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Adult Literacy and Cooperative Training Programs
in the Niamey Department Development Project
(Niger Republic): Evaluation of Phase I
Activities and Recommendations for
Phase II

by

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Introduction

Throughout Phase I of the Niamey Department Development Project (NDD or Project) adult literacy and cooperative education have been interlinked through dry-season literacy classes, classes at Project-created Centres de Perfectionnement Technique (CPTs), and some independent training programs conducted by The Union Nigerienne de Credit et de Cooperation (UNCC). Despite some overlap in content and approaches at times, adult literacy and cooperative training in the strict sense of the terms will be considered separately in this evaluation, for each reflects the particular emphasis of the two different services involved -- the National Literacy Service and UNCC.

In Section I, NDD adult literacy activities will be considered with a distinction being made between dry-season literacy classes and literacy classes offered by the Projects' CPTs. In the case of the former, the NDD supported the installation, staffing and operation of literacy centers of the same kind operated by the National Literacy Service throughout rural Niger. As a rule, these centers operate during the dry season months, beginning in January/February and continue their operations through May/June or until about the time of the beginning of the rainy season. Thus, the dry-season literacy centers sponsored by the Project during Phase I provided a common form of rural literacy training on a much larger scale than ever before in the Niamey Department. The CPTs, on the other hand, were few in number during Phase I (they totalled 3) and offered literacy courses in addition to training in a number of areas -- all of which are agricultural in nature. The CPTs begin their operations shortly before the onset of the rainy season (April) and continue through the end of each year. The CPTs, then, were smaller in number and, unlike the dry-season literacy centers, were novel training centers in the Department and provided some variation in a curriculum having a heavy emphasis on application of technical themes in agricultural production.

Finally, in Section II, particular attention will be given to the various cooperative training activities conducted by UNCC within NDD zones with Project support.

I. Adult Literacy in the NDD

A. Village literacy programs during the dry season months (January through May/June)

1. Results of Phase I

From the beginning, the NDD has shown an impressive commitment to the widespread promotion of adult literacy in the project zone's rural areas. The scope of project-sponsored literacy activities expanded rapidly during Phase I as

Table 1 indicates. While admirable in intent, this approach to literacy proved overly ambitious and the results were extremely modest.

Because of poor attendance in many centers during the 1979 campaign, several centers were closed, so the number of operational centers during 1980 declined from 72 to 65. During each of the six month-long dry-season literacy campaigns of Phase I, half or less (Table 1) of those villagers -- all men -- who enrolled at the beginning of the season were present at the campaign's end in May/June. The reasons reported for this chronically high attrition rate among adults in the literacy centers vary and include the following: physical mobility due to economic necessity, including seasonal migration to other regions of Niger or neighboring countries in search of remunerative work, "lack of motivation", often linked in literacy service reports to a preference among some adults for French language over national language literacy and, related, a lack of conviction among adults that their newly acquired literacy will be functional, "tiredness", etc.

In addition to the significant attendance declines suffered by the project's literacy centers during Phase I, the achievements of the students during the literacy campaigns may be described as modest at best. Information on literacy campaign test results are incomplete, but currently available details indicate that between c.1% and 6% (see Table 1) of those who enrolled at the beginning of literacy campaigns attained levels of tested competence sufficiently high (levels 5-6) to be considered literate by the National Literacy Service.¹ Slightly larger numbers, accounting for between 8% and 14% of initial enrollment each year, attained levels of competence described by the Literacy Service as "semi-literate" (test levels 3 and 4). The vast majority remained at the lowest test levels (levels 1 and 2) at the end of six months of classes or showed no measurable progress and remained in the "beginners" category.

Unfortunately, we have no way of knowing if tested literacy levels at the end of the 1980 campaign are the result of participation during only one year or the fruit of several years of participation in literacy centers. Details of this kind are not routinely recorded in annual reports submitted by arrondissement-level agents to their superiors at the Department level. In addition, estimates on the average length of time required for an adult to become literate are extremely difficult to obtain, for so many variables enter the picture (motivation, quality of instructors, attendance, etc.) that literacy personnel are extremely hesitant to risk generalizations of this kind. At best one is told that "in principle" an adult should be able to attain test levels 5 or 6 if he attends classes regularly for two years and applies himself. This is admittedly an ideal situation as Table 1 suggests and as most literacy agents readily concede. The actual time required for the "average" adult to become literate may be on the order of three or four years.

¹ The Service de l'Alphabetisation et de la Formation Permanente.

Table 1.

Dry-Season Village Literacy Programs Within the NDD

Project Zones - Phase I

	<u>1978</u>	<u>1979</u>	<u>1980</u>
Number of Centers	10	72	65
Enrollment at beginning of literacy campaign	279	1825	1327
Average enrollment per center at beginning of literacy campaign	28	26	20
Of Which Women	0	0	0
Enrollment at end of literacy campaign	? ^a	899	531 ^b
Number of adults tested at end of campaign	59	942	691
Test Results:			
- Beginners	? ^a	466	168 ^c
- Levels 1 and 2	36	264	258
- Levels 3 and 4	21	157	182
- Levels 5 and 6	2	55	85

Sources: NDD Annual Reports for 1978 and 1979; 1980 Annual Reports from the Niamey, Filingue and Ouallam Arrondissement Literacy Inspections.

^a No information available in the Project's 1978 Annual Report.

^b No distinction is made between project and nonproject centers in the 1980 Annual Report for the Filingue Arrondissement Literacy Inspection.

^c Based solely on 1980 Annual Reports from the Niamey and Filingue Arrondissement Literacy Inspections; information on Ouallam not available.

As if the above-mentioned problems were not enough to compromise the results of dry-season literacy classes during Phase I, the ambitious goals of widespread access to literacy faced further obstacles. First, teaching materials available for use in the literacy centers were extremely limited. Other than their notes from classes, frequently the result of exercises and dictation given by the instructors, and Gangaa, a multilingual publication of the National Literacy Service which appears irregularly, adults had very little to read during the early phases of literacy training. The capacity of the National Literacy Service's pedagogical section, which prepares national language materials for adult literacy programs throughout Niger (as opposed to INDRAP² which prepares materials solely for public schools), is very limited and presently has only one person in charge of Zarma language teaching materials. During Phase I, most literacy centers were Zarmaphone; fewer were Hausaphone. Secondly, many literacy instructors in Phase I centers were from other technical services (field agents, or aides-encadreurs from the Agriculture Service, UNCC field agents [encadreurs] Eaux et Forêts agents, public school teachers, etc.) who had been given some pedagogical training by the Literacy Service (with NDD support). Several of these instructors were assigned elsewhere during the course of the literacy campaign, were obliged to be absent from time to time in order to carry out their service responsibilities or simply disappeared, feeling no real responsibility to the Literacy Service. The result was often temporary or permanent absence of instructors, delays in locating replacements, lost class days, and in some cases, neglected or closed centers because no replacements could be found. Third, arrondissement literacy agents, none of which has an assistant, found themselves unable to cope with the mushrooming needs for follow-up and evaluation activities in project zone centers. Overall, the project centers accounted for more than two-thirds of all literacy centers in the three arrondissements, an important part of, but not the entire workload for which literacy agents are responsible. Consequently, instead of visiting centers at least once a month as is recommended by the National Literacy Service, visits occurred once a month at best or in some cases every two months, or not at all. Chronic mechanical difficulties with the project-supplied International Harvester vehicles did not facilitate matters much, and the ability or willingness of arrondissement literacy agents to solicit and receive assistance from other technical services with their transportation needs varied considerably. The result was poor follow-up (particularly important in areas where literacy programs are new), few chances to encourage adults in centers where attendance was flagging, mediocre test results, and a general agreement among all parties concerned with the program that the Phase I strategy of wide coverage without sufficient resources was a strategic error.

2. Recommendations for Phase II

a.) Experimental Continuing Education Centers (CECs) for men.

Project staff and literacy agents unanimously agree that project literacy activities during Phase II should be scaled down, and there is strong feeling among literacy agents that Phase II activities should be limited to the CPTs.

² The Institut National de Documentation de Recherche et d'Animation Pédagogique.

As an intermediate measure, however, the NDD Phase II PP draft calls for the progressive installation of Continuing Education Centers (CECs) at cooperative seat villages in project zones (each coop being the focal point for the credit and marketing operations of about five cooperative member-villages or GMS³) in addition to providing the literacy training currently available to peasant couples in the CPTs. According to the NDD Phase II PP draft, the CECs are conceived as multifaceted rural training centers which would:

- provide adult literacy classes
- organize and prepare written materials for use in training programs
- prepare and collect materials and organize a library for literate adults
- serve as an audio-visual aids center, including some exposure to scholastic TV broadcasts, etc.

The CEC idea has a certain appeal. First, it provides an intermediate alternative to widespread, but marginally successful village-based literacy programs (Phase I) and the more restricted scope of beneficiaries provided for by the CPT programs alone (Phases I and II). Secondly, emphasis on the cooperative as the focus for these educational activities coincides with present (but not clearly defined in operational terms) government policy of increasing the scope and importance of cooperative organizations in the countryside. It is also agreeable to current thinking by UNCC and the Literacy Service that effective cooperative and non-formal educational organization will require the progressive installation of rural centers where a variety of educational activities may be offered and supported on a near-year-round basis. Project support for a small number of CEC-type centers would provide, on an experimental basis, an organizational framework in which training programs conceived by the Project, UNCC and Literacy Service could be conducted with an audience larger than that available through CPTs alone.

Given experiences with educational activities beyond the scope of CPT organizational level during Phase I, extreme caution is in order for Phase II, for the capacity of arrondissement and cooperative-level representatives of relevant services -- UNCC and Literacy in particular -- to follow-up in a consistently collaborative fashion and assure adequate organization and functioning of large numbers of dispersed rural based training centers is limited. All things being equal, UNCC is better equipped with field staff, for in principle, each cooperative has a field agent assigned to it. In practice, one such field agent may be responsible for as many as three widely dispersed cooperatives and

³ Groupement Mutualiste, which under the current GON cooperative organization statutes may consist of a village or tribe containing less than 100 heads of household, or in the case of larger villages, village quarters.

and the present rate of cooperative expansion in the department (and throughout Niger) promises to tax these capacities even more during Phase II.

The consequences of the present economic conjuncture for cooperative expansion cannot be predicted, but one of two possibilities may occur. Depressed uranium earnings may lead to a slow-down in cooperative formation, or present UNCC personnel in the countryside may be spread even more thinly while cooperative promotion continues apace. Presently, there appears to be considerable pressure on department and arrondissement UNCC staff to set up as many cooperatives as possible, although it is much too early to predict their chances for success (see Part I, Section B.2.e of the Social Soundness Analysis).

An intermediate option for adult literacy and cooperative training should be supported by the Project's second phase in order to increase access of rural populations in the project zones to longer term, local training programs. It is recommended that budgetary provisions be made to support -- when there is a clear manifestation of local interest -- CEC-type activities to the extent judged locally feasible during the next five years.

The provision of effective numeracy and literacy training should be given the highest priority in the proposed CECs. A grounding in these areas is a prerequisite for many other continuing rural educational activities as currently conceived by the Project, UNCC, and the National Literacy Service.

It is proposed that on the basis of Phase I literacy center performance (as indicated by Arrondissement Literacy Service records of center attendance, test achievements, observed enthusiasm, relative ease of access of villages for follow-up, evaluations by literacy agents and instructors, etc.) potential locations for CEC-type programs be pre-selected by Literacy personnel in collaboration with Project staff and insofar as possible, representatives from other technical services.

One approach would entail the pre-selection of promising village centers which are also cooperative seats which, as suggested above, would be in conformity with current Project and UNCC policy orientations. One possible argument against this preferred approach is the experience of literacy agents that larger villages (often the case with cooperative seats)⁵ tend to be less successful sites for literacy centers than smaller villages. Thus, initial efforts need not be attached to cooperative-seat villages unless there is considerable local enthusiasm shown for the proposed program and past experience with

⁴ Throughout the text, "technical services" refers to all GON services normally involved in NDD zone activities -- UNCC, Agriculture, Waters and Forestry, Livestock Service, Literacy, and Animation Rurale.

