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REPORT ON THE SECOND EVALUATION
OF THE
NIGER CEREALS PROJECT

Project Number 683-0201

January 15 - 25, 1978

AF00-035

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SECTION 1

LIST OF PARTICIPANTS

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Kabo Ousseini	UNCC
Carreau Robert	UNCC
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Amadou Beydi	Rural Engineering
Julian Marc	Rural Engineering
Yves Boulanger	Research Department
Saley Moussa	Director Niamey Department Development
Hermogène Durand	Research Department
A.A. Mayaki	Training Office

Consultants

Francis LeBeau	Evaluation Team Leader for AID
Dan Aronson	Anthropologist, AID/REISO/Abidjan
Abderrazak Daaloul	Seed Specialist/Tunisia

CID

John Fischer	CID Coordinator for Africa
Calvin H. Raullerson	CID Coordinator - Texas Tech Univ.
Harold Dregne	Texas Tech University
James E. Williams	Team Leader, Ag Extension Advisor
William E. Hall	Seed Advisor
Cao Quan	Cooperative Advisor
Cyril Brown	Agronomist
Clark Harvey	Plant Breeder
Eugene Foerster	Agricultural Engineer

USAID

Jay P. Johnson	Regional Development Officer
Norman L. Garner	USAID Advisor, Niger Cereals Project
Walter Sherwin	Program Officer
Herbert Miller	Deputy Program Officer
Harold Dickherber	I.D.I. Agricultural Economist
Louis Siegel	NCP - Staff Assistant
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Rapporteurs

Francis LeBeau
Saley Moussa

SECTION 2

OPENING SPEECH MADE BY MAJOR BOULAMA MANGA
MINISTER OF RURAL DEVELOPMENT

Mr. Regional Development Officer of AID
AID Experts
Gentlemen

First of all allow me on behalf of the Government of the Republic of Niger, to wish all the experts recruited by AID to participate in this second evaluation meeting of the Cereals Project, a most hearty welcome to Niamey. I would also like to take this opportunity to congratulate Mr. Johnson most sincerely on his recent appointment as Regional Development Officer of AID and to wish him every success in the exercise of his new responsibilities.

The importance my government attaches to the success of the Cereals Project needs no longer to be proved because not only is the satisfaction of our country's food requirements the main goal of our Three Year Development Plan but also that of the strategy adopted by the CILSS and the Club du Sahel. It would indeed be illusory to wish to improve the living standards of the Sahelian people if work productivity remains low and sanitary conditions are precarious because of deficient nourishment.

In the days to come, you must review and analyse the various achievements of the Cereals Project up to date in order to make a

certain number of constructive proposals for the future. This evaluation is necessary but it should be done with the greatest objectivity possible and screened from any prejudices that might distort the analysis of its components. It must consider the Nigerien context and all the constraints to which we are subjected because of the remoteness of our country and its landlocked nature.

We, on our level, have already examined with the AID authorities certain questions that will particularly concern Commission 4, namely: structure, organization and training. We must find at all costs ways and means of making the project more operational while at the same time bearing in mind the viability of its medium and long term applications.

Without any further delay, I would like to wish every success to your proceedings and tell you once again that we expect many results from this evaluation meeting.

Thank you.

Long live Nigero-American co-operation!"

SECTION 3

AGENDA AND DESIGN FOR THE EVALUATION

I. January 16, 1978

Opening of the Evaluation Meetings by
the Minister of Rural Development

Adoption of the work program

II. January 17, 18 and 19

Work in committee as follows:

- | | | |
|-------------------|---|--|
| Committee No. I | - | Cooperative Component |
| Participants | - | UNCC, Agriculture Service,
CNCA and USAID |
| Committee No. II | - | Seed Production and Extension
Components |
| Participants | - | Agriculture Service, INRAN,
UNCC and USAID |
| Committee No. III | - | Research Component |
| Participants | - | INRAN, Agriculture Service,
Agricultural Engineering
Service, USAID |
| Committee No. IV | - | Management Component |
| Participants | - | Project Coordinator' Office,
Agriculture Service, INRAN,
Agricultural Engineering Service,
MDR Training Office, Productivity
Projects, and USAID |

III. January 20 and 21

Plenary Session

Synthesis of Committee Reports

IV. January 22 - 24

Field Visits

Drafting of Reports

V. January 26

Final Session

Resumé of Reports

Reports of Field Visits

UNCC - Union Nigérienne de Crédit et de Coopération
CNCA - Caisse Nationale de Crédit Agricole
INRAN - Institut National de Recherches Agronomiques du Niger
MDR - Ministère du Développement Rural

SECTION 4

SYNTHESIS

RESUME OF SYNTHESIS REPORT

On January 20 and 21 a plenary meeting was held to establish a partial synthesis of the reports presented by the different committees.

The drafting committee charged with drafting the final synthesis report did not have enough time to complete its work. Nevertheless, it was judged useful to bring to your attention the following points:

1. Seeds:

Annex B of the Project Agreement included a special covenant to the effect that the GON should establish a national seed policy.

In the present situation the GON is not in a position to do so. Nevertheless, the GON has an understood procedure for dealing with seed matters. By this procedure the INRAN (Institut National de Recherches) provides seed at the M 1 stage. The multiplication of M 2 seed is accomplished by the Agriculture Services, and the M 3 seed is produced by farmers organized in cooperatives under the direction of UNCC. It is also noted that the seeds are not sold, but provided to the farmer who makes repayment in kind.

Decree No. 003/MER of February 10, 1973, created a committee for coordination of programs for production and distribution of seeds of ground nuts; this decree should be amended as follows: Name changed to: Committee de Coordination de Programme de Production des Semences. Suggestions of amendments to articles of the decree to conform to the broadening of its area of action were made as well.

Given the anticipated growth of activities in the area of seeds, it is desirable that a laboratory for seed testing be established. The laboratory should eventually become an element of a national seed service.

Decisions should be taken to the end that as soon as the construction of the seed complexes are begun, candidates are selected for training in the field of seed processing.

2. Vulgarisation:

The project financed during two agricultural cycles, the salaries of 150 aide-encadreurs, and furnished a number of vehicles. The number of vehicles furnished was not adequate to satisfy the needs. Delivery was delayed and the type of vehicle was not adapted to the needs.

The three services (Agriculture, UNCC and INRAN) involved in the project have expressed a need for the creation of a center for information, documentation and training. The plan for such a center is under study and its attributions should be national in scope.

At this stage it is very difficult to speak of an evaluation in terms of the global objectives of the project. In fact a technical evaluation cannot be made for such a short period.

Nevertheless, insofar as the operations of the project are concerned, we should not lose sight of the fact that the personnel have worked diligently. The project should be permitted to continue. The evaluation can only be made on a medium or long term basis insofar as its national impact is concerned.

Delays have been noted in payment of salaries and materials at certain services. New actions have been taken to correct this situation.

One of the recommendations to emerge on this area was: The CID team through the extension advisor on board with or without the assistance of short-term consultants, should undertake an indepth study of the extension systems, including those in the productivity project.

A thorough understanding of these systems is necessary before effective assistance can be given to the GON in its effort to develop an effective Nigerien system of extension.

Other recommendations were made with respect to the extension component. These are recorded in detail in the section "Observations and Recommendations" of the Committee II: Extension Report.

Among these, special note should be taken of the recommendations relating to the aide-encadreurs program because they relate directly to the effective implementation of this part of the extension program.

It is also noted that two extensive reports, one on extension and one on the seed program, were prepared separately by two members of Committee No. II: Extension. These reports contain much valuable information and are inserted as appendices to the evaluation report.

3. Research:

It is necessary, if not in fact urgent, that actions both technical and financial be taken in order to assure that the seed farm at Lossa be operational for the crop year 1979.

The INRAN desires that the project provide some complementary infrastructure such as: creation of sub-stations at Diffa and Tahoua, creation of a shop for repairing agriculture implements, laboratory equipment, etc.

4. Cooperatives:

The objectives for the first two years of the project insofar as this component of the project is concerned have been accomplished.

These accomplishments permitted the expansion of cooperative activities in areas heretofore not touched as well as reinforced these activities in areas already covered.

5. Structure and Management:

The parallel structure of management has been eliminated. It was replaced by a structure which integrates the specialist and staff-assistants into the respective national services. At the same time the roles of the USAID Project Officer and that of the CID Chief of Party with respect to the Project Coordinator's Office and to the services were defined.

This structure, which will be put into practice as soon as possible, will call for close and positive collaboration of each and everyone.

6. Infrastructure

The first phase of construction in the Cereals Project is now terminated with the exception of a few small elements of finishing in the center in Dosso and Niamey Departments. This phase included housing, and office/stores for UNCCO and housing at three seed multiplication centers, the seed farm (Lossa) and the sub-station at Ouallam (INRAN). We consider that the delays encountered in the execution of these works were normal given the time required for preparation of plans, contracts and construction itself.

The second phase of construction is just beginning. This consists of operations buildings at the three first seed multiplication centers, the seed farm, the sub-station at Ouallam and the laboratory/library/conference room/office complex at Tarna (INRAN). Funding for realization of the latter construction is provided from the funds within the project as well as from the Niger/USAID counterpart fund.

The procedures for achieving the preparation of plans and bid documents, getting bids, etc. was very time consuming, nevertheless we expect completion of all these works before the beginning of the 1979 crop cycle.

The third phase of construction will begin as soon as 1978 funding for the project is available. This depends upon the signature of amendment number 2 of the Project Agreement. This phase of construction will consist of the totality of the building complex at the two new centers for seed multiplication and the second research sub-station. Part of the financing for this phase will also be derived from the counterpart fund.

According to our best estimate, all construction should be completed by September 1979.

