension work by DE/SP staff under current conditions. This is because the whole area is dominated by this World Bank-financed project which makes the RMIP appear very small and insignificant.

In contrast, the DE/SP staff in Oujda is very strong and is capable and willing to use sociological data which has been collected to date. It is very likely that this type of activity will continue after project completion--mainly because the staff has found it useful in planning and modifying their interventions.

Extension work has been done and will likely continue. It is, in at least some cases, somewhat heavy-handed and is related to the control function of the organization, rather than extension in the normally accepted term. The DE/SP staff was influential in the establishment of a grazing cooperative at the site. The cooperators benefit from the organization but apparently are directed by DE/SP in exactly how to graze the rangeland rather than taught the

principles of range management. One co-op member was very adamant about the way the DE/SP director told them what they had to do instead of working with them to determine the best way to operate.

NOTES

1. Craig Olson et al, Private Voluntary Organizations and Institutional Development. Washington, D.C. Development Alternatives, Inc., 1985, pp. 18-20.
2. Paul Bartel, "An Analysis of the Service Delivery System of the Service des Farcours, Direction de l'Elevage, MAFA." Rabat: FMIP, 1985, p. 3.

CHAPTER FOUR

PROJECT PURPOSE ACCOMPLISHMENT: THE USU/AID CONTRIBUTION

Introduction

In order to assist the RMIP accomplish its purposes and achieve its ultimate goal, the project - in this case USU with AID support - has made several distinct types of contribution: the provision of technical assistance - both long- and short-term; the provision of overseas training - also both long- and short-term; and some commodity procurement. The assumption is that these contributions have made a noticeable difference in DE/SP's institutional capacity - particularly when the capacity of those involved in the RMIP is compared with that of DE/SP staff not involved. Any major differences noted should be attributable to the project - at least in theory. A final issue to be addressed is that of replicability, that is, could the RMIP experience in institution building be replicated within other DE services or branches? Hence, this chapter will address the following important elements:

- The TA contribution;
- The training contribution;
- Attribution; and
- Potential for replication.

The TA Contribution

TA has played a very important role in this project - both before and after the mid-term evaluation: before there were 12 expatriate technicians and now there are 15, with four senior technicians, four junior technicians, and seven PCVs. After the mid-term evaluation, an important change was made in the structure of the American TA. In order to coordinate the project better and thereby obtain a common program of activities across the sites, as well as making the differing technical expertise available to all sites, it was decided to centralize the TA in Rabat. In fact, all senior and junior technicians (with one exception) now operate out of Rabat.

It was hoped that they would become mobile technicians visiting sites on a regular basis - to assist with planning and monitoring, provide specific types of technical assistance, and resolve any problems that might arise. Hence, the earlier model of TA, with each senior American working closely on a one-to-one basis with his Moroccan counterpart on the perimeter, was replaced by that of the adviser who visits on a regular basis.

Not only was this approach viewed as being a better utilization of scarce resources, but it was also believed to be more effective since accurate records would be kept of these visits and of progress made towards the achievement of project purposes and goals. The frequency of these visits was

varied - depending on the time of year and also on the needs of the specific site. The distribution of these visits is presented in Table One.

Table 1: Site Visits by TA Members, 1984-85
Month

<u>Site</u>	9/84	10/84	11/84	12/84	1/85	2/85	3/85	4/85	5/85	6/85	7/85	8/85	<u>Total</u>
<u>Beni Mellal</u>													
Senior Staff	2	1	1	1	2	3	1	1	2	-	-	-	14
Junior Staff	-	2	1	-	1	2	-	4	1	-	2	-	13
<u>Midelt</u>													
Senior Staff	-	2	1	-	-	2	-	1	-	-	-	-	6
Junior Staff	-	1	-	-	-	1	-	1	1	-	2	-	6
<u>Meknes</u>													
Senior Staff	1	2	1	-	-	2	-	1	1	1	-	-	9
Junior Staff	1	1	-	-	-	2	-	4	-	1	1	-	10
<u>Oujda</u>													
Senior Staff	-	1	-	-	1	1	-	1	1	-	1	-	6
Junior Staff	1	-	-	-	1	2	1	2	1	-	2	2	12

Source: Compiled from USU records.