⁵ In addition to this "sociological" problem, many cooperative seat villages in Project zones are not centrally located. To insure maximum participation from nearby villages, the actual location of potential sites vis-a-vis commuting distances from neighboring villages should be carefully considered.

literacy endeavors in the village has been good. The final selection criteria must be worked out through a close collaboration between Project staff and literacy agents. The more carefully locations are pre-selected, the greater the chances that a significant percentage of adults who enroll will finish the campaign and make reasonable progress toward attaining literacy. It must be recognized, however, that some obstacles to the effectiveness of project-sponsored CEC literacy operations will remain, and are factors over which Project planning will have little if any control. Seasonal labor migrations (and resultant enrollment losses) may be expected to continue as long as the opportunity costs of peasants remaining in their home villages exceeds that of looking for remunerative work elsewhere.⁶ Secondly, the present low levels of interest in national language literacy throughout much of the Niamey department are likely to continue during the early stages of marketing cooperative organization in Project zones, i.e., until cooperatives prove themselves to be a potentially important locus of local participation (v. Section 8.2.e. of the Social Soundness Analysis).

Once this initial pre-selection is complete, a visitation plan should be formulated and those villages which are the most promising (whether or not they are cooperative seats) should be visited by an information team (Project, Literacy, Animation, UNCC) and the possibilities and responsibilities entailed by the installation of the CEC-type center in the village should be thoroughly discussed with GM members and with GM delegates in cases where a cooperative seat village is selected. The Project may be expected to provide the following for each center:

- Payment for a trained instructor who will live and teach in the village for eight to nine months (from October/November through May/June each year);⁷
- A blackboard and support unless it is determined that these are readily available from a nearby public school;
- Assistance with follow-up and evaluation (Project training support);
- Six "luciole" lamps;
- An initial stock of materials (notebooks, pens, etc.) to be sold to the center adults at cost. Proceeds from sales will go into a supply fund to be managed by a person to be selected from the adults, and to be used as necessary to purchase at cost additional materials from arrondissement literacy agents;

⁶ The significance of seasonal out-migration is another factor which must be considered in all center site-selection.

⁷ This will allow a longer period of center operations each year while not conflicting with rainy-season cultivation and harvest operations. Where conditions are promising, some thought should be given to rainy season classes.

- Brochures sufficient for the instructor and all adults.

The GM or Cooperative Representatives will be asked to construct and maintain a suitable structure from local materials where none already exists, to provide mats for seating, and to insure the proper management of the supply fund.

Following the initial information visit, the assembly members will be left to decide for themselves whether or not they wish to have a center and requested to send a delegation to inform the Arrondissement Literacy Officer of their decision. Once contacted, the literacy agent will locate and very carefully select candidates for instructor posts, preferably but not necessarily from among persons living in or near the village. In the cases of persons known in the village (or immediate area), the candidate's acceptability should be clearly established on all counts, including age, maturity, comportment, etc.

Once selected, these candidates will be trained by the Literacy Service for about one month. Possible sources of instructor candidates are exceptional ex-CPT trainees, proven dry-season literacy instructors, or promising adults who attained literacy during Phase I dry-season village literacy classes. Literate adults (whether from the CPTs or literacy centers) should be given priority over elementary school drop-outs whenever possible. When no such candidates can be found, extreme care must be exercised to select former school students who are mature and, if at all possible, who are heads of households, and have substantial experience in agriculture. Instructor-training will occur in October/November of each year with CEC operations beginning immediately thereafter and continuing for eight to nine months (class times to be locally determined) instead of the usual six months allotted for annual literacy campaigns. Year 1 of Phase II will be used solely to plan details of CEC curricula, to prepare evaluation materials, to locate and contact possible center sites, and to locate, select and train/retrain instructor candidates. CEC operations will begin during Year 2 and will continue through year 5. At the end of each year all instructors will be upgraded and new candidates will be trained for the following year.

Project training support staff should collaborate closely with literacy agents and UNCC representatives in order to insure that the most active available pedagogy is used in the CEC instructor training and upgrading programs⁸ and that a sound introduction to cooperative principles and organization is given.

This reliance upon careful pre-selection, thorough preparation and manifestations of substantial local interest before CECs are installed precludes lock-step predictions about CEC progression during the Project's lifetime, but being optimistic, it is recommended that sufficient funds be allocated to provide for the gradual installation of 45 CECs for men during Phase II, at an optimal rate of five CECs per arrondissement during year two, followed by a more modest rate of expansion during years three and four (see Table 2). It should be clearly

⁸ Current Literacy Service instructor-training sessions may include as many as 45 hours of instruction time of which zero to two hours are devoted to consideration of cooperatives.

Table 2

Suggested Progression for Continuing Education

Centers - Phase II

(anticipated enrollment per center - 20)

<u>Arrondissement</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
Niamey	0	5	4	4	0	13
Filingue	0	5	4	4	0	13
Ouallam	0	5	4	4	0	13
Say	0	0	3	3	0	6
 <u>Totals</u>						
Incremental	0	15	15	15	0	45
Cumulative	0	15	30	45	45	45
 <u>Total Enrollment for Project Zone</u>						
Incremental	0	300	300	300	0	
Cumulative	0	300	600	900	900	2700

understood that the CECs are an experimental program and that the rate of expansion during Phase II will depend entirely upon the possibilities for careful pre-selection, follow-up and favorable evaluations of results. The progression suggested in Table 2 is ideal-typical, and it may be anticipated that actual expansion in some arrondissements will occur more slowly than elsewhere, depending on the basis for expansion in each as verified by Project staff and representatives from relevant services.

If interest, attendance, and performance are sufficient in the newly created CECs, new forms of educational materials may be introduced as they become available from the National Literacy Service, CRDTO,⁹ and possibly the USAID/GON Maternal Language Program. Realistically it may be anticipated that these literature sources will remain limited during most of Phase II. As a counter-measure, students in the CECs should be encouraged and actively supported by their instructors, literacy agents, and Project training support staff to draw from the wealth of their own cultural resources, to make these available in simple written form for CEC use, for possible use in centers elsewhere, and in Project CPTs (see Section B). Final preparation of these materials, once collected by CEC instructors, will take place at CPTs or arrondissement literacy offices. Collected and prepared for duplication and distribution in this manner, cultural and historical resources may eventually be transformed into educational resources in the form of booklets and brochures. The content possibilities are manifold and include proverbs, fables, histories, riddles, stories, essays on local medicine, natural histories, biographies, and a variety of educational themes. The major difference between these materials and those presently supplied to literacy centers is that their content will reflect the thinking and experiences of the peasantry, rather than those of the various technical services involved in the project zone.

The tapping of local resources in this manner may in turn provide the beginnings of local national language libraries, do so at relatively low cost and with a maximum contribution to content and design coming from the students themselves with assistance from their instructors, literacy personnel and Project staff.

In sum, (a) the provision of more effective literacy training combined with a stronger introduction to cooperative principles and organization, and (b) active support for local interest and initiatives in the transformation of cultural into pedagogical resources provide two valuable and reasonable focal points within CEC-type centers during Phase II. In so doing, they will likewise provide the Project and the various participating technical services with the possibilities to experiment on a limited, workable basis with the potential for the establishment of viable continuing education centers in rural areas. The limited number of CEC-type centers to be installed will guarantee that unlike Phase I, activities will remain under control.

⁹ The Centre d'Etudes Linguistiques et historiques par tradition orale, located in Niamey.

b. Women's CECs

Finally, a concerted effort should be made to increase women's access to CEC-type programs in the Project zones. Women are presently excluded from participation in village literacy centers -- within and without the Project zones and there is no support for women who have been trained in CPTs once they leave. Mixed-sex classes appear to be unacceptable to adults in NDD zones and literacy agents understandably show no inclination to challenge local cultural practice on this issue. Furthermore, National Literacy agents show little enthusiasm for village-level arrangements in which the same male instructor provides separate classes for men and women as is presently done in the CPTs. During Phase II, therefore, serious consideration should be given to the practical problem of devising acceptable means of providing support to village women who have become literate or semi-literate on the basis of their participation in CPT training programs. One possible strategy will entail the progressive installation of a small number of experimental women's CECs in home villages of selected ex-CPT women trainees, in which they would serve as instructors.

This strategy will provide upgrading (teacher-training) and material and follow-up support for selected women who have attained moderate success in CPT literacy programs. Because it is not feasible to request that married women leave their husbands and homes for several weeks in order to benefit from Project-sponsored teacher-training/upgrading programs held at CPTs, we propose that both women and their husbands (also ex-CPT trainees) be given the opportunity to spend a month at a CPT with other selected ex-CPT couples. In addition to, and possibly in place of literacy training for women in the proposed upgrading programs (for our primary consideration is to respond to and provide support for women's interests, which may not include literacy), the curricula may include greater emphasis on practical applications of numeracy, improved health techniques, a review of accessible means of increasing productivity of their garden plots (a theme which will be included in the regular CPT training programs during Phase II), additional work with CPT grinding mills (see Section B,1) their local acquisition and management, possibly sewing (popular in urban centers) and other themes of immediate interest and importance to women. The final content of these brief upgrading programs should be flexible and based on careful consideration of women's desires and interests.

It is proposed therefore that efforts be made during Phase II to contact CPT-trained women who have achieved moderate levels of literacy and to determine their interest and willingness to share their CPT learning experiences with women in their home villages through work as instructors in small-scale CEC-type programs. These contacts should take two forms and should be pursued simultaneously during Phase II. First, the possibilities of participating in women's CEC programs should become a regular part of CPT training curricula for women. Secondly, ex-CPT women who are known to have done relatively well in CPT literacy classes should be contacted in their home villages and the possibilities discussed. These contacts should occur in the presence of their husbands and will require their support. At the same time, local receptiveness to women's literacy/education activities will be determined.

It may be anticipated that once women are selected and upgraded at CPTs, their subsequent progress as women's CEC leaders will gain momentum slowly once they are again in their home villages. It must be emphasized, however, that under the present circumstances, there is very little to lose. For this reason, it is proposed that Project staff, in conjunction with Literacy and Animation agents, provide follow-up and support for prototype women's CEC activities during Phase II and that budgetary provisions be made to provide material support for as many as twenty CECs (with an average expected enrollment of ten women) in NDD zones over the life of the Project. Their progression is summarized in Table 3. They will be equipped in the same manner as the men's CECs, but will initially operate with a short training cycle (three to six months), and scheduling of class hours will be the responsibility of the women in each CEC.

Women who are willing and able to lead the women's CECs should be remunerated. While the details of this must be worked out, a range of 5,000 to 7,500 F CFA per month may be considered a bench mark. 5,000 F CFA is currently the sum paid to dry-season literacy instructors outside NDD zones by the National Literacy Service and is the same as the stipends paid by NDD for Project zone literacy instructors (not to be confused with CPT literacy instructors) during Phase I. The final amount may be more or less, and should initially reflect (a) the length of the training cycle, and (b) expectations of women who serve as CEC leaders (e.g., frequency and regularity of classes, etc.). Insofar as possible, equal pay for equal work should be the rule when relative levels of remuneration are being considered for male and female instructors for Phase II CECs.

B. CPTs (April - December)

1. Results of Phase I

The second locus of NDD literacy activities during Phase I was more limited in scope than the village literacy centers. The three CPTs, two of which (Fandou and Simiri) are in their second year of operation, provide daily literacy classes for fifteen to twenty peasant couples during nine months of the year. Unlike the village-level literacy centers, both men and women receive instruction, although separately and at different times during the day. Typically, CPT wives are in literacy classes for two hours a day during the late mornings or early afternoons, five days a week. Men's classes are held in the evening, from 8 pm to 10 pm.