7. Equipment:

Orders have been placed for all equipment: seed processing equipment, shops, farm equipment, tractors, spare parts, vehicles, furnishing for housing and offices, power generation, laboratory equipment and materials (for this last item, only in part). Some of these items have already been received. We expect that all will be received by the time the buildings are completed.

Some delays were experienced in preparation of specifications of all the equipment and in placing the orders.

The time factor in obtaining delivery presents another problem, about which we can do nothing. In spite of these situations the completion of the buildings and the arrival of the equipment should closely coincide.

SECTION 5
COMMISSION REPORTS

5.1 REPORT OF THE EVALUATION COMMITTEE NO. I
Cooperatives

REVIEW OF THE PROJECT OBJECTIVES RELATING TO THE UNCC

Within the framework of this project component, priority is given to improving the UNCC's capacity for supplying production inputs, providing credit and assistance to growers in farming methods and seeking markets for their products. The activities include training of higher and middle level cadres in management and agricultural credit.

1. AID Inputs:

A. The work of the expatriate advisor provided to help plan and program seminars and training conferences, help plan and carry out the various programs undertaken by the UNCC, was entirely satisfactory.

B. 12 office/warehouse/lodging complexes were scheduled to be constructed; 10 lodgings and 8 offices have been constructed.

These buildings have fully met all of the UNCC's requirements resulting from the geographical expansion of the Service. It is desirable that these building complexes be enclosed by appropriate fencing.

C. Of the 48 vehicles projected, 15 (11 light vehicles and 4 trucks) have been supplied.

D. The 150 grain silos scheduled to be constructed were not constructed because their design was judged unsuitable for the storage conditions. A part of the funds intended for this purpose was used to make up the construction costs of the housing/warehouse/office complexes constructed due to the underestimation of the original construction costs.

E. Training concentrated on two project components: training for cooperative officials and in-service training of UNCC agents.

- 80 encadreurs and extension agents have been trained
 - 40 new encadreurs are now being trained
 - 17 secretary/accountants have undergone refresher training
 - Other UNCC agents will be sent soon on refresher training.
- This training will be for arrondissement delegates and the encadreurs/vulgarisateurs.
- 1043 co-operative cadres and 3823 cadres of the GMVs (Mutual Village Groupings) have been trained.

The training of farmers in cooperative techniques and in-service training for secretary/accountants have been satisfactory, on the other hand the training course for the extension encadreurs has to be re-evaluated because the theoretical part has proved to be insufficient.

Concerning the training of farmers in co-operative techniques, the cereals project has rejected the principle of food support for the trainees; it is to be hoped that this problem, which constitutes a bottleneck shall be resolved before the next crop season.

F. Fertilizer. 500 tons of fertilizer were distributed for use on millet in the Dosso Department. This fertilizer was given to the producers on credit. Collection of payments is still in process.

The funds recovered will serve to constitute a revolving fund for procuring additional inputs.

2. Marketing of Agricultural Products

The marketing of agricultural products involves several institutions. The UNCC is partly involved in that it supervises the marketing co-operatives. The Cereals Project plays an important role in reinforcing the UNCC's capacity to respond to the needs of the cooperatives in the area of marketing.

3. Policy Governing the Sale and Distribution of Production Inputs

The selling prices of agriculture production inputs are determined by the Ministry of Rural Development on an annual basis.

The quantity of inputs to be provided each year is determined as a function of requirements expressed by the farmers through the Agricultural Services and as a function of the financing accorded for financing subsidies.

The problem of supplying agricultural implements has been a constraint on distribution of these. This problem is expected to be resolved by the installation of fabrication shops.

Agricultural production inputs are distributed either against cash payment or through CNCA (Caisse National de Credit Agricole) credit.

4. CID Consultants

The UNCC indicated it would make its needs known with respect to short term CID consultants at a later date.

5.2 REPORT OF THE EVALUATION COMMITTEE NO. II
Seed Production and Extension

INTRODUCTION

The National Cereals Project agreed upon between USAID and the GON had as its primary objective that of assisting the GON to increase Niger's cereal production and at the same time increase the effectiveness of the GON extension services.

The first year's operation was completed with the crop year 1976-77. The crop year 1977-78, just completed, and the crop year 1978-79 will complete the first phase of the project.

With respect to seed production and extension, the project agreement provided for (a) the progressive establishment of several seed multiplication centers, (b) the strengthening of the extension services, and (c) the rehabilitation of two existing Young Farmer Training Centers.

SEED PRODUCTION AND MULTIPLICATION COMPONENT

As projected in the Project Agreement, three seed Multiplication centers were established: at Guechame in the department of Dossou and at Doukoudoukou in the department of Madaoua and at Angoal Gamdji in the department of Magaria in 1976-77. Two other centers, one at Hamdallaye, Niamey department and Tibiri in the Maradi department were established in late 1977.

For the most part, work at the first three stations continues to involve completion of the infrastructure and installations. No improvements have been made at the latter two stations. Since the effectiveness of the seed multiplication centers depend upon a supply

of foundation seed, it is imperative that the seed farm at Lossa, where the first phase of foundation seed multiplication will take place, should be operational by the crop year 1979.

1. Personnel

With the exception of the Tibiri Center, the last center to be established, each center is staffed with a director (Chef de Centre), and other personnel. The seed processing positions, however, remain to be filled.

2. Housing

The present state of housing for personnel at the centers is unsatisfactory, consisting of temporary structures. USAID should seriously study the problem of housing at each center.

3. Seed Policy

Annex B of the Project Agreement included a special covenant to the effect that the GON should establish a National Seed Policy.

In the present situation the GON is not in a position to do so. Nevertheless, the GON has an understood procedure for dealing with seeds. By this procedure, the INRAN (Institut National de Recherches) provides seed at the stage M 1 (foundation seed). The multiplication of M 2 seed is accomplished by the agriculture services, and the M 3 seed is produced by farmers organized in cooperatives. This last stage provides the seed which is sold to the farmers, usually on the basis of reimbursement in kind.

Moreover, by decree No. 003/MER of 10 February 1973 a committee for coordination of programs for the production and distribution of seeds of ground nuts was created. The GON is of the opinion that the coordination function of this committee should be extended to other crop seeds by amending the decree as follows:

A. Change name to read:

Committee for the Coordination of Production and Distribution of Seeds

B. Article 1. add:

... the examination of programs of research, multiplication and distribution of selected seeds.

... the encouragement of the use of selected seeds by appropriate means;

... to propose to appropriate authorities seed legislation with the view of encouraging a healthy seed industry.

C. Article 2. add:

... INRAN, CNCA, OPVW

The expansion of the decree, therefore, could provide all the guarantees necessary for the conduct of our efforts in the area of seeds.

It is nevertheless desirable, given the anticipated expansion of activities in the area of seed improvement and use, to create a laboratory for seed testing. This central laboratory could become the nucleus around which a national seed service would be built.

4. Training

The Cereals Project has financed the participation of three Nigerian technicians in a short-term training program in seed

production in Cameroun. Two Nigerien participants are being trained in seed technology in the U.S.A.

The selection of candidates for training in seed processing should be made as soon as construction of seed processing facilities are begun.

5. An expanded discussion of the seed component is appended to the overall evaluation report. Since this appendix was not discussed by the committee or in plenary session it is not part of the official report on evaluation.

AGRICULTURE EXTENSION COMPONENT

The base upon which rest all development actions is effective extension. The factors most limiting the effectiveness of extension is the lack of sufficient qualified personnel at all levels in the personnel hierarchy.

1. Personnel and Training

The Cereals Project has financed, during two successive years, the salaries of 150 additional aides encadreurs (the lowest level of extension personnel). The service of an expatriate extension advisor on a half-time basis has been provided.

One Nigerien participant is now pursuing studies in the U.S.A. in the field of extension.

Short-term training programs for higher level personnel in the Agriculture Service were not realized, neither were the 5 long-term participants for advanced degree training in extension as projected in the Project Agreement.

It is desired that in-country training programs for intermediate level personnel be organized. The facilities at IPDR de Kolo (Institute for Agriculture Training at Kolo) could be used for this purpose.

Given that several services have indicated a need for additional training and information facilities, a service on the national level should be developed to serve the needs in this respect, of all the concerned services. Moreover, this national service should be attached to the Agriculture Extension Service.

2. Operations of the Extension Service

The Cereals Project provided for strengthening the logistic capabilities of the extension service. This strengthening would permit the maintenance of, as well as the increase, in coverage by extension agents in contact with farmers. In response to this need, USAID was to provide 24 vehicles for the national and departmental extension offices and in addition, motorbikes and bicycles.

The International Harvester ^{tractors} vehicles provided have proven to be poorly adapted to the conditions in Niger. Moreover, fuel consumption is highly excessive.

Because of the late arrival of the vehicles, their contribution to the project operations during the first two years was limited.

Needless to say that intensive mechanization is to be discouraged, however, mechanization through animal traction can be developed, and can represent an element of association of livestock and agriculture which is being highly recommended. Animal traction can be profitable, practical in the southern regions of Niger. This practice should result in increasing the revenues of the farmer as more effective use is made of agriculture bi-products by conversion into animal and animal products.

3. Training Centers for Young Farmers

The Cereals Project envisioned the rehabilitation of Young Farmer Training Centers (CFJA) at N'Dounga and at Bellande including buildings and equipment. A contribution to the operational cost, maintenance of the participants and furnishing of agricultural inputs, was also projected. This portion of the project was only partially realized.¹ The contribution of this program to the overall extension effort is nevertheless viewed to be of such importance, that the completion of the program should be pursued and even enlarged. The limited accomplishments so far is the result of serious underestimation of costs.

4. Conclusions

The Cereals Project is effectively oriented for achievement of its objectives. There have, nevertheless, been a number of difficulties which have retarded the development of the basic infrastructure.

