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Niamey
Department
Development
Project:

Second Interim
Evaluation

Prepared for the Niamey Department Development Project

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**EXECUTIVE SUMMARY OF
FINDINGS AND RECOMMENDATIONS**

OVERALL PROJECT

1. Prior to the first evaluation, project targets, which were mainly quantitative, (farmers adopting the technical package, production increases, amount of credit, etc.) were not being achieved. The reasons were related primarily to weaknesses in the implementing institutions. Since then, the emphasis of the project has shifted from quantitative targets to institution building. There have been some notable successes (esp. improvements in credit management and in the overall design of CPT training) but much remains to be done.

2. In terms of impact, there are three main indicators of how well the project is doing. First, there was to have been an increase in small farmer food production. This has been achieved only to the extent that some CPT-graduates (i.e., a very small percentage of the total target population) have successfully adopted certain elements of the improved technical package. Second, local organizations were to have been strengthened. There has been no widespread impact in this area. Significant progress has occurred, however, in increasing the ability of some cooperatives to manage credit and input distribution. Third, government technical services were to have been strengthened. The most obvious impact in this regard is the addition of the CPTs to the agricultural extension program. The CNCA program in the Niamey Department has also been strengthened considerably. Two very important organizations on which the project has had almost no impact are the Animation Service and the UNCC, which no longer exists, but has been replaced by the Union Nationale des Coopératives (UNC).

3. A key to the success of the project was to have been the active support of the technical services for the implementation of projects activities. This has not occurred because the technical services have, in general, not identified with the project. Project objectives and priorities were different and distinct from their own and their general attitude was that the NDD project had its program and they had theirs. The reason for this situation is that, on one hand, the technical services were not fully involved in setting NDD project objectives and therefore felt no particular commitment to them, and on the other hand, the project had no authority to instruct the technical services to give top priority to the activities of the NDD project.

Recommendation

Since the NDD project has no implementation capacity of its own, urgent steps are needed either to increase the commitment of the technical services to project objectives or, if this is not possible, to obtain the authority of the project to assure that technical services implement project activities effectively. If this is not done, the project will continue to experience serious shortfalls in the achievement of its objectives. This action needs to be taken at the level of AID, MDR, and the Préfecture.

4. Project implementation is suffering from the lack of information flows between project components as well as between different levels of the project -- arrondissements, to project staff, to project management. There is no systematic monitoring of project progress or concerted efforts to identify and address critical implementation problems.

Recommendations

- In order to address efficiently the many implementation problems facing the project, the information flow to and from senior management should be improved and arrangements for more frequent joint discussions of problems and accomplishments should be initiated.
- In order to reduce the administrative burden on senior project management, the day-to-day management of routine operations should be transferred from the Director and the Director of Technical Operations to the Director of Administration and Finance (DAF). This position should be filled as soon as possible by a competent individual in whom the Director can have complete confidence.

5. The main concern of the project at this time should be to set realistic objectives for the next two years and lay as solid a groundwork as possible for the design and implementation of a third phase. It is suggested that the project adopt the following four goals for the remaining two years:

- a. Evaluate the experience of the CPTs and determine what their role will be in phase III and beyond. This will involve assessing the effectiveness and impact of the training, relating the impact to the recurrent costs, and identifying the relative roles of the permanent CPTs and the village CPTs.
- b. Assign top priority to strengthening local organizations in the skills that we know they will use. This translates specifically into greatly increasing the quantity of project resources devoted to cooperative training.

- c. Continue to obtain concrete impact data on the technical package so that the extension program can become increasingly relevant to the needs of the farmers through-out the project area.
- d. Carry out a thorough analysis of what the "Societe de Developpement" means for the Niamey Department in very specific terms. A specific focus of this analysis should be how and to what extent responsibilities can or should be effectively transferred from the technical services to local organizations. The Charlick study could make an important contribution to this analysis. As much of this work as possible should be completed in 1985, so it can be used for the design of phase III.

Recommendation

Regardless of what goals are finally adopted, the process should involve MDR, the Prefet and the Department-level technical services. As already noted, a way needs to be found to obtain the full collaboration of the key technical services -- agriculture, animation, alphabetisation, and to a lesser extent, livestock -- as soon as possible.

CPT EXTENSION

The CPTs created by the project were to have been the main vehicle for extending the technical package to the farmers in the project area. Changes are needed at two levels to improve the impact of the CPTs. First, it is necessary for the project staff and the trainers at the CPT to better understand the elements of the technical package in order to use them for more effective training. Second, there is a need to better follow up and above all, to provide support for CPT graduates in their efforts to apply what they have learned under conditions of production that they know only too well.

There is some dissatisfaction within NDD over the limited impact of the technical themes after several years of promotion, and there is a manifest willingness to consider different approaches. Within the project's components and at the level of the CPTs, efforts are being made to improve extension content. Thus far, these efforts have had limited impact because: 1) they were only started in earnest in 1983, 2) the rains failed in 1984, and 3) there has been a lack of cooperation from the Technical Services. It must be emphasized, however, that unless CPT graduates perform an extension function when they return at their villages, the CPT approach cannot be cost-effective and should be abandoned. Specific actions that should be taken during the next two years are listed below.

Recommendations

- Single out those production themes that work well and teach them as effectively as possible in project training programs. If the use of some themes is low, this be probably because they are not effective, or because the balance of risk-benefit is unfavorable for the producers who are being encouraged to use them.
- Pursue the extension of a range of effective techniques at the village centers in order to link training directly to local conditions of production, and alter the techniques as needed.
- Continue efforts to assure better quality teaching staff at the CPTs.
- Strengthen the capacity of technical services in the project zone to followup project activities. Require that technical service field staff participate in CPT training programs, and do so in a manner that is useful and interesting to the trainees.
- Continue efforts to select better trainees, but do not confuse the cause-effect relation between better trainee selection and better project impact if the production themes are only marginally useful.
- Insure that trainees who occupy junior positions within their home settings are not constrained from using the production themes they have learned (if they work). The situation of women is particularly critical in this regard.
- Either insure that women can play a more active role (if this is what they desire) in cooperative structures where they can use their modest literacy skills, or do away with literacy training for women. The required changes are structural, not simply pedagogical: priority must be given to means of making women's literacy functional. Until this is done, their interest in literacy training will remain low and the results will continue to be poor.
- If women's literacy is to continue in the project assign adequately trained women to the task, and take them seriously. Do away with the present arrangement of double-duty as literacy instructor/follow-up agent.
- Strengthen the follow-up of trainees during and after CPT programs. Insist on the need for service agents to listen to and work with villagers. Without this painstaking expression of genuine interest in problems of people in the project zone, and in what CPT graduates do, the credibility and impact of NDD (except as a source of carts) will be limited. This may be the most important recommendation.

- Explore the possibility of using CPT graduates as trainers in village-level CPTs in order to cut costs. Explore ways for local populations to contribute to operational costs of the training centers, but guarantee that they perceive and receive a payoff from their contributions. Do away with the idea of self-financing training centers.
- Respond to requests from project zone villages for help in improving agricultural production. Consider the establishment of village-level centers in these cases only if there is an unambiguous expression of local interest.
- Consider closing several CPTs if the village-level centers prove to be more cost-effective as an extension tool.

THE IMPROVED TECHNICAL PACKAGE

Surveys of CPT graduates in 1984 have shown that the adoption rate of the recommended technical package is low. In general, more elements of the technical package are adopted in the south than in north. The project does not have a systematic program for adapting the technical package to the different growing conditions in the project area. The project also does not have a full-fledged farming systems research program to identify key production constraints in the traditional systems and to do on-farm testing of new technologies to address those constraints.

Recommendations

- It is not necessary for the NDD project to have a full-fledged farming systems research program. However, the applied research unit working closely with the monitoring and evaluation unit should do careful, well monitored on-farm testing of productivity-increasing innovations in the different agro-climatic zones of the project area. An important part of this effort should be the testing of modified animal traction equipment adapted to growing conditions in the project area. It is noteworthy that there is very little demand for credit to purchase animal traction equipment in the project area. Also, there would be almost no demand for fertilizers if they were not subsidized.
- The surveys of CPT graduates should be continued. The specific objectives should be to: 1) obtain more information on reasons for the adoption or non-adoption of all or parts of the technical package; 2) attempt to measure the on-farm impact of the technical package on yields and production; and 3) obtain concrete information on the benefits of animal traction especially the impact on yields and area planted.

- The findings of the on-farm research and the surveys of CPT graduates should be systematically incorporated into the training programs of the CPTs.

CREDIT

1. There have been major improvements in the credit management system since the last evaluation. Past credit accounts and loan records have been reconciled and brought up to date, and a computerized management information system is being established for CNCA. In fact, the credit component is the only one where there is agreement between the project and the implementing organization on objectives and how to achieve them.
2. Although a sound credit management system is being put in place, it must be recognized that it will not have an impact on the performance of the credit component without a major follow-up effort by the project. This follow-up should consist of continued advice and training for CNCA, and a large-scale training program for cooperatives and village groups.

Recommendations

- The effort to transfer credit management responsibility to cooperatives should be limited in scope. Rather than seek to have all cooperatives manage their own loan portfolio, the project should work with only those who have the most potential for success, probably fewer than 20 in number. Neither the project nor the CNCA has the manpower or the resources to provide adequate support to a large number of cooperatives, or to those who do not already have some capacity to manage their own affairs.
- Concrete actions that the project should take to improve the performance of its credit component include:
 - 1) Frequent visits to cooperatives and village groups emphasizing the responsibilities of cooperatives membership, especially timely loan repayment.
 - 2) Establish standard procedures to follow when loans are in default. However, CNCA and NDD need to recognize that they are in the business of making sound loans, not repossession of goods as a result of bad loans. CNCA should concentrate its efforts on careful loan analysis rather than on punitive measures.
 - 3) Require larger down payments. An appropriate down payment in most would be 30 percent. Any program that consistently requires less than 20 percent down payment is certain to have unacceptably high default rates.

3. In the long run the most difficult issue for the credit program will be financial sustainability. There are two ways to approach this problem.

- a. Follow strict banking procedures and lend only to those who are almost certain to repay, even under the most adverse conditions. This means lending only for what the farmers themselves want, and only to farmers who are creditworthy and for activities that are financially viable. Given the small average size of loans to farmers, CNCA would make loans only at the cooperative level and only to those that can assure repayment. This is the only way to assure acceptably low administrative costs per loan, minimal defaults, and a truly revolving credit fund. The obvious disadvantage is that the loan program would be very small and would have virtually no measurable development impact.
- b. Use the credit fund as a means of achieving rural development objectives, i.e., provide credit for innovative agricultural technologies and village-level income-generating activities. This approach entails high administrative costs and high default rates which must be subsidized. The key here is to differentiate between the credit program, which should be self-sustaining, and the subsidy program which is the responsibility of government. NDD needs to recognize that CNCA will never be a financial institution in the real sense if it is obliged to subsidize rural development efforts.

INPUTS DISTRIBUTION

The NND project has set up a sound input distribution and inventory management system, and progress has been achieved in training cooperative officials. The impact of these efforts, however, has been limited because of the lack of follow-up and logistic support. Records are not always being kept properly and information is not reaching Niamey because of transport and communication problems. Consequently, inventory control by the project requires more effort than it should and is not as up to date as it could be. The system that was set up for estimating demand for inputs and communicating it to Niamey has not been working for the same reasons.

Recommendation

A more systematic way of supporting cooperative is needed. NND needs to determine who will be responsible for regular visits to cooperative now that there is no UNCC structure in the field.

LOCAL ORGANIZATIONS

Through a variety of interventions, the NDD is providing support for local organizations.

Preparations for local-level management of credit and inputs are moving along, but the effective transfer of responsibility to local populations will take time. It should be kept in mind that if all goes well, three years may easily be necessary before we see the beginnings of self-management by cooperatives in the project zone. It can be hoped that in four years, enough cooperative officers will have been trained, upgraded and followed-up that self-management may become a reality in a large part of the project zone. This is an optimistic scenario. Much of this depends, of course, on the willingness of cooperative members. In order to insure their continued interest in the affair, they must remain convinced that there is a payoff -- both social and economic. Self-management must be perceived by local populations as something worth doing. But self-management of what? This is a critical question that must be addressed by all parties involved in the project: NDD staff; members of the technical services, and the populations in the project zone.

The transition of concern to us involves more than the peasant producers in the zone. Arrondissement-level personnel and even traditional authorities must face up to the need to reconceptualize development problems and their solutions. The study of local organizations planned for 1984-1985 will provide useful information, which should help with the readjustment of current thinking about the rural milieu, and help to better understand and deal with the milieu's potential for and obstacles to viable development.

Activities must reflect the desires of rural populations, and this requires that they be carefully sought and thought out. In order for this to occur, a more critical, analytical attitude -- grounded in ongoing contacts with the countryside -- is necessary at all levels of the project. We are not there yet. Surely the process whereby Niger's rural populations will take their future in their own hands will require that they stop waiting for solutions from above as they have been conditioned to do. They now require useful advice and support; not orders.

Recommendations

- Continue the preparation of rural populations in the project zone for a more active and critical role in endeavors to set off a development process. This will require that technical staff and rural development personnel play a more effective role. The project advisors for cooperative development, credit, and input distribution need to get together with the Arrondissement Coordinators to work out an approach for carrying out this task over the next two years.

- Continue training and upgrading programs for cooperative officers, and eventually all cooperative members. Strengthen resources for follow-up and support of these training programs. In order to better measure their effectiveness for purposes of local-level management, set-up a system of verification that requires a demonstration of acquired skills by cooperative officers to members of the village community as well as passing technical service or project agents. Accountability to members of the community is at least as important as that to persons in higher levels of power and authority.
- Continue programs designed to increase the awareness of technical service staff to different approaches to development, and pursue programs for training and retraining that oblige participants to apply, hence test, and verify their knowledge. This feed-back linkage between learning and application should become a central feature of all project-sponsored training programs. Insure that rural development personnel who go through these programs offer useful advice to project zone populations. If they cannot, insist that they undergo more training. If their performance is still not satisfactory, replace them and find others.

SUGGESTIONS FOR PHASE III

Many of the findings of this evaluation indicate that what will turn out to be appropriate for a third phase of the NDD project depends very much on the experience of the next two years. However, there are several general observations that can be made at this time.

1. The project needs to continue its strategy of not setting up structures that operate separately from the existing technical services. The project has never felt that this was desirable, and it is now official GON policy to move away from those types of projects. What cannot be overemphasized, however, is that meaningful support for project activities by the technical services can only be assured by 1) very definite instructions from the Ministerial and Prefecture level, and 2) giving the Project Director the authority to deal effectively with the technical service department heads.
2. The only basis for rural development and increased rural income in Niamey Department is increased small farmer productivity. This means that there must be improved technologies that can be adopted by farmers, and there must be effective extension. The implication for phase III is that the project must have some sort of extension activity. As noted in the recommendations

for phase II, the existing system needs to be redesigned to reduce costs, probably by shifting to village CPTs and having non-salaried CPI chiefs. As in phase II, the key to success will be effective technical support from the Agriculture Service.

There should be no need for phase III to conduct agronomic or farming system research, but effective links should be established with INRAN so that the project does not stand still with respect to the technical package. What phase III should have, however, is an adaptive research activity as part of the extension program. This would consist of closely monitored on-farm testing of technical innovations by the extension staff itself with a view to incorporating economically profitable innovations into the extension program.

3. The main thrust of phase III will be to strengthen local organizations (cooperatives and GMVs) to 1) assume responsibility for certain services now provided by government, and 2) undertake development initiatives relating to social services and income generating activities. This implies a major training activity for phase III. How this activity is to be implemented is unclear at this time. Who will be the implementing technical service? Or is this an activity that the project will have to implement for itself. The national and department-level credit and input distribution organizations should not go below the cooperative level. The APS project has a cooperative training component, but is unlikely to have the capacity to do more than pilot activities in individual departments. Thus the project could end up having to implement its own cooperative training program.

There are two other major unknowns with respect to local organizations development. The first is: how long will it take to get local organizations to where they can manage their own affairs. Experience has shown that even in countries where economic development is more advanced and in areas with a better resource base, it takes a lot of training and support before local organizations can really initiate and manage on their own a wide range of development activities. The second is: what can in fact be done by local organizations in Niamey Department? There is, of course, the standard list: input supply management; credit management; cereal banks; off-season gardening; boutiques; and flour mills. This is the same list that was mentioned at the start of phase II, but very little was achieved. The basic problem is that Niamey Department has a meager resource base and the rural population has very

little purchasing power. This sets real limits on the types of activities that are economically feasible.

4. Phase III will not need to be directly involved in input distribution, but credit will continue to be needed both for the improved agricultural technology and for village-level income-generating activities. Three points should be made in this regard. First, there needs to be a strengthening of credit institutions and management at the national level. Second, the project will need its own credit management capability during phase III. Third, because the types of activities likely to receive credit will be innovative and risky, administrative costs and default rates will be too high for the credit program to be financially self-sustaining without heavy subsidies. This needs to be recognized by the GON and USAID at the outset.

I

INTRODUCTION

The Niamey Department Development Phase II project, NDD II, was started in 1980 and is scheduled to terminate in December 1986. The overall objective of this project is to establish a self-sustaining rural development process through the introduction of improved agricultural technologies, the creation of development-oriented local organization, and the strengthening of government services. The project has eight components:

- Extension based on Farmer Training Centers (CPT)
- Strengthening of government services
- Strengthening of local organizations
- Credit supply
- Input distribution
- Women's participation
- Applied agricultural research
- Monitoring and evaluation

The main inputs of this project are technical assistance; commodities, mostly vehicles and fertilizer; a credit fund; and construction of an office building and training centers.

The project design called for two interim evaluations. The first of these took place in 1983 and, at an overall level, recommended an increased emphasis on institution building, stronger project management, especially for the credit component, and further applied research on the improved technical package. Specific recommendations were made for each project component in line with these overall recommendations. The purposes of the second evaluation are to assess the impact of the changes recommended in the first evaluation on project performance, measure progress to date toward the achievement of project objectives, and make recommendations for the remaining two years of the project.

The evaluation was carried out by a four person team. The expertise and responsibilities of each member were as follows:

Rural Development Specialist, team leader and primary author of Chapter VI, Project Management.

Financial Management Specialist, primary author of Chapter IV, Credit and Input Distribution.

Social Anthropologist, primary author of Chapter II, CPT-Based Extension, Chapter V, Local Organisations, and the Appendix on Women's Participation

Agricultural Economist, primary author of Chapter III which analyses the technical package and evaluates the performance of the Applied Research and Monitoring and Evaluation components of the project.

Most of the information used in the preparation of this report was obtained from project documents, including the reports of short-term consultants, and discussions with project personnel in Niamey as well as on field trips. Since the evaluation did not take place during the agricultural season, the evaluation team was not able to observe actual farming practices. However, considerable useful information was available from surveys conducted by the Monitoring and Evaluation Unit.

The main findings and recommendations of the evaluation are presented in an Executive Summary, and detailed recommendations are presented at the end of each chapter.

II

CPT-BASED TRAINING AND EXTENSION

IMPLEMENTATION

A. Recruitment of Trainees

From the beginning of NDD, the goal of trainee recruitment has been to locate younger villagers in the project zone who are interested in learning improved agricultural production techniques at the project's CPTs. After their CPT training, the trainees are expected to use the techniques in their own fields, and to teach their neighbors how to improve their own production. This is the "oil spot" principle of extension. Experience during the early years revealed that the trainees were often marginal elements in their home villages. They were little motivated, having been almost obliged to attend the CPTs, and their impact was minimal once they returned home.

In order to improve the quality of persons sent to the CPTs, the project began to more carefully specify recruitment criteria in 1982, and to make these criteria known among the cooperatives in the project zone.

For the same reasons, the NDD began an "Open Door" program at the CPTs in 1983. These programs were designed to give greater publicity to the CPT programs, and to show the effects of the productivity themes being taught. Relatives and representatives from each trainee-couple's village were invited to the sessions. At the same time, the recruitment criteria were further tightened. Only those cooperatives that were not in default to the CNCA could send trainees to the CPTs. The NDD asked that the trainees be mature individuals, that they have experience in farming, and that they have access to fields of their own on which to use the new techniques.

While it is plausible that these improvements in recruitment have produced a higher-quality trainee (a point debated by some CPT directors contacted during the evaluation), more work is needed. By way of example, a study carried out by the project's Monitoring and Evaluation section shows that 98% of the trainees recruited in 1984 had access to land in their home villages. But half (54%) are neither household heads nor heads of domestic production units. For the moment, we cannot say with confidence what the consequences of this situation will be for the 1984 trainees, but it deserves some attention during follow-up. It is possible that, as observed during Phase I of NDD, the trainees' "junior" status in their families will continue to present obstacles to the effective use of their knowledge.

A second difficulty faced by several trainees stems from the NDD policy of selecting single trainee couples from GMs in order to spread project impact to a large number of villages in the cantons of the project zone. As a result, the trainee couples return alone to their home villages, and do not constitute a critical mass sufficient for purposes of extension. Expressed another way, moral support is lacking for their initiatives in the village. This is a qualitative consideration, but is critical nonetheless. For innovations of the kind the NDD is promoting to be successful, there must be some support from the surrounding milieu. This isolation is particularly pronounced in the case of women CPT graduates from ethnic groups or subgroups where there is little if any social support for women's labor in collective fields (windi koy faryan) during the cultivation season.