In principle, the quality of training given to CPT couples should exceed that given to adults in literacy centers. First, the instructors are assigned to live at the CPTs, so unlike instructors in dry-season literacy centers who may be technical service field agents, etc. hence liable to reassignment during the literacy campaign, CPT instructors are stable. They are relatively well paid, they receive 24,000 F CFA (\$116.) a month while their dry-season counterparts are paid 5,000 F CFA (\$24.). Their responsibilities include more than teaching; they are assistants to the CPT directors - but their primary purpose is to teach and

Table 3

Suggested Progression for Prototype Women's CECs

Phase II

(anticipated enrollment per center - 10)

<u>Arrondissement</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
Niamey	0	2	2	2	0	6
Filingue	0	2	2	2	0	6
Ouallam	0	2	2	2	0	6
Say	0	0	1	1	0	2
<u>Totals</u>						
Incremental	0	6	7	7	0	20
Cumulative	0	6	13	20	20	20

Total Enrollment for Project Zones

Incremental	0	60	70	70	0	
Cumulative	0	60	130	200	200	590

assist CPT trainees with their literacy work. Second, CPT couples, unlike adults in literacy centers, live at the CPT, are well provided for while there, and have a commitment to the entire CPT curriculum for nine months. Thus seasonal migrations do not perturb attendance as they do in the village literacy centers. Moreover, trainees enter the CPT program with the understanding that minimum achievements in literacy are expected of them before completion of the training cycle. Third, each CPT has a full time director whose task it is to insure that all aspects of training progress as expected. Last, the small number of CPTs in the department should facilitate follow-up, morale-boosting sessions, presentations and evaluations by arrondissement literacy agents and representatives of the other technical services involved in Project operations.

To date, it has not been possible to evaluate the results of CPT literacy activities, due in part to organizational problems, and due in part to the unpredictable, long-term nature of the results. Each of these will be discussed in turn.

The Fandou and Simiri CPTs were constructed in 1978, and classes began in 1979; the Boula CPT is in the midst of its first training cycle. The results of the 1979 literacy cycle for Fandou (Filingue arrondissement) are not known. All trainees were reportedly tested at the end of the program and the results were sent to the regional literacy offices in Filingue, but arrived there after the departure of the literacy agent, who was reassigned elsewhere. The test results were never recorded, nor were levels assigned to the results. A new literacy agent was assigned to Filingue and has been there for almost nine months. For reasons which are not clear, the 1979 CPT test results have never been forwarded either to the Department Literacy Bureau or to NDD offices. Current CPT training at Fandou will continue through December, hence the results will not be known for several months, and a brief visit to the CPT did little to illuminate the situation. Two tests have been administered, but the results were sent to Filingue without copies being retained by the instructor.

A similar situation prevails at the Simiri CPT (Ouallam arrondissement) where a late start in 1979, and little activity, combined with the departure of the arrondissement literacy agent shortly thereafter, made tests unfeasible. Nothing is known about the little training dispensed at Simiri during its first year - or four first months - of operation. Evaluations of the current training cycle will be available later this year; tests have been administered, but no test levels have been recorded.

The third CPT, Boula (Niamey arrondissement) is in the midst of its first training cycle, thus final results will not be available until later in the year. In the meantime, unlike Fandou and Simiri, no tests have been given since the beginning of classes. The arrondissement literacy agent feels that tests during the literacy campaign are not useful and may exacerbate competition among trainees.

While these organizational obstacles to ongoing evaluation may require attention and resolution by Project staff during Phase II, it is necessary to emphasize that these results, etc. are but one means of gauging training progress. It may be expected that the results of CPT literacy training will manifest themselves in a variety of ways over the long run. Thus, in addition to more systematic evaluations of CPT training programs, Phase II operations should include means of following up the impact of literacy in the everyday economic lives of the ex-CPT trainees. These everyday manifestations of literacy were not specified in Phase I, and will require considerable thought, specification, and study by the Project training staff during Phase II. While the Fandou CPT director is of the opinion that literacy has been introduced in the CPT curriculum in order that trainees be able to write letters and do bookkeeping tasks, surely this is not the end of it! Indicators of success must be carefully worked out during Phase II.

All three CPTs were briefly visited, although in only one case was it possible to attend a literacy class (one for women, held at Fandou). In all cases, however, directors and assistant directors (literacy instructors) were contacted, and insofar as possible, trainees were contacted and the literacy programs were discussed. The following remarks on and recommendations for CPT literacy operations during Phase II are based on observations, conversations, and a review of available documents, but in no way constitute a comprehensive evaluation. On the one hand, it is premature for the 1980 training cycle; on the other, it is not possible, for results of 1979 training cycles are unknown.

2. Preliminary Observations

Attendance by CPT couples in the literacy classes is generally good. This is reflected in observed participation and attendance records. There remains, however, considerable room for improvement. Overall attendance varies, and accounts for from 60% to 80% of CPT enrollment on any given day. This is the case despite the fact that (a) trainees live in the CPTs, often a very short distance from the classrooms, and (b) attainment of test levels 5 or 6 (literacy) is required of all persons before successful completion of the CPT program (an unrealistic requirement given the present provisions for CPT literacy training). Chief among the reasons given for absences, particularly among women who are absent more often, is tiredness and fatigue. This seems to be particularly true where classes occur during the hot early afternoon hours (during what is ordinarily a rest time) following morning work and meal preparation. Lack of interest in literacy was also cited as a reason for some absences; a delegation of men accompany women to classes each day at one CPT in order to insure their presence. Elsewhere, organizational features of the CPT impinge on literacy classes in other ways. At Fandou, for example, provisioning in condiments and meal preparation is done on an individual household basis. Each wife is responsible for her family's supplies and meals. One result of this is that women are repeatedly absent from the literacy classes, particularly on market days in nearby Balayara. Elsewhere, at Boula, purchases of these kind are done by delegated women and meal preparation is done by a few on a collective and rotating basis. Thus, not all women are obliged to purchase and prepare food and absences from literacy courses because of this are infrequent.

The impossibility of obtaining progress reports in the CPTs except on the basis of instructor's impressions has been noted above and needs no repetition. Suffice it to say that however good the instructor's memory, visits from outsiders would be greatly facilitated if some register were maintained containing comments on the work of all students.

Motivation of trainees no doubt varies and this defies generalization except perhaps in Boula where both men and women are very enthusiastic about the literacy classes and reportedly help each other with their lessons outside the class. While estimations of motivation levels will not be hazarded here, a few comments on the structural support -- or lack thereof -- provided to CPT literacy programs are in order. Visits to CPTs by arrondissement literacy agents, not to mention representatives of the various technical services in the area, are infrequent and very often brief. This is significant because substantial support and encouragement are important factors in providing for CPT success in literacy activities, particularly during the early stages. For whatever the reasons -- and there are certainly many -- all of the technical services in the Project area are falling short of NDD expectations concerning their contributions to and follow-up of CPT activities. Where there is a clearly defined schedule for their participation on a weekly basis (Simiri), their appearances are irregular at best. Where there is no such provision in the CPT curriculum (Fandou and Boula) they do not appear.

A second motivational issue of particular importance concerns CPT literacy programs for women. Once again, without risking generalizations about their motivation and interest levels, a few remarks may be made concerning the structure within which women's literacy training occurs. The scope of "functional" literacy in Niger is rather limited, and has been linked de facto to participation of literate adults in local marketing cooperatives. Rural cooperatives are being rapidly promoted and installed in the Niamey Department as the basis for multi-functional local development structures. It must be emphasized, however, that (a) the vast majority of cooperatives installed in the Department are less than four years old, and that (b) their functions are limited to the beginning phases of cooperative functions found throughout Niger -- marketing and the diffusion of agricultural credit. As such, they are far from attaining the levels of self-management and peasant participation to be found in the eastern regions of the country. These cooperatives have been actively promoted for nearly fifteen years on the basis of continually expanding groundnut production and efforts by GON to increase coverage of groundnut marketing through UNCC cooperative promotion and crop sales to SONARA^a. Under the cooperative organization statutes of 1978 and 1979, all individuals in principle who desire to come together in order to promote their mutual economic betterment, can form cooperatives, be legally recognized as such, and eventually obtain CNCA^b credit assistance through UNCC. In practice, it appears that cooperatives are more the result of UNCC promotional efforts than local, spontaneous initiatives. In addition, it appears that only heads of households -- men -- are accorded the right to form, or join cooperatives. Although Niamey Department UNCC personnel state that divorced or widowed women who head

^a Societe Nationale de Commercialisation de l'Arachide

^b Caisse Nationale de Credit Agricole

households may also join, no such cases are known to exist. Thus, the vast majority of women are effectively precluded from direct participation in cooperative organizations. It is not unreasonable to expect, therefore, that their enthusiasm for CPT literacy programs may be tempered by a realization that (a) functional literacy as specified above is restricted to nascent organizational roles occupied solely by men, and (b) women are presently precluded from all rural adult literacy classes outside the CPTs. The question could not be bluntly asked during brief CPT visits, but the success of the literacy programs, particularly among women and also among men, will depend on the capacity of the Project, and more importantly, GON rural development policy to answer the basic question: "Literacy for what"? (see Sections B.2.c and e of the Social Soundness Analysis.)

3. Recommendations for Phase II

There is widespread agreement among Project staff and arrondissement and department literacy agents that the CPTs offer the greatest potential in the short run for effective literacy training. They provide all concerned with "workable groups" -- although their small number will reduce the immediate breadth of their impact.

Despite the lack of systematic evaluations on which to base recommendations for the organization of CPT literacy training for Phase II, we concur with the view that more limited, more effective programs are preferable in Phase II. Limited CEC-type activities should be undertaken, as suggested above, in order to better test local initiative and provide the option of increased access to literacy in areas where interest in literacy is known to exist. The Project's ten CPTs (3 created during Phase I, 7 to be created during Phase II; see Table 4) will form the core of Phase II educational efforts, for they offer the greatest promise for the development of a well-controlled, innovative pedagogy which is responsive to the realities of CPT training and trainee experiences, something which, in turn, may be used for the benefit of the experimental CECs. Expansion of CPT activities over the Project life will provide 700 peasant couples with training. In addition, CPT instructors and trainees are not mobile, something over which CEC programs, however well conceived, will have little control, for adult participants in the CECs will leave when economic necessity dictates. In order that the training potential of the present and projected CPTs may be more fully realized during Phase II, we recommend that particular attention be given to the following points.

a. A more active, locally responsive pedagogy is needed for CPT literacy training. The current use of time-tested literacy teaching methods in the novel CPT structures is old wine in new bottles. It is slow and may not be terribly conducive to trainee interest in the absence of a "dynamic" instructor, hence should be re-evaluated and revised if necessary during Phase II. One approach to an improved pedagogy for CPTs would entail instructor training/upgrading by the Literacy Service through the use of the most up to date "rapid literacy" techniques available. Details of this upgrading will have to be worked out during Phase II, for rapid literacy methods are in an experimental phase, require further testing, and are not presently available as a package. Access of CPT (and CEC) programs to more effective instructor training and upgrading methods may be considerably enhanced

Table 4

CPT Progression during Phase II and Anticipated Literacy

Training Enrollment in Phase I and Phase II CPTs

(anticipated enrollment per CPT - 40: 20 men and 20 women)