In part, this has been the result of management problems. In part, this was due to delays in arrival of personnel. Consequently, during the first year, the Agriculture Service was forced to rely on only its own resources.

A special problem which developed during the initial phase of project operations relates to the bureaucratic process by which GON field personnel are paid. This resulted in delays in payment of salaries. A solution to this problem has been worked out.

At the present state of development, it is very difficult to speak of an evaluation in terms of the overall objectives of the project. In fact, an evaluation of the technical element can hardly be made in so short of time period. The evaluation of the impact of the project in national terms can be accomplished only in a medium to long-term perspective.

Nevertheless, in so far as the conduct of the project is concerned, it should be noted that the personnel have worked diligently. The project should then be permitted to continue.

5. Observations and Recommendations

A. With respect to the long-term participant training position in extension for which funds are currently available, action has been taken by the training office of the Ministry of Rural Development to ensure that a candidate will be enrolled for this training during the course of 1978.

B. It has been decided that it would be desirable to have the services of a consultant in extension training. This consultant should arrive in Niger by 15 February and render services for a period of about 2 months. The consultant should be fluent in French. He will participate in the annual meeting of the services which evaluates past year's results and plans the program of action for the coming year. He should also participate in the training of aide-encadreurs.

A letter requesting the CID to recruit such a consultant has been forwarded to CID.

C. An extension training guide has been prepared by the CID extension advisor. The Agriculture Service has accepted this guide, subject to some modifications, as a basic document for the training of aide-encadreurs.

D. The effective use of the CID extension advisor's remaining time in Niger should be renegotiated among USAID, the GON and CID. He sees the development of the proposal for a learning and information center as his most important remaining task. But the proposal will

be developed, in part, by a consultant, and in any case, needs to be carefully examined as to what effective role it would play in the national extension system. Just as important, for example, would be for the advisor to develop a comprehensive analysis of the Nigerian extension system itself, through analysis of the productivity projects, showing the various roles, institutions and elements involved from top to bottom, and how that system actually functions. On the basis of such a document, USAID and the GON would be in a much better position than they are now, to assess mutually the gaps in structure or effectiveness, if any, that can be filled by donor support. It is agreed herewith, to carry out such an analysis.

E. By far, the major remaining expenditure proposed for the extension component of the MCP is the hiring of 200 aide-encadreurs for the forthcoming agricultural campaign. Arguments have been heard for and against undertaking such expenditure this year. The question is one of guaranteeing the effectiveness of any such aide-encadreurs hired. It is therefore recommended that:

- (1) Any decision to support the hiring of aide-encadreurs be taken by 17 February at the latest so that the GON will know how many people it will have and can hire them in good time to give adequate training.
- (2) The decision to support these operations should be based on a careful work plan presented by the GON. This work plan should be submitted to USAID prior to the annual planning meeting for the 1978 campaign. Such a work plan should show how each different type of encadreur will work, be supervised, be supplied, and have his work evaluated. In the case of supervision by technicians at (i) the SIC's or in (ii) the Departmental Productivity

Projects, it should also document that the technicians or project managers have the resources to support the encadreurs that are to be assigned to them. In the case of (iii) the Enquête Agro-economique, it should also show who will be responsible for running field supervision of the enquêteurs to ensure that this year's (1978) field data will be complete and reliable. In the case of (iv), aide-encadreurs to be used in zones outside productivity projects, it should show precisely how such encadreurs will be managed in a situation where no funds have been available for any prior encadrement effort. The work plan should detail a method of recruitment of all aide-encadreurs which guarantees that the best of last year's group are rehired if they are available, that the worst will not be rehired, and that the open positions be filled by competitive recruitment procedures.

- (3) After study of the work plans referred to above, the USAID and GON will decide on the numbers of aide-encadreurs, in terms of the 4 types of assignments, to be financed from AID funds.
- (4) An NCP Staff Assistant, and a CID consultant if the GON and USAID agree that it would be advisable, should be assigned full-time during the agricultural campaign to make field visits, check work plans, and generally oversee NCP funding uses.

(An expanded discussion of extension, prepared by one of the committee members is appended. Since this paper was not discussed in plenary session, it is not part of the official evaluation report.)

5.3 REPORT OF THE EVALUATION COMMITTEE NO. III
Research Component

REVIEW AND INTERPRETATION OF PROGRAM AGREEMENT OBJECTIVES

There is agreement on project objectives. However, requests were received from GON to assist in a number of urgently needed special activities (building design, conference center, library material, testing local millet varieties, etc.) that were not part of the formal program of work. The CID team responded positively to these requests.

1. Implementation

A. The NCP Plan of Work was agreed upon by GON at the beginning of 1977. Research was directed toward developing a proven package of production increasing practices, including varietal selection for millet and sorghum, fertilizer use, planting and tillage practices, crop rotations, water management and erosion control.

B. The CID team devoted its early efforts to the design and construction of buildings and irrigation systems, collection of local and introduced millet, sorghum and legume varieties, establishment of a rudimentary soil analysis laboratory, collecting reference materials for a library, training INRAN personnel, and obtaining equipment for field and laboratory studies.

Field research undertaken in 1977 included varietal testing, soil and crop management, and water conservation. Soils of the Tarna station and three seed multiplication centers were mapped. A final report on the soil surveys is being prepared by a consultant. Dry season irrigation research was begun. Results of 1977 experiments will be presented formally at GON and INRAN meetings in early 1978.

C. The plant breeder is the only team member to have a Nigerian counterpart. A counterpart for the agronomist will be provided when a Nigerian currently doing graduate work in the United States returns in 1978. No counterpart for the agricultural engineer can be provided until the individual designated by GON has been sent abroad for training in water management.

INRAN wants more field testing of plant varieties and soil management practices conducted at sub-stations in various parts of the country to determine their adaptability to different soil and climatic conditions. In order to do so, persons must be designated and trained to be responsible for supervising the tests at the sub-stations. The need is recognized for researchers to be concerned with problems in places other than Tarna and with the response of plants under different conditions. To do that, sufficient vehicles and other support must be provided in 1978.

Plans are being made by INRAN for a program of translation of research results into vernacular languages. This will be the object of a project of the Centre d'Information de l'Agriculture and the Centre de Documentation Scientifique et Technique de l'INRAN. The expanded program of sub-station testing will increase the effectiveness of this effort.

INRAN has asked that a repair shop for farm equipment be established at Tarna and the mechanization section be enlarged to include studies of selecting and studying implements suitable for animal traction, including traditional implement improvement, and mechanized agriculture be initiated.

Progress on construction of buildings has been satisfactory. There is an urgent need now for furnishing the offices, laboratories, and the research library.

Funds appropriated by FAC for the Foundation Seed Farm at Lossa have been expended. Any modifications needed to increase irrigation systems, as determined jointly by USAID and INRAN, will need to be financed from USAID sources.

Contracts of present staff assistant personnel will terminate prior to the end of Phase I. These positions should be maintained for the duration of the project in order to assure the continuation of these services.

2. Revision of Objectives for 1978

INRAN proposes that the responsibilities of the agronomist will be limited to, a) the study of fertilization of all crops, including legumes, and b) the improvement of cultural techniques and the study of crop rotations and yields. The section will also be responsible for soil cartography. Research on mineral deficiencies and the study of soils will be done by the section of pedology of INRAN.

3. Training

There was strong support for continued emphasis on the training component of the project, to provide for the success of the present research efforts and to assure its continuation under total Nigerian operation in the future.

The Nigerian training priority is in the order of: a) graduate education, b) undergraduate education, c) short course training at other institutions, and d) internal training of technicians. The philosophy is that the research organization can only develop under the guidance of high level personnel.

INRAN also believes strongly that in-service training by researchers of subordinate staff is a very effective means of building a strong research organization and that the CID team should contribute to this effort. CID supports this concept and recommends that time and funds be allocated for this type of training.

Consultants on a short-term basis, for both advice and training, will continue to be required in areas jointly identified by INRAN and CID.

GON wants students doing graduate work abroad to return to Niger to conduct their thesis research on topics of value to Niger. GON is concerned about the non-applicability to Niger conditions of much thesis research now being done. At present, it is not always possible to relate the results of most thesis research to the conditions in Niger, especially when the thesis topics are theoretical.

PHASE II

Among the objectives of Phase II should be the construction of buildings at the Diffa and Tahoua stations and controlled seed storage facilities at Tarma.

Staff Assistant positions should be increased to meet the minimum requirements of the expanded research testing program.

In Phase II, a pedologist should be added to the CID team. His responsibility will be to study soil problems associated with the project. He will be attached to the National Soils Laboratory in Niamey.

A plant physiologist position was proposed in the Project Agreement but was not included in the CID contract because the person was to be

provided by another donor. The position has not been filled. GON requests that consideration be given to filling the position through the CID contract.

Problems have been encountered in disseminating research information to farmers and in obtaining adoption of the improved practices. INRAN is concerned about slow acceptance of proven techniques and is planning to make a concerted effort to identify the socio-economic factors involved in the acceptance process. The NCP will have failed to achieve its goal of increasing cereal production unless the improved techniques gain acceptance at the farmer level.

OPERATIONS TO BE UNDERTAKEN

The INRAN Director listed the following urgent needs:

- A. Equipment and furniture for offices, laboratory, library and conference room at Tarna;
- B. Equipment of offices, houses and stores at Lossa and Ouallam;
- C. Construction of a repair shop at Tarna;
- D. Strengthening of the agricultural mechanization branch at Tarna;
- E. Establishment of sub-stations at Diffe and Tahoua;
- F. Additional 4-wheel drive vehicles for researchers and seed transportation;
- G. Provision for training of one participant in irrigation and water management;
- H. Construction of a cold store complex for seed storage at Tarna;

- I. Establishment of a scientific and technical documentation center;
- J. Addition to the CID contract of the post of a plant physiologist.