This situation can be complicated by the fact that follow-up and support needed by trainees once finished with CPT training are not always provided, either by the project's follow-up agents, or by arrondissement technical personnel, and this despite a general improvement in NDD follow-up efforts. During the 1984 agricultural campaign, 74% of former trainees were contacted at least once by some NDD agent. Nonetheless, discussions with persons at various levels within the project--CPT directors, women's follow-up agents, and without exception, department technical service representatives--revealed degrees of dissatisfaction with current follow-up.

The project has been endeavoring to increase awareness of and interest in NDD among populations in the project zone, and to promote more active participation of local cooperatives in trainee selection. After all these efforts, however, the question of the project's impact remains unanswered, if by impact is meant increased productivity, and operationally this is largely the case. After seven years of promotion in the project zone, several of the NDD's production techniques remain minimally effective (see the section on the technical package).

If there is an element of the technical package that is truly popular with NDD trainees, it is the two oxen cart. And if, because of its popularity, trainees are motivated to attend the CPTs primarily in order to receive the oxen and cart on credit, what is the purpose of better selection criteria? (If not simply to improve the reimbursement situation.) Under these conditions, the link between improved recruitment and improved impact cannot be assumed.

B. Teachers at the CPTs

The quality of teachers at the project's CPTs (CPT directors and literacy instructors) varies considerably and does not appear to receive routine, sufficient supervision.

This is not to say that we do not find enthusiastic, capable instructors at the CPTs. On the contrary, NDD training personnel can easily point to several. But faced with a training program that demands an effective approach to teaching as well as a mastery of the themes being taught, the number of instructors having these desirable qualities is insufficient.

According to observations by NDD personnel responsible for CPT training, and comments by an animal traction expert who visited the project during 1983, the CPT directors have a tendency to incorrectly use the farm implements they are demonstrating to trainees. Occasionally, for example, uplifting blades are used instead of multicultivators ("Dents canadiens") to teach soil scarification. According to experience with animal traction in the Zinder region, only one person is required to cultivate with a single ox, while the CPTs teach that two if not three persons are needed for the work. The traction method that requires more human labor may seem to some to represent an economy of time, but in reality may lead to a loss of domestic labor and time, especially in the case of women who are now working more with their husbands in household fields, potentially at the expense of labor time, hence production in their own fields. The project has been pursuing improvements in the teaching of technical themes since 1984, but weaknesses still persist. These must be addressed, particularly given the present effort to diversify the range of production techniques taught at the CPTs. The greater the variety of techniques taught, the greater need for follow-up and "quality control".

Similar observations can be made about the literacy and follow-up agents. There was a great deal of variation in the quality and motivation of literacy instructors during 1984. The situation was further complicated by the dismissal of at least one instructor (at Koni Beri) because of poor performance, something that was done without informing the department representative of the literacy service. An extreme case was mentioned by the department literacy agent who described one CPT instructor as "mentally ill," having alienated most of his students (Chiwil). Other cases could be cited to complete this picture of variation in teaching quality. Efforts have been made to improve the quality of instructors in NDD training programs, but ideal candidates frequently cannot be found.

Concerning ongoing endeavors to improve NDD training, it is significant that a very constructive link has been formed between the project's training section and the Centre de Formation des Cadres de l'Alphabetisation (CFCA). This has enabled NDD and the literacy service to work closely together to develop, test, and perfect a more efficient teaching method tailored for the needs of the CPT literacy programs. This "intensive literacy" approach has considerable promise, and merits continued support.

In order to assure an effective program, CPT teachers must be carefully selected and trained according to the needs of the project. The literacy instructors must, of course, thoroughly

understand what they are teaching (not always the case), but in addition, they must be able to establish a good working rapport with the trainees. As with all aspects of NDD, their activities must be carefully followed up.

The situation of the young women who work as literacy instructors for women CPT trainees is more difficult. Described by the department literacy agent as "average", the women's instructors are also said to lack enthusiasm for their work. The results of women's literacy programs at the CPTs are generously described as extremely modest. The task of women's literacy instructors is a difficult one. They are charged with giving CPT women training that is perceived to have very little utility within the present project framework. It should not be surprising, then, to discover that interest levels among women trainees concerning literacy are very low, and that in some cases they refuse to attend classes. This situation seems to reflect that of women in the project as a whole: not very enthusiastic because they are often marginal; they appear to be taken less seriously; their presence at the CPTs is almost accessory.

The situation of the women's instructors is further complicated by their additional duties as follow-up agents for all women CPT graduates who live in the regions surrounding the centers. Their performance is often weak in both areas. Once again, however, the mere presence of follow-up agents and literacy instructors for women is a major improvement in NDD training and extension programs. The task is now one of making their presence more effective.

As for the women who graduate from the CPTs, very partial information suggests that their use of the CPT extension themes is limited to their work with their husbands in household fields; their extension efforts in their home communities are minimal. This reinforces the image of women as marginal to project activities and impact. Again, this is the situation despite NDD efforts from the early years of Phase II to focus more attention on women. This resulted in the creation of a Women's Participation component, and the subsequent addition of women's follow-up agents. Additional information on the situation of women in the project zone is contained in Appendix I.

A final note on women's literacy in NDD. If endeavors to improve the lot of the few women who become literate in national languages are to be effective, structural changes, not just better teaching methods (however important they are) will be needed. More specifically, if the existing rural development structures (cooperatives) in the project zone do not give women CPT graduates the opportunity to use their literacy skills, the impact of their training, no matter how good the instructors, will be negligible, and probably quickly lost after they leave the centers.

C. Follow-up of CPT Graduates

In order to provide better follow-up of CPT graduates, the project has recruited men's and women's follow-up agents. Occasionally, due to dismissal or reassignment of the men's agents, CPT directors provide this function, often together with the women's agents.

This strategy is a clear improvement on the pre-existing situation, but is insufficient vis-a-vis the potential need for follow-up: as of 1985 there will be 707 CPT graduates in the project zone.

According to discussions with CPT directors and follow-up agents at three centers, the current method of "zonal follow-up" is inadequate. Follow-up agents frequently complain of insufficient transportation for travel in the areas under their responsibility. Project zones "A" and "B", for example, include all former trainees who live within 15 kilometers of the CPT. As for actions in zone "C" (beyond 15 kilometers), very few visits were made in 1984. One explanation for the unavailability of vehicles was insufficient coordination of field trips by arrondissement technical services. A second reason given was the reportedly frequent requisitions of service vehicles by local authorities for non-project activities.

In cases where field trips were made, they seem to have been done very quickly. During one such trip from the Koni Beri CPT, for example, eighteen graduates were visited. One could ask how much time was spent with each trainee and what was done with each, given the considerable distances between villages in the region. Unfortunately these questions were not asked.

Effective follow-up should consist of more than the collection of information for purposes of analysis and evaluation at NDD headquarters. A very important function of these field visits seems to have been neglected: support and reinforcement for the graduates's activities in their home villages. If we consider that the different components of CPT training for men and women total more than a dozen themes, without counting any initiatives taken by some graduates, or particular problems encountered by others, the demands of a follow-up effort worthy of the name become more evident. The fact that 361 (or 74%) of 485 former trainees were contacted in 1984 does not tell us much in itself, although the total certainly indicates an effort on the part of NDD personnel. The quality of contacts is at least as important as their quantity.

D. Involvement of Technical Services in the Project's Training Programs

Thanks to monthly coordination meetings of arrondissement-level technical services, service representatives have the opportunity to stay informed about project activities in order to

plan and participate more effectively. The participation of technical services in training is scheduled for each CPT in a given arrondissement. These schedules, which can be found at each CPT, provide for at least two visits by each service every month. CPT directors also maintain a register of CPT visitors with information on the date, the service involved, and the nature of the visit. Through contacts with CPT directors and an examination of the registers, an idea can be had of service participation in CPT training programs. On the basis of this impressionistic evidence, it appears that except for the Literacy Service and to a lesser extent Animation, the contribution of technical services to training is very limited. The few visits that do occur tend to be focused on some specific task (delivery, collection of information), and instances of time spent with the trainees are rare. In the meantime, the literacy instructors, who do not always master the content of the technical themes they teach, do what they can to pass on this information to the trainees. The technical services should give greater support to CPT training through a more active involvement in center activities.

THE IMPACT OF CPT TRAINING ON TRAINEES

Since 1980, several studies (internal and external to NDD) of the project's technical package have criticized it for being too expensive, not very effective in several components, and not well adapted to conditions in the project zone. Animal traction themes (except, of course, the cart) in particular have proven to be very problematic from the standpoint of profitability. More recent information from research done by the project's Follow-up and Evaluation unit suggests that several features of the package are not or are only partially used by many CPT graduates. If the impact of CPT training on the agronomic practices of trainees is weak, their impact in their home villages, in turn, is negligible. The oil spot is hardly spreading, hence spread effect is minimal.

The project must now disaggregate or "unpack" the technical package--according to the possibilities and limitations determined by rainfall and soil variations in the project zone. More attention must also be given to the socio-economic context into which the technical themes are being produced. Since brief studies of land tenure and social structures in the project zone during 1977-1978, these issues have been ignored (see section V). The themes that seem least doubtful and most popular are often those that change only slightly practices that have been used for some time in the area. Data collected by the NDD on the use of extension themes on fields by CPT graduates from 1978 through 1983 gives us a view of the situation. Seed treatment was used on 70 percent of the fields, seed sorting was used in 68 percent of the cases, and thinning of plants in 77 percent. By contrast, soil scarification before the rains was practiced in 32 percent of the cases, while tracing was used in 39 percent and animal traction weeding on 32 percent of the fields. Manual weeding continues to predominate in the practice of CPT graduates.

In order to better adapt technical training to local conditions, CPT directors began to demonstrate alternative methods in 1984. Single-ox and donkey-traction were shown to trainees along with two-oxen traction. Largely because farm implements now available for alternative approaches are not well-adapted, the demonstrations were neither very satisfactory nor very convincing. The donkey hoe, for example, was not well received because the model used at the CPTs does not scarify the soil as deeply as the ox-drawn equipment. To summarize, efforts to propose a wider variety of techniques in the CPT programs are just beginning, but they are beginning, and are an important step toward a more effective training program.

Despite the possible alternatives, most all CPT trainees selected the ox-drawn equipment at the end of their training programs, however costly and whatever its efficiency. This is because the oxen pair can pull a cart, the "star" of the NDD technical package. The cart (as trainees were quick to point out during CPT visits, and have been saying for years -- see the NDD II Project Paper) is seen as a means of earning cash throughout the year, while the potential effects of the improved production techniques (if they work) are limited to a short period, and totally dependent on rainfall. In short, the cart promises greater diversification of real income, hence the subsistence base.

Aside from the above-mentioned innovations, contacts with CPT personnel and NDD headquarters staff most directly concerned with training reveal that the content of CPT extension has changed very little from previous years.

The most important change in training since 1983 is the opening of village-level centers (also known as revolving CPTs): Guessendoundou in 1983; Kongougrou, Kolbou, and Boumbounga in 1984. To date, however, the changes seem to consist of form rather than content. Perhaps the clearest example of continuity between the curriculum of CPT and village-level training programs is that of Guessendoundou. The peasant couples trained during 1983 were taught themes appropriate for cultivation of millet on sandy soils. This was done despite the fact that most of the trainees cultivate sorghum on clayey soils. Thus agricultural training was largely inappropriate for the trainees. In cases like this, the village-level programs simply replicate CPT extension themes on a smaller scale. Does this represent greater flexibility in training? No.

How can we explain the slowness of the NDD in adjusting CPT training content? No doubt there are several reasons, but those most deserving of our attention are the following:

- 1) The scale and complexity of NDD: Too many activities to plan, implement, follow up, and evaluate;
- 2) The newness of the village center approach to training. It is a welcome change to NDD programs, but may be an

extra burden of follow-up if the number of village centers increases significantly. From a management standpoint, homogeneity of training content may be more desirable than diversity: follow-up and evaluation are less complicated (fewer variables to consider).

- 3) Inadequate follow-up of training impact linked through a feedback mechanism in order to ease needed changes in training content.

A final reason for the slow adjustment of NDD training content is turnover at NDD headquarters. The heads of all NDD components directly concerned with CPT training have been with the project less than one year.

Contacts with NDD personnel reveal a willingness to improve the quality of training programs, and the capacity to do this is evident in the organization of seminars and more innovative programs for NDD and arrondissement-level personnel (see section V). Now it is the turn of the CPTs. After more than six years of operation, the production themes are still not satisfactorily developed, and the expected impact of their use remains to be seen. In addition, knowledge within the project of the NDD's operational milieu is limited.

RECURRENT COSTS OF CPTs AND VILLAGE-LEVEL CENTERS

The NDD currently envisions several strategies as a means of reducing operational costs. The first consists of increasing the number of village-level centers in order to spread the impact of NDD without excessive increases in cost. Among other things, the trainees at the village centers will live and eat at home, thus there will be no lodging and food costs for the project. In addition, construction and maintenance costs are much lower at village centers, for only simply built houses are needed for CPT staff.

The second approach to cost cutting consists of asking villages that send trainees to the CPTs to absorb a part of what are now NDD expenses. For example, beginning in 1985, the GMs in the Kourfey canton of the Filingue arrondissement, where the Chiwil CPT is located, will contribute in kind or cash to center operations as follows:

- Each GM will contribute 50 kilograms of millet to the CPT for food;
- Trainee couples will provide their own mats, beds, and mattresses (this will begin in 1986; the Nigerien Association of Women has agreed to supply these once during 1985);
- The GMs will gather straw, millet and sorghum stalks, and cow pea vines for CPT cattle feed;

- In the case that construction is required at the CPT, the GMs will supply materials (mud, thatch), construction labor, and pay for a mason if adobe is used.

A third approach that has been suggested involves dividing CPT millet production into three portions. The first will be distributed to trainees at the end of training; the second will be used to cover miscellaneous center expenses; and the third will serve as the basis for a revolving fund, to be used for input purchases.

In order to evaluate this third strategy, M. Philip Boyle has analyzed the recurrent costs of an "average" CPT (on the basis of 1983 production figures): Boula, with twenty peasant couples; and a village center, Guessendoundou, with ten couples. On the basis of the value of center production, he then examined the possibilities for setting up a revolving fund. For the average CPT in 1983, millet production covered about 25% of costs; for the village center, coverage amounted to 10%. Boyle concluded that there was no potential for revenue generation sufficient for even partial financing of center operations. From the view point of economic viability, neither type of center appears to offer much. Having concluded this, Boyle goes on to emphasize that training centers of this kind have a very important role to play in the development of more effective production methods. Finally, he stresses the need to look at the centers as training and extension structures and not as self-sustaining enterprises, whatever the recurrent costs. The issue is more one of development policy than a narrowly defined notion of profitability: at some stage society must incur a social cost in the promotion of development.

A fourth attempt to promote self-financing for CPTs began in 1983. NDD contracted with several peasants in areas around the CPTs to grow certified seeds. The profits from seed sales were to feed a CPT fund. Unfortunately the results of this endeavor were negative. A total of 2.8 million CFA francs was spent on inputs (for 265 producers on 471 hectares of land) of which the project recovered only 1.5 million CFA francs.

In summary, NDD has considered, and in some cases attempted to implement strategies to reduce and cover operational costs at its training centers, but the results to date have been less than satisfactory. If recurrent costs are to be met locally, other strategies will be required. It may be unrealistic to expect that too great a burden be absorbed by local populations.

CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

The foregoing remarks and those contained in the section on the project's technical package reveal several needs. First, it is necessary to better understand the elements of the technical package in order to use them for more effective training.

Second, as has been repeatedly stated above, there is a need to better follow up and above all, to provide support for CPT graduates in their efforts to apply what they have learned under conditions of production that they know only too well.

There is some dissatisfaction within NDD over the limited impact of the technical themes after several years of promotion, and there is a manifest willingness to consider different approaches. Within the project's components and at the level of the CPTs, efforts are being made to improve extension content.

The effects of these changes cannot be judged at present. This is due first of all to insufficient time. The heightened awareness of the difficulties and endeavors to do something about them date from 1983. More time will be needed if there were effective collaboration within NDD, which there is not (see below and sections V and VI).

Second, it is noteworthy that a very poor crop year in 1984 did much to compromise endeavors to evaluate the impact of attempted improvements in extension and training.

Third, the effectiveness of any strategy requires effective collaboration within the project. In principle the arrondissement coordinators facilitate this through monthly meetings. In addition, NDD has organized several seminars in order to promote more effective coordination and planning. These efforts are all positive, but are insufficient in themselves. Collaboration also requires substantial interest on the part of the technical services, but the degree of this interest appears to be very limited. Thus, complaints about inadequate coordination are frequent despite meetings and seminars.

Let us suppose that all parties to the NDD could and would cooperate as needed for the successful pursuit of project goals; under these conditions, several recommendations merit consideration:

B. Recommendations

- a) Single out those production themes that work well and teach them as effectively as possible in project training programs. If the use of some themes is low, this be probably because they are not effective, or because the balance of risk-benefit is unfavorable for the producers who are being encouraged to use them.

- b) Pursue the extension of a range of effective techniques at the village centers in order to directly link training to local conditions of production, and alter the techniques as needed.
- c) Continue efforts to assure better quality teaching staff at the CPTs.
- d) Strengthen the capacity of technical services in the project zone to follow-up project activities. Require that service representatives participate in center training programs, and do so in a manner that is useful and interesting to the trainees.
- e) Continue efforts to select better trainees, but do not confuse the cause-effect relation between better trainee selection and better project impact of the production themes are only marginally useful.
- f) Insure that trainees who occupy junior positions within their home settings are not constrained from using the production themes they have learned (if they work). The situation of women is particularly critical in this regard.
- g) Either insure that women can play a more active role (if this is what they desire) in cooperative structures where they can use their modest literacy skills, or do away with literacy training for women. The required changes are structural, not simply pedagogical: priority must be given to means of making women's literacy functional. Until this is done, their interest in literacy training will remain low and the results will continue to be poor.
- h) If women's literacy is to continue in the project, assign adequately trained women to the task, and take them seriously. Do away with the present arrangement of double-duty as literacy instructor/follow-up agent.
- i) Strengthen the follow-up of trainees during and after CPT programs. Insist on the need for service agents to listen to and work with villagers. Without this painstaking expression of genuine interest in problems of people in the project zone, and in what CPT graduates do, the credibility and impact of NDD (except as a source of carts) will be limited. This may be the most important recommendation.
- j) Explore ways for local populations to contribute to operational costs of the training centers, but guaranteed that they perceive and receive a payoff from their contributions. Do away with the idea of self-financing training centers.
- k) Respond to requests from project zone villages for help in improving agricultural production. Consider the

establishment of village-level centers in these cases only if there is an unambiguous expression of local interest.

- 1) Consider closing several CPTs if the village-level centers prove to be more cost-effective as an extension tool.

III

THE IMPROVED TECHNICAL PACKAGE

INTRODUCTION AND BACKGROUND

Included in the scope of work (SOW) for the second mid-term evaluation was the request for the agricultural economist to perform an analysis of the progress made in adapting the animal traction technical package to the different climatic zones of Niamey Department. The analysis was conducted primarily through (1) the review of available documentation and (2) interviews with project, Government of Niger and other international agency officials. The list of documents reviewed and individuals contacted is attached at the end of the report.

Sometime prior to the U.S. Inspector General's audit and the first NDD mid-term evaluation (November 1982, February 1983), AID/Niamey became aware of the fact that the adoption of the improved technological package (or components of the package) was not proceeding at the expected rate. Problems in the monitoring of farmers during the previous 1981 and 1982 seasons limited the data reliability and conclusions regarding package viability, but it was evident that farmers were not using all of the recommended practices. The first mid-term evaluation brought together a lot of information explaining why the adoption was slow. The primary attraction of the package was the cart that permitted farmers to engage in revenue generating activities other than crop production. Limited CPT field trials that same year by the NDD agronomist resulted in crop budgets that showed, overall, lower returns for the recommended bi-bovine traction package than for the improved manual or donkey-based practices. (1)

A second study was conducted in 1983 for a small number of farmers using animal traction in the Filingue arrondissement. Though no statistically based conclusions could be drawn because of the small sample, the results suggested that the package was not being adopted and not profitable for Filingue. (2)

A report, carried out by F. Lebeau, I. Pattison, and W. Enger of RONCO Corporation for the Agricultural Production Support Project, also raised serious questions as to the profitability of the animal traction package and nitrogen fertilizer. (3)

- (1) Mary Abrams, 1983 Annual Report, NDD/Niamey.
- (2) Michael Weybo, "Crop Enterprise Budgets for Farmers in the Area of the Chivil CPT". 1983.
- (3) Warren Enger et al, "Assessment of Agricultural Inputs and Input Delivery". RONCO. Nov. 1983.