Most of these visits were short, usually of two to three days duration. From the table, several interesting observations can be made: first, that the most developed sites - Midelt and Oujda, received less visits than did the less developed, less active sites - Beni Mellal and Meknes/Timahdite. This could be expected since these latter sites were the ones more in need of assistance. Second, with the exception of Beni Mellal, site visits by a senior technician averaged less than one a month. Finally, junior technicians made more site visits on average than did senior technicians. In a sense then, the juniors became surrogates for the seniors. This would be quite acceptable if, in fact, the juniors were working directly with Moroccan field staff. From information gathered in the field, however, it would appear that they have tended to concentrate their efforts on the PCVs. The question then becomes: who is training whom - particularly when there are 15 Americans on the TA team of varying skills, background, and experience?

One of the drawbacks to this centralization of the TA in Rabat has been the creation of a project office which, by default, has become the sole domain of the TA team. When the decision was taken to centralize, DE/SP was unable to provide them with space in its present building nor did it encourage any Moroccans to work out of the project office. What has developed, then, is a parallel organizational structure: a Moroccan one within DE/SP and an American one completely outside, but formally linked through regular meetings, telephone conversations, and field trips.

In the long term, creation of a separate office and the addition of more Americans to the TA team work against the creation of institution building capacity, since the project, in a sense, has become more Americanized - partly in response to the time constraints dealt with in Chapter Two. Given two years in which to improve the situation, USU wished to have some tangible results to demonstrate at the end of that period. Many of the more serious implementation problems encountered over the past 15 months--including the size, distribution and composition of the TA team, the weakness of the sociology component, and this separate office question--stem directly from the time and research limitations inherent in the redesign, as conceived in the PP Amendment.

The TA team is very much aware of this double bind situation in which they presently find themselves - as witnessed by the following comment from the most recent annual report:

Institution building activities can only be accomplished when the project has very close contact with Moroccan personnel in the Range Management Service (SP). Presently, Moroccans are only occasional visitors to the Project Office. If these activities are to succeed, SP must commit at least one individual to working in the Project Office in Rabat. In addition, Moroccan personnel must be willing to accompany Project personnel on field visits. (1)

DE/SP personnel claim that while this is a problem, it is not a serious one - at least from their perspective. Plans are underway for the DE/SP head to have office hours in the project office two days a week.

Closely related to this problem of centralization and separate offices is, of course, that of counterparts. As no organigram of the RMIP exists, it is difficult to know where the TA team fits into the existing structure, if at all. From the American TA perspective, the COP is regarded as being in charge of the project - and this is certainly the point of view of USU in Logan. From the Moroccan perspective, however, the situation is a trifle murkier and the COP is reputedly referred to in official correspondence as the official representative of the State of Utah. In addition, when people in the field refer to the RMIP, they call it "le project" - referring exclusively to the American office in Rabat. This raises the interesting question of "ownership": whose project is it?

When TA is provided to development projects such as the RMIP, it can usually be divided into two broad categories:

Technology Transfer: the provision - formally or informally - of technical education that local staff require to perform their functions; and

Systems and Organizational Development: the provision of assistance in the design of structures and procedures that integrate the activities and tasks needed to achieve project objectives and sustain results. When successful, this consists of adjustments in current structures and procedures, rather than creation of new systems and organizations (2).

According to the PP Amendment, the four senior technicians were to divide their time among the following responsibilities:

- Project-wide program planning;
- Location-specific program planning;
- Project-wide program coordination;
- Technical consultation and field assistance;
- Location-specific coordination;
- Data analysis and interpretation;
- Reporting and project progress documentation; and
- Project administration.

Their major contribution over the past year has been the introduction of an annual planning process and the elaboration of an annual work plan for each specific site. Project managers said they had found this innovation useful and, at Oujda, where there are several activities underway, it was viewed as a valuable form of assistance. As of this writing, the process is presently being repeated at each project site.

With the exception of Oujda, from which the resident American technician had been transferred some time prior to the mid-term evaluation, project managers expressed a longing for the old model of TA, daily one-to-one contact with an expatriate technician. While the visits from Rabat were appreciated, Moroccan personnel felt they were too short and fleeting and left little time for serious discussion of the problems and issues that had arisen since the previous visit.