5.4 REPORT OF THE EVALUATION COMMITTEE NO. IV

Management

MANAGEMENT

In an attempt to establish a new organizational structure each side was requested to define the precise role which it expected and required its personnel to perform. These roles were defined as follows.

1. Project Coordinator

He has been delegated authority by the Minister of Rural Development to assume responsibility for the coordination of project related activities by all concerned services. He meets with the services on an annual basis to assist them in establishing a work plan for the project activities. He can refuse or reject subsequent actions that are not in accordance with the agreed plans. He is responsible for the allocation of project budgetary resources to each service in implementing their portion of the project plan. He is the primary liaison officer for project matters between the Government of Niger and USAID.

2. CID Team Leader

He is held totally responsible by the CID institution for all CID activities with the context of the project. As such, he must personally approve all annual work plans submitted by the team members. He is responsible for the administration of the contract budget. He also serves as the primary channel of liaison between the project and the CID institution and is responsible for assuring coordination of CID team activities with the project plan through the Project Coordinator.

3. Services

The individual services of the Ministry of Rural Development are responsible for the implementation of project actions at the field level. They are thus responsible for the preparation of annual work plans in accordance with the project plan and in the ultimate execution of these plans. Work plans are elaborated in coordination with the Project Coordinator. Ideally each service should have one staff person named as its representative for the project to assure a full-time coordinating function between that service and the office of the Project Coordinator.

4. CID Technical Experts

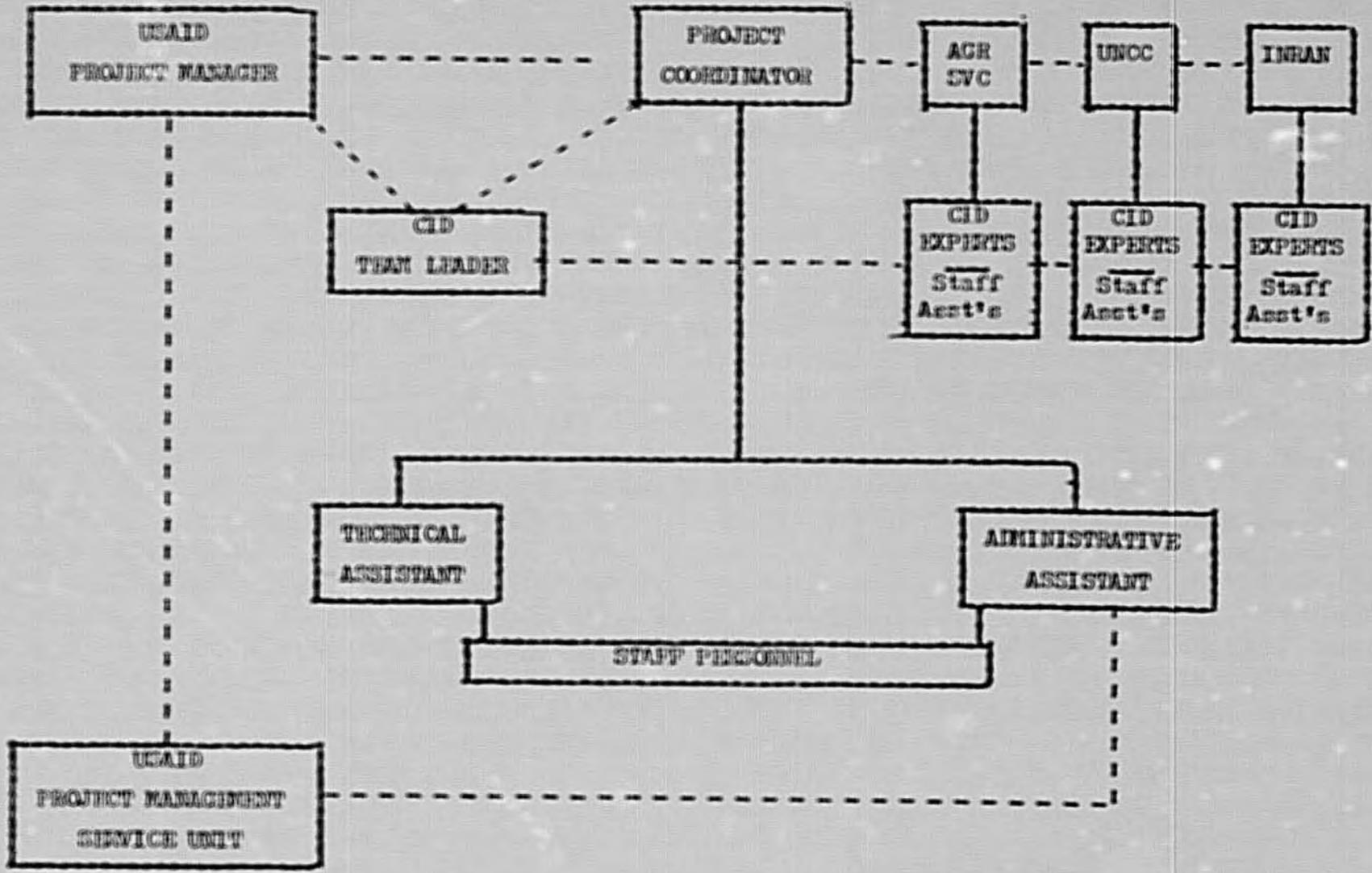
These technicians are responsible for assisting the various services to which they are assigned in the implementation of the project plan. In collaboration with the service chiefs or their delegates they are responsible for elaborating an annual work plan following the terms of the project. The work plans of the individual technicians must be approved by the Team Leader in his capacity as CID representative. The technicians are integrated directly into the organizational structure of the service which they are assisting and perform their tasks under its direct supervision. At the same time, they are functionally responsible to the Team Leader who must assure the proper performance of their duties and who is administratively responsible for them.

5. USAID Project Manager

Under delegation of authority of the Regional Representative of USAID he serves as the direct representative of USAID vis-a-vis the

project. His functions are to monitor project implementation to assure adherence to the terms of the Project Agreement and to assist and advise the Project Coordinator and the CID Team Leader in the observance of these terms. As such he assists in the preparation of required documentation for the procurement of commodities, technical consulting services, participant training and documentation related to construction activities such as invitation for bids and contracts. He is responsible for monitoring the financial aspects of the project including advances, expenditures and reimbursements. As the USAID project contributions are made on an annual basis he is responsible for preparing the annual request for funds including a complete report on the utilization of previous allocations and a justification for the new request.

Given the various responsibilities which the Government of Niger, the United States Government and CID have placed upon their respective representatives it would be difficult to devise a simple organizational chart which would allow all of these separate responsibilities and authorities to be graphically charted without doing injury to the integrity of the organizational structure. It is therefore recognized by all parties that the smooth and efficient implementation of the project will ultimately depend upon a close personal and professional collaboration between all concerned parties. In pursuit of the ultimate goal of successful project implementation and conclusion, the following organigram has been agreed upon by all parties. This organigram reflects the primacy of the Government of Niger in the implementation and functioning of the project, while at the same time respecting the legitimate responsibilities and legal requirements of USAID and CID.



RELATIONSHIP BETWEEN CEREALS AND PRODUCTIVITY PROJECTS

This component of the Project Management Committee evaluation themes elicited lengthy discussion despite the limited experience in this area. It was recognized that the subject would become increasingly important for the future; especially under Phase II of the Cereals Project.

The only representatives of an operational Productivity Project present at the meeting were those from the Dosso Department Project. These representatives presented a concise history of the Dosso project and detailed the direct support which it had received from the Cereals Project. Originally conceived in 1974 with a project emphasis on the cash crop production of niébe, the project was extended in 1976 to include a cereal-grain component for the production of millet. In that year, the Cereals Project extended 12 million CFA in material and project personnel support to the Dosso project for the plantation of 5,000 hectares of associated millet and niébe. This was followed in 1977 with additional Cereals Project support of fertilizer, seed and other material support for the plantation of 12,000 hectares within the Dosso project. These two years of experience surfaced several problems:

- A. It is difficult to get the farmers to follow the technical themes;
- B. The improved seed variety utilized in the project (A-3 Kolo) often does not produce as well as local varieties;
- C. Given the relatively poor yields resulting from the first two problems, further problems in marketing and consequent profitability were encountered.

Several suggestions were prompted by the Dosso experience:

A. Given the inadaptability of available varieties of improved seed (P-3 Kolo) it would be advisable for INRAN, under the auspices of the Cereals Project, to conduct more research on local seed trials under the specific conditions of each individual area. Such a procedure would, of course, require a very close liaison between the individual productivity projects and INRAN. While the foregoing raises a very logical and rational solution to specific problems it also raises the question of INRAN's ability to adequately respond to such a research requirement given its present limitations in physical, financial and human resources.

B. The Cereals Project should be in position to provide technical assistance to all of the productivity projects through the conduct of on-site, project evaluations, specific research activities at the level of each individual project, and the furnishing of technical consultation on all aspects of cereals production from extension through cooperatives and marketing.

C. It was suggested that the past experience of the Cereals Project with the Dosso productivity project represents the type of support which should not be encouraged, i.e., budgetary support for production activities. Each individual productivity project should be independently financed for all of its major interventions. However, in the specific case of the Dosso productivity project, it would be preferable if the support from the Cereals Project would continue for the interim period pending the full support intervention of the IBRD.

TRAINING

Local training activities of the project are discussed under the individual committee reports on extension, research and UNCC. The Management Committee restricted its discussion to academic training. The Director of the training division of the Ministry of Rural Development presented a status report on the long-term training being conducted under the project. Of the 12 scholarships which have been offered by the project, 10 have been assigned and the candidates are undergoing training in the United States (see attached chart). The two remaining scholarships have been offered to the Rural Engineering Service (agriculture engineering) and the Agriculture Service (agriculture extension). Candidates for these scholarships have been identified and a competitive examination will be held to determine the final recipients.