	Phase I	Phase II					<u>Total</u>
		<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	
1. <u>CPTs</u>							
Incremental	3	0	2	2	3	0	10
Cumulative	3	3	5	7	10	10	10
2. <u>Enrollment</u>							
Incremental	-	120	200	280	400	400	
Cumulative	-	120	320	600	1000	1400	
TOTAL-----							1400

by closer links between NDD training endeavors and the ongoing training activities of the National Literacy Service's Literacy Agent Training Center (CFCA) located in Niamey.¹⁰ Not only could literacy agents enrolled in CFCA programs experiment in CPTs and CECs (particularly the former) with improved teaching methods, but CPT (and possibly CEC) instructors could be trained and upgraded by CFCA staff and trainees. The CFCA should be considered as a particularly important resource for NDD efforts to improve and evaluate its training activities during Phase II. Contacts to date indicate a great deal of interest by Directors of the National Literacy Service and the CFCA in the formation of these linkages. In the meantime, initiatives should be taken at the CPT level to improve literacy training through the collaboration of instructors, CPT directors, literacy agents, and Project Training Support staff. The basic elements of CPT curricula are acceptable (the universal promotion of animal-drawn cultivation equipment is an exception, and will require further examination on a region by region basis [see Social Soundness Analysis, Section B.2.a]), but as offered are underdeveloped. A second characteristic of current pedagogy (in this respect it resembles literacy methods throughout Niger) is the relative passiveness of the trainees vis-a-vis the instructors and any other persons who may play the instructor role (technical service representatives, the CPT director, etc.) -- the mixed heritage of French colonial education and Koranic schools. CPT life is replete with situations which could serve as the basis for literacy and numeracy lessons, but it appears that these are rarely used to good advantage. We were unable to attend more than one CPT literacy class, but observations made therein, conversations with instructors, trainees, and CPT directors leads us to conclude that the vast majority of literacy work occurs in the classroom with the trainees seated, their notebooks on the tables before them. In short, the pedagogy is very similar to that of the public school -- the content is the major difference. While classroom lessons are essential, they tend to be divorced from the realities beyond the classroom door, and the immediate relevance of literacy is mediated through the few brochures currently available in the CPTs -- one for use by the instructor only; the others (prepared by the UNCC with a heavy emphasis on cooperatives) available to trainees only considerably later in the training cycle. In order to spark and maintain the interest of the trainees during Phase II, greater efforts will be necessary to link up literacy work with other aspects of training and community life at each CPT. This will require greater instructor initiative, something current instructor training methods do little to reinforce. This is an area where, as suggested above for the CECs, support from Project training support staff and collaboration with the CFCA could make an important contribution to CPT programming by building upon the training already being given to instructors by the Literacy service. In so doing, it may be possible to insure that experiences, issues and problems directly accessible through the trainees themselves be included in CPT curricula.

Concrete approaches to CPT curriculum development may take many forms and flexibility will be important. As an example, the following focal points of present and potential CPT activities may serve as a basis for developing curricula responsive to local conditions:

¹⁰ Whose expansion and curriculum development will very likely -- and should -- be supported by USAID funding.

- Small livestock production
- The value and use of animal-drawn cultivation equipment under different conditions
- Experimental use of other technical themes on CPT fields.

With particular reference to women, whose role as trainees tends to be marginalized in CPT training activities, the following should be considered in addition to and possibly in place of current literacy classes. Literacy should be offered to CPT women as an option, not an obligation.

- Advantages of and possible arrangements for collective provisioning and meal preparation as an energy saving device.
- Use and management of grinding mills, both as labor saving devices for CPT women, and as the basis for practical exercises in cooperative organization and management.
- Sewing (particularly popular in Niamey's urban literacy centers, its acceptance by rural women remains to be seen, but the option should be provided).
- Health and sanitation.
- Experiments by CPT women with the use of various technical themes adapted for use on their individual garden plots.

These are but a few of the focal points for literacy work provided by the everyday experiences of CPT trainees. In addition, potentially interesting, but less practically oriented bases are found in the cultural backgrounds of the CPT trainees themselves. As suggested in the section on CECs, trainees may be actively engaged in the collection of proverbs, histories, tales, and other materials which form the basis for much of their everyday conversational lives and which, if properly handled, could be transformed through individual and group assignments into useful educational resources and a supplement to the limited selection of reading materials currently available in literacy courses.

11 b. More adequate follow-up and evaluation of CPT literacy activities are needed. The basis for ongoing follow-up and evaluation of trainee literacy work is the routine collection of relevant information. In the final analysis, this information must be specified by the Project and the means for its collection assured by cooperation among Training Support Staff, literacy agents, and CPT staff. Data collection of this kind has not become a routine process among CPT instructors and considerable improvement will be necessary during Phase II. The Literacy Service provides each instructor with a center register. In all CPTs these

¹¹ The following remarks should not be interpreted as a rush to judgment. In all fairness, the CPT training cycle is not over, and our visits were very brief. The importance of the issues mentioned, however, cannot be overstated.

registers are being used in a somewhat unorthodox manner. The result is that potentially useful information is not available. As a means of facilitating follow-up by Project and government staff, all CPT instructors should be trained -- and tested if necessary -- in the use of these registers. If needed, they should be required to provide other information as the Project deems necessary. These registers should furnish an on-the-spot overview of (a) selected trainee characteristics (their cooperative responsibilities, kin relations to village or canton chiefs, access to individual fields, approximate cultivated areas in their home villages, etc.); (b) weekly attendance; (c) results of any tests or quizzes administered during the training cycle; and, in addition, (d) notes by the instructor and/or the CPT Director on the learning progress or difficulties of the trainees. Information of this kind is not consistently gathered by CPT instructors and only thorough training and follow-up will guarantee that it is collected.

Second, arrondissement literacy agents should be assisted in every way to insure a continuing and careful follow-up of CPT literacy activities. Specifically:

- A concerted effort should be made to reduce changes of assignment by arrondissement literacy agents during Phase II. This would optimize operational continuity and minimize the possibilities for aborted or non-existent follow-up and evaluation as occurred at Fandou in 1979. Realistically, it may not be possible to demand that literacy agents remain in the same posts throughout Phase II,¹² but considerable effort should be made by the Project Director and Project training staff to impress the National Literacy Service Director with the need to keep these changes at a minimum.
- Literacy agents should be assisted and accompanied as often as possible by Project training staff in follow-up activities.
- Participation of other technical services involved in Project operations should be encouraged and required on a rotating basis if at all possible. It should become standard procedure that all technical service representatives in the area near CPTs offer their substantive as well as their evaluative expertise in order to improve the present situation in which:
 - their substantive contribution to CPT literacy classes (in terms of educational themes, presentations, demonstrations, etc.) is minimal and irregular. (In one case, a UNCC encadreur lives c. 100 meters from a CPT, but has not set foot in the training center. Whatever the formal reasons, this is an inexcusable waste of expertise.)

¹² Participation in training and upgrading programs is a recurring reason for these personnel shifts.

--- their contribution to evaluation activities are nil.

c. CPT capacity for preparation and production of reading materials should be increased. During Phase II efforts should be made to increase the availability of reading and exercise materials for use by CPT trainees. The limited production capacity of the National Literacy Services' pedagogical section has already been emphasized (Section I.A.1) and no further elaboration is required here. In light of this limited capacity, and the need for materials for CPTs and CECs, greater support should be given by NDD to production capabilities at the CPT, arrondissement and national literacy office levels.

Mimeograph machines and typewriters with national language characters should be installed within arrondissement literacy offices. A supplementary stock of materials (stencils, ink, ribbons, etc.) should be acquired by the Project and supplied to arrondissement literacy agents on the condition that particular emphasis be given to the production of materials for use in the CPTs and CECs. Further assistance of this kind will require concrete evidence of progress in the preparation of materials destined for these centers.

With the assistance of Project training support staff, literacy agents, and closer collaboration than is the custom from instructors and trainees, modest, but real increases are possible in the availability of relatively inexpensive reading materials for use in the CPTs and the CECs (and non-Project literacy centers).

Ditto machines (spirit duplicators) and material should be supplied to the three CPTs from Phase I during year 1 of Phase II on an experimental basis as a means of further increasing local capacities for preparation of reading materials. CPT instructors and directors should be thoroughly trained in their use. It should be further understood that the ditto machines, like the mimeograph machines supplied to arrondissement literacy offices will be used for the preparation of materials for CECs as well as the CPTs. If the results are satisfactory, all remaining CPTs should be supplied with ditto machines during years 2 through 5.

Finally, each CPT should be equipped with two mimeographs and all accompanying materials (and all CPT instructors and trainees should be thoroughly trained in their use). These simple printing machines will be used as an integral part of the CPT literacy training program in order to give all trainees exposure to and practical experience with a relatively simple means of reproducing teaching and reading materials in their home villages. In order to guarantee accessibility of these machines at the end of the CPT training cycle, provisions should be made for their availability on credit in the name of the GM^a with the understanding that the CPT trainee will be responsible for its proper use, maintenance, and supplies purchased as approved by the GM administrative council.

d. Scheduling of CPT literacy classes should be reconsidered. The present manner of scheduling CPT literacy classes may require some re-examination and change during Phase II. Consideration should be given to altering current

^a Groupement mutualiste.

timetables (men at night; women during the early afternoons) in order to take maximum advantage of (a) cooler times of the day; and (b) trainees' energies. Literacy classes are presently squeezed into hours when agricultural work is not feasible (the early afternoons are too hot; the evenings too dark), a situation which may be far from optimal for the kind of attention and assimilation literacy training requires.

In addition, greater provisions for structured out-of-class discussion or work groups are needed. Improvements in these areas may require some reduction of field work time in the mornings, something which may be possible only if a somewhat smaller surface area is cultivated at the CPTs. In principle, alterations of this kind should prove quite acceptable if the CPTs are considered first as training centers, and secondarily as production units. Officially, the former is the case, but the present reward structure (sharing of the total harvest by all trainee households before they return to their home villages) may place greater emphasis on production per se than is warranted in CPTs. Reduced demands on the trainees for field work time would make more time and energy available for literacy training and make it the integral part of CPT training that it should be. Until the importance of literacy is reflected in total CPT programming, it will remain a marginal element.

As suggested in (a.) above, imaginative curriculum planning will combine literacy work with all other aspects of CPT training rather than segregate them as is largely the case now. As suggested above, lessons could be built around actual CPT (as opposed to textbook) situations and classes could be held, for example, in the fields as an integral part of demonstrations, be given in conjunction with equipment assembly and maintenance lessons, be designed around women's activities in the center, etc.

Finally, altered CPT organization could relieve a situation in which literacy classes are not only tacked on, but may actually be burdensome to trainees, particularly women. More effective -- collective -- arrangements for food provisioning and meal preparation should be explored and help with childcare should be considered as means of enhancing women's capacity to participate in literacy classes. Each CPT should be equipped with a grinding mill as a means of (a) reducing meal preparation times and energy expenditures by women, thus enhancing the possibilities for their active participation in literacy classes, if interested; (b) providing the basis for experiments in cooperative organization among the trainees with immediate, collectively-shared problems as focal points. Trainees should be encouraged to consider the constraints and possible solutions, but final decisions should be left to them. The above suggestions assume a certain willingness on the trainees' part to participate in literacy classes. As mentioned above, the structure of functional literacy has real limitations and this is particularly true for women.

II. Cooperative Training in the NDD

During Phase I of the NDD, the Union Nigerienne de Credit et de Cooperation (UNCC) promoted a variety of cooperative training programs in project zones with varying degrees of project support. These may be considered briefly in terms of the UNCC's involvement - direct or indirect - in particular training activities.

A. "Direct" Involvement of UNCC in Cooperative Training

UNCC has been directly involved in training programs given at different times of the year, designed specifically for elected cooperative (i.e., GM, cooperative, and cooperative market) officials. These programs are a normal part of UNCC's yearly operations throughout the Niamey Department (and Niger) and involve the training of newly elected officials and upgrading/retraining of officials already in office. These training programs involve individuals in areas where cooperative organizations are being installed and those in areas where already existing cooperatives require reorganization according to the 1978 and 1979 cooperative statutes. These training programs are carried out by UNCC agents (department and arrondissement delegates and field agents, often with assistance from the Animation Rurale service and occasionally from the National Literacy, Agricultural Services, etc.) and utilize teaching materials developed by UNCC's national training office with financial assistance from Danish Aid (DANIDA) and the International Labour Office (ILO).

These training sessions, given yearly for GM, cooperative and cooperative market officials in the project zones, have received two forms of support from NDD. First, NDD has reimbursed UNCC for expenses incurred in the provision of daily meals to individuals being trained, most of whom are required to travel from their home villages (GMs) to training sites located at Cooperative seats or UNCC's arrondissement offices. Secondly, NDD has provided partial reimbursement of fuel expenses incurred by UNCC agents as they travel from cooperative to cooperative for training purposes.