The TA in sociology has some distinct limitations. There is no senior sociology staff member on the team, leaving only junior technicians and PCVs. Sociological surveys conducted at the perimeters are not consistent from site to site. PCV sociologists were told what types of data they should be collecting but questionnaires were not used to provide continuity.

All PCV sociologists had the feeling of a lack of direction by Rabat and a lack of understanding how the data they were collecting was to be used. They expressed the need to get on with extension work so they could feel like they were able to make a contribution.

Another point brought out by each of the PCVs was that the data they were collecting either existed already or could be much more quickly and accurately collected by Moroccan staff armed with a list of questions for which they would find answers. As previously noted, several studies of this

nature have been done and a thorough literature search should have been done by the staff before undertaking field research. Much of the information sought might have been available, limiting the amount of additional information required from field surveys.

The sociological components of an implementation project are required early in the project and should be designed to answer questions to specific problems which have been identified. The sociologist should also be alert to problems which may result from implementation but which may not be identified before the study.

Since range management depends upon the control of livestock numbers, distribution and time of grazing on the area of range under consideration, the range manager must be able to know what the constraints relative to control might be. It appears that in many cases the sociological component of this project was not aimed toward obtaining answers to the range manager's questions, but rather undertook a study just to see what might turn up. Studies similar to those being conducted now were also reported in the 1982-83 annual report and sociological papers were presented as part of that report.

There is no readily apparent use being made of the previous sociological work and the time left in the project does not allow a realistic application of current studies. A better use of time and effort would have been the application of knowledge from earlier work and of information in the literature to answer questions related to application of range extension. The Moroccan sociology counterparts need to be trained in the interpretation of results for the purposes of range management, more than they need further experience in conducting surveys.

Extension technical assistance has been provided at the senior technician, the junior technician and the PCV levels, but has been somewhat limited at all levels as the team has concentrated its efforts on obtaining data for future extension applications. Where obvious extension opportunities were found, as in the case of farmers requesting forage seeding on private land, the TA team has attempted to provide this as a way of interesting more farmers in the program. This met with limited success due to drought, coupled with improper seedbed preparation in some areas. Other, more general extension activities have been conducted by senior staff. These include field days, tours and a few articles which are currently in progress.

While a considerable amount of TDY assistance has been provided over the past year only two consultants were regularly mentioned for the contribution they had made. It appears they were appreciated for two reasons: one, because they were acknowledged experts in their fields and, two, because they were very willing to share their knowledge and experience with project staff.

The Training Contribution

A total of 11 Moroccans have been involved in advanced degree training in the United States. All of these men have been DE/SP employees. All have

been involved in MS degree programs. As of November 1985 eight have completed their graduate work and returned to positions in Morocco. The remaining three are scheduled to return before the end of July 1986.

Nine of the 11 have had range management oriented training. Two will have degrees in rural sociology. By the project completion date the goals for long-term training will have been satisfactorily completed and the technical capability of the DE/SP will have been greatly strengthened.

The length of short-term training period was reduced from six to four months. This reduction allowed more DE/SP staff to participate. By project completion date 80 person months of training will have been completed.

The training component of the RMIP has been not only essential but also most successful. There is no doubt that DE/SP capability has been greatly enhanced. The training component should not be neglected in future activities developed in Morocco. The emphasis might shift from US training to assistance to Moroccan educational institutions to provide adequate advanced level short-term training to agency personnel.

If any constraint was noted in long-term training it was the decision to opt for a non-thesis MS degree. This option may have had desirable short-term implications, but well may have long-term liabilities for the recipients since it precludes the possibility of doing original research. Unfortunately, funds were not budgeted for research. In addition, DE/SP will only pay salaries for employees studying overseas for a maximum of two years.