At about the same time, Ithaca International, Ltd. was contracted to do a thorough study on the agricultural technical packages for Niger for USAID/Niger's Joint Program Assessment.(4)

Their conclusions included, inter alia: that package success--even if all environment conditions are met--is not assured; that a range of choices or options should be built into most components of the package; and that the package does contain some elements that can increase yields and income under certain conditions. Through the use of hypothetical partial crop budgets they also found that donkey traction gave higher returns than oxen traction at financial (subsidized) prices, while almost all forms of animal traction yield profits inferior to those earned from the traditional system at economic (unsubsidized) prices. The above overlapping and complementary studies formed the basis for requesting NDD project management to show greater flexibility in teaching improved agricultural practices, and to give higher priority to applied research.

According to the NDD Revised Implementation Plan (March, 1984), NDD was to procure or produce prototype animal traction equipment, tested and modified on farmers fields, that ultimately would lead to more effective, less subsidized, more profitable packages for dry-land farming. At the same time, the training at the CPTs was to be less rigid and include instruction on how to adapt the basic technical package to differing agro-climatic conditions.

ANALYSIS

The basic question to be addressed in this section of the evaluation is: To what extent has the recommended technical package been adapted to the agro-climatic conditions of Niamey Department?

In 1983, the agronomist was not able to conduct any on-farm trials of the same genre as those on the CPTs because of limited resources and time constraints. Her contract expired in December 1983, and the project was unable to recruit a replacement for 1984. Secondly, during the 1983 season, the Monitoring and Evaluation advisor became extensively involved in establishing detailed project goals by division and preparing quarterly and annual reports to the neglect of conducting a follow-up survey of previous CPT graduates. Consequently, further monitoring of the adoption or non-adoption of recommended technical package was not accomplished in 1983.

(4) Ericson, Clark, Steadman and Aronson, An Assessment of Improved Agricultural Technologies in Niger, Ithaca International, Ltd. 1984.

In 1984, a Nigerien agronomist, who was to have worked collaboratively with the expatriate technician, had begun to replicate all of his predecessor's 1983 trials and had expanded the trials from four sites (1983) to 10 sites (1984) when he was shifted to a new project position as Chief of Personnel. His replacement then arrived only to find that managing the trials at all 10 sites was a difficult task because of distance, supervision of enumerators, and data volume. As a result, farm-based trials using the same animal combinations were again left undone.

The Monitoring and Evaluation advisor was replaced in 1984. His replacement arrived in mid-June with just barely enough time to start a survey of the CPT graduates to determine which practices have been adopted. At the time of this evaluation, only very preliminary results of the survey were available.

The preliminary results are shown in Tables 1 and 2. The first table shows the adoption of individual package components by arrondissement. The practices most widely adopted include seed sorting and treatment and thinning to three or four seedlings. The fertilizer results were not yet tabulated, but it is reported that phosphate fertilizer is also in demand. The project sold about 290 tons of super triple phosphate for the 1984 season, which translates to a land area ranging from 2900 ha (at 100 kg/ha) to 9570 ha (at 30 kg/ha), or from 1930 farmers to 6450 farmers (at 1.5 ha/farmer).

The non-utilization of certain recommended practices is evident in Table 1. Over 50 percent of the CPT graduates surveyed in Kolo, Ouallam, and Fillingue used the traditional method of land clearing and did no mechanical weeding. Likewise, in three of the four arrondissements 50 percent or more of the graduates did not adopt improved varieties. Sixty percent of the farmers in three arrondissements did not use row marking. Sixty percent of the farmers, however, weeded (manually) within 11-30 day after the first rain, and this corresponds to the traditional practices.

The exception to the low rates of adoption are found among a few CPT graduates in the Say arrondissement. Here, row marking, mechanical pre-rain land preparation, and mechanical weeding are reported to be used by the majority of the stagiaires. However, Say had the smallest sample size (22 parcels). Farmers in Say also did not use much of the HKP early millet (rapid maturing) seed variety. This variety was originally intended to provide an early harvest to ease the transition out of the hungry season, but in 1983, birds devoured the early crop because little harvest grain was available elsewhere. Say farmers thus appear to have had good reason for not using the HKP variety in 1984.

The 1984 crop season in Hamdallaye resulted in a different utilization of the HKP millet. The first rains came very early this year, but were not sufficient to support the planted seeds. Several replantings were consequently experienced, resulting in a

Table 1

Application of Recommended Practices on Fields Cultivated by CPT Graduates

- Preliminary -
(Percentages)

	<u>Kolo</u>	<u>Ouallam</u>	<u>Say</u>	<u>Filingue</u>
<u>Land Preparation</u>				
Manual	52.80	61.80	27.30	68.10
Dry plow	32.10	26.50	68.20	29.60
Wet plow	15.10	11.80	4.50	2.20
<u>Seed Variety</u>				
Local	52.80	32.40	77.30	59.70
CIVT	28.30	64.70	29.70	19.00
HKP	18.90	2.90	.00	21.30
<u>Seed Sorting</u>				
Yes	84.90	91.20	86.40	75.70
No	15.10	8.80	13.60	24.30
<u>Seed Treatment</u>				
Yes	75.50	73.50	54.50	68.50
No	24.50	26.50	45.50	31.50
<u>Row Marking</u>				
Yes	35.80	41.20	63.60	35.20
No	64.20	58.80	36.40	64.80
<u>Thinning</u>				
None	7.50	5.90	13.60	7.10
More than 4 left	3.80	20.60	4.50	9.40
3 to 4 left	88.70	73.50	81.80	83.50
<u>Mechanical Weeding</u>				
0	54.70	82.40	18.20	73.40
1	24.50	17.60	68.20	20.60
2	13.20	.00	13.60	6.00
3	7.50	.00	.00	.00
<u>First Weeding</u>				
None	3.80	9.30	4.50	7.90
After 1st rain, 0-10 days	17.00	9.30	22.70	75.30
11-30 days	64.20	67.40	63.60	75.30
After 30 days	15.10	14.00	9.10	4.90

The results are expressed in percentages of techniques applied on millet fields cultivated by the stagiaire graduates.

Source: IAD Monitoring and Evaluation Unit

shortened (growing) season. As the season grew shorter, the farmers planted the HKP. The longer maturing varieties received an insufficient amount of rain in August/early September to fill the millet heads out. Thus their yields were poor. However, the HKP variety, since it was planted later, filled out at a later date, and gave better yield results.

Table 2 shows the combination of improved practices used on fields cultivated by CPT graduates. The two northern arrondissements--Filingue and Ouallam--have by far the lowest rates of adoption. Only 13 percent of Filingue and 3 percent of Ouallam's graduates tried to apply all of the recommended practices. The graduates of Say reported that nearly 50 percent of them used mechanical land preparation and weeding, while 19 percent used all the themes except for improved seed (early maturing) due to the reasons mentioned earlier.

The preliminary data thus supports the previously concluded position that the technical package has not been adopted in its entirety. Concerning actual production, the 1984 drought, one of the worst in history, has greatly diminished any ability of the project to measure yield differences between package grown grain and traditionally grown grain. The survey results (when they appear in final form) will therefore not be useful in estimating yield impact but may be indicative of adoption rates because all of the practices were more or less performed before the no-rain condition of August and September. The exception to this is the application of urea, which was supposed to be applied after those rains.

Other progress made in further adaptation of the package to Niamey Department conditions started in the fourth quarter, 1983 when Niger was visited by one of the foremost animal traction experts of West Africa who is knowledgeable both in on-farm use and the technology used to produce the units. He was engaged by NDD to examine the national production system for fabricating the units as well as to offer advice on NDD-based traction utilization and blacksmith training.

He suggested minor equipment modifications which demonstrated improved equipment performances. Specifically, the specialist directed two blacksmith training seminars in January and April/May 1984. The combined total number of participants exceeded 40. During these seminars, equipment was tried on the fields, and the blacksmiths were requested to modify certain parts (plow blade, etc.). With the modifications in place, the equipment was again tested (demonstrated) before government agents. In one case, dry, hard soil which was assumed to be unworkable before the rains was indeed workable when four-ox teams were hitched to a modified plow. The object was not to promote four-ox teams, but to demonstrate that modifications do improve the equipment, and that the blacksmiths can be used as part of the process.

Table 2

Combination of Improved Practices
Adopted by CPT - Graduates

(Preliminary)

Code: (1) Land Preparation:

- 0 = manual preparation
- 1 = traction-based plow
- 2 = traction-based plow, mechanical weeding
- 3 = manual preparation, mechanical weeding

(2) Seeding:

- 0 = local
- 1 = improved variety

(3) Fertilizer:

- 0 = none
- 1 = super triple, or super triple and urea, or urea

<u>Combinations</u>	<u>Filingue</u>	<u>Kolo</u>	<u>Say</u>	<u>Quallem</u>
<u>(1)(2)(3)</u>				
0 0 0	44.6	20.6	13.6	31.3
0 0 1	4.1	0.0	0.0	0.0
0 1 0	12.2	11.1	0.0	28.1
1 0 0	2.7	3.2	0	0
1 1 0	2.7	1.6	4.5	12.5
1 1 1	2.7	6.3	0	9.4
2 0 0	2.7	6.3	31.8	0
2 0 1	1.4	7.9	18.2	0
2 1 1	13.5	22.2	4.5	3.1
2 1 0	5.4	4.8	13.6	15.6
Others	8.1	11.1	13.6	0

All the results are expressed in percentages. The results are based on surveys of millet fields cultivated by CPT graduates.

- 176 parcels - Filingue
- 63 parcels - Kolo
- 22 parcels - Say
- 32 parcels - Quallem

Also, the specialist's forthcoming recommendations for the domestic traction industry will have an impact on future equipment usage by project farmers. Since the last mid-term evaluation, however, the project has not acquired other animal traction equipment for prototype testing, nor has any testing been carried out at the farm level.

Thus, the project was set back by the lack of personnel or resources so that it was unable to move off of the CPTs to test the package under actual production conditions. Had on-farm tests been carried out in 1984, the drought would have greatly compromised the (yield) results, in any case.

Furthermore, due to the turnover of the agronomist and evaluation personnel and the manner in which the surveys and field trials have evolved, the project now finds itself in the position of having performed some elements of Farming Systems Research (FSR) but without really defining the process as such. That is, to date, the project has not established a clear program of adaptive FSR.

FSR consists of six distinct stages :

- I Descriptive: Constraint Identification
- II Identification of Improved Agronomic Practices
- III On-Farm Testing of Potential Improvements
- IV Identification of Unsolved Technical Problems which are Incorporated into Stage V
- V Technical Research with Feedback to II, III, IV
- VI Body of Knowledge for Extension

The project had initially assumed that Stage VI existed in final form and used departmental anthropological and national agricultural data to describe Stage I in the Project Paper. Stage II was performed, de facto, by the introduction of the traction variation experiments at the CPTs which of itself was a modified Stage III. The animal traction specialist in his assessment of the animal traction industry, began addressing some of the factors in Stage V (i.e., how to improve equipment quality). Thus the project has advanced in a "sort of" FSR mode while all along teaching a recommended technical package (Stage VI). The problem is that no clear procedures nor identification of where (what stage) NDD is in the FSR process has been formalized (5).

- (5) This statement does not imply that NDD should adopt a full-scale FSR program, but that it should have an explicit awareness of the different stages and where the project's applied research and monitoring/evaluation units should be incorporated.

As a productivity project NDD's primary focus was to teach a defined package while strengthening support services. When it was discovered that the package needed modification, the only improvements sought involved the traction variations without really taking a closer examination of the constraints. The incomplete 1981, 1982, and 1983 CPT graduate surveys greatly delayed the process.

Thus, although some progress has been made--the 1984 survey of CPT graduates; the CPT traction trials; the animal traction specialist's consultation--in the search for a better package, no clear organized approach now exists. One of the tasks that must clearly be defined before the start of the 1985 agricultural season is the outline of an applied research program that makes use of the already existing information and research efforts of the other national/international institutions located around Niamey. The Monitoring and Evaluation Advisor, the agronomist, and traction specialist should work collaboratively to define the extent to which NDD should be directly involved in Stages II and III (6).

POTENTIAL IMPROVEMENT IN THE TECHNICAL PACKAGE

The current focus of package improvement by the project has been on the utilization of different Nigerien-produced equipment. During the course of the evaluation, it became apparent that there are more areas of potential improvement than just the choice of equipment. Figure 1 shows the breakdown of the technical package, not by activity (clearing, weeding, etc.), but by technical area. Any one of these components could be subjected to testing. Not only should there be experiments on the various types of equipment, but the quality and design of the equipment needs to be examined as well; the livestock purchasing method by and for CPT graduates could be examined. The International Fertilizer Development Institute (IFDC) trials have shown that the use of calcium ammonium nitrate produces higher yields than urea, although it has a higher per unit cost. The point is this: the project could and should be experimenting with a larger number of existing "improved agronomic" practices already developed on research stations rather than limit itself to look only at the various Nigerien-produced traction equipment.

(6) NDD does not necessarily need to establish a complete FSR program. Once aware of the different stages, it could borrow potential adaptive innovations or use studies from INRAN, ICRISAT, etc. for its own uses.

FIGURE 1

FACTORS AFFECTING CHOICE OF TECHNOLOGY

- Rain
- Soil
- Government Policies
- Social/Demographic Milieu

Components of the Technical Package

Capital Stock

- equipment
- livestock

Inputs

- Fungicide
- Fertilizer
- Biological (seeds)

Skills

- Knowledge
- Management
- Farm Practices
- Training/Experience

Support Services

- Repair
- Extension
- Marketing
- Credit
- Cooperatives
- Input distribution

During the course of the evaluation, a number of potential improvements were suggested as needing investigation at the farm level. These are not to be taken as specific recommendations, but rather to show the diversity of potential improvements.

The suggestions address the following components of the technical package:

- . animal traction equipment
- . livestock
- . fertilizer
- . farm practices

Equipment

1. Previously produced "house asines" (donkey units) have a defect resulting in equipment breakages. Elimination of this stock and correction of the defect at the factory level will remove the problem.
2. There are models of animal traction used in other countries that may be more appropriate here. These could be imported or tested on a prototype basis.
3. Immediate minor modifications of the existing equipment, including the replacement of the weeding blade (sarcluse) by the "dent canadienne" for use in land preparation.
4. Exploratory design/use of different cart models (mono-bovine) including changing the current center of gravity and maximum payload. Farmers occasionally overloaded their carts resulting in a stressed frame.
5. A seeder/fertilizer spreader unit, used in Burkina Faso, may be applicable here.
6. A forthcoming report by Roman Imboden will contain information that demonstrates how an entire cultivation unit can be produced at a cost equal to that of the batis de base. In other words, the current production system can improve its efficiency, reduce its costs and at the same time turn out better quality material. However, this is a factor beyond the control of NDD.
7. Introduction of ultra-low volume (ULV) sprayers for herbicide application (see below). Prototypes of this technology are reportedly being tested in Northern Nigeria.

8. The project should explore making greater use of the local blacksmiths for equipment repairs and initiating modifications.

Livestock

1. Consideration of alternative power sources--camel, mono-bovine.
2. Appropriateness of the current method of livestock selection by and for CPT stagiaires, including timing of the delivery.
3. Definition of minimum nutrient requirements to keep a working animal in good health.

Fertilizer

1. Recent trials by the IFDC indicate that on a per weight basis, calcium ammonium nitrate utilization gives higher millet yields than urea utilization. A study is needed to see which form is less expensive, since urea is cheaper than calcium ammonium nitrate but has a higher nitrogen loss rate.
2. Phosphate trials have shown the usefulness of this product. The project has used triple super phosphate, although experiments show that over a certain yield range, super simple does equally well, and is cheaper.

Farm Practices

1. The major constraint in cultivation is weeding labor time, but using Animal traction for weeding is the most difficult technique to master. Can the ULV herbicide sprayers be used as a substitute?
2. Identify the major components of the project that yield positive marginal contributions and interaction effects.
3. Explore new practices, as mixing phosphate with seeds before planting.
4. Integration of the technical package with intercropping. At a recent ICRISAT seminar, on-station trials showed that output from millet/cowpea mixed cropping was greater than pure cropping of millet.

5. There is the possibility that cowpeas can be grown in a pure stand as a cash crop.
6. What are the advantages (if any) of using ridging (practiced in Mali and Senegal) on millet here?
7. Dry season activities such as vegetable gardening and diversification of rainy season activities with bee-keeping, etc. should be explored.
8. Adopting proper cultivation techniques at the CPTs according to the soil type and rainfall.

AGRO-ECONOMIC STUDIES

While agro-economic studies do not form a direct component of the package, they are needed for use in the selection of the most acceptable technologies. Thus the economist (Monitoring and Evaluation Advisor) will need to continue studying package profitability. In addition, he or she should consider examining the following items:

- 1) Determine, in addition to the risk analysis described below, the effects of the decline in rainfall on future cropping strategy (?). Will animal traction be a profitable technology in light of increased drought probabilities?
 2. Incorporate risk analysis in determining package acceptability to farmers. Mono-culture versus mixed-cropping, the reasons for parceling and the effect of parceling on labor times and package utilization, new versus traditional variety mean and variance differences, if any, etc.
 3. Closely examine cartage revenues to determine its exact level of profitability and the effects of increasing district cart supply on these revenues. What is the optimal number of carts for a given region?
 4. Explore the economic implications of using ULV sprayers in place of traction-based weeding and estimated the impact of spray on poisoning certain weeds, previously picked by women for use in sauces.
- (4) Based on an approximation technique, Niamey Department rainfall has, according to monthly meteorological data from 1951 to present, on a volume/distribution basis, shifted from a .33 good, .33 average, .33 bad rainfall to a .0, .5, .5 distribution.

COLLABORATION BETWEEN AGENCIES

The major institutions involved in agricultural-related research centered in or around Niamey include ICRISAT (including the International Fertilizer Development Corporation (IFDC)), INRAN, Tropsoils, AGRHYMET, and donor agencies such as the FAO, World Bank, non-government organizations, and the German, French, and Chinese governments, among others.

There are two areas where NDD can or should collaborate. First, NDD could learn from the experience of other integrated development projects (and vice-versa) in terms of project management, CPT operation, farmer extension, the technical package, etc. The establishment of the experimental village based CPT (CPT villageois) is the result of learning about CPT operation of the 3M project in Zinder. The transfer of personnel between projects is an informal way of building upon other projects' experiences: the current NDD agronomist had previously been the agronomist for a project located near Tahoua.

The second area of needed collaboration is that of exchanging research, on-farm results, and other ideas with those organizations whose aim is to remove the agronomic/technological constraints of Sahelian or Nigerien agriculture. The two major institutes for this, around Niamey, are ICRISAT and INRAN. The consultant did not make contact with Tropsoils.

Formally or informally NDD coordination with ICRISAT and INRAN is not good and with the other institutions is probably not very good either. The principal reason for this is that the two key NDD people for research coordination--the monitoring and evaluation Advisor and the head agronomist--both left the project within a few months of each other. Both individuals had contacts in the other organizations. The agronomist was not replaced, and the Monitoring/Evaluation person arrived in late June just in time to implement the 1984 survey of CPT graduates. Most of the previous communication linkages were thus broken.

The current head of the NDD applied research division initiated an agreement ("convention") that formally established links with the agronomic division of INRAN. Likewise, the office for Agro-Economic Studies at INRAN initiated a "convention" with the Monitoring/Evaluation Unit of NDD. The convention defined the material contributions, relationships and initialization/exchanges of results between the two groups. In practice, however, it appears that collaboration has been minimal. INRAN was not aware, at the time of the interview, that the project's replacement for the agricultural economist (Monitoring/Evaluation) had arrived in June, nor had the new arrival gone to meet them.

The lack of communication seems to have been caused primarily by the change of personnel and the lack of organized

informal (or formal) periodic meetings. The onus for organizing meetings should rest with NDD since NDD, looking for the best possible technical package components, will profit from the research done by INRAN and ICRISAT. In turn, NDD could inform the other organizations of the results of the innovations. Increased coordination between INRAN and the Monitoring/Evaluation Unit would avoid duplicative survey efforts as well.

CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

The objective of this section of the evaluation was to determine how much the project has advanced in making the animal traction based technical package better adapted to the different climatic zones of Niamey.

First, it can be said that, although some progress has been made in the search for a better package, NDD still lacks a well-defined program for the development of such a package. NDD is now in a position where, if certain adjustments were made, the project could assume a leading role that would re-orient national and departmental applied agronomic and farming systems research. The CPT-based trials, the continued experimentation with varieties, and the involvement of one of the foremost animal traction experts of West Africa indicate that the project made an effort to search for a better package. Although it did not test any prototype equipment, it would have been difficult to do so in light of the personnel changes and the 1984 drought.

Second, a number of existing innovations can now be tested at the CPT and farm levels. The project already has the established infrastructure and analysis methodology. Innovations to be tested might include, *inter alia*, equipment that has been used in other countries, ULV sprayers, pure stand cow peas (as cash crop), and mono-bovine traction. The forthcoming recommendations from the report written by the animal traction expert on the domestic traction industry will also have an impact on future equipment usage by the farmers. This impact would not be felt for at least couple of years, however.

Third, research and field experience indicate that in the northern half of the Niamey Department, seed treatment and phosphate fertilizer application are being adopted by farmers, while in Say and other dryland areas where clay bas-fonds are more predominant, seed treatment and urea, though it needs to be properly applied (or replaced), as well as plowing after the first rain, may also be accepted practices.