All parties agreed on the following points:

A. The specific field of study for any participant will not be arbitrarily changed by the sponsoring service without the concurrence of the project management and the appropriate ministry.

B. No participant may earn more than one degree level during any one continuous period of scholarship, e.g., after receiving a B.S. degree the student must return to Niger for a period of government service prior to returning for graduate study at the M.S. level.

C. Participants of the same civil service grade must study for the same level degree.

D. It is the responsibility of the training bureau of the Ministry of Rural Development to assure that all participant dossiers are completed in conformance with AID requirements. Upon completion of these dossiers they will be transmitted to AID for preparation of necessary documentation and onward transmittal to AID/Washington.

E. All scholarship availabilities, even those proposed under the terms of the Project Grant Agreement, will be formally announced to the Government of Niger by official letter from USAID through the Ministry of Foreign Affairs and other appropriate ministries to the Ministry of Rural Development.

SOCIAL ANALYSIS

It was agreed by all parties that the social impact of the Niger Cereals Project on the rural populations will only be through an indirect manner. As a national support project for the departmental productivity projects which are designed to carry the results of the national infrastructure, research and organization down to the level of the farmer, the impact of the cereals project will be through the productivity projects.

This being the case, it will be necessary to closely investigate the various components of the project and determine the likelihood of this indirect impact and the cereals project's capacity to furnish adequate technical support and guidance to the productivity projects. For example: are sufficient efforts being made to improve the quality of training for the village-level agents of the UNCC cooperative monitors and the Agriculture extension service agents? The performance and success of these personnel in the field are critical to the transfer and acceptance of the improved technological packages by the villagers. Will the structure of the credit system be adequate to assure access by all rural villagers, or only those in close proximity to the credit offices? Is there sufficient coordination and understanding between the concerned services and between their village-level agents to present a credible program in the eyes of the village-level farmer? Are weaknesses in any of the components of the cereals

project would be reflected in the productivity projects, these considerations must be investigated before they are picked up by the productivity projects for diffusion to the rural populations.

NIGER CEREAIS - ACADEMIC PARTICIPANTS

<u>Name</u>	<u>Subject</u>	<u>Degree</u>	<u>Service</u>	<u>Date of Departure</u>	<u>Approx. Date Return</u>
Adam Abdoulaye	Statistics	M.S.	INRAN	1/6/76	4/79
Gandah Mohammadou Djibo	Agronomy	B.S.	INRAN	1/6/76	5/78
Habtmame Haman	Agronomy, (Biology/ Plant Physiology)	B.S.	INRAN	1/6/76	12/77
Jaki Gonda	Plant Breeding	M.S.	INRAN	1/6/76	12/78
39- Nourou Goube Gouh	Soil Science	M.S.	INRAN	6/6/76	12/78
Salifou Habtmame	Seed Technology	B.S.	Agriculture	12/1/76	1/79
Moumouni Ousseini	Seed Technology	B.S.	Agriculture	12/1/76	1/79
Johanned Abdoulave	Extension	B.S.	Agriculture	7/15/77	Early 79
* Amadou Nounkaila	Plant Breeding	-	INRAN	1/6/76	12/77
Haina Sanda	Ag. Economics	B.S.	Agriculture	1/78	5/81

* Returned before completion of program

SECTION 6

STATEMENT AND DISCUSSION CONCERNING
THE CID COORDINATORS UNDERSTANDINGS OF AGREEMENTS

The session opened with a presentation by the CID Coordinator of the basic philosophy of CID and its consequent approach to the Niger Cereals Project (NCP). He stressed that in the development process there are always difficulties in coordinating all the required elements at the field level at the proper time. While it is often easier to develop projects along simple lines of production for specific crops, this does not always contribute most effectively to the total needs of the small producer. It also ignores many basic development issues such as marketing and price stability. While such a simple approach may be effective for the production of a specific cash crop it is less effective where the objective is to improve the basic conditions of life for subsistence level producers.

Niger is presently using an area-specific approach through its system of departmental productivity projects. This approach is presently the most popular in development theory and has as its objective the maximization of economic benefits to the small producers. However, this approach is new and still basically untested and unproven. There are no national models in existence which can be shown to be effective. One fact that is clear is that the key to success is the ability to deliver a coordinated program. ?

CID is a consortium of nine U.S. universities which attempts to bring the totality of its institutional resources to a project. It is not a recruitment agency which merely furnishes technicians to national services in isolation of the combined project goals and purposes. While CID recognizes that administratively it is necessary to operate within

individual services, and in fact expects that its technicians will be integrated into these services, it is of the utmost importance that these technicians have the freedom to cross these administrative lines in the interest of both CID and the project. It is for this reason that the CID team must have a project leader independent of the services who functions within the office of the Project Coordinator.

CID had assumed that these understandings were clear among all parties at the time of the signing of the contract. However, the concept of the Team Leader had not been made absolutely clear to the Government of Niger and they consequently rejected the nomination of the full-time extension advisor. This was done because the Team Leader (Mr. Williams) also happened to be an expert in extension and it appeared to the Government that they were being asked to accept two extension advisors. Thus the Team Leader up to this point has been required to act in two capacities and consequently has not been able to devote sufficient time to either. It has resulted in the vacancy of the critical extension advisor position which should have been in a full-time and direct working relationship with the Agriculture Service. It has also prevented the Team Leader from adequately performing his administrative duties and assisting the Project Coordinator in the coordination of the CID team's role within the context of the project plan.

The Project Coordinator responded by recognizing that these misunderstandings had existed on the part of the Government of Niger but emphasized that equal misunderstandings had existed among the individual team members, vis-a-vis their role within the structure of the project. The Team Leader had initially dealt directly with the service chiefs on project matters without consultation with the Project Coordinator and the CID technicians had dealt directly with the Team Leader on project matters without consultation with the concerned service chiefs. These problems had been compounded by the fact that the government services themselves did not have a proper understanding of the project organization and its parallel structures.

The Representative of the Regional Bureau of USAID/Niamey responded that the arrival of the CID team was delayed for one year beyond the initiation of the project. During that initial year the project activities were commenced even before the Government of Niger had been able to adequately organize the Project Coordinator's office and functions. The initial activities were thus commenced by the previous USAID Project Manager and his staff assistants working directly with the individual services. When the CID team arrived in September 1976 they were thus caught up in a process of project implementation which had already been set in motion.

The Project Coordinator stated that all of these organizational problems within the project have now surfaced and been defined by all sides and that he has been given a mandate by the Minister of Rural Development to work with all concerned parties to develop an organizational structure and management system which can effectively and efficiently serve the national objectives of the project and meet the concerns of all parties.

THE COLLECTION OF OBJECTIVE DATA
FOR EVALUATION OF ECONOMIC AND SOCIAL IMPACT

The design of the Cereals Project did not specifically provide for collection of data for the purposes of evaluation of economic and social impact. The agricultural services as well as the UNCC collect data in villages which are "encadré" as well as on demonstrations. There is also the agricultural service practice of annual sampling of fields by random cutting of measured plots. These data represent the only information gathered which could be the basis for determining production and measuring yields and the economic impact of the project. As far as can be ascertained the agricultural service does not have programs specifically designed to measure social impact.

The data so far gathered within the framework of the Cereals Project has not been collated nor analysed. It is not clear that it is adequate for measuring the returns to specific inputs or even to the package of technology as a whole. As a matter of urgency these data should be studied to determine their utility for measurement of economic impact and what modification in the data collection system would seem appropriate for making economic evaluation more effective and precise.

The limitations of the project design as well as of the GON system is recognized by RDO and the GON. In fact the GON has suggested that a design for collection of the necessary information, including a format and forms for data collection, be developed as soon as possible for use during the 1978-79 crop cycle.

As a matter of the utmost urgency it is recommended that a simple design be developed including standard forms which could be used for the 1978-79 crop. This design and form should be developed in time for use

in pre-campaign training exercises. At the same time it would be desirable for RDO to assign on an essentially full time basis a staff assistant to work with the GON in the implementation of the data collection plan.

In the longer time frame it is likely that this purpose could be served by the economic and statistics assistance proposed for INRAN. On the other hand that project will probably not be operational for another year or two. Consequently the entire first phase of the Cereals Project will have been implemented with only limited and perhaps questionable data on which to judge economic impact. Moreover, virtually no direct information on social impact will have been obtained.

It would seem that each project of the scale and scope of the NCP which is undertaken should include a research element specifically designed to obtain information on economic and social impact. This research is needed not only for purposes of evaluation but also to provide insights that would contribute to redesign as implementation proceeds and/or to better design of future projects. In some cases the actual implementation of this research element could be part of a broader research project; however, it should not be left to chance that this would occur but rather be specifically provided for in the design.

FIELD TRIP REPORTS

FIELD TRIP TO MARADI - 21 - 24 January 1978

Members: A. Daaloui
W. Hall
H. Dregne

The above group visited the Seed Multiplication Centers at Guecheme, Madaoua and Handallaye and the research station of INRAN at Tarna, near Maradi.

Meetings were held at Tarna with Dr. Sidibé, the director, and with other personnel to discuss research programs. Visits were made to laboratories and field research plots.

Facilities at Tarna are generally good and will become even better when equipment already ordered has been received and when building construction is completed.

Seed Multiplication Centers at Guecheme and Madaoua harvested their first crops in 1977. Seed processing equipment is not available yet. Residences have been constructed at Guecheme and Madaoua. Fencing of the Seed Multiplication Center at Handallaye had begun.