Attribution

Are the DE/SP staff involved in the RMIP qualitatively different from their colleagues in DE/SP who are not involved in the project? Based on comparative impressions gathered at sites where RMIP is not active - Ouarzazate, Chichaoua, Sidi Chiker, and Asjen - the answer has to be a qualified no. Even within RMIP, as already indicated, there are qualitative differences between the DE/SP personnel at the various sites. Furthermore, although the other sites visited had received little direct assistance from RMIP, they had received some from other sources. Hence, to say that there is little qualitative difference between RMIP and non-RMIP personnel is not so much a reflection on the TA as it is on the quality and caliber of many of the people that DE/SP has in its ranks. The indications are that it is overseas training, combined with resource availability, that helps make a crucial difference. For example, the highly effective project manager in Oujda had little time for TA, but he did receive an MS in the US prior to the start up of the RMIP--as well as various forms of material assistance from both RMIP and non-RMIP sources.

In areas where there are highly motivated leaders, for example in Ouarzazate and Asjen, and where technicians have had similar types of training, there is no noticeable difference between their competence and enthusiasm and that of regular RMIP personnel.

The Asjen Centre des Travaux (CT) is directed by a technician with a degree in range management. His influence can be seen in the reclamation of the collective land in the Asjen community. The livestock producers with grazing rights have agreed to a management program which includes limiting the stocking rate, reseeding to adapted improved species, and regulating the period of grazing. The site was seeded in 1984, deferred during establishment, and grazed after the end of the growing season in 1985. It appears to be in good condition with about 50 per cent of the plant material left as stubble and with no further grazing planned for the current season.

This work has been accomplished as part of a successful, integrated extension program. Also included is rotation of cereal crops with legumes to provide on-farm forage for the livestock of the area.

The Ouarzazate ORMVA has two trained range technicians with degrees from the US. They and their adjoints techniques have been very involved in rangeland development in the area and have also produced a very professional report on the rangelands near Ouarzazate which includes environmental, biological, economic and social information(3). Estimates of forage production and area measurements have been made. A field trial/demonstration site was established with some areas planted to Atriplex spp. and other areas left as native range. Trials were conducted using different stocking rates on native range. Palatability and production of Atriplex were tested and estimates were made of firewood production. A nursery was established at Ouarzazate for production of Atriplex seedlings which will be planted on 10,000 ha. this year. These staff members are very competent and are able to initiate and complete projects using their own initiative.

Replicability

Can the technical and planning processes introduced to DE/SP by the RMIP be replicated throughout DE/SP and DE? Before answering this question, it is important to decide which of the technical processes introduced are worth replicating. On the basis of the information presented here on specific RMIP technical activities, the most successful have been in the area of research on animal production and range forage. RMIP became involved in these activities by default, since no one else was conducting this type of research. but DE/SP is not a research institution and it is highly questionable whether such a capacity should be replicated throughout DE/SP - particularly when it does not have the personnel to conduct such research.

In theory, the planning processes introduced by RMIP should be replicable if they do not disrupt existing procedures too greatly. For such replicability to be effective, however, there need to be changes in the budgeting process so that field offices receive their funds on time and in the amount stipulated: The best planning in the world cannot compensate for resources that regularly arrive late. Since this process has been in place for only a year, it is hardly surprising that it has not been replicated in DE/SP or elsewhere. While the planning process had no effect on budgetary allocations for 1985, DE/SP hopes to improve this process by having its annual plan for 1986 approved by the Minister of Agriculture in person.

Notes

1. DE/SP and USU, Morocco Range Management Improvement Project: AID 608-0145. Annual Report, 1984-1985, Rabat, 1985, p. 29.
2. George Honadle, Jerry Silverman, and Donald K. Mickelwait, "Technical Assistance Shortcomings". Implementing Rural Development Projects: Lessons from AID and World Bank Experiences, eds. Elliott R. Morss and David D. Gow, pp. 83-106. Boulder: Westview Press, 1985, p. 83.
3. DE/SF, "Etudes générales et voies d'amélioration des parcours du bassin versant de Ouarzazate," Ouarzazate: GRMVA, 1984.