Fourth, while collaboration between the different donors or projects exists on paper through the establishment of "conventions", there appears to be, in fact, little coordination or effective communication between them. The institutions involved here have annual budgets, in Niger alone, that together

total several millions of dollars. One would hope that somewhere within these budgets (or annual plans) steps would be outlined to keep the communication channels open and information flowing. The replacement or disappearance of personnel, as was the cause here, shouldn't be the sole reason for the different institutions' failure to keep abreast of one another.

B. Recommendations

Based on the reviewed documents, interviews, and the consultant's previous experience with NDC, the following actions are recommended for current and future NDD operations regarding the use of the agronomic technical package.

1. The project should recognize that the key to increased farmer production is not in the development of more seminars or new teaching methods (CPT-villageois) but in making an appropriate and affordable technical package, coupled with proper instruction and sufficient follow-up. If the project's principal goal of increasing cereal production is to remain, the first key issue that must be addressed is the technical package.
2. Nigerien agricultural research needs to be expanded to include the on-farm search for more productive methods of raising crops. A number of potential agronomic and equipment improvements have already been developed. The project needs to define a farming systems research program. A detailed list of some of new, untested components (for Niamey Department) is found in the main body of this chapter.
3. The agronomic and agricultural economic research units of the various national and international agencies need to develop better lines of communication among themselves and with the project. Informal monthly meetings should be established for cadre of the Niger Cereals Project in INRAN, the agronomist and economist of NDD, ICRISAT, Ministry of Plan (Project Evaluation Assistance), and other interested agencies. The informal meetings would also serve to help strengthen the ties between some organizations that now have cooperative memorandums of agreement, on paper, but not in spirit.

IV

CREDIT AND INPUT DISTRIBUTION

The improved technical package being extended by the NDD project is based on the use of animal traction, chemical fertilizers and improved seeds. The project was to have financed some of these inputs and set up an input distribution system. The project also provides credit to farmers for the purchase of animal traction equipment. Initially, credit and input distribution were combined under one component, but the problems associated with managing the credit system necessitated the creation of a separate component for credit. In this chapter credit and input distribution are treated separately, although many of the project interventions and issue (e.g. cooperative training) are common to both components.

CREDIT

A. The Credit Management System

Since October 1982, when USAID/Niger suspended funding of the NDD project credit fund, there has been little cooperative credit made available. As a result of the Inspector General's Audit Report (February 10, 1983) and actions undertaken by project management and USAID, there have been, however, important improvements in the credit component.

1. Manpower

USAID/Niger funded and filled a full time position (Agricultural Credit Management Specialist) for one year to help the Credit/Inputs Advisor with the project's credit component. An important part of the Credit Specialist's work has been to account for and reconcile the credit fund account, which is now completed. Moreover, the loan portfolio has been largely reconstructed by loan contract. In addition, a Peace Corps Volunteer, working with the Credit Specialist, has designed and is starting to implement a computerized management information system (MIS) part of which will assist both the project and the CNCA/Niamey in carrying out credit activities.

2. The Management Information System and Credit

Based on the successful project effort to locate and organize most key credit documents, to obtain loan contracts for many previously delivered inputs, and to straighten out the confusion regarding "missing" and co-mingled (project and non-project) funds at the CNCA, the project MIS, given the caveat that sufficient and on-going training takes place, should have an extremely salutary effect on the management of the credit component. For the CNCA, the objective is to give that organization a tool so that it can put all its written documents

in order, and once in order, this information can be accessed under specific criteria. With project assistance, the CNCA will be able to take this raw data and turn it into management information. As the CNCA gains experience with the MIS, it will "ask" for information in different ways according to its needs.

First, the training for CNCA which is planned for the period December 1984 to March 1985 will initially involve the "Chef d'Agence" and one agent, followed by the remaining three agents. In brief, the objective is for all agents to be able to do their own data entry, get their own specific output (by account) and forms, and then go to the field prepared to use the information output/analysis/forms in their normal credit activities.

Second, to assist in current and future training, as well as in computer-user needs, the Management Information Advisor will write a user's manual in French for the credit component which will cover the following subjects:

1. The system-care and maintenance
2. Programs
 - a. a listing with typical output forms
 - b. all output options
 - c. how to input data
 - d. how to arrange files
 - e. how to get different outputs
 - f. how to handle errors.

The above will be presented in tutorial fashion, in a step-by-step procedure.

The MIS, as it pertains to the CNCA, is adapted to existing CNCA forms and procedures in order to build on what is familiar to CNCA personnel. In addition, the project has involved CNCA staff in the preparation of the MIS credit component. By December 15, 1984, this component should be ready for presentation to the CNCA. Between December 15, 1984, and February 15, 1985, the CNCA will have the opportunity to react to the system as it inputs the data which will give its field agents timely and accurate information for their activities.

An example of the type of change which the system will institute is the availability of loan information by individual borrower. At present, agents are not writing individual receipts for loan payments. Rather, they write one receipt to the particular cooperative for a number of individual repayments. With the MIS credit component, information must come back to the system which links the receipt with the individual borrower. An important benefit of this component, is that with more accurate information by borrower, developed over time, the CNCA can be more reasonable about granting loans and about seeking reimbursements.

An additional benefit will be the time-saving feature offered, i.e., many periodic reports and paperwork activities

will no longer have to be typed, thereby freeing-up personnel time for more important activities.

3. Credit Guidelines/Testing Credit Activities/Adequacy of CNCA/Niamey System

The NDD project is developing guidelines for the credit activity in concert with the CNCA, an integrated policy for all levels of the project, i.e., CNCA, NDD headquarters, and cooperatives. The credit guidelines and procedures are part of a package that includes a computerized credit information system (CIS). Once the CIS is fully operative, and CNCA personnel are trained on it, test checking of NDD headquarters' CNCA/Niamey and of field credit operations will be possible. CNCA personnel will receive hands-on training in data entry, program operation and output and its use. Verification of loan accounts in the field (in a selected area) with computer-generated data will be possible in January 1985, and will serve to validate the data in the computer. Furthermore, this will be done in the future for all six arrondissements of the Niamey Department.

With the CIS, the CNCA field agent will have a systematic method of collecting money from farmers and cooperatives. Provided that the CNCA is successful in entering the basic loan data by cooperative, village (GM) and individual during January and February 1985, the CIS should be ready by early March for more complete field verification followed by CNCA Department-level data validation. By Fall 1985, CNCA agents should be trained in loan granting and repayment procedures, and the credit information system should be fully ready to operate.

4. Credit Fund Agreement

On August 12, 1983, a protocol was signed (superceding that of February 7, 1979) by the NDD project with the CNCA and the UNCC. The parties agreed that the balance of the project account (no. 33302) was to become a revolving credit fund to fulfill cooperative credit needs in the project zone.

It further stated the various sources of funds which would replenish the account, and that evaluation and management of credit would be carried out by two committees, one at the department level, the other at the arrondissement level. The protocol indicated the make-up of the committees, their credit management responsibilities and credit policies they would follow.

The CNCA, under the terms of the protocol, agreed to set-aside from interest earned on loans, 2 percentage points for each cooperative. The purpose of the set-aside money is to allow the cooperative, which is completely up-to-date on its loan repayments, to finance its own desired economic and/or social activities. Four percentage points on the interest earned on loans was to be set aside for a guarantee fund. The first set-aside (two percentage points) has not yet been possible because

no cooperatives are completely up to date on loan repayment. The second set aside (four percentage points) has not yet been possible because of the difficulty in separating loan repayments received into capital and interest payment components. The protocol further outlines the means available to the CNCA to force long overdue loan payments, including cutting off the two percentage point set-aside.

It also states that accounting for credit repayment will take place at cooperative, arrondissement and department levels, that the NDD project will furnish all necessary accounting forms, and that UNCC will continue to help cooperatives manage their inventories and keep current, accurate records - until the cooperatives are sufficiently experienced in these matters to do them themselves.

Finally, the protocol detailed the UNCC and CNCA responsibilities and procedures for accounting and reporting on credit and input supply activities.

5. Loan Portfolio Management

Various improvements have been made in the past eighteen months by NDD, namely reconstruction of the entire loan portfolio, reconciliation of the credit fund account, and the preparation of a credit information system which, with appropriate training and acceptance, will streamline and help make effective CNCA's credit activities. Following are the principal improvements noted:

- Between March and May 1983, CNCA agents, UNCC agents and the project credit/input advisor canvassed the project area to determine what commodities were actually under loan by individual borrower, and to collect what monies they could on loans. The loan repayment rate climbed from 28% to approximately 60% at the end of this period. By June 30, 1984, the repayment rate had dropped to approximately 55%.
- Of the \$ 915,000 provided to the credit fund and unable to be accounted for, as referenced in the IG audit (February 10, 1983), all of this money now has been accounted for either by being under loan contract or by knowledge of the location of the equipment distributed. Today, \$75,871.85, or approximately 27,000,000 FCFA is not yet under loan contract. This amount is represented by the following equipment at the following locations.
- The credit specialist believes that the project will succeed in obtaining loan contracts on the 11,772,000 FCFA worth of donkey carts in Filingue. For the remaining 15,119,200 FCFA (approximately \$ 43,000) it will be very difficult to obtain loan contracts because the drought has either driven the borrowers out of the areas in question, or has rendered them incapable of paying. The alternative will then be repossession of the equipment.

Table 1

<u>Amount (FCFA)</u>	<u>Equipment</u>	<u>Location</u>
11.772.000	108 donkey carts	Filingue
6.079.000	102 donkey carts	Ouallam
3.100.000	40 oxen carts	Filingue
1.945.000	28 oxen carts	Ouallam
3.100.000	40 oxen carts	Kolo
895.000	other equipment	All Three Arr.

26.891.200		

Source: Richard Crayne, Rapport sur le Fonds de Crédit,
December 1984.

- The credit fund account has been reconciled from its opening to September 30, 1984. All accounting transactions and the bank records justifying the operations of the account are available in manual and computer form. One account for the credit fund exists, and is verified monthly by the Credit Specialist. Since February 1983, there have only been isolated instances of the CNCA crediting project cash sales in error to the project credit account.
- Under the credit information component (CIS) of the MIS, loan information is available by year granted, principal, and project share of the principal in the case of co-financed loans, e.g., equipment loan from NDD, animal loan from CNCA. Thus, NDD can justify to CNCA what amount CNCA owes the project.
- CNCA field agents now have proper procedures for accounting for project cash sales, through numbered receipt books bearing the project seal and account number. The receipts and receipt books used to record the receipt of cash from cooperatives by agents are base documents which allow transactions to be traced.
- To clear up the status of loan contracts between CNCA and cooperatives in-so-far as source of materials is concerned, K.F. Carpenter's project-wide physical inventory of May 1983 permitted the CNCA to distinguish between agricultural inputs provided on loan from project stocks and from UNCC stocks located in project warehouses. The June-August 1984 physical inventory made the distinction between project and UNCC stocks for all warehouses. (The NDD project uses UNCC warehouses occasionally.)

6. Loan Repayment

In Spring 1983, the CNCA/Niamey put into practice a CNCA national directive stating that it would not lend to any cooperative whose repayment rate has fallen below 90%. CNCA is

largely abiding by its own rule, the only exceptions being (1) individual GMs whose repayment rate exceeds 90%, even though the cooperative to which it belongs is experiencing an overall repayment rate of less than 90%, and (2) those cooperatives, which are making a significant effort to repay during the current drought year. In the second case, these cooperatives will receive consideration by the CNCA on their loan requests. The CNCA also has the authority to repossess equipment on which borrowers have been seriously delinquent in their repayments. To date, the CNCA has repossessed equipment only occasionally.

Once the CIS is on stream and accepted, CNCA should have better control on its loan repayment activities, have the ability to increase repayments, and have lower loan administrative costs. It is too early to tell how much per loan administrative costs will drop because CNCA does not yet have experience with the system. Following are the main improvements, both actual and potential, noted:

- Provided that the CNCA gets all its basic loan data entered in the credit information system component of the MIS, and undertakes the training which NDD will provide, the CNCA should, by June 1985, have control over its loan portfolio, and know the status of its loan repayments as of the cut-off date for loan data entry.
- A draft copy of loan recovery procedures for CNCA has been written by the Credit Specialist, and is being circulated at CNCA. By March 1985, the procedures should be finalized, and training of agents in loan recovery techniques should begin. The establishment of these procedures was delayed because of the time necessary for the Credit Specialist to reconstruct the entire project loan portfolio, to reconcile the project credit account and to work on the MIS.
- For any given year, the following loan activity procedure and schedule is proposed by NDD:
 - (i) Early October (October 1-5), CNCA starts to produce documents for its field agents for Kolo and Say arrondissements, for example. While agents are covering these two arrondissements, the remainder of the documents for the other four arrondissements of the Niamey department are prepared by mid-October, and all agents are in the field getting repayments and obtaining loan requirements for next year. Follow-up continues into December.
 - (ii) Analysis of loan recovery is done in January. By this time, CNCA should have recovered approximately 75% of the total recoverable from that harvest period, and thus it will have a fairly accurate repayment picture.
 - (iii) (ii) above should provide the basis for final granting of loans in February and March, with

equipment/commodities delivered to the cooperatives in April and May.

(iv) During February and March, CNCA deals first with simple loan problems, followed by examination of the more difficult ones.

(v) For the most serious loan repayment problems, the CNCA, in April and May, threatens repossession of equipment. This is the time of the year when market prices typically are at their peak for agricultural equipment as farmers are getting ready for planting.

(vi) During the growing season, CNCA gets its books up-to-date, does internal budget and financial analysis, etc.

In 1983, it took seven CNCA personnel seven weeks to produce loan documentation by cooperative for field agents. Only by the fourth week of November were agents in the field. Thus, loan collection was less than it could have been, because some farmers had already spent part or all of the money they had received for their crops.

B. Transfer of Credit Responsibility to Cooperatives and Village Groups

Within the past year, the GON notified cooperatives that they will have to start assuming more responsibility for their own operations. With the recent demise of the UNCC, cooperatives' assumption of responsibilities will be accelerated.

An important step in an effective transfer of credit responsibility to local levels will entail the training of CNCA agents, since they will be the prime point of continuing contact with cooperatives, and through the cooperatives, member GMs. The CNCA field agents have need for additional training not only in the use of the documents that the CIS will generate for their field activities, but also in how credit functions, how to solicit loans, credit fund guidelines, assistance to cooperatives in record keeping, and assistance in cooperative and GM preliminary screening of credit applications. Toward this end, the Credit Specialist will design individual training programs for the five Niamey Department CNCA agents, according to their individual skill levels. A senior member of the CNCA/Niamey staff received training in 1984 at the University of Pittsburgh (2 months) and in Haiti (one month).

Training in credit matters on the cooperatives level has already started. A full cycle of training on credit, as well as in input supply management, began in December 1984 and will continue until February 1985. The cycle is composed of a four day orientation session, followed by an intensive six week period of literacy training (reading, writing, and arithmetic) concentrated

on the particular cooperative activities to be undertaken, and completed by a 7-10 day period of hands-on training with the documentation necessary in credit activities (collective request for loans, loan contracts, loan repayments and delivery of commodities with supporting delivery slip) and inventory management. The documentation is in simplified form, and expressed in Hausa and Djerma.

The next training cycle will start in March-April 1985, with a four day orientation session for cooperative officers in the principles of cooperative organization and what the duties of each officer are. This will prepare them for resumption of the training cycle once the 1985 harvest is over.

There is no assurance at this time that the attempt to transfer credit management responsibility to the cooperatives will be successful. What is certain is that the process is a long-term one that will require sustained efforts by NDD and CNCA. Regular training and close follow-up will be essential. Given the availability of resources and the magnitude of the task, it is strongly recommended that the project begin with a small number of cooperatives. The two factors to take into account in selecting these cooperatives are 1) their understanding of cooperative responsibilities, especially loan repayments and 2) the availability of profitable undertakings that will generate the resources necessary to repay the loans.

C. Likelihood of Financial Sustainability.

There appear to be two principal alternatives to establishing credit activities for rainfed agriculture in Niger. The choice between the alternatives depends on the decision to strike for broad developmental objectives or to establish a well-functioning, financially self-sustaining credit institution.

1. A Financially Self-Sustaining Credit Institution.

This institution, established to lend to small farmers, through cooperatives, would follow the same banking procedures as it would with any commercial customer. The customer would have to satisfy the lending institution as to his credit-worthiness, his willingness and ability to repay, his character, his collateral, and the financial soundness of the activity he wants to undertake.

Such an institution would seek and presumably would have low loan administration costs and low default rates, because it would only lend to those clients (individuals, cooperatives) who are excellent credit risks. Furthermore, it would only lend for those activities, already proven to be profitable, or which could demonstrate conclusively that they will be profitable. Animal traction equipment, grinding mills, wells for village vegetable gardening activities, for example, probably would not qualify for lending. The "bankable" type activities that such an institution

would consider most attractive would not promote development objectives on a widescale basis.

The advantage of such an institution, however, is that it would be financially sound, run on strict business/banking principles, and would be available to provide credit in the future as economic development proceeded (hopefully) and certain real opportunities arose, e.g., new seed, suitable animal traction equipment. It would know how to manage credit and would tailor loans to farmers in ways which would help ensure repayment.

2. A Subsidized Credit Institution.

If the decision is to try to achieve broad developmental objectives, i.e., to meet a spectrum of farmer needs and to make credit available widely, then an institution that is financially self-sustaining is unrealistic.

Broad developmental objectives mean acceptance of high loan administration costs and default rates, at least initially. The basic requirement is to develop and implement a strategy which, overtime, will lower costs and default rates, so that in the longer term a credit institution will become financially viable (or at least in good part viable) while in the shorter term, farmers will have been helped to increase agricultural production and to increase their incomes.

In brief, how does this institution get from here to there, from unacceptable default rates and high per loan administrative costs to low default rates and costs? How long should it take the institution to accomplish this? Is AID willing to subsidize what will likely be a long term effort? What are the developmental alternatives (in the sense of opportunity cost of capital; desired socio-economic objectives of the host country) to the establishment, care and feeding of such a credit institution?

It is instructive to examine a strategy that an institution such as the CNCA might follow:

1. Acceptance that such an effort would be subsidized for a very long time, knowing that administrative costs will never be as low as those of a commercial bank and that a 10% default rate is probably the best that can be expected.
2. For a particular area(s) (e.g. NDD project area), it must determine the potential loan volume, how much interest will be earned on the loan volume, and what an acceptable, initial default rate will be. The long term objective for the credit institution, while clearly identifying the subsidy element (e.g., a guarantee fund to cover the possibility of defaults and a decreasing part of loan administration costs), is to be able to "live" off the interest generated, to minimize the default rate, and to

make sound loans. In other words, the CNCA or bank, even though subsidized, must operate on sound banking principles.

3. The elements necessary to achieve (2) above would be:
 - a. in the longer term, reduce the number of loans while, at the same time, increase the average size of loans made to help reduce per loan administrative costs. To attain this, lending could only be to cooperatives - those cooperatives in which knowledge of what credit is and entails has been well inculcated, and which have excellent repayment records.
 - b. In the selection of cooperatives to which credit would be offered, the most important factor is the attitude of farmers vis-a-vis credit and its attendant responsibilities. The effectiveness of the credit agent in motivating the farmer to use credit wisely, in inculcating an attitude of responsibility for loan repayment, as cooperative member, is also key.
 - c. The credit institution and the government must be serious about loan repayment. If either institution is not serious, this fact will soon be obvious to farmers, and they, in turn will develop the attitude that, in the end, they will not have to repay loans anyway.
 - d. The CNCA, in collaboration with a productivity project such as NDD would be well advised to start on a pilot basis, selecting those few cooperatives which come closest to meeting the attitudinal and financial prerequisites stated above.
 - e. CNCA/NDD must determine the amount and timing of resources (personnel, physical, financial) needed to administer a pilot program.
 - f. The need for training, follow-up and supervision at the cooperative level will be paramount in both the pilot and future stages of such a program. Failure to follow-up on training and supervision, while cooperative officials and operating personnel (e.g., warehouse clerks, cereal bank managers) are learning and gaining experience will likely result in a lapse of activities (from record keeping to ensuring individual loan repayments) and the possibility of the demise of the pilot effort.

This strategy of using credit as one element of a program to attain broad developmental objectives is long term and is certain to entail a great deal of effort to arrive at a viable credit institution. The success rate for small farmer credit programs has been extremely low. The analysis which would go into a decision to proceed on a subsidized basis (i.e., what likely initial administrative cost would be, what initial default rates

would be, how much loan interest could be charged, and what the opportunity cost of capital would be) would demonstrate the obvious result of not subsidizing the credit program - potential rapid decapitalization.

D. Conclusions and Recommendations.

The credit area (as well as input supply) has benefited from a variety of actions taken by the project to correct deficiencies in financial management and to provide a firm basis for progress. In brief, the contributions made which have helped to build the project's financial management capability are:

- (a) Reconciliation of the credit fund account and reconstruction of loan records. These actions were essential for any future work.
- (b) Improvements in accounting, budgeting, reporting and the potential to do financial analysis.
- (c) As part of the project management information system, a credit information system for both the project and CNCA.