In general, training programs conducted by UNCC follow a fairly predictable pattern each year, although organizational variations may occur from arrondissement to arrondissement, substantial delays may occur from time to time, and the quality of the training provided is not certain. In addition, two specific training programs have been planned by UNCC for NDD zones, only one of which has been realized to date. One such program involves the training of 42 blacksmiths (presently underway); the other, the training of village grinding mill management committees. These will be briefly described below.

A somewhat idealized annual training schedule for UNCC appears roughly as follows.¹³

¹³ Sources for this section: UNCC, "Programme de Formation Cooperative, Annee 1980." Delegation Departementale Niamey n.d., plus assorted UNCC Arrondissement and Department activity reports.

1. January/February - Information Visits

These consist of brief, usually one day visits to existing cooperative seats in regions where cooperatives are being installed. These early contacts serve to introduce the cooperative system, or, in cases where cooperatives exist, to introduce the new organization based on the 1978 and 1979 cooperative statutes. In addition to presenting the advantages of the cooperative system to rural producers, existing cooperative officials are provided with information on the following points so that an evaluation may occur as well:

- Planned activities for the year
- Prices of agricultural inputs
- Review of the loan reimbursements from the previous year
- Review of the previous year's marketing results

Somewhat later during this period of contact, information diffusion and cooperative promotion, those villages that decide to constitute themselves as GMs eventually elect officers and are accorded official cooperative status.

2. March/April - Training of Cooperative Officials

Newly elected GM and cooperative officials are trained at cooperative seat villages during four to seven days. In principle, training programs for GM officials cover the following points:

- .. Introduction to cooperative principles
- The role of the cooperative General Assembly, the Administrative Council and the Accounts Commissioners
- Organization of credit operations
- The role of peasant self-management.

GM officers trained during these programs include Presidents, Secretaries, Treasurers and two counsellors per GM. During these sessions, a series of eight cooperative training booklets prepared by UNCC and ILO/DANIDA is used.

In principle, training programs for cooperative officials cover the following points:

- Elements of cooperative organization

- Use of cooperative training booklets
- Discussion and consideration of future possible functions and orientations of cooperative organizations
- Practical presentations of extension themes
- Evaluation of development activities carried on by cooperatives.

The number of officers from each cooperative may vary, but in general, the following elected individuals may be present from each cooperative and receive training: Presidents, Vice Presidents, Secretaries, Treasurers, Counsellors (from two to six per cooperative) and Accounts Commissioners (up to six per cooperative).

3. About May (just before the onset of the rainy season) - Upgrading and retraining for formerly elected GM and Cooperative Officials.

In areas where cooperatives already exist and individuals already occupy cooperative posts, brief (about two days) retraining sessions are given in order to reinforce knowledge already acquired.

4. August/September (Prior to the Market Season) - Training/Retraining of Paid Cooperative Market Officials.

Those individuals who have been elected to positions in the cooperative market are trained/retrained in basic market operations. The number of elected officials per cooperative market receiving training varies but often includes the following posts: Market chiefs, Secretaries, Accountants, Weighers, and Guardians. Training sessions for market personnel last from five to seven days, and are held at cooperative seat villages.

5. Special Training Programs for the NDD Zone

a. Blacksmiths

Phase I called for the training and outfitting of 42 village blacksmiths by UNCC in 1979. This was not done for reasons which remain unclear. Rescheduled for March-June 1980, it was recently postponed a second time, but began late in September of this year (1980).

b. Village Grinding Mill Management Committees

A four-day training program for 20 individuals was planned for March 1980 but has not occurred to date.

B. "Indirect" Involvement of UNCC in Cooperative Training

UNCC has also been indirectly involved in cooperative training during Phase I of the NDD. This contribution, unlike that above, took the form of cooperative training content in village and CPT literacy classes rather than training programs staffed by UNCC personnel. In these cases, cooperative training materials were supplied to village and CPT literacy instructors who used them in conjunction with other teaching aids available from the National Literacy Service. It is necessary to note, however, that insofar as adult literacy in Niger has been "functional" it has been and remains closely linked with the performance by peasants of specific marketing, credit and accounting operations within the cooperative structures that GON has progressively installed throughout the country since shortly after Independence. In a more general sense, adult literacy classes have also aimed to enhance the capacity of all cooperative members - not simply elected officers - to participate more actively in cooperative operations (limited for the most part to marketing and acquisition of inputs), but priority has always been given to those persons having particular functions within the cooperatives.

As mentioned above, UNCC's contribution to cooperative training in Phase I literacy centers and CPTs was based on curriculum content - teaching materials - rather than teaching personnel except in those cases where, lacking a qualified instructor candidate, local technical service representatives (including UNCC field agents) were taken on as village literacy instructors. The disadvantage of this strategy has already been mentioned (see Section I.A.1).

The teaching materials used in literacy centers and CPTs, unlike those prepared by UNCC and ILO/Danida for cooperative officer training programs were integrated, i.e., contained lessons focused on cooperative organization, basic writing exercises, and a number of reading texts. Two brochures, prepared through close collaboration between literacy and UNCC personnel were financed by the NDD and made available in literacy centers and the CPTs. In addition, there were available in the centers on an irregular basis, pamphlets which treat the cultivation of several plant crops (millet, sorghum, etc.).

C. Results

Details provided to NDD by UNCC on training programs are sparse at best and sporadic. Aside from recording that a certain number of cooperative officials were trained (or retrained) in a given place -- "production" reports -- it is highly doubtful that UNCC carries on any systematic evaluation of its cooperative training programs. This applies to all forms of cooperative training provided directly by UNCC staff, as well as that provided through the CPTs. The recent assignment of a technical agent in charge of training to the UNCC Niamey departmental office should improve this situation in the long run. For the short run, and in the absence of evaluations, one can do little more than hope for acceptable results, for the training and retraining tasks of UNCC staff in the project zones are substantial. Precise figures are not available, but on the basis of the 41

cooperatives now included in the project zone (201 GMs) it may be estimated that the number of persons involved in UNCC training programs sometime during 1980 total about 1600. These estimations take no account of cooperative training provided by literacy instructors as part of CPT curricula.

Given the brevity of UNCC's training programs, the rapid pace with which cooperatives and GMs are being created in NDD zones, and the demonstratively limited capacity of UNCC to (a) staff cooperatives with field agents (there are presently 21 encadreurs for 41 cooperatives) and (b) provide follow-up in general, we must be extremely guarded in our expectations concerning the thoroughness of cooperative training to be provided directly by UNCC during Phase II.

Despite the apparent simplicity of the new cooperative statutes, the issues are such that a week's training plus a day or two of refresher work each year is hardly sufficient to thoroughly introduce and explain "modern" cooperation in the project zone GMs, let alone provide thorough training on all of the points invariably listed by UNCC agents in their yearly training agenda.

D. Alternatives: The indirect approach to cooperative training in CPTs and CECs

Assuming that cooperative growth will continue in the Niamey Department during Phase II of the NDD, and given the present limitations in UNCC's capacity to directly inform, adequately train, and follow-up increasing numbers of cooperative officials, an ongoing training "supplement" will be needed and this function may be performed in part by Phase II CPTs and CECs. CPT (and to an extent village level literacy centers) curricula have already provided a modest supplement to UNCC's cooperative training programs. The quality of cooperative training and orientation provided by literacy instructors in the CPTs has not been determined, but the minimal attention currently being given to these issues in literacy instructor training programs provides little ground for optimism. There is a substantial need for improvements in cooperative training presently provided by CPTs and this will require more than larger quantities of brochures. UNCC's contribution, with continued NDD support of the kind provided during Phase I (Section A above), to a reinforcement of cooperative training in CPT and CEC curricula during Phase II should consist of three key functions.

1. Training/upgrading of CPT and CEC instructors in the elements of cooperative training - to be assured through the collaboration of Project training support staff, the UNCC department training agent, UNCC arrondissement delegates and field agents. Finally, greater cooperation at the national level in training improvements should be possible through closer links between UNCC's national training office and the National Literacy Service's Literacy Agent Training Center (CFCA). It may also be expected that the Project Training Support Unit will play an important role in training improvements, both at the district and national levels.

2. Direct contributions by UNCC to CPT/CEC curricula in the form of special meetings, work groups, and presentations of cooperative principles and organization by UNCC staff. As mentioned above, with the exception of the cooperative training brochure presently being used in the CPTs, this potential contribution by UNCC has been poorly realized.

3. In addition to (2.), UNCC should contribute substantially more to the routine follow-up and evaluation of CPT/CEC cooperative training efforts in order to verify that desired information is being effectively assimilated by trainees.

Reinforcements of these contributions will be more likely during Phase II given (a) the altered organizational structure of the project, (i) its emphasis on more integrated action, (ii) the presence of a training support component; and (b) ongoing (and necessary) Project assistance with UNCC's training/upgrading expenses and with the production of teaching materials for use in Project zones. Features of cooperative organization and growth in NDD zones are discussed in Part I, Section B.2.e of the Social Soundness Analysis.

NDD Phase II Literacy (CPT) and Continuing Education Programs

Material requirements and indicative costs (including instructors' salaries)

1. Support for Arrondissement Literacy Inspections (Ouallam, Niamey, Filingue, and Say)

4 - Gestetner* -450 (manual) mimeograph machines: 5000,000 F CFA ea.---	\$ 9,700
20 - Cartons mimeo stencils: 5,000 F CFA ea.-----	483
8 - cases mimeo ink: 10,000 F CFA ea.-----	386
4 - Hermes* manual typewriters, wide carriage, with Hausa/Zarma language keys: 400,000 F CFA ea.-----	7,730
40 - Ribbons: 1,000 F CFA ea.-----	193
80 - Reams of mimeo paper: 1,500 F CFA ea.-----	580
TOTAL No. 1-----	\$19,072

2. Continuing Education Centers (CEC's)

2.1 - 45 men's centers (avg. enrollment - 20 ea.; total enrollment during Phase II - 2,700)

2.1.1 Instructors' salaries:

45 x 9 mos. x 7,500 F CFA per mo. x 4 yrs.-----\$44,021
(1215 instructor months x 7,500 ÷ 207)

2.1.2 Materials

270 - Luciole lamps (est. 6 lamps per center at a cost of about 10,000 F/center)-----	2,173
10 - Liters kerosene x 1215 Inst. mos. x 80 F CFA/litre ÷ 207-----	4,695
45 - Blackboards with supports: 9,000 F CFA ea.-----	1,956
90 - Tins ardoisine: 1500 F CFA ea.-----	652
45 - Blackboard erasers: 500 F CFA ea.-----	109
880 - Boxes of chalk: 500 F CFA ea.-----	2,125
7,100 - Notebooks (cahiers): 75 F CFA ea.-----	2,572
7,100 - Bic pens: 50 F CFA ea.-----	1,714
2,700 - Brochures: 1,000 F CFA ea.-----	<u>13,043</u>

SUBTOTAL No. 2.1-----\$73,060

*Waivers will be necessary in order to obtain machines for which replacement parts and repair are readily available in Niger.