CHAPTER FIVE

CURRENT STRENGTHS AND LIMITATIONS OF DE/SP

Introduction

DE/SP is a viable institution: it has some well qualified, well motivated people, who are implementing some exciting activities in the extensive livestock sector. Nevertheless, as earlier sections of this report have indicated, institutional capacity is weak at some of the sites--two in particular. But in assessing DE/SP as an institution--broadening the focus from that of the five sites where the RMIP has been active to the DE/SP program as a whole--it is apparent that DE/SP suffers from several limitations, some of which are more amenable to change than others. Among the more critical are the following:

- * Structural factors affecting DE/SP;
- * The proper role of DE/SP;
- * The DE/SP development strategy;
- * The DE/SP intervention strategy; and
- * The potential role of local organizations(1).

Each of these will be discussed in detail below.

Structural Factors

DE/SP is the youngest service within the DE, an institution whose priorities--until very recently--have been directed towards the eradication of animal diseases and the augmentation of milk production, primarily in and around the ORNVAs. As a result, the lion's share of DE's resources has traditionally gone to animal health and genetic improvement. While this focus has changed somewhat since the drought of 1981, it does mean that the veterinarians still form the professional backbone of the DE. As a result, the priorities in the extensive livestock sector have still continued to be animal production rather than range management and the improvement of range resources. From the perspective of the veterinarians, many still have to be convinced of the importance and potential contribution of DE/SP to the development of the extensive livestock sector. Hence, from their perspective DE/SP has two strikes against it: it is young and it is different.

This situation is exacerbated by the fact that SP is merely one service among four that fall under the rubric of Production Animale (PA). If MABA and DE are serious in their attempts to address the problems of Morocco's degrading rangelands, then it is in their interests to strengthen DE/SP. The upgrading of DE/SP to the division level would provide those responsible for

range management with improved budgeting, additional staff, and a louder voice in policy decisions that affect Morocco's rangelands. Such an upgrading would also serve to counterbalance the heavy veterinarian influence within DE.

In addition, it would also help DE/SP to become more effective at the DPA level. As discussed earlier, while the DPA has no control over DE/SP's investment budget, it can do as it wishes with their operating budget. Under the present structure at the DPA level, the local Service de l'Elevage is divided into two bureaus, the Bureau de Santé Animale and the Bureau de Production Animale. In theory, the RMIP project manager serves under the head of this latter bureau. In practice, as we have seen, there is considerable variation from site to site. While DE/SP has encouraged their project managers to create their own Bureaux de Parcours, the only place where this has been effective--in the sense of responding directly to the DPA director and having some relative budgetary autonomy--is Oujda which, structurally at least, should serve as a model for other DE/SP sites.

Even if DE/SP's status is improved within both DE and the DPA, this upgrading will be little more than a paper exercise unless DE/SP is provided with the resources to implement its program. Attention has been drawn in previous reports to the willingness of the government to support present RMIP activities and to provide additional funding in the future as worthwhile programs are identified. Within DE/SP the RMIP has traditionally received the majority of the funding, ranging from a high of 69.1 per cent in 1982 to a low of 52.7 per cent (estimate) this year. In addition, as discussed earlier, the country is presently weathering a severe economic crisis which has necessitated a cut back in government expenditures.

The indications are very strong that the problems of agriculture and extensive livestock raising in the lower rainfall areas of the country, those that receive less than 400 mm. of rain a year, are not high on the government's priorities. One of the principal objectives of the Agricultural Section Adjustment Loan is to restructure public investment and expenditure in agriculture toward quick maturing, high return investments. Investments in the rangelands are neither: hence, by both definition and choice, they are low on the government's priorities. In 1985, DE/SP received only 10 per cent of DE's investment budget. The fact that there has been AID assistance to DE/SP over the past five years has undoubtedly stimulated the government to meet its obligations. If and when this assistance terminates, where will the motivation and the leverage to continue the present level of support come from?

The Proper Role of DE/SP

Should DE/SP be engaged in a variety of activities, such as forage research, animal production research, socio-economic research, and range extension, or should its primary role be that of addressing range management issues--leaving these other, more specialized activities to the relevant agencies and institutions? It was never the intention that DE/SP would be a multifaceted institution with the capacity to address the variety of

interdisciplinary problems found in extensive livestock production and range management. By default and largely through the efforts of RMIP, DE/SP--particularly on the five perimeters in question--became actively involved in research and less actively involved in extension, with very little prior experience in either field. Hence, the RMIP was attempting to build this capacity from scratch--although such activities rightfully belonged (as they still do) to other entities within the MARA structure. The indications are that the research and extension activities undertaken latterly were a result of American encouragement. Without a strong American presence--particularly in the form of junior technicians and PCVs--it is unlikely that such activities would have been undertaken in the first place.