The Credit Information System (CIS), if used properly, will offer several important benefits. These are general in nature, but do pertain to CNCA and NDD:

- Will help improve the quality of credit management, and will ensure more comprehensive supervision of employees.
- Will provide management the means to evaluate chosen causes of action and to make desired or necessary changes. It allows adaption to changing economic circumstances.
- Can provide management with an "early warning system", i.e., the means with which to identify credit problems before they actually occur.
- Will impose the rational sequencing of credit activities and will allow for their timely evaluation and for course corrections, if necessary.
- Is neutral in the sense that it is only a system, which must be adapted to each implementation need and accepted by management, rather than a solution -- handed down based on what works elsewhere.

The CIS, as designed, will increase the amount and the quality of timely information available to NDD and CNCA. The information generated and analyzed will also help in planning and in credit policy making. Following are the principal future credit program effects of the CIS.

- At present, the NDD project and the CNCA can determine what the status of repayments is by cooperative and by arrondissement. Once the credit information system is operative at CNCA, the CNCA will be able to determine the following information for individual loans:
 - (i) the maturity and type of loan (seasonal, medium-term; fertilizer, agricultural equipment, etc.) by loan contract number.
 - (ii) total value of the loan contract; principal (Pr), down payment (DP), and interest calculated on the basis of (Pr-DP).
 - (iii) annual loan installments; cumulative principal and interest repayments.
 - (iv) how much due at any given date.
 - (v) percentage of principal that NDD project has put into loan - in cases of co-financing.
 - (vi) reimbursement rate by loan, by cooperative, by arrondissement and for the NDD project.
- By October 1, 1985, CNCA should be able to produce the status of loan repayments for certain of Niamey Department's six arrondissements.
- The CNCA will be able to prepare a "credit inventory" of agricultural equipment, animal and fertilizer loans by cooperative, and loan recovery data will be able to be updated as loan payments come in.
- With training in the credit information system and by following the proposed credit activity procedures/schedule outlined in section IV. A. 1. for one complete annual loan-repayment cycle, the CNCA could have complete, continuing control over its loan portfolio and loan repayment by May, 1985.
- With the gathering and analysis of credit data, the CNCA will get an increasingly clear picture of cooperative and GM ability to repay. Though the linear programming model of the input supply component of NDD's MIS, locational agricultural practices and associated harvest results should start to become available. Credit data coupled with future agronomic information will allow CNCA to do more accurate operational planning, to make better bank resource allocation decisions, and will help CNCA in its credit policy formulation.

Finally, with several years' experience and refinement of the credit information system, the CNCA should be able to detect loan problems at the cooperative level before they become

serious, and be able to institute workout procedures shortly after the problem identification.

Given, on one hand, the potential for better financial management, and, on the other hand, the demise of UNCC coupled with the inadequate amount of institutional support (the MRD agricultural services, UNCC) available, the success of the credit component will depend on what strategy the NDD project and CNCA adopt. The limited resources of NDD, its experience to date, and the proposed credit strategy of the Agricultural Production Support Project argue for the following:

- (1) a credit component extended initially to a small number of receptive, potentially viable cooperatives.
- (2) an ongoing training and follow-up program aimed at these selected cooperatives to ensure success.
- (3) along with efforts to bring farmers into the money economy, exploration of the possibilities for barter as an intermediate step - e.g., millet for fertilizer.
- (4) stress on the responsibility that cooperative membership entails, including strong emphasis on loan repayment.
- (5) an understanding on the part of NDD and CNCA that the principal business of CNCA is that of expanding the credit system, and of making sound loans. Repossession of goods and other strong measures to obtain loan repayment are last resorts.
- (6) consider establishing an incentive system for CNCA agents and the Chef d'Agence which will improve their field performance. Such a system should reward good performance amply enough to make it work, and should be capable of being altered as the credit situation alters. For example, assuming the loan repayment problem is largely solved, the CNCA would shift the financial emphasis of the incentive system away from reducing defaults toward the promotion and expansion of sound credit.
- (7) consider setting the requirement for a substantial down payment by the borrower, say one-third of the principal amount. In so doing, the borrower would have a stake in his investment and he also would have something to lose should he be default. Moreover, installments would be less, making loan repayment easier, and the total amount of project credit available could be extended further.
- (8) In the pilot stage of credit extension, limit credit to those items which are clearly profitable for the farmer i.e., carts, fertilizer. Once the credit component at

the cooperative level is on firm footing thought can be given to other income-generating activities, e.g., vegetable gardening, cross breeding (and fattening) of desert race sheep (e.g., Bali-Bali*) with local sheep, and grinding mills**).

In connection with and prior to Phase III activities, the NDD credit specialist, using the CIS installed at CNCA/Niamey, should help devise a planning and control system which will facilitate the management of the entire loan process for the Niamey agency (and eventually for all of CNCA as well). He should suggest methods of collecting and analyzing the information needed to make sound decisions, as well as methods of communicating the decisions and results obtained to top management. He can suggest the kind of data for CNCA to use in deciding on loan policy, but he can not determine the policy itself, nor should he. It is the well-designed system and its informational components rather than advice on policy that will help CNCA management make the right decisions.

* The Seguenega Integrated Rural Development Project (Burkina-Faso) located on the Mossi Plateau had good success with this component of its project. It was an example of 2+2=5. The offspring of the cross between the Bali-Bali sheep and smaller local sheep had a carcass weight approximately 25% greater than local sheep. Mossi farmers were experienced in small ruminant husbandry. There were no problems of adaptation by the Bali-Bali sheep to the more southerly location, thus this activity (which included a revolving credit fund) proved to be a success.

** Another Seguenega IRD activity that met with success was the installation of grinding mills. Village selection was carefully done as to size of village and avoidance of "market saturation". Typically, womens' groups purchased the mills on credit, and hired a man to operate the mill and perform basic maintenance (he received a small fraction (1/6-1/7) of the price to mill any given quantity of grain, plus spillage from the milling operation). The head of the womens' group was trained in basic record keeping and project personnel followed-up frequently. The women of one village, Konde Langaye, were successful enough that after two months of operation, not only were they repaying the loan, but also with the profit they had earned, they set up (on their own) an emergency loan fund from which members only could borrow - with an interest rate of 3%/month.

INPUT DISTRIBUTION

A. Adequacy of the Input Distribution System

Project storage and transport capacity is sufficient to handle the volumes of agricultural inputs projected to flow through to cooperatives. The project credit/input specialist estimates that, if necessary, the project could store up to 1000 metric tons of fertilizer under tarpaulins at NDD headquarters alone. NDD headquarters has one 100 sq m building where animal traction equipment and pesticides are currently stored and a pre-fabricated building of approximately 90 sq m which has not yet been erected.

The headquarters storage capacity question is really moot, since the project has a sufficient number of operating trucks (and a mechanic) to be able to move 70 tons of fertilizer per day to nearby warehouses (approximately 40 kms from Niamey) in Kolo, Hamdallaye, and Goube. These warehouses will comfortably hold 550 tons (Kolo), 75 tons (Hamdallaye), and 75 tons (Goube). At no time in the life of the project to date, has the project received an annual order of fertilizer exceeding 500 tons. For a small fee, approximately 25,000 CFAF, the delivery trucks (ex-Lome, eq.) will drop their cargoes at the above mentioned warehouses, thereby effectively obviating the need for storage at NDD headquarters.

At the cooperative level, the total storage capacity is 4,200 tons (42 cooperatives with warehouses x 100 sq m per warehouse). Usually, only 75 tons maximum is actually stored, so that there is space in which to move and operate. As mentioned in earlier reports, problems of poor construction, leaking buildings, etc. still exist. The main distribution problems are not physical storage and transportation availability, but rather receipt of farmer demand estimates by cooperative on a timely basis and lack of reporting of inventory levels and sales. Timely demand estimates will be the key to the success of programming transportation and delivery of inputs to cooperatives where needed, when needed and in correct quantities, as well as the transfer of inputs between cooperatives and between arrondissements as changes in demand occur during the growing season. Both yearly demand estimates and supplemental demand estimates for fertilizer (in the early part of the growing season) are not received in timely fashion.

The primary objective of project management has been to determine what equipment and inputs had been actually sold. The lack of complete records and the consequent need to reconstruct sales transactions carried out over the past three years prevented project management from being able to (1) accurately assess demand and (2) without the ability to assess demand, to consider subsidy and credit availability as factors in the assessment.

Training of UNCC agents was carried out in Niamey for a period of four days in June 1983. At the beginning of this session, preliminary training of UNCC arrondissement level agents was done. The SRFMP Financial Management Team assisted the training, which entailed instruction in gathering inventory and sales information and in making out the appropriate reports for NDD to be able to assess demand.

As a pilot operation, the trained agents were to have kept track of sales and inventories only in the villages in which they were stationed during July - October 1983, a time which coincided closely enough with the June-September period of high sales. The agents were to have reported sales to NDD every two weeks during this time, which would have given NDD an estimate, albeit from only a sample of villages, of demand. The termination of employment of one-third of the UNCC agents at the end of June 1983, and the attendant demoralisation of the agent staff effectively stopped this pilot operation.

The reporting problem is compound. Cooperative inventory records tend only to be kept in those villages where there is a resident UNCC agent. Weekly consolidation reports were too lengthy for cooperative officials to complete, and have been temporarily suspended until the necessary skills are acquired by cooperatives. Monthly stock reports have started to be sent in, sporadically over the past four months, and these only by the more conscientious UNCC agents. Delivery (of inputs) receipts flow regularly back to NDD.

The principal effort being made with respect to record keeping is to instruct cooperative level personnel in all aspects of inventory management required in their work. As part of this training, cooperatives will work with forms, simplified in design and written in Hausa and Djerna. A perpetual inventory system for stocks physically held at NDD headquarters is in place, however the records are not kept up to date nor in some cases, correctly. In the opinion of the credit/input specialist, the NDD headquarters warehouse clerk could benefit from three-four days of intensive one-on-one training in the filling out and maintenance of inventory records.

8. Training of Cooperative Personnel

Training for cooperative level personnel in inventory management started in November 1983 with the training of the trainers (UNCC agents and literacy service trainees from arrondissement and department levels of the Ministry of Education). The second step was a three stage training package which was given between January and March, 1984. The training was aimed at warehouse clerks, cereal bank managers and cooperative store managers. Reportedly, there was no time to train cooperative officials (presidents, secretaries, treasurers). The training package was composed of the following:

1. Four days of exposure to the requirements of their jobs
2. Six weeks intensive literacy training (reading, writing and arithmetic) necessary to get the personnel qualified enough to be able to carry out their jobs, and fill out and maintain the necessary forms/records.
3. Seven to ten days of follow-up in which working examples of the forms were used to train personnel in the actual functions of inventory management.

There was no UNCC follow-up to the cooperatives themselves and very little reporting to NDD headquarters, because of a lack of coordination between arrondissements and NDD project management as to the furnishing of necessary vehicles and other logistics needs.

In December 1984, a second training program, similarly structured, was started. It is planned to run through February 1985. Its audiences differ from the first program in that cooperative officers will be instructed, but cooperative store managers will not be at this time. Training for cooperative officers is scheduled to take place at four central locations, and will deal with their particular functions, the job and reporting/record keeping requirements, and what other cooperative personnel do.

For the warehouse clerks and cereal bank managers, the objective is to give these audiences exposure to and training in all aspects of stock management which will permit them to carry out their respective duties. To achieve this objective, the credit/input specialist prepared a trainer's manual with accompanying forms concerning the various activities of inventory management and control, ranging from ordering stock to maintaining a perpetual inventory with month end reports. Sales and cash receipts are also covered. The forms/reports are presented in simplified format and language. They will be available to the cooperative in Hausa and Djerma according to the language spoken of the area in which the cooperative and its member GMs are located. Training will be given in two locations for the warehouse clerks and in two other locations for the cereal bank managers respectively.

This training and accompanying manual/forms will provide the basic inventory, sales and receipts information necessary for NDD headquarters to exercise control over field inventories, and with the data in the linear programming model (see section C), will be able to move stocks, if necessary, between cooperatives and between arrondissements.

The beginning of the next complete training cycle is tentatively scheduled for March or April 1985 at which time four-day sessions are planned for new groups of cooperative officers to give them exposure to the requirements of their positions and to prepare them for the next two parts of their training. The six

week and 7-10 day sessions are planned for after the 1985 harvest.

At this point in time, the NDD credit/input specialist is uncertain as to who will be responsible for follow-up activities in the cooperatives themselves. He is waiting to determine what support and resources CLUSA (as part of the APS project) may bring in this regard.

In summary, the training program for cooperative personnel is well designed and is being well implemented. As in the case of training in credit management, the impact of this training on input distribution will depend on follow-up. Even if the trainees return to their villages able to fill out the necessary forms, it is unlikely that they will do so unless there is continuous prompting by cooperative officials and/or NDD staff. In the long run, improved supply management by cooperatives can occur only insofar as villages understand the value of cooperative undertakings and commit themselves to using this approach for village-level development activities.

C. Inventory Management System

With respect to inventory management and control, the project expects to have a computerized inventory management system from the project headquarters level to the cooperative level operative by June 1, 1985. From the headquarters level, the system will cover all activities in which there are stocks and flows of physical items (e.g., agricultural inputs, automotive spare parts). From the cooperative level, perpetual inventory and distribution records, (simplified, in Hausa and Djerma), supported by bi-annual physical inventories, will be the field level's part of the inventory management system. This system should help project management determine appropriate levels of buffer stocks needed to offset the lack of accurate demand estimates.

An additional facet of the inventory management system will be the capability to move agricultural inputs, especially fertilizer, to warehouse locations and between warehouses according to changing levels of demand. Based on the availability of some historical demand data coupled with agronomic data for various locations (e.g., known effectiveness of fertilizer) and transportation costs, the project will use a classical linear programming model to move stocks so that fertilizer is available on a timely basis where it will achieve the best results at the lowest transportation and handling costs.

D. Links with APS Project

Between the projects, the linkages (both explicit and implicit) are principally in the areas of input supply, development of cooperative management skills and responsibility,

departmental and cooperative level training and management information systems.

1. Input Supply

With the overhaul of the management of national agricultural input supply proposed in the Implementation Plan for the Agricultural Input Supply Component of the APS project (I. Pattinson), APS would gradually assume input supply responsibility for a growing number of viable cooperatives, including those of the NDD project. During the start-up phase of APS, NDD estimates of cooperatives' demand for agricultural inputs would be furnished to the CA.

2. Cooperative Training

The Implementation Plan calls for training of cooperatives across a spectrum of management areas, part of which will be new to cooperative officers, part of which is currently being undertaken by the NDD project for certain of its cooperatives. During the start-up phase of APS, a potential linkage is that NDD might be a "service arm" to APS for training of the NDD cooperatives, which will become part of the revamped agricultural input supply system. The training of officers and personnel of certain NDD cooperatives which is currently being done and which fits the requirements of the APS project as outlined in I. Pattinson's "Implementation Plan" is:

- o Cooperatives' understanding that they will be increasingly responsible for their own affairs. For example, the Implementation Plan (p. 15) calls for cooperatives to be responsible for debt recovery from member GMs and for payment of same to the bank.
- o Cooperative officers' full understanding of their individual roles and responsibilities within the cooperative, and vis-a-vis the arrondissement and department levels (including NDD headquarters).
- o Management of agricultural inputs inventories and distribution (sales, both cash and credit), using simplified documents in Hausa and Djerma. These activities will be based on intensive literacy training followed by hands-on work with documentation.

The training undertaken by NDD should serve as a base for the additional financial management skill requirements of cooperative leadership called for by the Implementation Plan, viz:

"Prior to AID/N approval of the guaranteed fund for a particular cooperative, the cooperative loan advisor and counterpart will submit to AID/Niger a projected and provisional twelve month operational statement prepared with the cooperative's management on the anticipated

cash flows for the period, including withdrawals, reimbursements and provision for interest..." (p. 13).

"...the cooperative loan advisor and counterpart will conduct sessions with cooperative members in order to familiarize them with the concept and responsibilities of operating a bank account". (p. 12).

The institutional implementation schedule (A) calls for 50% cooperative member representation by December 1986 on the Management Committee of the "Societe Mixte," CA/CCIA, interim successor to the CA. Representation assumes certain management skills, the basis of which NDD is already starting to provide in its pilot training effort.

3. Pilot Areas

The Implementation Plan calls for pilot areas to be selected for an initial testing and monitoring phase. Annex 2 calls for cooperative selection "... based on the highest probability of success. This could, for example, exclude areas or Departments where management infrastructure or potential is considered inadequate or favorise areas where it is more advanced."

That certain NDD cooperatives will have more advanced management infrastructures, by virtue of past and current training, is another potential link between NDD and APS. Obvious pilot areas should include NDD cooperatives which will have acquired some management skills by the time the training component of APS comes on stream.

4. Financial Management

With respect to the CA, the Implementation Plan calls for "... improvements to the management system in the areas of input distribution, inventory control, transport planning and the introduction of financial management procedures to improve cash flow and tighten control over funds."

The Management Information System currently being installed in the NDD project, with its financial management and logistics/input supply management capacities would appear to be a logical resource to be drawn upon to improve similar areas in the CA.

E. Conclusions and Recommendations

The principal conclusions which can be drawn are that the physical input distribution system is adequate to the task of supplying inputs on a timely basis, and that the project has adopted a correct approach on the training of cooperative level personnel in inventory management and control. The weakness in the distribution system is that it has not run smoothly because it does not receive demand estimates from cooperatives on a

timely basis, and it is subject to receive last minute notification of additional input requirements during the early part of the growing season.

- o The project, through its training effort, and the CNCA agents who will be soliciting cooperatives' loan needs for the season, must stress the need for early receipt of accurate demand estimates for inputs (both for credit and for cash). This is key to the smooth working of the distribution system.
- o As indicated in the recommendations for the project credit component, follow-up on training and supervision at the cooperative level are key to the success of the current and future training efforts. For training, follow-up and supervision purposes, NDD should consider hiring the best (reportedly there are four fairly well-qualified agents) of the recently unemployed UNCC agents.

With regard to the Agricultural Production Support Project, one concludes that the NDD project would become the training, monitoring, and evaluation support arm to APS from the cooperative level to the farmer. The CA, followed by the CCIA proposed in the APS Implementation Plan, would undertake the physical supply of agricultural inputs to financially viable cooperatives.

- o Various NDD cooperatives will have had some training in credit and agricultural input management by the time that the APS pilot effort begins. These NDD cooperatives should be considered candidates for inclusion in the APS project.
- o The NDD MIS, with its logistics and input supply management capacity, should be considered a potentially useful tool for the CA and its successor organization.

LOCAL ORGANIZATIONS WITHIN THE PROJECT

Support for the activities of village organizations within the project zone is provided by component no. 3 of the NDD. As the 1983 Annual Report points out, however, "this element is more than a specific arena of project activities: it is an integral part of the project's goals...to help village-level organizations take responsibility for their own future." The annual report adds that "unfortunately, this rather complex component was poorly defined by the funding agreement for the project." In order to deal with this situation, since the 1983 Lossa seminar, two or three villages have been selected within each arrondissement for development activities. This approach of NDD support for local organizations is rather modest in comparison to the much wider scope of NDD programs in other sectors, and is oriented toward well-defined, locally feasible objectives.

In addition, since 1981, the UNCC has set up numerous cooperatives in the project zone. Currently there are 120 cooperatives in the departement, which comprise 715 GMs. These local level cooperative organizations are now being asked to take over management and distribution tasks formerly handled by UNCC. The remarks to follow will provide an overview of NDD activities in support of local organizations.

THE ROLE OF LOCAL ORGANIZATIONS IN THE MANAGEMENT OF CREDIT AND AGRICULTURAL INPUTS

A. Establishment of Cooperative Structures and Training of Cooperative Members

Following the period 1981-1982 when the UNCC created most of the cooperatives in the project zone, the NDD began programs to train cooperative officers to fill their responsibilities. A trial program was held in 1982 at Lossa and demonstrated that a variety of national language accounting forms could be successfully used by cooperative officers if the proper training were provided. During 1983, personnel from UNCC and Animation were trained in accounting methods to enable them in turn to train cooperative officers. These services worked together with the Literacy service to train all officers having management tasks in the region's cooperatives. Currently (December 1984), four such training programs are underway in the project zone. They are designed to train and upgrade cooperative officers, and managers of cooperative warehouses, stores, and grain banks. Rather than attempt to train all officers in the project zone, the NDD is working only with representatives from cooperatives that have shown a clear-cut willingness to learn in order to better manage their operations in the future. On this basis,

officers from about one-fifth of the project zone cooperatives have been or are receiving training. These training programs, like those during 1983, were preceded by special training/upgrading programs for the trainers themselves.

The training of cooperative officers is well underway, but the task of preparation is large. Without counting the managers of cooperative grain banks, stores, and warehouses, cooperative officers number 350, while GM officers total more than 2,000. The training approach being used by the National Literacy Service and the UNCC in conjunction with NDD personnel is sound, active, and grounded in application. It includes collective learning of the roles that go with cooperative positions, and the development of the tools required to carry out the tasks. The training of all cooperative officers will take several years to complete. In the meantime, support and follow-up will be necessary for the individuals as they work within the cooperatives and gradually assume greater responsibility for the management of local-level development activities.