2.2 - 20 Womens' centers (avg. enrollment - 10 ea.) total enrollment during Phase II - 590

2.2.1 - Instructors' salaries

20 x 6 mos. x 7,500 F CFA/mo. x 4 yrs.-----\$12,826
(354 instructor months x 7,500 ÷ 207)

2.2.2 - Materials

120 - Luciole lamps (est. 6 lamps/center at est. cost of 10,000 F/center)-----	966
10 - Liters kerosene x 354 ins. mos. x 80 F CFA litre-----	1,368
20 - Blackboards with supports: 9,000 F CFA ea.-----	870
40 - Tins ardoisine: 1500 F CFA ea.-----	290
20 - Blackboard erasers: 500 F CFA ea.-----	45
240 - Boxes of chalk: 500 F CFA ea.-----	580
1,180 - Notebooks: 75 F CFA ea.-----	427
1,180 - Bic pens: 50 F CFA ea.-----	285
590 - Brochures: 1,000 F CFA ea.-----	<u>2,850</u>
SUBTOTAL No. 2.2-----	\$20,507

2.3 Continuing Education Center Totals

2.3.1 Salaries - \$44,021 + \$12,826-----\$56,847

2.3.2 Materials

Luciole lamps - \$2,173 + \$966-----	3,139
Kerosene - \$4,685 + \$1,368-----	6,063
Blackboards - \$1,956 + \$870-----	2,826
Ardoisine - \$652 + \$290-----	942
Erasers - \$109 + \$48-----	157
Chalk - \$2,125 + \$580-----	2,705
Notebooks - \$2,572 + \$427-----	2,999
Bic pens - \$1,714 + \$285-----	1,999
Brochures - \$13,043 + \$2,850-----	<u>15,923</u>

GRAND TOTAL, CECs (2.3)-----\$94,542

3. CPTs (N=10 with 40 trainees ea; total Phase II enrollment - 1,400)

3.1 Instructors' salaries

10 x 319 instructor mos. x 24,000 F CFA/mo.-----\$36,521
 (315 instructor months x 24,000 ÷ 207)

3.2 Materials

3 - Ditto machines: \$250 ea.----- 750
 12 - Cartons ditto stencils: \$5/carton----- 60
 3 - Cases ditto fluid: \$30/case----- 90
 20 - Limographs: \$20/ea.----- 400
 5 - Cases mimeo ink: 10,000 F CFA ea.----- 245
 4,200 - Notebooks: 75 F CFA ea.----- 1,521
 4,200 - Bic pens: 50 F CFA ea.----- 1,014
 10 - Cases paper: 10,000 F CFA ea.----- 483
 7 - Blackboards with supports: 9,900 F CFA ea.----- 304
 20 - Tins ardoisine: 1500 F CFA ea.----- 145
 250 - Boxes chalk: 500 F CFA ea.----- 603
 42 - Luciole lamps (at 6 lamps/CPT at an estimated cost of
 10,000 F/CPT)----- 338
 Kerosene: 10 litres/mo x 315 instruction mos. x 80
 F CFA/litre----- 1,217

TOTAL PROJECT-----\$43,691

GRAND TOTAL LITERACY TRAINING PHASE II-----\$157,305

PROCESS:	CONTROL:	DATE:	INITIALS:
CATALOGUE	✓	6/17/81	NBJ
ABSTRACT	✓	6/17/81	NBJ
FIGURE			
COMMENTS:			

625-0929

Social Soundness Analysis of the Niamey Department
Development Project (Niger Republic)
(Evaluation of Phase I; Recommendations for Phase II)

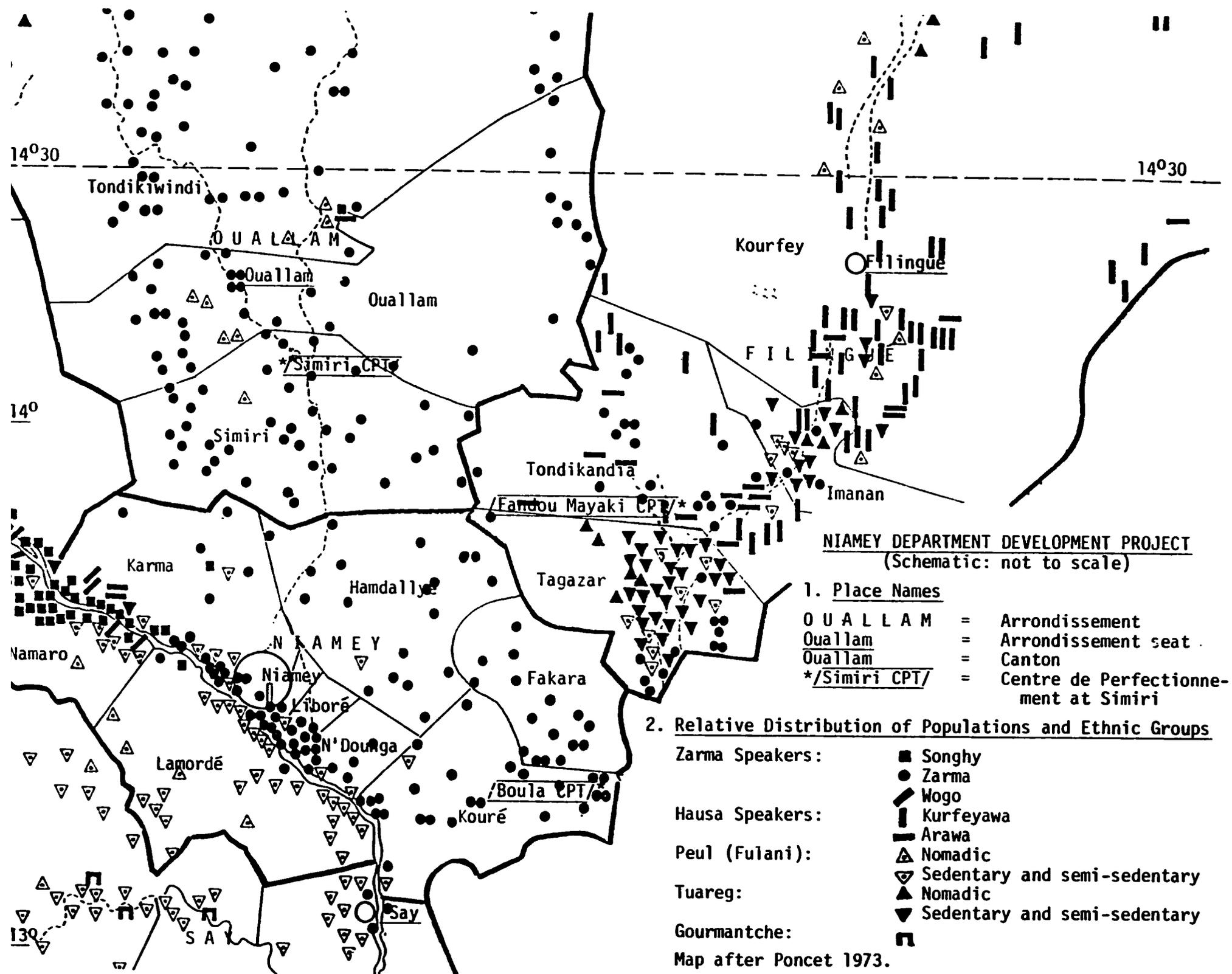
Part I:

Overview of the Area and Populations within
Project Zones; Analysis¹

by

Thomas M. Painter
October 27, 1980

Contract No. AID/afr-C-1686
Project No. 625-0929 for Planning Management and Research



NIAMEY DEPARTMENT DEVELOPMENT PROJECT
(Schematic: not to scale)

1. Place Names

- O U A L L A M = Arrondissement
- Ouallam = Arrondissement seat
- Ouallam = Canton
- */Simiri CPT/ = Centre de Perfectionnement at Simiri

2. Relative Distribution of Populations and Ethnic Groups

- Zarma Speakers:**
 - Songhy
 - Zarma
- Hausa Speakers:**
 - ▮ Wogo
 - ▮ Kurfeyawa
 - ▮ Arawa
- Peul (Fulani):**
 - △ Nomadic
 - ▽ Sedentary and semi-sedentary
- Tuareg:**
 - ▲ Nomadic
 - ▼ Sedentary and semi-sedentary
- Gourmantche:**
 - ▣

Map after Poncet 1973.

A - Overview of the Area and Populations within Project Zones

During the first three years (Phase I) of operation, the Niamey Department Development Project (NDD, or Project) promoted a variety of development interventions in three of the Niamey Department's six arrondissements -- Niamey, Ouallam and Filingue (see map). In all cases, NDD activities were conceived with a view toward increasing productivity levels of staple food (principally millets, sorghums and cowpeas) and some cash-crop (cowpeas) production in order to promote GON's national priority of greater food self-sufficiency. During the second phase of the Project, operations will be introduced on a limited scale in a fourth arrondissement -- Say. Phase II will see NDD operating in four arrondissements whose combined surface areas (66,719 km²) account for about 74% of the Department's total land area of 90,000 km² (Bilan Departemental, 1978, Vol. I, p. 17).

In practice, NDD operations are more limited in scope. In the Ouallam and Filingue arrondissements, they have been confined to areas below the 14°30 parallel (see map). Areas to the north of this limit, roughly coterminous with the 350/400 mm isohyet, are considered too marginal for rainfed agriculture (Op. cit., Vol. IV, p. 1). Within the Niamey arrondissement, only the Koure, Fakara and Hamdallye cantons, and those areas in the Karma canton five kilometers to the east of the Niger River have been included in NDD operations.

¹ Part II of the Social Soundness Analysis Appendix, prepared by Dr. Frances Stier, REDSO/W Anthropologist, and entitled "Agricultural Techniques," follows Part I, and provides information on regional variations in agricultural production which are not detailed in Part I. These variations are of substantial importance to agricultural development projects such as NDD which promote intensification of production for, as Dr. Stier notes, "the local situation determines whether or not land is locally scarce and whether or not people will be willing to intensify" (personal communication).

My thanks to Dr. Stier, who spent several weeks with the Project Preparation team and contributed to the development of the Social Soundness Analysis in numerous ways. She participated in all field trips, provided a valuable reading and summary of much available ethnographic material concerning Project zones, and in addition, provided the PP team with analyses of Nigerien census and Agricultural Statistics Service data at a time when I was engaged in an evaluation of NDD adult literacy and cooperative training programs. Finally, Dr. Stier critically read, helpfully pointed out several errors, and suggested possible changes in the first draft of the Social Soundness analysis. Dr. Stier's work will be frequently cited in Part I and in several instances the reader will be referred directly to her materials. In all cases, responsibility for errors of fact and interpretation in the text of the Social Soundness Analysis (Part I) are mine and not Dr. Stier's, despite the occasional use of the editorial "we."

Given these considerations, it may be estimated that the areas within NDD's purview account for substantially less than the 74% cited above. NDD has, nonetheless, been active in all or part of eleven of the eighteen cantons that make up the Niamey, Ouallam, and Filingue arrondissements (Table I) and NDD zones contain a considerable portion of the Department's total population -- amounting in this case to roughly a third (an est. 400,000 of the c.1,221,790 listed in the 1978 Bilan Departemental, Vol. IV, p. 1).

1. Rainfall patterns in the Niamey Department and Project Zones

Rainfall distribution varies considerably in the different Project zones, from about 350 mm per year in the northern regions (toward Ouallam) to about 500 mm in the south (toward Say). It should be noted that in addition to the expected gradient of diminishing precipitation which occurs as we move northward from the 13⁰ parallel, there has been a significant southward shift of the 400 mm isohyet since the mid-1960s so that overall, the region containing Project zones was receiving less rainfall through 1976 than had been true earlier. Until about 1966 the 400 mm isohyet was located north of the 14⁰30 parallel; during the period 1966-1976, it moved southward to almost 14⁰. Estimates of the distance involved in the shift vary. Maps contained in the 1978 Bilan Departemental suggest a southward movement of 50 to 70 kms; drawing from Sidikou's (1974) materials, Stier notes that between 1960 and 1977 the 300 mm and 400 mm isohyets moved from 100 to 120 km south (p. 16). Farther south in the Department, the 600 mm isohyets formed an arc which cut through the Niamey canton at about the level of the capital in 1966 but has since dropped well below Say. Rainfall measurements from several observation stations in the Department provide a more complete indication of the changes involved (see Table 2).

Within these longer-term rainfall averages it is necessary to distinguish more recent developments -- since 1974. During 1975 and 1976 average rainfall improved considerably, but the largest increases were recorded in regions south of the 14⁰ parallel. For regions to the north of this line (e.g., stations at Ouallam and Filingue), rainfall deficits continued until very recently (i.e., have remained below pre-1968 levels; see the Bilan Departemental, Vol. II, p. 2 and Table 2). It is noteworthy that very roughly one half of NDD operational zones lie north of the 14⁰ parallel, i.e., in those areas where rainfall has remained somewhat marginal.