This interpretation is substantiated by the fact that there is little indication that the DE/SP played an active role in the redesign of the RMIP--an exercise conducted primarily by USU and AID. The proper role of DE/SP is land use and range management. The necessary research and extension activities should be undertaken by the appropriate agencies.

The DE/SP Development Strategy

Overall, DE/SP is presently working in 16 DPAs and providing a little assistance to other LPAs where, although there is no official DE/SP presence, there is an expressed interest in range management issues. As a relatively new institution, DE/SP is vitally concerned with establishing a presence in those parts of the country where it can make a contribution to rangelands development. But if it spreads itself too thin, will this not make it relatively ineffective in its impact, given its limited personnel and resources? On the other hand, if it consolidates its activities, as is the case with the RMIP working on five sites, will it ever move beyond the "pilot phase"? DE/SP is as much aware of this dilemma as anyone and would like to strike an acceptable balance between an extensive and an intensive approach.

Closely related to this issue of youth and establishing a presence is the unwillingness of DE/SP to learn from its mistakes and act accordingly. The evaluation team was not impressed by DE/SP activities at either Beni Mellal or Timahdite. While plans are underway for DE/SP to move beyond the perimeter at Ait Kbaa, such expansion will be futile unless it has the support of the DPA and the DE/SP head is provided with the necessary transportation to get the job done. In the case of Timahdite, little is being done at present and, as the Moyen Atlas project continues to flounder, the situation will further deteriorate. Why does DE/SP not reallocate its scarce resources to other areas with more potential?

Nevertheless, it would appear that if DE/SP were to cut its losses and withdraw from Timahdite, this would be an admission of defeat which would provide ammunition for those who do not view the rational management of rangelands as an important issue. On the other hand, the successes noted at both Midelt and Oujda have resulted from--among other factors--a long term DE/SP involvement in the area. Have lessons been drawn from these four very different sites which might be used in the identification of additional sites which show some realistic potential?

DE/SP cannot afford a shot-gun development strategy. Given the present fiscal crunch, it has to use its limited resources wisely. While the argument is often made that DE/SP cannot have a standard intervention strategy, one would hope that enough had been learned from the RMP experience to date to facilitate the creation of a more rational development strategy, particularly in terms of identifying criteria for the selection of "targets of opportunity" for DE/SP.

The DE/SP Intervention Strategy

When all is said and done, and DE/SP protestations to the contrary, there is a somewhat standardized blueprint model utilized by DE/SP--that of the perimeter model--whereby the local population cedes control and management of part of their communal lands to DE/SP. Where does the perimeter model of rangeland development lead? Who is supposed to manage the perimeters in the long run--DE/SP or the local population? Is Plaine de l'Aarid a model or an example from which relevant lessons have been learned?

In a sense, the Plaine de l'Aarid is an important example of how not to do range management and perimeter development since DE/SP plays the role of both manager and policeman. While DE/SP establishes the stocking rate, it is the local population that decides who gets to pasture their livestock within the perimeter and how many head they can pasture. This year, for example, 200 people, approximately 10 per cent of those so entitled, have the right to pasture 10,000 sheep and individual herd sizes range from five to 200. In cases of extreme climatic variation, the decisions of DE/SP can be overruled by the local authorities, in this case the Commission Locale d'Amélioration Pastorale. This happened in 1981 when the grazing season was lengthened because of the lack of forage on other communal lands. Livestock were allowed to remain in the perimeter even though the pastures were overgrazed. As a result of the heavy mortality rate due to the drought, grazing controls were temporarily suspended(2). But the extension does not prove the rule. To all intents and purposes DE/SP runs the perimeter and will continue to do so well into the foreseeable future.

While diffusion of such a model makes little sense politically or economically, the perimeter there does provide a powerful example of what can be done to improve the quality of the rangeland through the introduction of grazing controls and the reseeding of virtually the whole perimeter of 12,000 ha.