Concerning the current situation of credit management within the project zone, it is noteworthy that by the force of circumstances, some responsibility has already been shifted to the cooperatives. This was caused by a large reduction of UNCC field agents beginning in 1983. Thus numerous cooperatives already find themselves faced with accounting operations to complete, but few among them are prepared--technically or psychologically--for the transition to self-management. In these circumstances, it is too early to judge the effectiveness of this transfer of functions. In addition, visits to several cooperatives in the project zone revealed a hesitancy on the part of cooperative members to take over operations that had been carried out by UNCC agents for many years. In the cooperatives visited, the use of all accounting materials except a few delivery vouchers seems to have stopped with the departure of UNCC field agents.

In all cases, the cooperative officers seemed to be waiting for advice if not orders from above. An instance of non-reimbursement of a loan discussed in one cooperative provides an instance of a situation that is probably widespread in the project zone. The problem faced by many cooperatives is how the cooperative as a social body can induce members who are behind in loan reimbursements to repay their loans without resorting to higher levels of authority. It must be added that when cooperative non-reimbursement exceeds a certain threshold, the whole cooperative is cut off from further loans. How, practically speaking, can the cooperative exercise authority as a cooperative over uncooperative members?

A visit to the Yerimadey cooperative convinced us that the answer is far from clear. There, a villager (who was present during our visit) who is the father of a CRT graduate (absent at the time) who is behind in his loan payments, was unable to exercise any influence over his son to reimburse his loan. In the

meantime, the cooperative has lost access to credit. In this situation, the cooperative seemed to have even less power over its member than did the father over his son. This case also illustrates the weakness of the "social guarantee" (caution sociale; see below) that has been used for more than a decade as a means of insuring loan reimbursement in rural areas of Niger.

While local cooperatives struggle to arrive at an effective answer to the question, the NDD and CNCA have begun to collect on outstanding debts instead of waiting for the debtors to arrive with their payments in hand. In some cases, wheels have been removed from debtor's ox-carts and impounded until payments are forthcoming. According to NDD personnel, this strategy of pursuit and seizure is quite effective: heretofore poor payers have reimbursed their loans.

There can be little doubt that the impact of this strategy can be significant if the measures are intended primarily to teach a lesson to project zone populations. (The strategy proved necessary due to the results of an ineffective follow-up policy by UNCC and CNCA in the past.) If, by contrast, this approach becomes even an informal policy of last resort, we can ask ourselves if it represents a step forward toward peasant self-management, or a move backward toward an image of an improvident peasantry.

The hesitancy mentioned above also expresses itself in the formulation of local-level development projects which will be discussed shortly. The perspective among cooperative members concerning the possibilities for effective actions they can take seems to be very limited.

In summary, the transfer to local levels of responsibility for management of credit and input management tasks, currently being supported by a variety of NDD training programs, must be followed-up very carefully by the project and participating technical services. As we have argued in the section on extension in the NDD (see section II), "follow-up" is not the same as debt or data collection. It must be much more supportive, and capable of actively helping cooperative officials to deal with the tasks they are being trained for and a variety of unanticipated problems they are likely to encounter. Without this support, an effective transfer of responsibility will be compromised.

B. The Social Guarantee

The experience to date in Niger with the social guarantee as a means of insuring reimbursement of farm credit under conditions where there is often nothing else to offer as a form of collateral, has been mixed and the results are less than conclusive. In spite of this, recent actions of NDD and CNCA after a rigorous examination of project finances and accounting by AID auditors have shown that credit recipients in the project zone are willing to repay. If the reimbursement rates for farm

implement loans remained so low before the auditors arrived, this was in large part because the debtors poorly understood the system of which they had become a part. Explanations of credit/reimbursement requirements were often not given, and there was a lack of routine efforts on the part of government agents to collect the loan payments. Peasant producers in the project zone are adults and behave as such, but often find themselves involved in development actions which remain, at the local level at least, vague and poorly followed up.

As for the future effectiveness of the social guarantee, there is little ground for optimism, but two hypotheses can be advanced. If an intervention that provides material assistance on credit is judged by peasant producers to be sufficiently valuable, the social guarantee may play an effective role in inducing other cooperative members to pay on time. If, on the other hand, the consensus among members concerning the perceived utility of the credit package is not well-developed, the impact of the social guarantee on poor payers will remain negligible. In other words, without some form of "social investment" by cooperative members as a collectivity in the credit program on the basis of its perceived utility, the social guarantee will have little effect. To a great extent, the presence of this social investment will depend, first, on the perceived potential of the credit benefits to insure the material continuity of domestic production-consumption units (e.g., households); and second, on its perceived potential to promote the well-being of the community.

To close this discussion, it is necessary to add that the model of social control which is the basis of the social guarantee is one of an undifferentiated, highly integrated community. This model is poorly adapted to the socio-economic structures in the project zone, which, no matter how often they are erroneously referred to as "traditional", are changing in many respects--and often at the expense of social solidarity. The study of local organizations in the project zone scheduled to begin in December 1984 should provide valuable details on these issues.

THE ROLE OF VILLAGE ORGANIZATIONS IN THE ESTABLISHMENT OF A DEVELOPMENT PROCESS

We have seen that considerable effort is going into the preparation and training of cooperative members to carry out local-level management tasks in project zone cooperatives.

In addition to training programs for officers, upgrading programs have been organized for blacksmiths in the zone. The aim of the program is to train local smiths in methods that will enable them to repair and manufacture replacement parts for the kinds of farm implements being promoted by the NDD. This will enhance their capacity, and will make it possible for NDD trainees to secure needed repairs and replacement parts without

traveling to Niamey. The viability of this activity will ultimately depend on local demand for these improved services, and so far demand has been very weak; needed repairs have been few. In an effort to publicize the skills of these NDD-trained smiths, the project began a program of demonstrations at the CPTs in 1984.

Beyond these training programs, the project has engaged in a variety of other activities designed to support local organizations. These are described below.

A. Village-level Development Activities

During 1983, NDD began efforts in the Kollo and Ouallam arrondissements to promote village-level development activities in the form of small-scale dry-season gardens. Evaluations of the first efforts in three villages revealed that in two cases, the villagers did not understand how to carry on with the activities, and that in a third, the villagers never clearly expressed their needs despite a manifest enthusiasm. Similar efforts were begun in the Filingue arrondissement, but did not progress beyond the initial stage of identifying village sites for the programs. The situation of these village-level programs seems to have changed little since.

The third quarter 1984 report for the local organization support unit does not mention these earlier efforts, but it appears that arrondissement-level personnel have continued to identify candidate villages for activities that remain to be specified.

Also during 1983, and within the context of NDD support for dry-season gardening, consultants from CEPAZE (the Centre d'Échange et de Promotion des Artisans des Zones à Equipier) visited the project zone and discussed the possibilities for local-level activities in villages in the Say and Ouallam arrondissements. At the time, the villages contacted indicated a need for wells and fencing. CEPAZE also began a study of an ox-driven water-lifting system for garden irrigation, and it was to be tested during 1984. These efforts continue, but the results remain to be seen.

B. Observations on the Possibilities for the Transfer of Development Responsibilities to Local Organizations

Cooperatives and GAs in the project zone are not yet ready to accept responsibility for development activities. While it is risky to generalize from the small number of rapidly effected field visits during the evaluation, we feel that brief comments are in order. This is because of the present push to transfer development responsibilities to rural populations, in part the result of the 1982 Zinder conference on rural development, but also because of current dissatisfaction with large rural development projects in Niger.

The evaluation team visited three cooperatives--Boula, Koni Bari, and Yerimadey. All were recommended by NDD personnel because they were functioning satisfactorily, or because members were felt to have a good understanding of cooperative principles. Our visits confirmed that reimbursements were satisfactory in some and that knowledge of cooperative principles was satisfactory in others. Once we attempted to move from generalities to specific situations requiring cooperative actions, however, the members seemed to be on uncertain ground. Several examples must suffice as support for this admittedly qualitative impression. In an effort to evoke different points of view, one of the team members proposed a different system of loan reimbursement to the persons we contacted. This entailed the possibility of reimbursing input loans in kind (millet) after the harvest rather than in cash as is now the practice. He asked them to consider one additional possibility: stocking of the reimbursements in kind until the next cultivation season. The cooperative could then choose to sell it with a slight markup to members in order to cover costs, or sell it at local markets in order to maximize the profit margin for the cooperative. The idea behind the suggestion was simply to explore the possibilities for easier loan reimbursements, and for providing the cooperative with a profit, to be used as decided by the cooperative. The idea, while simple, was a popular one, and very often seemed to be a real discovery for those who participated in the discussions. It seems that the idea had never been proposed.

A second situation also illustrates the problem. In each village we visited, cooperative members remarked that they wanted a well in order to do dry-season gardening. In some cases they vaguely knew that the next step in securing the well was the preparation of a dossier, but they were not sure where the dossier should be sent. In addition, the resolution of land tenure issues connected with the choice of location for the well did not seem liable to local level solutions. The villagers looked to higher levels of authority to deal with the issues--as, it should be noted, has been the case for a very long time.

Without exaggerating, these cases illustrate two obstacles that must eventually be overcome if cooperatives and local populations are to take over (as opposed to being assigned) local-level development initiatives. First, the understanding of instrumental information by cooperative members appears to be very low. They do not have a clear notion of how to move from the analysis of a problem to expressed needs on the basis of the analysis, to action to deal with the problem. Apart from a repetition of well-learned lessons about living better cooperatively, their grasp of cooperative action seems superficial. Secondly, our interviews suggest that the framework for problem analysis among cooperative members is limited. There is a wider range of options they have not considered. On a reflective note, it is also possible that these options have been considered, but that the structural constraints have all but precluded those now being judged as overly limited!

In summary, better preparation of local populations will be necessary if the transition to locally-initiated and managed development activities is to succeed. This will require more information, explanations, training, and retraining (rethinking) to enable local groups to approach problem situations, and develop workable solutions. Once again, and over the long-term, considerable support from the NDD and technical services will be necessary for local-level endeavors.

C. Training of Rural Development Personnel for More Effective Support of Local Organizations

To complete the picture of NDD support for local organizations, we should also note that training programs have also been organized to prepare arrondissement-level rural development personnel for more effective work with local organizations.

Beginning in 1983, arrondissement personnel were provided with a correspondence course from INADES (the Institut Africain pour le Developpement Economique et Sociale). The Pan-African Institute for Development (Ouagadougou) also participated in short-term training programs for similar purposes.

In 1984 the INADES program was discontinued because it proved to be unsuitable and not advanced enough for project training needs. Thus the pressing need to train and retrain arrondissement personnel for effective development work remains unfulfilled. Without this, and some basic rethinking of their intervention strategies, rural development programs are likely to remain at the level of routine, and the technical services, soon to become technical advisers to local-level development organizations within the Development Society, will have little to offer. We have already suggested that the framework for problem analysis is somewhat limited among rural populations, and that considerable development is needed; this is also true of many rural development agents. In both cases, there is a need to change what is a predominantly passive role into one that is more active and more imaginative.

In order to promote a more thoroughgoing reflection and more effective preparation of rural development workers for their tasks, NDD has organized a series of seminars. Most of these have aimed to promote team-work, information-sharing, and a more collaborative approach among administrative and service personnel to the implementation of project activities. A third seminar, held in 1984, moved the focus of intervention away from the seminar room to villages in the project zone. Thus persons directly involved in NDD programs participated as usual, but in addition, several cooperatives from the Say and Ouallam arrondissements were associated in the exercise. The seminar's objective was more than training; it required participants from

the technical services to work closely with representatives from selected cooperatives, and to elaborate feasible development projects on the basis of village visits, data analysis, discussion, etc. Two aspects of this most interesting approach to training for development merit brief comment: the teaching method, and the participation of the government workers for whom the program was designed.

- * Teaching method This is a commendable approach to training: it provides a direct association between the usual (and often predominant) in-class aspects of training, and concrete application of principles learned.
- * Participation of rural development personnel It is unfortunate that a large number of the rural development workers in the project zone did not benefit from this training program. Ninety-two percent of the department-level technical service representatives invited to the seminar did not attend; half of the arrondissement-level service agents were absent; a third of the CPT directors, and a quarter of NDD headquarters staff also missed the program.

No doubt there were good reasons for their absence, but this is a lamentable showing, for these are the individuals who are expected to work with and deliver useful advice to populations in the project zone as contracted technical advisers as the transfer of development responsibility to local levels continues. The implications of these attendance patterns for ongoing support of local organizations are not promising, and considerable improvement will be required.

D. Concerning the "Institutionalization of a Development Process in the Niamey Department"

During the third quarter of 1984, M. Ph. Boyle prepared several working documents for NDD, among which was an outline for the establishment of a self-sustaining rural development process in the project zone. The paper summarizes progress to date during the first phase of preparations, and suggests orientations for the second phase. Without going into detail on this useful think-piece, several observations are possible.

Concerning the first phase of the setting up, we can only give repeated emphasis to the need to proceed through all of the stages described in Boyle's document. If the pace is speeded up to any degree, and necessary preparations are omitted in order to hasten the transfer of development responsibility to local populations, the success of the second phase may be compromised. By way of reminder, then, the first phase includes the following stages:

- a) Pilot projects;
- b) Training for advisers and officers of cooperatives and GMs;
- c) Training of trainers who will be able to intervene effectively at all levels of administrative and financial organization within the region's cooperative structures;
- d) Establishment of a system for the coordination of support activities from rural development and technical services at the arrondissement level for local organizations.

To these stages must be added (as we have already insisted) the need to effect some changes in the approaches to rural development problems taken by cooperative members and rural development workers, and to support their efforts to reconceptualize problems and solutions.

During the second phase of the setting-up process, the presence of multiple and overlapping structures in the project zone seems particularly weighty: CVD/GM; ___/Cooperative; CLD/UIC; Sous-Préfet/CSRD/COTEAR; Line Ministries; Technical services. It will be necessary to insure that this proliferation of levels and structures helps rather than hinders local development initiatives. At several levels there is considerable overlap among functions (e.g., CVD/GM/traditional authority), and this may result in confusion and inactivity.

A last observation concerns the idea of setting up "small income generating enterprises" with externally-provided seed capital, and the goal of preserving the capital in the form of a revolving development fund.

The threat of a gradual decapitalization of the fund will remain until a process of accumulation is set into motion by these village development efforts. It must be recognized that despite the enthusiasm shown for these activities across the Development Society structures, the possibilities for capital accumulation within rural areas are very limited. If the necessary accumulation process does not occur, the hope of beginning, still less sustaining, a development process will remain a hope: something desirable but unfeasible.

In order for these development efforts to be well-grounded and realistic, villagers and rural development personnel (with the help of an outside expert if this is considered necessary) should carefully examine the possibilities for realizing a return on their activities. This would allow the seed capital to increase, might lead to a situation where risks are reduced, and would promote a healthy diversification of the subsistence base which is now heavily dependant on rainfed agricultural production.

E. Concerning the Study of Local Organizations Planned for the Project Zone

The plan to study social structures in the project zone is very worthwhile. The results of the first sociological study done in region, during 1978 were not very useful for the project because of an unresponsiveness of the research questions to project needs (which were rather vague at the time). Finally, we will have an opportunity to secure elements of "baseline data" concerning the area in which the NDD has operated for years.

Generally speaking, the issues selected for study are reasonable and timely, and they reflect, perhaps too much, the obvious need of NDD to make local organizations work as quickly possible. Fortunately, the individual who will do the study in collaboration with IRSH, UNCC, and the project's Monitoring and Evaluation unit, has considerable experience with research on cooperative structures. The work plan proposed by USAID should remain indicative in order to allow him maximum flexibility in developing a perspective and methodology for the study. These issues should be carefully discussed with the NDD director, with personnel from all NDD components, and with technical services concerned by the issues being studied.

At the moment, the only suggestions that can be made concerning the proposed study are the following:

- a) Project support for the study should be concrete (e.g., provision of a vehicle), because it addresses important issues that have been neglected for too long.
- b) Rather than give too much emphasis to the potential of "traditional" cooperative structures as foundations for development structures, it is recommended that the study also examine the possibilities for beginning a development process in the project zone as is desired by NDD. In other words, it should not be assumed that "traditional" structures, described by some observers as seriously weakened by socio-economic changes, can effectively serve as a basis for the construction of "modern" structures. To end this note, we must emphasize that the agrarian structures in the project zone are no longer "traditional." They are caught up in processes of change, and must be approached as such; not as static entities having qualities based more on idealizations of rural life than observations of reality.
- c) The study should examine agronomic as well as socio-economic changes in the project zone, because the development envisioned by the NDD is intimately linked to agricultural production, however poorly social aspects of the production process are understood. We also suggest that, contrary to the implications of the

USAID scope of work, the changes in the project zone may have very little to do with NDD impact. On the contrary, realization of the project's goals may be hindered by changes of a socio-economic order that affect project zone populations, but which have never been carefully studied.

CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

Through a variety of interventions, the NDD is providing support for local organizations.

Preparations for local-level management of credit and inputs are moving along, but the effective transfer of responsibility to local populations will take time. It should be kept in mind that if all goes well, three years may easily be necessary before we see the beginnings of self-management by cooperatives in the project zone. It can be hoped that in four years, enough cooperative officers will have been trained, upgraded, and followed up that self-management may become a reality in a large part of the project zone. This is an optimistic scenario. Much of this depends, of course, on the willingness of cooperative members. In order to insure their continued interest in the affair, they must remain convinced that there is a payoff--both social and economic. We hasten to add, however, that the payoff is not likely to be perceived in terms of a crude model of "profit maximization." Rather, it is likely to be perceived within a context where continuity of domestic structures is more important than maximum returns of investments. In other words, self-management must be perceived by local populations as something worth doing. But self-management of what? This is a critical question that must be addressed by all parties involved in the project: NDD staff; members of the technical services, and the populations in the project zone.

The transition of concern to us involves more than the peasant producers in the zone. Arrondissement-level personnel and even traditional authorities must face up to the need to reconceptualize development problems and their solutions. To be sure, the study of local organizations planned for 1984-1985 will provide a useful clarification of the characteristics of project zone social structures and the changes they are undergoing. This information should further help with the readjustment of current thinking about the rural milieu, and help to better understand and deal with the milieu's potential for and obstacles to viable development.

Activities must reflect the desires of rural populations, and this requires that they be carefully sought and thought out. In order for this to occur, a more critical, analytical attitude--grounded in ongoing contacts with the countryside--is necessary at all levels of the project. We are not there yet.

Surely the process whereby Niger's rural populations will take their future in their own hands will require that they stop waiting for solutions from above as they have been conditioned to do. They now require useful advice and support; not orders.

B. Recommendations

- a) Continue the preparation of rural populations in the project zone for a more active and critical role in endeavors to set off a development process. This will require that technical staff and rural development personnel play a more effective role. The project advisors for cooperative development, credit, and input distribution need to get together with the arrondissement coordinators to work out an approach for carrying out this task over the next two years.
- b) Continue training and upgrading programs for cooperative officers, and eventually all cooperative members. Strengthen resources for follow-up and support of these training programs. In order to better measure their effectiveness for purposes of local-level management, set up a system of verification that requires a demonstration of acquired skills by cooperative officers to members of the village community as well as passing rural development of project agents. Accountability to members of the community is at least as important as that to persons in higher levels of power and authority.
- c) Continue programs designed to increase the awareness of technical service staff to different approaches to development, and pursue programs for training and retraining that oblige participants to apply, hence test, and verify their knowledge. This feed-back linkage between learning and application should become a central feature of all project-sponsored training programs. Insure that rural development personnel who go through these programs offer useful advice to project zone populations. If they cannot, insist that they undergo more training. If their performance is still not satisfactory, replace them and find others.

VI

PROJECT MANAGEMENT

This section is divided into three parts:

- a discussion of the overall context within which the NDD project is managed;
- an analysis of the organizational structure of the project; and
- an assessment of the internal administrative processes used by the project.

The purpose of this section is to identify the key issues related to project management, determine whether they have been adequately addressed in the project design, and assess the impact that these issues have had on project performance.

MANAGEMENT CONTEXT

Before assessing management performance it is necessary to determine whether there are external factors that limit the decision making options of project management. For the NDD project there are two sets of factors. The first has to do with the policy framework within which agricultural projects are implemented in Niger. The key elements of GON agricultural policy as it relates to the NDD project are the following:

1. The agricultural input supply system. All agricultural inputs are distributed by the public sector and all inputs that are not imported are produced in the public sector. The project does not have the option of using the private sector for input production and distribution. In addition, almost all agricultural inputs are sold to farmers at highly subsidized prices. The rate of subsidy is set every year by the government.
2. The role of local organizations. Beginning in 1983, the GON adopted a policy of increasing the role of local organizations in the rural development process. For NDD this meant that the project had to adopt a strategy of strengthening local organizations to assume greater responsibility for development activities, and at the same time gradually reduce the size of government programs.
3. Recurrent costs have become a major determining factor in the design and size of rural development programs. For NDD this means that any new program that has the effect of increasing recurrent costs is very unlikely to be approved, and project management is under instructions to gradually reduce the recurrent costs of existing programs.