2. Distribution and Socio-Economic Characteristics of Populations within Project Zones

a.) Niamey and Ouallam Arrondissements

(i) Distribution of Populations

Much like rainfall distribution, the distribution of human populations within NDD zones roughly follows a north-south gradient, with population densities decreasing as we move from the southern regions of the Department (e.g.,

TABLE 1

Population Size, Surface Areas and Population Densities in the Niamey Department, Arrondissements and Cantons Affected by NDD Operations

Arrondissement	Canton	Total Populations	Number Of Villages	Surface Area (km ²)	Population Density
Niamey	Karma	42,050	41	1,430	29.4
	Hamdallye	13,355	43	1,549	8.6
	Koure	21,566	49	1,500	14.4
	Fakara	10,390	34	860	12.1
	Total - Project Zone	87,361	167	5,339	-
Total - Arrondissement		156,625	262	8,219	18.6
Ouallam	Simiri	36,323	66	2,724	13.3
	Ouallam	51,162	81	4,658	11.0
	Tondikiwindi	45,468	73	8,350*	5.5
	Total - Project Zone	132,953	220	15,732	-
Total - Arrondissement		154,362	243	22,132	7.0
Filingue	Tagazar	58,596	103	1,420	41.3
	Tondikandia	45,818	65	2,710	16.9
	Imanan	18,911	30	510	37.1
	Kourfey (Filingue)	71,665	81	9,900	7.2
	Total - Project Zone	194,990	279	14,450	-
Total - Arrondissement		232,015	320	24,420	9.5
Say (Project zone not yet determined)					
Total Arrondissement		74,855	218	11,943	6.3
Total for the Niamey Department		1,221,790	1,334	90,074	13.6

* Portion of the Tondikiwindi canton within the NDD zone is approximately 2,783 km².

Source: Bilan Departemental, Niamey, 1978, Vol. IV, pp. 4.2.2, 4.2.3, 4.2.4, and 4.2.6.

Table 2

Rainfall recorded at selected stations in the Niamey Department: Averages through 1966, and for 1967 - 1976

Station	Annual Average/Rainfall (mm)		Percentage of years during 1967-1976 period with less than 400 mm
	Through 1966	1967-1976	
Mangaize ^{a,1}	385.9	308.6	100%
Ouallam ^b	539.0	367.1	90%
Toukounous ^{a,2}	437.5	325.8	80%
Filingue ^b	519.4	335.1	90%
Niamey (city) ^a	594.1	561.7	20%
Niamey (airport) ^a	609.0	547.8	10%
Kolo ^{a,3}	611.1	553.1	10%
Say ^c	694.4	545.8	20%

Source: Bilan Departemental, Niamey, 1978, Vol. V, Map 5.

^a Stations outside NDD zones

^b Stations within NDD zones

^c Portions of the Say arrondissement will be included in NDD zones during Phase II

¹ Located about 60 km north of Ouallam.

² Located about 40 km north of Filingue.

³ Located about 10 km south of Niamey.

the Tagazar canton of the Filingue arrondissement, where the average density is 41.3 persons per km²; see Table 1) to the northern areas of the Department (e.g., the Tondikiwindi canton in the Ouallam arrondissement, having an average population density of 5.5 persons per km²). Of course, the gradient is not an even one as we will see, and a variety of factors affect population settlements; among them, soil quality, availability of ground water, etc.

In the Niamey arrondissement, population densities in the Karma canton exceed those of the arrondissement as a whole (18.6 persons per km²) by one third and are almost three times greater than the average for the Department (11.2 persons per km²). In large part, this reflects high densities along the Niger River in areas outside NDD zones. Within the Project zones of the Niamey arrondissement, population densities are greater in the northern part of the Karma canton, and attain 50 persons per km² in the northwestern Hamdallye, southern Fakara and eastern Koure cantons. In most cases, these greater densities are associated with proximity to marshlands and ponds (mares) or low-lying areas (bas-fonds) with relatively shallow water tables (Republique du Niger 1978: Population Map). The Project's Centre de Perfectionnement Technique (CPT) at Boula is located in one of these relatively more populated areas in the extreme southeast corner of the arrondissement (see map).

In the Ouallam arrondissement, both the Simiri and Ouallam cantons have higher than average population densities. In part this is a function of their relatively small size when compared with the Tondikiwindi canton to the north. More importantly, these higher densities are associated with more concentrated settlements in valley areas having relatively shallow water tables which run in a north-west, south-east direction and to a certain extent, in a north-east, south-west direction (Ibid.). These valley areas in the Simiri and Ouallam cantons, in some cases interconnected and totalling more than thirty kms in length, contain low-lying areas, temporary and several permanent marsh/pond areas (Republique du Niger 1978; Vol. V, Map 5.2, and Stier, p. 27). Here, population densities may exceed 50 persons per km² and in some cases may reach 80 persons per km². The higher density zones have two principle focal points: the town of Ouallam (the arrondissement seat), and a cluster of villages about 20 km to the south of Ouallam. The second Project CPT - Simiri - is located just south of these higher density areas (see map). The remainder of the Ouallam arrondissement is relatively sparsely populated (5 - 7 persons per km²).

(ii) Ethnic Composition and Some Salient Features of Social Organization and Agricultural Production

The ethnic composition of NDD zones within the Niamey and Ouallam arrondissements is overwhelmingly Zarma (see map) and for this reason they will be discussed together. We were unable to obtain details on religious affiliation in Project zones, but we may assume that Islam predominates throughout the three arrondissements in which NDD operations occur. There is some question, however, concerning the depth of the Islamic religion's effects on local societies whose traditions are animist² and in the southern part of the Filingue arrondissement,

² Goldmark, on the basis of conversations with Yveline Poncet (1977:8); see also Diarra 1971:109-154.

even this Islamic overlay is absent among Arawa populations (Stier: 6).

Data are not presently available on educational levels among populations in Project zones, but estimated percentages of primary school age children actually enrolled in primary schools are low: 10%, 14% and 14% for the Ouallam, Filingue, and Niamey arrondissements respectively (Bilan Departemental, Niamey, 1978, Vol. IV, p. 4.7.1). Given the limited access of most rural populations to public schools and the even more restricted scope of national language literacy programs for adults, an estimate of 5% literacy in rural areas of the department is very generous. It is noteworthy that estimates of national language literacy, however low, apply solely to men, for women in Project zones currently have no access to literacy programs outside the Project-sponsored CPTs (see evaluation of NDD adult literacy programs).

In addition to the above-mentioned Zarmaphone predominance, other ethnic groups are found in both arrondissements. Some sedentary and semi-sedentary Fulani are located in the southern portions of the Niamey arrondissement, and slightly southwest and to the north of Ouallam, while Hausaphone Arawa groups are found toward the center of the Ouallam arrondissement (see map). The Fulani presence in both cases is related to the presence of marshes and ponds which serve as water sources for their animals.

The Zarmaphone peoples of the two arrondissements are agriculturalists -- peasant cultivators. In the vast majority of cases, the staples of agricultural production are millets, sorghums and cowpeas. Varieties of each are planted, reflecting the influence of selected seed variety promotion programs conducted by GON (The Agriculture Service and INRAN), NDD, and a long history among peasant producers of careful seed selection on the basis of numerous criteria: responsiveness to soil conditions, length of maturation cycle, etc. Agricultural production in Project zones may be considered schematically in terms of five "focal points": household gardens, in-fields, outfields, low-land and marshy areas, and finally, livestock. Local practice with reference to each varies considerably, as Stier's discussion in Part II shows.

In addition to the distinctions suggested above among various "focal points" of production in the Niamey and Ouallam arrondissements, Zarma peasants in Project zones make distinctions concerning the social organization of production, the nature of the relationship between the producer and the means of production, and, finally, the product. Thus collective fields (windi fari) are distinguished from individual plots (Kourga).

While variations certainly exist, the theme is roughly as follows. Collective fields are managed by the windi koy, head of household -- but more to the point, this individual (a male) is the head of an agricultural production unit -- as collective patrimony, often linked to the founder of a given village or hamlet, i.e., the first person to effectively use the lands in question. On the basis of these initial use claims, continuing rights of prior claims are established by virtue of blood or other alliance links. In addition, permission to use land may be obtained by outsiders on a variety of terms. These collec-

tively-owned fields; managed by the eldest male in the line, are worked by all productive members as directed by him. The resultant produce is appropriated by the head of the production unit, is stored, and redistributed as necessary to the various members.³ Production relations of this kind have been characterized as "dependent" (goo bande); junior members are "behind" the authority of the senior member.⁴ In addition to collective fields, individual plots may be allocated to household members by the household head. Recipients may cultivate these plots as they wish and do as they like with the product; i.e., store it for personal consumption, and/or sell it as a source of revenue. The stability of this individual tenure is not clear (see Stier: 28) and deserves additional study, particularly in connection with the interventions proposed for Phase II of the NDD as a means of increasing women's access to agricultural credit and inputs (cf. Painter 1979: 12-15). Women may be ill-inclined to increase present levels of investment in borrowed plots unless there is some assurance that they will retain access to the plot for more than one season (*Ibid.*). Similar constraints may affect young men -- married (as is the case of CPT trainees) or not (as is more frequently the case with CFJA* trainees) -- who are being trained by GON and NDD in improved techniques of agricultural production and equipped -- on credit -- with a combination of relatively expensive animal-drawn cultivating equipment (see Section B.2.a below). In the case of CFJA trainees, difficulties continue to be encountered once they return home and attempt to apply the new techniques on fields owned and managed by their fathers (see Section B.2.b below). Given their lack of authority within the production unit (i.e., their relation of dependence -- goo bande), they occasionally discover that they are not permitted to use the equipment (Pradier 1979a:41-42; 1979b; 1980a:10). As a consequence, some hire it out to others having money and land enough to make it worth their while. Another strategy, even less productive in the desired sense, involves outright sale of the equipment in order to obtain cash the trainees need.⁵

³ It is important to re-emphasize that this characterization masks considerable diversity, as Olivier de Sardin (personal communication) and Part II of the Social Soundness Analysis by Stier suggest. Second, however tempting, we must be very cautious about drawing parallels between the windi fari / kourga distinction made by Zarmaphone peoples of Western Niger and the gandu / gamana distinction made by Hausaphone peoples to the east. Third and finally, in addition to being complex in their specific features, these forms are in a state of flux, i.e., are breaking down (Olivier de Sardin; ethnographic materials on the Hausa of Niger are replete with arguments of this kind). This gradual erosion of collective ("traditional") forms of productive and redistributive organization affects all of Niger's peasantries.

⁴ Thanks to M. Ouattara Mahamadou of the Institut de Recherche en Sciences Humaines, Niamey for stressing this point.

⁵ Instances of equipment sales were not recorded during our stay in Niger, but they are known to have occurred among CFJA trainees in the Maradi region in southern central Niger. The motives are predictable: the need for cash.