The DE/SP staff from Midelt are presently working on the establishment of a second perimeter at El Feija which was selected according to the following criteria:

- The grazing lands are collective and have already been delimited;
- These lands are used only by one faction, thereby minimizing the potential for inter-tribal disputes;
- This faction has access to other grazing lands, hence permitting more flexibility in the development of a range management program; and

Local leaders have given their consent to undertake development activities on the perimeter(3).

As this perimeter is developed, it is proposed that the local population will be responsible for its management--though exactly how this will be achieved has not yet been specified.

On the Ain Eni Mathar perimeter at Oujda a cooperative has been formed which is responsible for managing the perimeter with technical assistance and a cooperative director provided by DE/SP. The cooperative has 60 members and appears to be more directed towards production than management of the perimeter per se. While plans are underway to expand the perimeter to include a much larger area of communal lands, it is unclear how this will be achieved except through the slow process of demonstration and persuasion.

In Oujda, however, DE/SP has been engaged in activities outside of the perimeter: the planting of shrubs, the establishment of water catchment sites, the creation of contour furrows, and the like. This is important because it dilutes the overdependence on the perimeter model, a model which has severe limitations.

The Dahir authorizing the creation of range management/improvement perimeters was passed in 1969. According to the latest DE/SP figures, 33 perimeters have been identified (some on land belonging to the state already) of which only six have been legally recognized(4). While DE/SP also works on those that have not been legally recognized, the majority of its resources have been concentrated on the five perimeters included in the RMIP. This is a very slow way in which to address the problems of communal rangelands. Various alternative ways of addressing overstocking should be explored including privatization, taxation of those with over a certain number of livestock, and a guaranteed land sale program. The present rate of perimeter development is lagging far behind the rate of environmental degradation on many communal lands.

Local Institutional Capacity

While much effort has gone into strengthening DE/SP as an institution, with the exception of Oujda there has been little interest in creating institutional capacity at the local level. While the creation of local organizations can increase participation by intended beneficiaries, they can also play positive roles in rangeland management and development by acting as vehicles for:

- Maintaining two-way flows of information;
- Reducing risk to a minimum and practicing economies of scale;
- Adapting project activities to local conditions;

- Marshaling local resources;
- Achieving greater political and economic leverage for local people by exercising influence over local administrators and asserting claims on government;
- Coordinating and spreading the benefits of outside assistance; and
- Sustaining project benefits(5).

The latter point is the most important in this context since DE/SP cannot do rangeland management and development all on its own and it is in DE/SP's self interest to help create such organizations. But this must be viewed against the organizational culture within which DE/SP operates:

One aspect of the realization of these activities is the top-down nature of their design and administration. The information and decisions are generally made by an administrator and carried out by a subordinate...The Ministry of Agriculture is a top-down organization(6).

Field visits to the various sites substantiate this diagnosis. Against this background, where DE/SP field staff may feel that they have little participation in the planning and decision-making affecting project activities, it is unrealistic to expect them--on their part--to encourage participation and the formation of local institutions (or the strengthening of existing ones where appropriate). This will only be achieved if project staff feel that they too are taken seriously by their superiors.

Such staff participation can be encouraged through the provision of resources to accomplish tasks and the provision of various sorts of incentives which may provide the opportunity for advancement, to contribute to important decisions, and to increase one's skills. And such provision of resources can start at a very practical level in DE/SP: the provision of fuel, an adequate per diem, and adequate transportation to get the job in hand done. Participation by both staff and the local population should not be promoted merely for the sake of participation. It should be promoted to enhance institutional capacity.

Within DE/SP, adequate resources and incentives could improve performance, which, in turn, may stimulate some interest in creating or working with local organizations that, over time, could become responsible for managing perimeters, instituting grazing controls, organizing the installation and maintenance of water catchment sites, and various other activities.

NOTES

1. Several of these limitations are described and discussed in Paul Bartel, "An Analysis of the Service Delivery System of the Service des Parcs, Direction de l'Élevage, MARA." Rabat: RMIP, 1985. They are also discussed in the PP Amendment, see particularly pp. 62-68.