4. The improved technical package. Although NDD was not specifically instructed to extend only one technical package, the only technical package that has been effectively supported at the national level is based on the use of two-ox traction, fertilizers and improved seeds. All extension agents received their training based on this package; virtually all of the equipment manufactured in Niger was designed for two-ox traction; and the national agricultural research program has been focussed on ways of improving that package rather than finding alternatives to it. In the short run, NDD had no choice but to disseminate that package. The extension of any alternative technology required NDD initiated and financed retraining of extension staff, applied research, and modification of equipment, with essentially no support from national level institutions.

Overall, the GON policies with respect to agricultural inputs and the technical package had the most impact on project performance. The input distribution policies adversely affected project implementation (quantity and quality of inputs, and the timeliness of delivery), and prevented the project from accurately assessing the viability of agricultural inputs because artificially low input prices distorted farm-level decision making. Also, the package of improved technical practices has not yet been adapted to the project area. With more GON flexibility and support in this area progress could have been much greater.

A second set of factors over which project management has had no control concerns the several institutions that are involved in the implementation of this project. The institutional context within which this project has been implemented has had a much more negative impact on project performance than the policy framework. The institutions that have the most critical roles in the implementation of NDD are:

USAID

Ministry of Rural Development (MRD)

The Department and Arrondissement level authorities

The Department-level technical services

To the extent that these organizations have different views and priorities with respect to the NDD project, project management is limited in its ability to influence project implementation. In fact, the attitudes of all of these organizations vis-a-vis the project differ considerably.

Although USAID clearly has the strongest commitment to the overall design of the project, i.e., the project strategy and the end-of-project impact targets, as an organization it is mainly concerned with how well the project is being implemented, i.e., the delivery of inputs, the achievement of output targets, and

the implementation schedule as presented in the project agreement. As long as the project does what it is supposed to do more or less on schedule, AID is generally satisfied. AID's major impact on project management occurred as a result of an audit by the State Department's Inspector General's Office in late 1982. The project in effect had no choice but to respond to the recommendations of the audit. This required a considerable amount of staff time and took up most of 1983. The result was some changes in design and tighter control over implementation, especially the credit and input distribution components.

On the GON side, the institution most directly involved in the NDD project is the Ministry of Rural Development. MRD is mainly concerned with how effective the project is delivering services to farmers, i.e., agricultural extension and delivery of inputs and credit. Recently, MRD has also become concerned with reducing recurrent costs, and transferring responsibilities to local organizations. MRD as an organization is responsible for overseeing all of the productivité projects in Niger and can be considered to have no particular commitment to the NDD project design. An additional concern of MRD, of course, is to keep the donor (AID) and the Department authorities (Préfet) satisfied.

The attitude of MDR toward the project is of particular importance because the Project Director can usually be expected to be an MDR employee and is likely to return there when he leaves the project. It would be very surprising if his concerns were not very much in line with those of his ministry. He will adhere strictly to the project design only if he is instructed to do so by MRD or if he is personally in agreement with it. In the case of NDD, there is no evidence that MRD is committed to the project design (especially the end-of-project status) as it is presented in Annex I to the existing Project Agreement (the Revised Implementation Plan). What this means for the project is that neither the Project Director nor MRD field staff are under instructions to give top priority to achievement of project objectives. This is not to say that the present design and end-of-project targets are necessarily the most appropriate but rather to point out that project performance would have been much better if AID and MRD could have reached agreement on a strategy and targets to which both organizations could be meaningfully committed.

At the department level, the Préfet is the head of the project. In fact, the Préfet has prime responsibility for all government programs in his department. In this capacity, his main concern is to assure that the project does not diverge from the overall development goals and priorities of the government, (food self-sufficiency, Sociétés de Développement, etc.) and meets the needs of the department. With respect to the NDD project, he maintains overall control and acts as arbitrator, expeditor, and supporter. However, from his standpoint, the project is only one of many activities in his department. It adds resources but also competes for resources, especially manpower. In the latter case, he has no particular commitment to the project over other

activities. He places demands on available resources according to his own priorities which are mostly political. There is nothing particularly unusual about this but it is one more reason why project management has limited control over resources that are needed for project implementation but are outside the internal administrative structure of the project.

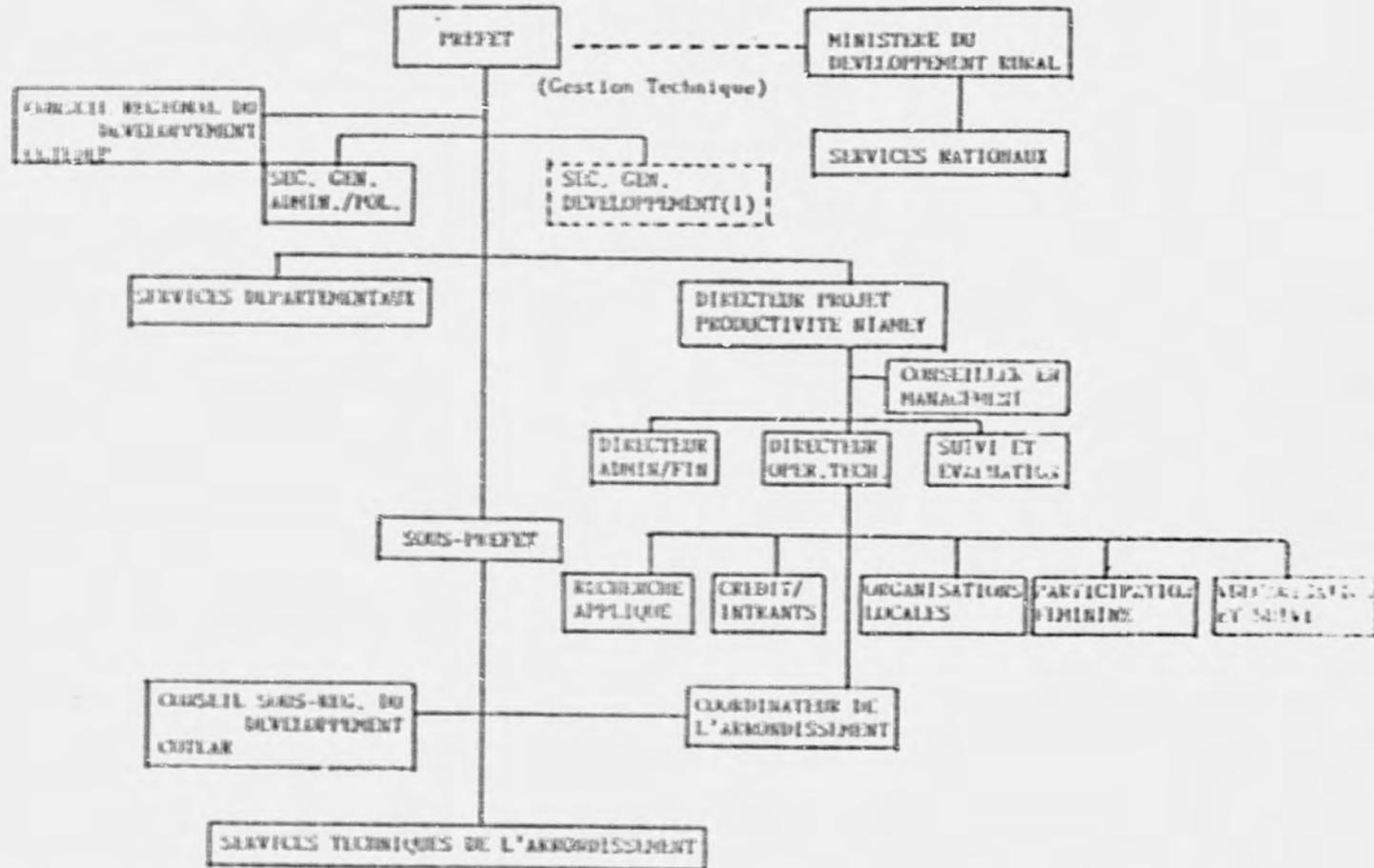
Finally, also at the department level, there are the Technical Services. These are ministry personnel assigned to departments and arrondissements to implement the programs of their respective ministries. As will be discussed below, it is the technical services that have primary responsibility for implementing NDD project-funded activities. The services on which the project has been most dependent are: Agriculture, UNCC, CNCA, Literacy, and Animation. Since the field staff of these services are employed and supervised by their own ministries, they will implement NDD activities only if those activities have a high priority within their ministries. This constitutes the main management issue for the project and is at the root of most of the shortfalls in project implementation. Field staff are motivated first and foremost by what their supervisors want, and the supervisors in turn are responsive to the priorities of their ministries. Only to the extent that NDD objectives and programs are perceived as Ministry objectives and programs will field staff be truly committed to implementing project activities. In Niamey Department the technical services have generally not identified with the NDD project and consequently have shown little inclination to participate fully in project implementation.

Project dependence on the technical services for implementation was deliberately built into the project design in order to help assure the continuation of project-initiated activities after the termination of AID involvement. The organizational structure that was set up to establish effective linkages between the project and the technical services is described and analyzed in the next section.

ORGANIZATIONAL STRUCTURE

Figure 1 presents the organizational structure of the project. The overall head of the project is the Préfet, and overall policy guidance and coordination is provided by the Conseil Régionale de Développement (CRD) and the Comité Technique Départemental (COTEDDP). The Project Director is responsible for the day-to-day management of the project and is supported by a headquarters staff consisting of: the Director of Technical Operations, the Director for Administration and Finance, the Monitoring and Evaluation Unit, and the heads of each project component. In each arrondissement there is a coordinator who is responsible for overseeing project activities.

ORGANIGRAMME DU PROJET PRODUCTIVITE NIAMEY



01
02 Proposition d'un poste nouveau; recommandation à la suite de la Conférence de Zinder, novembre 1982

The component over which the project has the most control is CPT training. The CPT chiefs and the literacy instructors are assigned full-time to the project by the Agriculture Service and the Literacy Service respectively, and the "agents de suivis" are employed and paid by the project. All other activities that are not carried out directly by project staff (e.g., agronomic research and monitoring and evaluation) are implemented by the technical services. The most significant of these activities are:

- technical support for CPT training by the agriculture, livestock, animation and health services as well as by UNCC
- technical follow-up of CPT graduates by the Agriculture Service
- credit management by CNCA and UNCC
- input distribution and stock management by UNCC
- cooperative development by UNCC and the Animation Service

The way this system works is that the project staff analyzes and sets objectives for each project component, and identifies and finances activities to achieve those objectives. Although the technical services are asked to participate in this process, they have rarely done so; and when they have it has clearly been in a subsidiary role. They are certainly not in the position of setting goals and formulating strategy. As noted above, the result of this process is that the technical services have very little commitment to the project. This shows up in project performance. Almost every activity where the technical services have had primary implementation responsibility has experienced serious shortfalls. Almost invariably, the field staff of the technical services express the view that what the project is doing concerns them marginally or not at all, and that they have their own ongoing responsibilities that are assigned to them by their ministries.

It was recognized at the beginning of the project that effective implementation would not be possible without very close coordination between institutions as well as a shared commitment to project strategy and objectives. Existing coordinating bodies were to be used to bring this about -- the COTEDEP at the department level and the COTEAR at the arrondissement level. The members of these committees are the department and arrondissement heads of the technical services involved in the project. These committees in fact met regularly to review progress and resolve implementation problems. Their effect on project performance was minimal, however, because, as noted above, the technical services did not feel that NDD was their project. In the final analysis they were unwilling to allocate the management time and other resources necessary to assure project success.

The project also attempted to address this problem through annual seminars for all personnel involved in project implementation. These seminars were held in Lossa early each year beginning in 1982. Each seminar had a central theme and the objective was to review the past year's performance and set objectives for the next year. The seminars were to have been attended by project staff and technical service personnel at the department, arrondissement and village levels, and there was to have been exchanges of views between the technical services as well as between department, arrondissement and village level personnel. These seminars were only partly successful. Many key individuals, especially the department and arrondissement chiefs of the technical services did not attend. Even with these seminars it is evident that most employees of the technical services do not have a clear idea of what the project is trying to do and do not feel that they are or should be closely involved with it.

As noted above, one reason for this situation is that the technical services have not been involved in setting the overall strategy and end-of-project goals, and have participated only marginally in the preparation of annual work plans. The project attempted to address this problem in late 1984 when a fairly determined effort was made to involve the technical services in planning for 1984. In effect, the project asked the technical services what activities they wanted to carry out with NDD support in 1984. The project hoped that the technical services would participate in setting objectives for 1984, identify and schedule activities needed to achieve those objectives, and allocate the necessary resources.

At that time, NDD and the CNCA were already working closely together. They were in agreement on what they wanted to achieve and on how to go about it. This close collaboration continued into 1984. As a result of the joint planning effort, the Agriculture Service requested that it be given responsibility for providing technical support for the CPT graduates. This was a major breakthrough because the project did not have the capability to follow all of the graduates (700 at the end of 1984) and the success of this component, in fact of the entire project, depended on the Agriculture Service eventually assuming that responsibility. NDD agreed to provide the necessary vehicles and fuel. In the end, however, almost nothing was done. The reasons are not entirely clear. The Department head certainly wanted it done but somehow the message never got to the field staff. What probably happened is that the follow-up of CPT graduates was simply added to the workload of an already understaffed service, and the field staff were not given any idea what priority this additional activity should have. The lesson that this provides for 1985 is that the Agriculture Service probably needs management help. The follow-up of CPT graduates is a major effort and if the Agriculture Service is going to start performing that function, it needs to take a close look at its implementation capacity, rethink its priorities, and make a

determined effort to allocate its resources according to those priorities.

None of the other technical services participated effectively in the joint planning exercise, with the result that there were no significant improvements in the performance of the activities listed on page 65. It does not appear that the effort will be repeated for 1985. This raises some basic questions regarding the design of the NDD management system. Many of the problems discussed above could have been avoided if the project had its own implementation capacity. The argument against that approach is that existing government organizations would not be directly involved and would therefore not be likely to continue activities started by the project. This argument is not entirely valid since it is reasonable to assume that obvious project successes would be continued by the line ministries if the project includes the necessary training and institutional capacity building.

For the NDD management model to work, the technical services must take the lead in setting targets and priorities, and scheduling activities. This, however, would almost certainly lead to a very different kind of project. Most technical services would want resources to do more of what they were already doing. This has come out clearly in discussions between the project and the technical services. The project does have resources that can be used to exert some leverage, but this is rarely effective and in any event, requires the strong commitment of the MRD and the Prefet to the project design.

The basic question for the project at this time is: can anything be done to improve this situation for the remaining two years of the project? There are three options:

1. Continue the existing system. Under this option the project would concentrate its efforts on 1) improving the activities that are within the control of the project, primarily CPI training; 2) continuing the dialogue with the technical services but without much hope of improvement; and 3) work with specific individuals at the arrondissement and village levels who have been found to be effective in carrying out project activities. This approach has the advantage of not departing from the project design which has a number of valid and important objectives. The main disadvantage is that the technical services will continue to provide only half hearted support for project activities.
2. Give the planning and resource allocation initiative to the technical services. Under this approach the project would be a secondary partner in the planning process, and would attempt to exert influence through persuasion and the leverage associated with its resources. The advantage of this approach is that the technical services would see NDD as their project and changes could occur from within those

organizations. The disadvantage is that the project would end up supporting existing programs many of which are ineffective, and change would be guaranteed to be slow (probably slower than would be acceptable to AID although not necessarily slower than it has been thus far).

Give the project more authority over the technical services. This would be very difficult to achieve because it would mean that the Department heads of the technical services would be receiving at least some of their instructions from the Project Director rather than from their ministries or from the Préfet. This could be justified on two grounds. First, the NDD Project Director would be acting on behalf of the Préfet. (In this regard it could help if he were designated Secrétaire Générale de Développement. See organigram.) Second, the NDD productivité project is the major rural development initiative in the department and as such should be given top priority by the technical services. The technical services would in effect be told that in the Niamey Department the NDD program is their program. Each technical service would then be responsible for taking whatever measures are necessary to carry out NDD activities as described in the Revised Implementation Plan.

Given the relative lack of commitment to the existing project design on the GON side, this third option may be giving the project more clout than it deserves. On the other hand, the decision to use the NDD project description as the basic statement of development policy for the rainfed areas of Niamey Department could lead to a much more thorough and meaningful review and approval process than the document has received thus far. It needs to be recognized that under this approach NDD-financed activities will be designed and initiated primarily by the project. The technical services will therefore continue to view project activities as distinct from their own programs, but at least they will be clear on what their responsibilities are with respect to implementing those activities.

ADMINISTRATIVE PROCESSES

This section is divided into two parts. The first deals with the system for monitoring and evaluating project activities and the second deals with the project's system for financial and resource management.

A. Monitoring and Evaluation

In 1982, a consultant to the NDD project prepared a planning, monitoring, and evaluation system for the project. The planning and monitoring component of the system had the following elements for each project component:

- End-of-project targets
- Annual targets
- Annual work plans based on the annual targets
- Annual budgets based on the workplans
- Quarterly workplans
- Quarterly reports
- Annual reports

The project attempted to introduce this system in 1983, but it proved to be too time-consuming for the limited staff that was available. The major accomplishments were the restatement of end-of-project targets, the setting of 1983 targets, and the preparation of annual workplans. Quarterly reports were prepared mainly by the Monitoring and Evaluation Advisor and proved to be largely a formality.

The annual plans, however, were generally well thought out and realistic, and the exercise was repeated in 1984. They appear to have been a valuable management tool in several respects. First, in 1983 and 1984, their preparation helped the heads of each project component to rethink their priorities, set realistic end-of-year targets, and adopt a schedule of activities that was implementable and consistent with the targets. Second, in 1984, the workplan was used as a means of facilitating the joint planning of each project component with the concerned technical services. This will be repeated in 1985. Third, for the first time the technical services are evaluating their performance during 1984 in implementing project activities. The workplans will be useful as benchmarks against which to assess progress. Finally, in 1985, the workplans will be used for the first time as the basis for preparing the annual budget.

Thus far the major weakness in the system has been on the monitoring side. There have been no quarterly reports prepared by the project, and the previous system of monthly reports and meetings with the participation of arrondissement staff and the technical services is very sporadic. There are also very few staff meetings. In short, the monitoring of project activities is informal, and this seems to be sufficient to meet the felt needs of senior project management. However, it is the opinion of the evaluation team that project performance suffers from the lack of systematic information flows between different levels of the project -- arrondissement, project headquarters staff, and project management -- as well as between project components. At a minimum, it is recommended that monthly meetings of project staff, arrondissement coordinators, and the technical services be reinstated; and that brief reports of accomplishments and problems be prepared by arrondissement coordinators and heads of project components for circulation prior to those meetings.

Regular staff meetings would also facilitate the sharing of information among headquarters staff.

There seems to be little felt need on anybody's part for the quarterly reports, probably on the grounds that they contain very little information that is not already known. The need for such reports, not only by the project, but also by AID, MRD, and Plan should be re-examined by the management advisor when he arrives in January. If appropriate, he should design a report format that meets the needs of all concerned and requires a minimum amount of staff time.

It should be noted that the performance of this project is directly affected by inadequate management systems in the technical services. This was particularly evident for the Agriculture Service in 1984. Although the Department head decided to provide support to the CPT graduates, almost no support was actually provided. This was due in large part to poor management. It is recommended that the project work with the Agriculture Service and perhaps other services on the preparation of workplans, including setting targets and priorities, scheduling activities, and allocating resources.

The impact evaluation component of the monitoring and evaluation system, was not implemented until 1984, mainly because, in 1983, the monitoring and evaluation advisor was fully occupied with setting up the planning and monitoring system. In late 1983, project management decided that the top priority for 1984 would be to measure the impact of CPT training, and that primary responsibility for planning and reporting would be transferred to the heads of the individual components. The surveys of CPT graduates were conducted and, for the first time, the project has concrete data on adoption rates for different elements of the technical package.

The next step in this evaluation process should be to determine the impact that the adoption of the improved practices has had on yields, production and incomes of CPT graduates. It would also be desirable to be able to relate changes in yields and production to the individual components of the technical package. Closely related to the issue of the impact of the NDD extension program is the need to assess the technical package in terms of the impact that it can have on productivity and incomes at the farm level. This requires farming system-type studies (i.e., studies of farm budgets, labor requirements, off-farm income, and attitudes) of farmers who have adopted the technical package compared to traditional farmers. Without this basic data on (1) the impact of the extension program and (2) the farm-level feasibility of the technical package, the project is unable to do a meaningful evaluation of whether or not the full range of agricultural interventions (extension, applied research, input distribution, and credit) has had or can have its desired impact.

A final evaluation need is to measure the impact of the project on the strengthening of local organizations and the

ability of local organizations to do things for themselves. Although the methodology for measuring the impact of extension and the technical package is well established, this is not the case for local organization development. The project will need to determine what are the most appropriate indicators of progress and what would be the most cost-effective way to gather and analyse village-level data pertaining to these indicators.