FIELD TRIP TO N'DOUNGA CFJA - 24 January 1978

Members: J. Fischer
H. Raulerson
C. Qian
H. Dickherber
Representative of Agriculture Service MDR

On Tuesday morning, 24 January, the above group met with the Director of the N'Dounga CFJA and discussed with him the 9 month training program for young farmers which concentrates on the use of animal traction in the production of millet, rice and cowpeas. At the end of each annual training period, each student is to return to his village with one unit of animal traction equipment including animals. (Part of the equipment for this year's class is still at the school and it is assumed will be delivered to them some time in the future.) NCP supported 10 of the 40 students this past year.

The results of this training after the trainees return to the village is currently not known. It has been estimated that in spite of a substantial subsidy for this equipment as many as 65% of the students are behind in their repayment. It is not known whether this is due to lack of use, or unprofitability of animal traction or the lack of a collection system for the loans. The Director of the CFJA recommended that the CFJA be provided the means to follow the students in their village in order to improve repayment rate and the instructional program.

The Director of the center pointed out to the team the improvements/repairs that have been made with NCP funds and advised the team that he understands that the NCP project will also finance the increase in the size of the CFJA by 40 hectares and install a water system.

FIELD TRIP TO DOSSO PROJECT - 23 January 1978

Members: D. Aronson
C. Quan
H. Dickherber

As part of the 1978 evaluation of the Niger Cereals Project, Cao Quan, Harry Dickherber and I visited the Dosso Project on 23 January. Since the site visits followed the evaluation and report writing, I am giving my impressions in this form rather than as part and parcel of my section of the evaluation. As we have all recognized, making these visits after the fact is not at all satisfactory. In any case, I do not think my more formal report would have changed much had I done this trip before writing it.

We visited the Project Headquarters in Dosso town; made a protocol visit to the Prefet (Adjoint); visited UNCC facilities in Lido, Birni NiGacure and Guechene; and also saw the Seed Multiplication Center at Guechene. We talked to several aide-encadreurs and other somewhat higher-level local staff. We did not meet with farmers.

The Dosso Project itself gives signs of a great deal of well-meant activity, but it is difficult to extract a real sense of permanent project accomplishments. It is like our NCP itself: while it can be argued that "it is too early to tell", there is at the same time no built-in evaluation system, so that you may never be able to tell exactly what has happened along the way. For example, some aide-encadreurs will be moved to new sites this year - "virgin" territory. Is this for the reason stated, that their former sites are all so well encadre that they will be self-perpetuating, or is it that the effort

has aborted in those villages and the project is moving to what looks like greener pastures? No follow-up is planned to ever resolve this simple empirical question.

Project Thrust: The project had 203 aide-encadreurs last year, 90 of them paid by AID through the NCP. With this field force, the project was a double effort to improve the production of cowpeas (niebe) and millet. Farmers were organized to farm in blocks of 10 or more hectares, with each individual farmer and his family cultivating one or more parcels each a half-hectare in the block. Niebe was the original crux of the FAC project; millet has been added, since it does particularly well in the second and third years on a block first planted in niebe. Inputs ("themes") include fungicide, improved seed, increased planting density, insecticide and fertilizer. Participating farmers form a GMP (Groupe Mutualiste de Production), a pre-cooperative which receives these inputs on credit and guarantees its members' repayment. The GMP is the base of the UNCC structure, and the encadreurs work for the UNCC.

Training: We were told that training last year occupied the month of February, that there was then a period of field training, and that monthly follow-up sessions were held thereafter. We could not verify that these procedures were actually followed.

Production: Improved yields are the central goal of the project. Technically, it is clear they can be achieved with the inputs provided. Whether it pays a farmer to do so is another question, about which no definitive answer can be given. On a theoretical half-hectare of improved millet we calculated in the project office that a farmer could make 4000 F CFA greater net profit after paying off his costs than he could by raising millet traditionally, and 7500 F CFA if he

sold on the free market rather than to government markets. However, (a) the fertilizer subsidy, transport costs, encadreur salaries, etc. are not figured in, so that one cannot say that the whole population could replicate these gains at all, and (b) the figures are based on a hypothetical exact doubling of yields, which does not seem to be the case.

Problems of Social Impact: It is not possible after a few hours to know how deep each problem is, but several issues have arisen for the Dosso Project:

A. Some blocks are breaking down, and in some places this year encadreurs will work with the farmers on their own fields rather than in blocks. This step is healthy socially, though it has some technical and administrative costs.

B. If technical factors of seeds and prices are not addressed quickly, the project may face serious acceptability problems. Niede prices remain low while farmers must sell quickly to avoid storage (insect) losses. Niede must, by present program, be raised first, but may be resisted by farmers. Given AID's concern with cereals, and if AID is to continue Dosso assistance, the niede issue should be raised. Second, P3 Kolo millet does no better in the area than Bazome, the local variety. Some blocks or parcels should be planted this year with Bazome as a test of how much difference the seed factor makes.

C. Birni N'Gacoure arrondissement receives little encadrement effort. It is said to be the poorest area of the Department, and is the most densely populated - apparently because of the good water supplies of the Dallol Besso. We should consider extending project benefits to this arrondissement at an early date.

D. Finally, the lack of on-going evaluative research makes it difficult to say whether the whole effort in Dosso is worth it. The former Deputy Director of the project was doing some research, but returned to France because of illness. Some effort should be made to fill this gap.

Conclusion: Since the World Bank may finance Dosso after 1978, AID's commitments may be limited to the stop-gap efforts it will have made through this year. We have the opportunity to make those efforts pay off a bit better this year by following through on the recommendations made above and those of the overall extension component of the evaluation, (re: training, work plans, etc.). If we do achieve some of this, I believe next year's evaluation on extension could be much more solid and positive than this year's.

Dr. Dan R. Aronson
Regional Anthropologist
REDSO/AID/Abidjan

EVALUATION REPORT ON THE
EXTENSION COMPONENT

25 January 1978

I. THE PROJECT AGREEMENT

The Project goal of the USAID/GON Niger Cereals Project is to "strengthen the agricultural sector of Niger" by "improving the economic condition and performance of the farm community". The key phrase in this statement is the "farm community", because the abstract "sector" could have been strengthened solely through plantation or mechanized projects barely touching the mass of Nigerien farmers. With the condition of those farmers clearly in mind, the GON and USAID designed project components that could have maximum short and long-term impact on the average farmer's productivity of staple cereals.

With this small farmer orientation, agricultural extension was designed as one of the four broad components of the project. Without effective extension to the farm community, not even the most dramatic of new ideas or possibilities can have any impact on the small-holder agricultural sector. Of course it is also true that it makes no sense to build an extension system if there is no package of techniques or material to extend. But in the case of Niger enough experience in improved production practices had been gained even before the USAID project to suggest that the existing extension system could be strengthened without waiting for further research results.

The extension component, as agreed in the ProAg between the two governments, envisaged no less than twelve activities in three separate categories. Briefly stated, they are:

A. Training

- (1) Provision of a full-time extension specialist by USAID
- (2) (a) In-service extension training programs for top-level ministry managers, using (b) a short-term AID consultant.
- (3) U.S. academic training for five Nigeriens in designated aspects of agricultural extension.
- (4) Third country training for Departmental directors of extension and for national-level extension trainers.
- (5) Creation of a Training and Reporting Division in the national extension office.

B. Operations

- (6) Increased manpower in the extension service to make the local operations of any one agent more effective.
- (7) Organization of arrondissement-level teams of agents with complementary skills to back-up and reinforce the more generalized agent.
- (8) Mounting of demonstration programs in nine selected arrondissements.
- (9) Provision of twenty-four vehicles plus motorcycles and bicycles to all levels of the extension service.

C. Young Farmer Training Centers (CFJA)

- (10) Annual in-service training sessions, designed by the personnel of (5) above, for the extension agents and their immediate superiors.
- (11) CFJA's at N'Dounga and Bellande to be expanded with additional facilities and training inputs.
- (12) Vehicle maintenance/repair facilities at the CFJA's.

II. THE RECORD OF ACHIEVEMENT

In plain language, the extension component of the Project has collapsed. Of all the twelve activities envisaged, only two, numbers 6 and 8, have been forcefully pursued. The effectiveness of even these two is in doubt, as will be discussed below. Some efforts at a few of the other activities have been made, as the following notes show. It is clear that more than just expectable delays and new understandings have caused this collapse, and a more general discussion of the situation will be ventured to conclude this section.

A. Extension Implementation (except activities 6 and 8)

A1. Efforts Related to ProAg Goals

- (1) and (2b). The CID contract provided for a half-time extension specialist and a full-time extension trainer rather than the positions described in the ProAg. The trainer recruited was rejected by the GON, and no further discussions were held on the second position. The half-time specialist had no effective French and was the team leader administering the CID contract. In these circumstances the possibility of effective advice and counsel at the top of the extension system was vitiated from the very outset.

- (2a) No in-service training programs for top-level managers have been held. A trip to Ahmadu Bello University in Northern Nigeria was undertaken by the CID Extension Advisor and the (now ex-) head of the Office of Extension.
- (3) One Nigerian left to undertake a B.S. in general extension at the University of Missouri in mid-1977. The GON representative states that he had not been "notified" that four more scholarships were available, nor did AID reserve all the places for extension trainees.
- (4) No third country training has taken place in the extension field.
- (5) No Training and Reporting Division has been created in the national extension office.
- (7) No specialist teams have been created at the arrondissement or any other level.
- (9) Seven of twenty-four vehicles have been provided.
- (10) No retraining sessions have been held.
- (11) Some refurbishing of one of the two CFJA's has been done, and some maintenance work at the other, but none of the major new expansion facilities have been designed in detail or constructed.
- (12) No CFJA repair facilities have been created.