2. For further information, see M'Barek Fagouri and Alan Gray, "Initiation of Range Management Activities in Morocco--A Look Back," RMIF: Rabat, n.d., p. 4.
3. Ibid, pp. 6-7.
4. DE/SP, Amenagement et Mise en Valeur des Terrains de Parcours. Rabat: MARA, 1985, pp. 35-38.
5. George H. Honadle et al, Integrated Rural Development: Making It Work? Washington, D.C.: Development Alternatives, Inc., 1980, pp. 129-139.
6. Bartel, op. cit., pp. 16-17.

CHAPTER SIX

PROJECT GOAL ACCOMPLISHMENT

At Present

As stated in both the PP and the PP Amendment, the goal of the RMIP is "to increase livestock productivity and production efficiency by Morocco's low income livestock producers." At present, this goal has not been met--a result of climatic, temporal, political, and social factors which have been discussed earlier. In two places, Plaine de l'Aarid and Oujda, there have been some short-term benefits for a select group of cooperators, benefits which may have been gained at the expense of the majority. In the former, the 200 livestock producers who have been allowed to pasture their livestock within the perimeter have benefited. In the case of Oujda, the members of the cooperative who graze their communal herd on the perimeter are benefitting considerably: profits have been reinvested in a large tent, a truck, and - most recently - a herd of 25 beef cattle which is being fattened for slaughter. In both cases, since the stocking rate was strictly controlled, it is fair to assume that there has been some increase in livestock productivity.

In the Future

There is some potential for future impact on increased livestock productivity and production efficiency with or without AID assistance. In the latter case, the potential is slight. In the former case, given the appropriate type of assistance, there is somewhat greater potential.

Comments

Three comments are in place here. First, given the teething problems experienced by the RMIP in its earlier years, it is both unfair and unrealistic to expect these goals to have been achieved. Given the complexity of the problems to be dealt with, these are very much long-term goals. Second, these goals are so general and vague as to be virtually meaningless. If they are to be of any use, they have to be carefully defined. Finally, given that this particular project presently has both institution building and range management objectives, one may question whether these goals - developed a good five years ago - are now either particularly relevant or appropriate. After all, increased livestock productivity and production efficiency must be accompanied by sustainable development of Morocco's rangelands. Without this sustainable development, the rangelands will continue their downward spiral of overstocking, overgrazing, and degradation.

CHAPTER SEVEN
RECOMMENDATIONS

Introduction

USU has made an important contribution to the long-term American commitment to create a range management capability within DE. Both USU and AID should take pride in having contributed to this process. The decision to redesign the project in 1984 and continue with the USU involvement was a rational one. Failure to do so would have set back and perhaps permanently impaired the creation of this range management capability in Morocco. Nevertheless, both the situation and the capabilities have changed over the life of the RMIP. At this time, the evaluation team would like to make eight recommendations - four for AID and four for DE/SP and USU.

AID: Recommendation No. 1

- The RMIP should terminate on the date already agreed upon - August 30, 1986.

AID: Recommendation No. 2

- If AID is to continue its involvement in the extensive livestock sector--and it is strongly recommended that they do--DE/SP should be the lead agency through which to channel such development assistance.

AID: Recommendation No. 3

- AID should promote the upgrading of DE/SP from the status of Service to that of Division.

AID: Recommendation No. 4

- If PCV involvement is to continue after August of next year, it should be clearly focussed on some tangible activity such as extension. Such involvement should be on a reduced scale and PCVs should not be viewed as substitutes for DE/SP personnel. Any proposed changes should be carefully discussed with DE/SP.

DE/SP and USU: Recommendation No. 5

- In its planning exercise for 1986, DE/SP should clarify its present development strategy (extensive or intensive) and expand upon its possible intervention strategies.

DE/SP and USU: Recommendation No. 6

- Plans should be drawn up for the privatization of the PMC over the next two years.

DE/SP and USU: Recommendation No. 7

- Strenuous efforts should be made to persuade the head of DE/SP to have some office hours in the USU building. Likewise, strenuous efforts should be made to have the USU chief of party reciprocate by having some office hours at MARA.

DE/SP and USU: Recommendation No. 8

- Efforts should be made to encourage more PVC involvement in extension activities.