Another issue related to impact evaluations concerns the effort of the Ministry of Plan to develop standard impact indicators for rural development projects. The NDD project can both contribute to and benefit from this exercise. However, in working with the Ministry of Plan, the Monitoring and Evaluation Advisor should not limit himself to providing data. The NDD project probably has more experience in trying to do what the GON would like to see all rural development projects do than any other project. It should therefore be involved in the selection of the indicators on which data is to be collected.

8. Financial and Resource Management

This section addresses the improvements which have been made in the project's accounting, budgeting, reporting/monitoring and financial analysis activities. It also examines the progress which has been made in the computerization of management information, particularly with respect to the credit and agricultural input components of the project.

1. Accounting

General accounting practices at project headquarters have improved as a result of USAID certification requirements, coupled with the installation of basic books of account (encumbrance journal, cash disbursements ledger and a donor's receivable account) prepared by the resident Financial Management Team of the Sahel Regional Financial Management Project. As part of the CRFMP's work, the NDD project accountant (and other USAID project accountants) has a set of sample, basic forms and journal pages as a guide. To further assist project accountants in project accounting generally and in meeting AID requirements, monthly workshops are held.

The Financial Management Team assisted the NDD project accountant in making the original journal entries, and has been periodically monitoring the accounting system to make certain that journals are accurate and up-to-date. As of the beginning of December 1984 cash transactions had been recorded through November 15, 1984, and encumbrances through November 30, 1984.

As a result, record keeping is more systematized and periodic reporting will be facilitated, two areas which had previously been in disarray. Moreover, the accounting improvements are essential elements for the success of the computerization effort.

The accounting system in place could be further improved by the installation of a perpetual inventory system for agricultural inputs held at the project headquarters level, and for expendable (e.g., automotive spare parts) and non-expendable (e.g., project furniture) project properties. Another area needing improvement is that of accounting control, specifically in the recording and handling of cash transactions and cash. Currently, the project Director authorizes the disbursement of funds, and the accountant both records the transactions and handles cash. There should be a division of responsibilities between the record keeping and the custody of cash in the project so that there is adequate control on the receipt and disbursement of funds.

At the local (cooperative) level, basic accounting documents for credit and cash sales, and inventory control were prepared in French, and training of UNCC agents in their use took place in June 1983. Unfortunately, just after their training was completed, UNCC terminated the employment of approximately one-third of their agents, resulting in the near total demoralization of agent level personnel. Thus, little or no reporting, using the prepared and distributed documents, was done.

Under the aegis of the credit/input advisor, a new training effort directed at cooperative personnel (officers, warehouse clerks and managers of cereal banks) started in December 1984 and will continue, in stages, through February 1985. Part of this training effort includes intensive instruction in the necessary basic accounting/reporting procedures. To carry out these procedures, simplified accounting, inventory and credit information forms, translated into Hausa and Djerma, have been prepared and will be distributed. These will enable the cooperatives to account for and control their activities, and do the necessary reporting to the project, to CNCA field agents and to the arrondissements.

2. Budgeting

Until now, the project budget has not been able to be used by project management as an effective tool for management control of project expenditures and as a planning aid. This has been caused by the lack of basic books of account, lack of timely information, and lack of a logical system of budgeting control. With the installation of the basic books of account, and as an example of necessary budgetary control, the Financial Management Team recommended that all purchase orders should first go to the project accountant for review, since he has the budget and can tell whether or not there are sufficient funds in the particular line items, then move on to the project director for review and approval, and finally return to the accountant for recording.

The entire budget preparation process, and use of the budget as a management information and decision-making tool will be greatly enhanced as the computerization effort comes on stream. Currently, all 1984 project financial documents are being coded

and entered by project and selected USAID personnel into the computer by line item. The objectives are to build a computer-based, annual budget by activity center (volst), by expense category (rubrique), by line item, and to train project and USAID personnel in its preparation and use.

As project personnel gain experience with the new system, timely and accurate financial analysis, as well as planning and management decision making will become increasingly possible. Furthermore, basic accounting activities will be improved by the requirements of the computerized management information system. Data grouping and entry by line item and logical expense classification will be necessary. The benefits will include rapid retrieval of information, including basic accounting documents, and accountability for all line items (who, what, when type questions can be answered quickly and precisely).

3. Financial Reporting

To date, periodic financial reporting has been largely done only when the project had to request reimbursement from USAID for project expenses incurred or when the project came up for recertification by the USAID controllers office. With computerization of the project's information generation and financial activities, timely internal (and external) financial reporting, as well as monitoring, will be possible on weekly, monthly, quarterly and annual bases-according to need.

Reporting on and monitoring of the expenditure situation for the project as a whole, and for each principal activity of the project, by broad expense category (vehicles, personnel, training, equipment, construction, operating expenses) will be available, as will breakdowns of all line item expenses. At the end of each month, the project accountant will have a report on all "ordres de virement" and "ordres de paiement" which will permit him to reconcile project account records with the project bank statements of the Treasury. If need be, the accountant will be able to review the components of an individual "ordre de virement/paiement" and, through the system of base document coding, can rapidly retrieve basic supporting documents. For example, should a question arise regarding an expense incurred outside the project, e.g., a purchase from a supplier, the line item number will tell the accountant that the purchase was for a particular line item, the particular expense category, and the particular project activity. It will also lead him to the name of the supplier and all documentation for that particular payment. Moreover, reporting will be in standardized formats calling for standardized information inputs from all levels of the project (cooperative through arrondissement to NDO headquarters) and across all levels, e.g., all arrondissements, all cooperatives.

Timely, adequate financial reporting, such as the management information system will provide, will assist both USAID and the project in the monitoring of project implementation. It will also

be an integral part of future project planning and budgeting, and will help relate the one to the other.

4. Financial Analysis

Until the present, little financial analysis has been possible because of the above mentioned information system and availability shortcomings. The design and implementation of the computerized MIS, however, coupled with on-going training of project and cooperative level personnel will permit relevant analysis to be done, e.g.:

- a. Actual expenditure by line item to date versus programmed expenditure, giving variance (performance indicator).
- b. From a. above, examination of the way in which expenses are programmed, in order that a more accurate budget may be prepared for the following year.
- c. Examination of amounts unspent by line item at the end of any given month/quarter to do interim planning. Project management will be able to estimate potential expenses for the remainder of the year, predict what financial resources will be left, what cut-backs will be necessary, and what the effects will be on the balance of the project budget.
- d. Sensitivity analysis ("what-if-studies") will be possible through hypothesizing project-internal or externally caused changes in activity/expense category/line item to see the effect on other areas of the budget and on the budget as a whole. This type of analysis coupled with that of c. above will give project management the ability to know where to channel remaining resources in an optimal way, taking into account constraints that exist.

5. Overall Approach to Resource Management

The approach to resource management in this project is to maintain very close day-to-day control over all activities that require the allocation of project resources. All field trips, uses of vehicles, purchases of fuel and other expendibles, and many other relatively routine activities must be approved by the Director or the Director for Technical Operations. This is designed to prevent abuses in the use of project resources, but an important adverse effect is that considerable staff time is spent justifying and obtaining approval for minor routine actions. Also, since so many administrative decisions must be made by the Director or the DOT, there is an inevitable bottleneck in the approval process which frequently results in significant delays and costly rescheduling of activities.

There are two actions that should be taken to address this problem. The first is to redesign the control procedures. The need to prevent abuses and the misuse of project resources is

extremely important, but close effective monitoring of activities rather than prior approval of what should be routine activities is the appropriate way to do this.

Second, The Director of Administration and Finance (DAF) position needs to be filled as soon as possible. The Director and DOT are seriously overburdened with minor administrative tasks which makes it difficult for them to manage the project and focus on substantive issues. It must be emphasized, however, that the DAF must be competent and have the full confidence of the Director. He must be someone to whom the Director will be willing to delegate full authority for the financial and administrative management of the project. If he is not competent or does not have the necessary authority, he becomes another layer and potential bottleneck in the management system and the situation is worsened rather than improved.

CONCLUSIONS AND RECOMMENDATIONS

1. A key to the success of the project was to have been the active support of the technical services for the implementation of project activities. This has not occurred because the technical services have, in general, not identified with the project. Project objectives and priorities were different and distinct from their own and their general attitude was that the NDD project had its programs and they had theirs. The reason for this situation is that, on one hand, the technical services were not fully involved in setting NDD project objectives and therefore felt no particular commitment to them, and on the other hand, the project had no authority to instruct the technical services to give top priority to its activities.

Recommendation

Since the project has no implementation capacity of its own, urgent steps are needed either to increase the commitment of the technical services to project objectives or, if this is not possible, to obtain the authority to assure that technical services implement project activities effectively.

2. The annual workplans have proven to be a valuable management tool. They are used to set targets and schedule activities related to those targets, and more recently they have been used as the basis of joint planning with the technical services and for preparing the annual budgets.

Recommendation

Weak management in the technical services directly affects the performance of the NDD project. In the case of the Agriculture Service it appears that if they had had a well prepared workplan and had used it to schedule activities and

allocate resources, their support of CPT graduates in 1984 might have been much better. It is therefore recommended that the project encourage the Agriculture Service to prepare a workplan for 1985 and provide assistance if appropriate.

3. Project performance is suffering from the lack of information flows between the different levels of the project as well as between components. There is no systematic monitoring of project progress or concerted efforts to identify and address critical implementation problems.

Recommendation

In order to address more efficiently the many implementation problems facing the project, the information flow to and from senior management should be improved and arrangements for more frequent joint discussions of problems and accomplishments should be initiated. At a minimum the monthly meetings of project staff, arrondissement coordinators, and the technical services should be reinstated.

4. Project management exercises very tight control over day to day project activities as a way to prevent abuses and misuse of project resources. Consequently, considerable staff time must be spent justifying and obtaining approval for relatively routine activities and, at times, delays in approval result in costly rescheduling of activities.

Recommendation

The day-to-day management system should be changed from one based on prior approval of all activities requiring project resources to one of close and effective monitoring. This would maintain the necessary control without causing costly delays.

Recommendation

Day to day administration of the project should be transferred from the Director and DOT to the DAF. It is recommended that this position be filled as soon as possible by a competent individual in whom the Director can have complete confidence.

5. The NDD Headquarters' accounting practices have been improved by the work of the SRFMP's Financial Management Team in setting up the basic books of account and in training the project accountant in their use. Once the project Management Information System is operative, budgeting, financial reporting and financial analysis should improve. In order for all financial aspects of the project to operate on a sound basis, the following steps should be taken:

Recommendation

To improve day-to-day financial administration of the project, the project accountant and his assistant must continue to receive training in the basics of accounting, with the books of account, and on the MIS.

Recommendation

NDD headquarters needs a perpetual inventory system for all project properties, especially agricultural inputs. For the perpetual inventory system to function properly, the headquarters stock clerk must be trained in the system's operation.

Recommendation

Accounting control for cash must be improved by the separation of the custody of cash from the keeping of records of its receipt and disbursement.

Appendix I

NOTES ON THE IMPACT OF TRAINING FOR WOMEN IN THE NIAMEY DEPARTMENT DEVELOPMENT PROJECT: THEIR USE AND EXTENSION OF SELECTED TRAINING THEMES

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I

Introduction

From the beginning of the Niamey Departement Development Project (NDD Project, or Project) through 1983, 485 peasant couples, hence 485 women, have been trained at the Projet's Centres de Perfectionnement Technique (CPTs). Ten of these were trained at Guessendoundou, the one village training center to have been in operation since 1983; the remaining village centers began operations in 1984. Given the small number of women trained to date at the village centers, a comparison of their impact in their home villages with that of women trained at project CPTs is not possible.

II

Observations

In contrast to the lack of useful information on women who were trained in the project's village centers, some information is available on women who completed training at the CPTs. On the basis of this partial information described below, several issues are raised for consideration during the next years of NDD.

During the period June-September 1984, women's follow-up agents based at the CPTs administered questionnaires to 109 women who had completed CPT training from 1980 through 1983. This data, now on code sheets suitable for computer analysis, has not been processed at the project, and may very likely remain unprocessed until sometime during the first quarter of 1985. This is unfortunate, for in its present state, it is practically unaccessible to Nigerien personnel within the Women's Participation Section who feel that nothing can be done until computer processing is complete. While awaiting this eventuality, it was possible to complete manual tabulations on the basis of the code sheets, and to gain an initial impression concerning

responses to questions on selected training themes in the women's program at the CPTs. Time did not allow tabulation of all responses, and items were chosen on the basis of their relevance to the impact of CPT training on women trainees, and their impact in turn once again in their home villages.

Responses selected for tabulation concerned women's work in household fields managed by their husbands (described in the questionnaire as "large fields") before and after CPT training, and their use of draft animals (oxen) in cultivation after experience at the CPTs. Additional responses examined concerned the use and extension of other NDD training themes. These included lessons on the preparation of weaning porridge (bouillie) for younger children; literacy lessons; and the construction and use of improved wood stoves. The remarks to follow summarize responses to questions and subquestions concerning these areas: agricultural production, nutritional practices, literacy, and improved wood stoves.

A. Agricultural Production

Q.1 - Sixty five percent of the women reported that they worked in household fields with their husbands before coming to the CPTs for training; thirty five percent reported not having done so.

Q.1.b - Of those who had worked in household fields, 23% helped their husbands with soil preparation; 97% helped with sowing the crops; and 54% helped with the harvest. Several of the respondents also helped to carry bundles of harvested grain from the fields to household granaries.

Q.1.a - In the vast majority of cases, women's work in household fields centered around millet; to a lesser extent they reported helping with the cultivation of cowpeas, and considerably less frequently, sorghum, sorrel, sesame, and groundnuts.

Q.2 - Ninety percent of the women stated that they had worked in household fields after their CPT training; only 10% had not.

Q.2.b - Women's work in household fields after CPT training closely resembles their earlier activities, but the number and specificity of tasks they participated in increased. Fifty-four percent assisted with soil preparation (cariflage), compared to 23% before CPT training. But in addition to this, they also helped to spread inorganic fertilizers (29%) and animal manure (17%) on household fields.

Ninety-four percent of the women reported helping with sowing after their time at the project centers, a slight and insignificant reduction from the situation reported prior to CPT training. In addition to sowing, however, 35% of the women CPT graduates also reported helping with tracing of seed rows

(rayonnage), an operation learned at the CPTs, and done before planting.

Once the crops were sown in household fields, women CPT graduates also worked in weeding operations (37%), a distinctly uncommon activity for women in many Zarmaphone areas of Niger, thinning (60%), and to a lesser degree, subsequent fertilizer applications (9%).

No information was obtained on the participation of women CPT graduates in the harvest of crops from household fields, but it is safe to assume that a large proportion did so (at least as many as reported doing so before attending the CPTs), and that they also helped in some cases to carry the harvested crops to household granaries.

B. Nutritional Practices

Q.12 - More than a third (38%) of the women questioned reported that they regularly prepared weaning porridge for their children after CPT training. Of these, 30% showed neighboring women in the home villages how to prepare the porridge (see Q.12.c). Overall, twelve percent of the women contacted reported sharing their knowledge with neighbors.

C. Literacy

Q.15 - In answer to a question about the uses made in their home villages of CPT literacy training, the women responded as follows:

- 13% had reviewed their literacy lessons;
- 1% reported writing letters to friends;
- 10% used their knowledge for unspecified personal accounting tasks;
- None of the women reported using their literacy skills for purposes of (unspecified) cooperative accounting tasks.

Overall, 24% of the women reported some post-CPT activities involving literacy; conversely 76% did nothing with their literacy training after the CPT programs. Their outreach was even more modest: nine percent of the women contacted reported trying to share their knowledge with neighbors. This picture was reinforced during an interview with a women's follow-up agent at the Chiwil CPT: not one of the ten women contacted by her during 1984 had worked with women who were not also CPT graduates. The sole case of a joint effort consisted of revisions of literacy lessons by two women CPT graduates who live in nearby villages.

D. Improved Wood Stoves

Of the 109 women who were questioned on the issue, twenty percent reported that they had an improved wood stove in their concession; and 90% of these were regularly using their stoves. Overall, 18% of all respondents were using their improved wood

stoves. Of those who had stoves, a third had built stoves for other women in their villages (most frequently neighbors, followed by respondent's mothers). Thus effective extension (more precisely, construction) efforts occurred among seven percent of the former CPT trainees.

This partial survey data was corroborated by information obtained during interviews with CPT directors at Itchiguine, Chiwil, and Kone Beri, and with women's follow-up agents at Chiwil and Boula during field visits during late November and early December, 1984.

III

DISCUSSION

In general the extension activities of women CPT graduates, hence their probable impact, in the areas of literacy and the use of improved wood stoves were minimal: fewer than one in ten were involved in outreach activities. More than a third of the women prepared weaning porridge for their children, but overall, only slightly more than one in ten (12%) shared their knowledge with other village women.

Finally, women received an introduction to principles of cooperative organization during CPT literacy classes. Interviews during CPT visits suggest that the impact of this exposure is minimal: understanding is poor; interest appears to be low (no doubt both are linked to the perception that cooperatives are men's business); and it is most certain that outreach does not occur.

In production, however, the impact of CPT training is greater. Most all (90%) of the women contacted reported having worked with draft animals (oxen) alongside their husbands in household fields (windi koy faryan). It is noteworthy that women in some areas of the project zone (e.g., the Imanan canton) were subject to disparaging remarks from their neighbors who shared a view that women who cultivate millet (particularly in household, as opposed to individual fields) during the rainy season deviate from a cultural norm. Elsewhere in the project zone (e.g., in areas of the Say arrondissement where Gourmantche-speaking ethnic groups predominate, and in some areas of the Tagazer canton), this is more acceptable if not a norm. In those areas where millet cultivation by women is negatively sanctioned, continued work by women CPT graduates in household fields will require, to use the expression of a women's follow-up agent, a good deal of "courage."

Among the trainees contacted by the follow-up agent at Chiwil, all reported having used tracers on their own plots, but no other VDD production techniques were used. Among those not used was inorganic fertilizer (urea), and the reason repeatedly given was lack of cash for purchase.

The impact of CPT and (by implication) village center training on the lives of women outside the domain of production is small. In some of these areas (e.g., elementary health practices; the use of improved wood stoves), more positive results may be forthcoming if more effort is invested in systematic follow-up and support during and after CPT training. The elements of this support exist (follow-up agents), but it is insufficient in practice, for follow-up consists largely of data collection. In other areas (e.g., literacy), little change can be expected even with better follow-up because of the ongoing contradictions within the policies of national language literacy for rural populations, particularly women. For literacy to be worthwhile after some sense of achievement during CPT training fades, it must be functional. Because of government policy to promote local organizations (cooperative structures) in rural areas for purposes of input, credit, even commodity management, the potential for this "functionalization" has increased, but it is far from being realized. And these improvements principally affect men, not women. Thus for women, the utility of nine months of literacy classes is perceived as extremely limited. It should be no surprise under these circumstances their interest levels are very low, occasionally to the point of refusing to attend classes, and that their learning records are generally poor. In the case of women's literacy, "success" will require more than better teaching methods. It will require the creation of opportunity structures where literacy can serve as a useful tool, not a pastime.

The benefits of the NDD production themes for women are far from clear, and deserve careful attention. Whether or not women helped with cultivation tasks in household fields managed by their husbands or some other male in the past, the survey data shows that they are doing so now. The acquisition of large draft animals by what are mostly young (therefore labor short) households obliges women to work more in household fields, for more than one person is needed to manage the animals. The need for additional labor, thus for help from women, is greatest during the cultivation (weeding) season. This is also the time of year when women must tend to their own plots. In the meantime, this work is added to the long list of women's tasks that must be completed no matter what the season. Attention should be given to the possibility of increased competition for household labor at the expense of women's production, as a consequence of the "labor-saving" animal traction methods being promoted by the NDD.

Interviews carried out during the second interim evaluation of NDD's second phase (NDD II) during November-December 1984, like those carried out during the preparation of the Project Paper for NDD II during October-November 1979, have underscored the perceived value of inorganic fertilizers among women in the project zone. In 1979, women's access to fertilizer was made possible by indirect links to local credit cooperatives through the membership of their husbands, the only persons to be recognized as bona fide members. This is no longer the case.

Fertilizer is now available only for cash. Thus national policies that seek to improve the fiscal situation of the state by reducing rural debt may work against NDD's principal goal: improved rainfed agricultural productivity among peasants--men and(?) women--in the project zone. Access to fertilizer on credit in less than bag lots should be reconsidered and restored in the project zone.

A third area that deserves scrutiny and greater policy flexibility concerns project support for small livestock production by women. A large part of total small livestock production is the work of women. Unlike cattle, which are expensive and require the production and/or purchase of forage, small ruminants are much better able to seek out pasture and browse during most of the year. In addition, they can easily be fed millet washings that result during household food preparation. These smaller livestock also reproduce more frequently than cattle, and thus the possibilities for growth in numbers and potential revenue from sales increase more quickly. Finally, the practice of staking these animals at different locations in household fields during the dry season months adds a modest quantity of organic matter to the soil in household and individual plots.

This is clearly an area of interest to women in the project zone. It promises to produce both cash and protein with minimal investment and maintenance, is a form of investment having demonstrably good returns, and thus should provide for high rates of reimbursement if seasonal credit were made available to women. The idea is not new in the project zone: it was considered and disapproved a year ago. It should be reconsidered and approved.

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