A2. Efforts by the CID Extension Specialist

Notwithstanding the lack of movement toward the specific goals of the ProAg, the CID Extension Specialist has spent

half his time on extension matters. He elaborated a nineteen-page plan of work on extension for 1977 (which the GON rejected with an explanation of why it was unsuitable); he saw to the translation and mimeographing of ten extension bulletins (about 200 copies of each have been transmitted to the Service d'Agriculture); he prepared with the chief of the GON Extension Office and a staff assistant, a technical guide for training extension aides (it arrived too late to be used for training purposes for the 1977 season, but may be used in 1978); he helped train UNCC extension agents; and he undertook a series of other initiatives. A major new idea, the building of a national center of learning and information for the training and/or retraining of UNCC and agriculture extension workers and for the preparation of training materials, has occupied considerable time and is to be developed further in the next few months. It is outside the purview of this report to comment on what is a prefeasibility study for a second phase project activity.

A3. ProAg Extension Activities 6 and 8: Employment

The ProAg envisioned increasing the manpower in extension operations and mounting farmer demonstration programs in nine arrondissements. In 1976 and 1977 these activities were undertaken.

Dr. Robert Charlick evaluated the 1976 effort (Contract AFB-C-1244). He found that a diversity of types of farm demonstrations had been carried out, but that a major problem common to all of them was that agents had little effective communication about the demonstrations with the farmers

around them. He found recruitment, training and supervision inadequate. He found the agents' capabilities stymied by bottlenecks in the supply of necessary inputs. And he found the entire effort to show the farmers that they could benefit from careful planning based on good information compromised by changes in government-set prices at harvest time.

Reports from Department Chiefs of Agriculture on the 1977 campaign are just beginning to reach Miami, and no field evaluation has been made of the performance of the 150 extension aides hired with NCP funds. (The CID extension advisor has had minimal contact with this project activity.) In general it can be said that recruiting and assignments were done entirely at department and arrondissement levels with no guidance from the national extension service. While this decentralized approach maximized the flexibility of using the aides for locally-perceived needs, it also led to widely-varying work loads, inadequate logistical backstopping, and sporadic supervision. Training was similarly decentralized and without benefit of any national guidelines, and lasted not more than two weeks (in part because AID approval of financing their positions was late).

The aide-encadreurs were assigned to a wide variety of tasks and objectives. Some eighteen were used as interviewers on an agro-economic survey begun in 1976. Forty-five more were used directly by the Seed Multiplication Centers (SMC's) to demonstrate Cereals Project-related techniques to nearby farmers. Of the remainder, the majority were assigned to posts within one or another of the Department-level Productivity Projects

(especially the Dosso, 3M in Zinder, and the Maradi Projects) to augment their extension funding and/or capabilities. A fourth group worked in zones not touched by any existing projects to ensure an Agriculture Service presence in those areas.

Demonstrations of one type or another were mounted by all these aide-encadreurs. Many succeeded in the technical sense that fertilizer and other inputs really do improve cereal yields in Niger. Yet there was little dialogue with peasants on the potential labor or financial implications of the possible new methods. Farmers probably continue to see (as Charlick reported for 1976) the demonstrations as government business beyond their capability, since they do not dare hope to receive all the inputs free and on time as happens for the demonstrations. Supervision was a problem for most of the categories of aides, since provision had not usually been made by the Departmental projects or arrondissements for backing-up these supplementary aides made available by the NCP. Only near the SIC's was there real assurance, because of the NCP staff and logistical presence, that aide-encadreurs would be followed up and continuously aided in their efforts.

The question that must be asked is, therefore, whether any Nigerien peasants would have missed anything if these 150 NCP demonstrators had not been present at all. At one level the question cannot be answered in the short term, since the educational value of the demonstrations conducted may be slow to mature into decisions for change. However, for the purpose of the remaining year of the NCP we must try to assure the effectiveness of any aide-encadreurs hired with NCP funds. Recommendations follow below.

III. DISCUSSION

The foregoing point-by-point review demonstrates clearly the gap between ProAg agreements signed by both governments and the implementation that has ensued. It must be concluded that systematic in-attention has been paid to the extension component of the project.

Why has this been so? Several reasons can be adduced:

First, the original NCP design discussed an extension operations element without fully recognizing that Departmental Productivity Pro-jects would come to be mounted in every department, charged with pri-mary responsibility for extension in the field. Now more clearly than at the time of the Project Agreement, we can see that the NCP is a national project which aims to supply the departmental projects (funded by various donors) with seeds, materiel, techniques and information relevant to their localized efforts. By hindsight it can be suggested that perhaps the NCP should not have had an extension operations element at all.

*Did these
exist at the
time of
design?*

Second, it can be seen that the rejection by the GON of an effective extension trainer precluded the possibility of achieving several goals that he would have had responsibility for. A training committee in the Service, in-service courses at several levels, the organization of skill teams for backstopping generalist encadreurs would all have probably been among his tasks to pursue.

It should be noted that several of these could have been accomplished with no building of infrastructure, so the argument that delays in construction have retarded this part of the project is simply not convincing.

Third, AID Project Management did not act as watchdog for the achievement of project extension goals. Failing GON or CID actions toward project goals, it was the mission's responsibility to ask why participants in extension were not being nominated, why CFJA renovations were not being pursued more vigorously, how training goals could be met in the absence of a full-time extension trainer. It does not appear that such questions were seriously raised.

Fourth and most important, there appears to be a basic philosophical difference between AID and the GON about the nature of extension work. USAID has offered experience, based to be sure too heavily on American models, and has had those offers rebuffed. On the other side the GON has stated that it knows how to do its extension work -- that it has a system that works -- but lacks only the finance and logistical support to mount it effectively in the field. Neither group has made a profound effort to explore the other's views, and we remain as far apart on the degree of need for strengthening the extension system as we were at the beginning of the project.

IV. RECOMMENDATIONS

As stated above, Departmental Productivity Projects as well as Departmental Agricultural Services now have primary responsibility for extension work. In any possible second phase of the Cereals Project, therefore, there may be little need for an extension component. To be sure the USG has argued that there are valuable extension activities to be done at the national level. The GON has for the most part not accepted this position, at least not in the way it has been presented up to now.

It is therefore worthwhile to ask what can or should be done in the remaining year of the present project. The contract of the CID Extension Advisor has but half a year left. Both the GON and CID, therefore, have a great deal to gain from making a success of this last year, if either wishes an extension component to be continued into a further phase. On the other hand if there is agreement that no further aid is needed in extension in future years, we are forced to examine carefully whether there is a real need even this year.

With these constraints in mind, the following recommendations are advanced (note: these recommendations have been accepted by the joint evaluation synthesis meeting):

A. Funds for at least one university level participant training position remain available in the extension field and should be used. Due to the lead time necessary to process candidates, it would be necessary to have nominations for any such positions made by 15 February to ensure mid-1970 university placement.

B. It is still possible to hire one or more short-term consultants to review the evaluation of last year's extension operation and to participate in the training of aide-encadreurs for this year. Since such a person should be in country by late February and remain for about two months, it is necessary for the GON formally to request such services by 4 February and informally before that date.

C. In addition, the GON and CID advisor should immediately clarify whether the extension training guide prepared last year is to be used this year, and if so should specify what revisions are necessary and by what date to make certain it is available in good time for training purposes.

D. The effective use of the CID extension advisor's remaining time in Niger should be renegotiated among USAID, the GON and CID. He sees the development of the proposal for a learning and information center as his most important remaining task. But the proposal will be developed in part by a consultant, and in any case needs to be carefully examined as to what effective role it would play in the national extension system. (For example, ProAg plans for the CIJA's were based on similar goals, but have not been followed through.) Just as important, for example, would be for the Advisor to develop a comprehensive analysis of the Nigerian extension system itself, showing the various roles, institutions and elements involved from top to bottom, and how that system actually functions. On the basis of such a document USAID and the GON would be in a much better position than they are now to assess mutually the gaps in structure or effectiveness - if any - that can be filled by donor support.

E. By far the major remaining expenditure proposed for the extension component of the MCP is the hiring of 200 aide-encadreurs for the forthcoming agricultural campaign. Arguments have been heard for and against undertaking such expenditure this year. The question is one of guaranteeing the effectiveness of any such aide-encadreurs hired. There is no real sense to spending more money if training, supervision and value to the farmers of Niger cannot be reasonably demonstrated to be at worthwhile levels. Rather, one further year of support without such upgrading can only damage the chances of making such improvements in the future. It is therefore recommended that:

- (1) Any decision to support the hiring of aide-encadreurs be taken by 17 February at the latest so that the GON will know how many people it will have and can hire them in good time to give adequate training.

- (2) The decision to support these operations should be based on a careful work plan presented by the CCI. Such a work plan should show how each different type of encadreur will work, be supervised, be supplied, and have his work evaluated. In the case of supervision by technicians at (i) the SMC's or in (ii) the Departmental Productivity Projects, it should also document that the technicians or project managers have the resources to support the encadreurs that are to be assigned to them. In the case of (iii) the Enquête Agro-économique, it should also show who will be responsible for running field supervision of the enquêteurs to ensure that this year's field data will be complete and reliable. In the case of (iv), aide-encadreurs to be used in zones outside productivity projects, it should show precisely how such encadreurs will be managed in a situation where no funds have been available for any prior encadrement effort. It should detail a method of recruitment of all aide-encadreurs which guarantees that the best of last year's group are rehired if they are available, that the worst will not be rehired, and that the open positions are filled by competitive recruitment procedures. Such a plan could be presented by 10 February.
- (3) None, some, or all categories of aide-encadreurs might be approved depending on the adequacy of forward planning of their work. Only that number of aide-encadreurs that are agreed to by USAID and the CCI will be paid with MCP funds.

- (4) An NCP Staff Assistant and a CID consultant if the GOI and USAID agree that it would be advisable, should be assigned full-time during the agricultural campaign to make field visits, check work plans, and generally oversee NCP funding uses.

V. CONCLUSION

There is general agreement that the lot of the peasant producer in Niger must be improved through greater on-farm productivity sustainable perennially and leading to higher income and security. There are major differences of viewpoint on the degree to which existing extension policies of the GOI can play their role in this process, as well as on the need for the NCP to have any role in the extension system at all. These differences have virtually immobilized the NCP extension component throughout the life of the project. Remaining funds for this element should be spent only if both sides can be satisfied that project goals are truly being addressed through such expenditures.

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EVALUATION REPORT ON THE
SEED COMPONENT

January 25, 1978

1. REVIEW OF THE OBJECTIVES

The principal objectives of the seed multiplication and production program of the Niger Cereals Project (NCP) are as follows:

- A. Production and increase of high quality seed of cereals through the development of:
 1. A National Foundation Seed Farm (NSF) which will serve as the basis for launching the technical operations of the seed program by the production of I_0 and I_1 seeds and the organization of in-service training of personnel needed for further expansion of the seed program.
 2. Seed Multiplication Centers (SMC) which will continue the seed increase in the second stage of multiplication and will serve as demonstration units for farmers.
 3. A National Seed Policy which sets the organization of the seed sector; the standards for varietal release and for seed control and certification, and the seed pricing policy.
- B. Training of Nigerian Technicians in seed production, processing, marketing and distribution.

- C. Production of Seed by Utilization of a Package of Practices within the capability of the average Nigerien farmer.

II. LEVEL OF IMPLEMENTATION AND RECOMMENDATIONS

To review the level of implementation of these goals, discussions were held with officials of the Government of Niger (GON), Director of Agriculture, Chief of Extension, Representative of Research Institute (INRAN), and with the Consortium for International Development (CID), seed and extension specialists working with NCP; also field trips were organized to Guéchéhé and Doukoudoukou SIMs and to Tarna Experimental Station.

In the following review of accomplishments each objective will be stated with a discussion of the problems hindering full accomplishment, also some recommendations will be made.

A. Production of High Quality Seed:

1. At the MSF located at Lossa some infrastructure installations were made (land levelling, partial irrigation system, three resident houses). The MSF remains, however, not operational because of delay in the completion of installation of the irrigation system and in building of seed processing facilities. Because of the importance of the MSF in the development of the seed program it is highly recommended that:
 - (a) The GON give special attention to rapid completion of the construction of facilities.
 - (b) USAID consider urgently financing completion of the irrigation system.

- (c) The GON appoint a director for the NSF as soon as building starts. This appointment should not be delayed because this director will have to:
- start field cultivation in 1978 for M_0 seed multiplication in 1979.
 - follow-up on building completion.
 - receive equipment and machinery ordered.
 - look for personnel to complete his team.
 - study the possibilities of organizing in-service training in 1978 in one of the most advanced SMCs (the Doukoudoukou SMC).
- (d) The GON argument about this appointment is that it is INRAN's responsibility to do the work mentioned above until the NSF is operational. This is not the right approach because it is the Director of NSF who should live with its creation and make it operational.
- (e) The CID seed specialist and INRAN must start M_0 seed production that was supposed to take place at the NSF, so that the whole process will not be delayed one year.
- (f) GON should decide about the release of new varieties of millet (CIVT developed at the Tarna station) and of sorghum (M02) so all efforts on seed multiplication will be concentrated on these new varieties and not only on P3Kolo.

2. At the SMCs the progress is satisfactory. The major positive accomplishment is the development of the SMCs at Guéchémé, Doukoudoukou and Magaria which are now in full production and the appointment of three Chefs de Centre trained by NCP in Cameroun.

Two other sites were selected for the other SMCs (Handallaye and Tibiri). The three SMCs still lack seed processing plants. Building will start in 1978 and equipment, which has been ordered, is expected to arrive in 1978 also.

Improvement of the SMCs is needed in the following areas:

- (a) Lack of manpower is still a constraint and may delay project progress. Each center will need a manager, a mechanic and four or five specialized laborers. It is urgent that these people be identified and trained.
- (b) Poor management may be a major drawback of the program (ex: delay in payment of labor at Doukoudoukou Center caused the loss of a crop). The GON should improve the management of these seed producing units.
- (c) The dual goal of the SMCs (seed multiplication and demonstration) may lead to some misunderstanding of the role of the SMC and the kind of machinery to be purchased. The GON has a tendency to overemphasize the role of the SMC as a demonstration site and is consequently opposed to any mechanization of the centers. Therefore a decision should be made that

the SMCs are primarily created for high quality seed production which requires some mechanization. For demonstration purposes a five hectare parcel should be set aside.

3. The National Seed Policy—little has been accomplished toward this goal. Proposals made by the CID seed specialist remain unanswered by the GON. The GON maintains that unless the seed sector is well developed there is no need for a rigorous seed policy and that the present effective system should not be tied by a rigid policy. However, this attitude is not valid when a country plans to develop a rapidly expanding seed program. Contracts will be needed for seed growers. Criteria for such contracts must be developed. The GON plans to make the seed sector self-supporting: What control parameters has the GON prepared for such a program?

A very sophisticated seed policy would be unrealistic for a developing country. However, it is also unrealistic to deny the need for any seed policy. Niger urgently needs a preliminary seed policy to allow the organized development of the sector and to establish a pattern for the administration and the growers. Such a policy might be based on the system now used for peanut production in Niger. On this basis the following recommendation is made:

Expand the present peanut seed commission to a national seed commission to include the director of agriculture, the extension service, the UNDC

(cooperatives), SONARA (Société Nationale des Arachides), INRAN, CNCA (Caisse Nationale des Credits Agricoles) and OPVN (Office des Produits Viviers du Niger). This National Seed Commission should define:

- variety criteria for registration and release;
- standards for seed control and certification;
- a scheme for seed multiplication and production. This scheme can be the existing one, but the model should leave areas for any needed improvement.

D. Training of Nigerien Technicians

1. Accomplishments

- (a) On-going training of two students at Mississippi State University in seed technology
- (b) Three technicians trained in Cameroun

2. Recommendations

Even though satisfactory training has been pursued, it is recommended that:

- (a) Training should continue at three levels:
 - (i) Academic training (B.S. or M.S. degrees) in seed technology for at least three persons to be assigned to the three SMCs.
 - (ii) Practical training in seed analysis and processing for the needs of the MSP and the seed control laboratory.

(iii) In-service training for graduates of the CPJAs (Centres de Formation des Jeunes Agriculteurs) and for influential farmers.

(b) The returning participants should be carefully assigned. For example, one of the two graduates from Mississippi should be assigned at the NSP and the other at the Seed Control Laboratory. The latter one or both should be assigned as counterparts for the CID seed specialist working with NCP so they can take over the job when the project is terminated.

C. Utilization of a Package of Cultural Practices

In this field there is a clear need for:

1. Better definition of this package by INRAN and the experimentation center at Tarna.
2. Expansion of a dynamic extension service to make this package of instructions available to the average Nigerian farmer.
3. Setting priorities in the application of this package—no one now gets the maximum output from the inputs utilized.

III. CONCLUSIONS

The seed program is starting out satisfactorily. The CID seed specialist has done an excellent job in a very difficult environment. He will continue to be needed next year and even in a second phase to carry on the organization and functioning of all these seed producing units. A counterpart should be designated for him and the GOI should give him full cooperation.

Many problems were discussed on the level of implementation of the goals and recommendations were made in the following areas:

- A. Special attention should be given to the NSF to make it operational as soon as possible.
- B. More training should be done.
- C. The GON should develop a National Seed Policy.

REPORT ON THE RESEARCH COMPONENT

OF THE NIGER CEREALS PROJECT

by

H. E. Dregne

My comments on the research program are based on conversations with Americans, primarily, and observations made on a three-day trip to Maradi. In view of the briefness of my exposure to Niger agriculture, the statements that follow should be considered as tentative.

It appears to me that major emphasis should be placed upon developing and testing soil, plant, and water management practices that are applicable to cereal production on sandy upland soils under rainfed conditions. Irrigation research appears, at this time, to be of secondary importance.

My research suggestions are as follows:

1. The economic value to the farmer of the component parts of the package of practices (seed treatment, plant spacing, fertilizer use, weed control) that is presently recommended should be determined. Although millet response to the package is favorable, it is not known how much each practice contributes to the total response. Until such an evaluation is made, it is impossible to know whether individual practices are truly worthwhile.

what have they been doing?

2. While most of the agronomic research can be conducted at Tarna, tests should be carried out in other soil and climate zones to determine how the various management factors need to be adjusted to make them most useful throughout the cultivated area.

3. Fertilizer studies should include tests of Tahoua and other rock phosphates as possible full or partial substitutes for superphosphates.
4. Data should be obtained on crop response to potassium fertilizer in different rainfall zones.
5. The work begun on legumes as sources of nitrogen in crop rotations should be intensified. Legumes capable of surviving the long dry season would be particularly valuable.
6. Soil and water conservation research should be increased. Simple practices suitable for hand-labor and animal traction would be useful to control water and wind erosion and to increase water retention in the soil.
7. The poor performance of sorghum relative to millet on sandy upland soils deserves study in the future.
8. An analysis should be made of the economic value of animal traction, taking into account the cost of investing in oxen and the need to feed them throughout the year.
9. An evaluation should be made of the magnitude of the economic losses due to insects and diseases. Downy mildew in millet and long smut in sorghum are recognized as serious diseases but little is known about the severity of attacks by other disease organisms and by insects.
10. Studies with herbicides should be initiated to answer the question of whether chemical control would or would not be better than mechanical control, and under what circumstances.