* "Young Farmers Training Center"

It is important to note that women play an important role in livestock production as well as crop production. Frequently, but not invariably, this involves small livestock and fowl. Livestock provides women with practically the only interest-bearing investment outlet for incomes resulting from the sale of their agricultural and artisanal (e.g., straw mats) production (cf. Diarra 1971: 104). Thus it is possible for women to gradually build up their small livestock holdings, to sell them and to purchase a calf or two (Ibid.:104-108). Purchase of livestock may afford them a more secure investment than is presently possible with land allotted for their use by their husbands (above) or other male members of the village community (see Stier: 17). Men are also involved in livestock production, and their animals, usually larger, may be confided to pastoral Fulani for care.

b.) Filingue Arrondissement

(i) Distribution of Populations

Population densities in the Filingue arrondissement vary considerably: from five persons per km², particularly in the northern regions -- beyond the boundary of the Project zone, to very heavy settlements in the south of the arrondissement. These distributions very closely follow the outlines of a large valley (the Dallol Bosso or Dallol Boboye) and its two smaller branches which traverse the arrondissement diagonally in northwesterly and northeasterly directions from the bifurcation located just north of the town of Balayara (see map; cf. Beauvilain 1977: map B and Republique du Niger 1978: Population Map). These Dallols (Dallol being the Fulani word for valley) are the remains of long-extinct surface affluents of the Niger River, having their northernmost origins in the Azaouak valley system of south-eastern Mali and north-western Niger. Relative to the plateau on either side, the Dallols are favored areas for settlement in the Filingue arrondissement and in the Dosso Department to the south (see map). Dallol-type soils contain more loam, and in many places the water table is no more than three to five meters below the surface; in some areas it is less than one meter deep, the result of a continual, now subterranean flow from the basins far to the north toward eventual confluence with the Niger River. Not surprisingly, settlement in these dry river valleys is substantially denser than on the plateaus where the soil is not as rich and where the water table depth varies from twenty to sixty meters. Population densities are particularly high south of the town of Filingue on through the Imanan canton (where the average density is 37.1 persons per km²), and toward Balayara near the southern-most limit of the arrondissement (the Tagazar canton where average densities of 41 persons per km² are recorded). Population densities along the course of the Dallols easily exceed 50 persons per km² and available cultivable land is in very short supply. Under these conditions, fallows are extremely short if not non-existent; the continuous working of even manured fields over long periods has contributed to a serious depletion of soil quality in much of the area. This will be discussed in greater detail shortly. The NDD's third CPT, Fandou Mayaki, is located to the northwest of the point in the Dallol Bosso where it branches into the two smaller valleys mentioned above (see map).

(ii) Ethnic Composition and Some Salient Features of Social Organization and Agricultural Production

The ethnic composition of the more populated areas of the Filingue arrondissement is much more diverse than that we observe in most of the Ouallam and Niamey arrondissements to the west⁶. Hausaphone Kurfeyawa are found in the Kourfey canton north and south of the town of Filingue, particularly along the course of the Dallol (see map and Stier: 6). In addition, some nomadic Fulani are found in this area, and south of Filingue we find larger numbers of Hausaphone Arawa. These become particularly numerous in the Tondikandia canton. As a whole, however, the predominant group in settled areas north of the Tagazar canton are Hausaphone Kurfeyawa (see map). These Hausaphone groups -- both the Arawa and the Kurfeyawa -- are referred to locally as "Mawri," although it must be noted that Zarmaphone Arawa and Mawri are also found in the area (Stier:6).

Continuing southward along the northeastern branch of the Dallol Bosso, we find greater numbers of nomadic, and particularly sedentary and semi-sedentary Fulani and Taureg (many of whom are Zarmaphone; Stier: 7) and Zarmaphone Mawri. Populations of Kurfeyawa and Arawa are once again more numerous south of the village of Bankoukou in the Tondikandia canton. Finally, in the southernmost region of the arrondissement (the Tagazar canton), substantial numbers of sedentary and semi-sedentary Fulani and Taureg and Zarmaphone Mawri are found.

Along the smaller northwestern branch of the Dallol Bosso, the location of the Fandou Mayaki CPT, Zarma and Hausaphone Arawa predominate, giving way to greater numbers of Kurfeyawa in the north (see map).

In some respects agricultural practice in the Filingue Project zones resembles those in the two arrondissements to the west. There are important differences, however, and these are discussed by Stier in Part II.

B - Analysis

1. Overview of Project Beneficiaries

The evolving structure of the NDD conforms to current attempts by GON within the several departments of the Niger Republic to increase levels of rain-fed agricultural productivity, hence to promote greater regional and national food self-sufficiency. Through the operations of ten CPTs during Phase II, the Project will train an estimated 600 peasant couples in improved cultivation techniques. In addition, these couples will be trained in numeracy and national language literacy, will be exposed to a number of other agricultural innovations, and will receive an orientation to the principles and utility of cooperative organization in rural areas. The CPT peasant couples are the primary beneficiaries of the NDD.

⁶ What is true of the Niamey arrondissement does not apply to the riverine areas outside NDD zones. There, mixtures of Songhy, Zarma, Wogo, Kourtey, and sedentary and semi-sedentary Fulani are found (see map).

Second, it is anticipated that as many as 6,000 peasant producers in the Project zone will be exposed to the advantages of the new agricultural techniques during Phase II through a combination of demonstration effects (on the basis of differences between observed yields obtained by CPT graduates using the recommended techniques and yields on "traditional" fields) and the reinforced extension program which will be included in the Phase II project structure. Through the extension system, much larger numbers of peasant producers in Project zones will be exposed to and given the opportunity to gain access to the techniques being promoted by the Project. These individuals may be considered as "secondary" beneficiaries.

Third, thanks to project financial support, an estimated 2,800 cooperative officers will be elected and trained by the UNCC (with support from Project training programs; see below) during Phase II. In a sense, these too are secondary beneficiaries.

Fourth, additional categories of beneficiaries will consist of men and women who will attend a small number of experimental education centers (Continuing Education Centers, or CECs) in rural areas where a variety of learning activities will be supported by the Project. As many as 45 CECs will be established for men during Phase II, and will involve as many as 2,700 adults. Basic CEC training themes will include numeracy, national language literacy, and cooperative education, but the curriculum of the CECs will remain sufficiently flexible as to include a wide variety of possibilities on the basis of interests at the various Center locations (see Evaluation of NDD adult literacy programs). In addition, a maximum of twenty CECs will be set up for women (the first such rural centers in the Niamey Department), and as many as 590 women will benefit from courses in literacy, and as importantly, a variety of other subjects to be designed through collaboration among Project training staff, the Project's coordinator of women's activities, the National Literacy Service and other GON services (in particular, Animation Rurale). Among possible topics to be included are health and health related themes, possible improvement in women's rainy-season and dry-season crop cultivation, hand-sewing, etc. Once again the curriculum will be structured but will respond insofar as possible to local interests and local conditions rather than follow a centrally-designed lesson program. The estimated number of men's and women's CECs should be considered as maxima. The actual number and progression of CECs during Phase II will depend entirely upon evidence of strong local interest, relative success, and the results of careful follow-up and evaluation.

A special fund will be allocated solely for the use of women in order to facilitate their direct access to agricultural credit which is presently unavailable due to the structure of membership in rural cooperatives (limited to male heads-of-households). Thus, in addition to receiving support for learning activities in rural areas (CECs), women in Project zones will have the option of enhanced direct access to credit for purposes of, e.g., investment in small live-stock, improved cultivation techniques on rainy-season and dry-season plots, etc. These interventions are detailed in a separate section devoted to women's activities in NDD.

Finally, the altered Project management structure, combined with the infrastructural support which began during Phase I (construction of cooperative warehouses, CPTs, bureaus for some GON services, etc.) will provide greater institutional support for the range of training, extension, and follow-up activities envisioned for Phase II. In large part this will occur through greater coordination of GON line services within Project zones.

Overall, the activities proposed for Phase II of the NDD are judged to be acceptable from a socio-cultural view point. We are of the opinion, however, that a number of issues deserve particular attention during Phase II of the Project if NDD is to (a) maintain an acceptable socio-cultural and economic profile vis-a-vis the rural milieu in which it operates, (b) strengthen the institutions found therein, and (c) optimize the potential for "spread effect" among Project zone populations. We feel that attention to these points will do more than merely enhance the Project's social-cultural feasibility; it will increase its capacity to achieve its stated purposes, and move toward its specified goals. This will be possible through more effective training programs and greater responsiveness to the socio-economic and cultural features of the Project zones as summarized in Section A above and Part II. Grosso modo, these issues include the following: (1) appropriateness of NDD's technical package; (2) selection of CPT trainees; (3) structure of CPT training; (4) choice of CPT locations; (5) cooperative organization in Project zones; (6) effects of NDD interventions on local tenure, and (7) migrations.

2. Points for consideration during Phase II of NDD, with a view toward enhanced social soundness of design

a.) Appropriateness of the NDD Technical Package*

The ensemble of improved productive techniques currently being promoted by NDD does not reflect the regional diversity of the various Project zones. Instead, a standard "technical package" is promoted at each of the three CPTs, and throughout Project zones (see Part II). Phase II of Project activities should place greater emphasis on the "micro-economics" of the technical package with trials under conditions as close to those of "normal" farm conditions as possible. It will be necessary to demonstrate the "pay-off thresholds" of variations of the present package under different conditions of land holding size, household labor availability, soil conditions, and rainfall.

Animal-drawn cultivation equipment may be more cost-effective in zones where holdings are larger, rainfall more satisfactory, and soils heavier. Elsewhere, where sandier dune-type soils predominate, and where rainfall is less, returns from the use of traction equipment may be considerably less.⁷

⁷ These restrictions do not apply to animal-drawn carts which may be used year-round for household purposes, and which serve as revenue-earners from hauling fees and sales from hauled commodities (firewood, hay, etc.), although animal maintenance costs differ (donkeys versus oxen). Not surprisingly, carts are the most popular animal-drawn equipment currently available in NDD zones. On the basis of Sargent's data, Stier suggests that the profitability of carts declines as their number in a region increases (thus reducing income from rental fees).

* Sections 2.a and 2.b are in part a summary of Stier's more detailed discussion; for details, see Part II.

The possibility that land holdings in Project areas may be considerably smaller than national averages indicate (6 hectares, USAID/Niger 1980:2), is suggested by Stier's analysis of 1979 Agricultural Statistics Service data (see Table 12 in Part II). These points must be carefully studied during Phase II, for information obtained during Phase I does not permit an evaluation of this kind (see Mullenax 1979 and Wagner 1980:9-10).

Even at currently high levels of GON subsidies, the present technical package (with animal traction) represents a considerable investment (about \$800) for peasant producers whose annual average income is estimated to be less than \$100. In point of fact, acquisition of these materials entails considerable indebtedness on the peasant's part, for the equipment is obtained on credit from CNCA* through the channels of local cooperatives. Finally, it is likely to induce a greater dependence of peasant producers on GON - provided inputs under conditions where adequate and timely delivery remain highly problematic. The risks involved here are greater, not less, and in the final analysis will be absorbed by the peasantry.

In addition to rethinking the cost-effectiveness under normal farm conditions of the ensemble of productive techniques being promoted by the project, the undesirable potential for considerably increased peasant indebtedness should be critically examined during Phase II as more and more packages are distributed among the peasantry of Project zones. Failure to do so may result in the unanticipated consequence of greater agricultural wage labor in Project zones (on the part of peasants who may not be able to use their equipment profitably, but who are obliged to reimburse their loans, nonetheless) and increased participation of these individuals in labor migrations.⁹

8 Dependence upon an inefficient government delivery system, however serious for projects such as NDD which rely heavily on the timely delivery of inputs, is only one aspect of a larger pattern of dependence of which we must be aware; one which includes, among others, greater dependence of peasant producers on particular combinations of commodity inputs which are not only costly, but whose technologies are completely beyond the control of the peasant producers involved in agricultural development projects. See Mooney 1979. (My thanks to Victoria Barres for bringing this useful book to my attention.) As a means of combatting this dependence, NDD efforts to train village blacksmiths in the manufacture and repair of tools and animal-drawn equipment in Project zones are commendable.

9 Experience elsewhere in the Third World has shown that increases in agricultural productivity levels through greater capitalization of agricultural production (hence greater producer investments) have resulted in increased movement away from rural areas. Popular accounts emphasize the greater efficiency of the newer techniques of production which make it possible for fewer and fewer farmers to produce higher and higher yields. Not surprisingly, accounts of this kind which emphasize efficiency may not place much stress on the role of rural indebtedness, its linkages to increased capitalization of agricultural production, to land-accumulation among a rural petty bourgeoisie, out-migrations of poorer peasants, and to the gradual formation of a part-time proletariat. Debt is only one of several factors which may contribute to the peculiar situation in several regions of Niger, (e.g. NDD zones) where participation in seasonal labor

* Caisse Nationale de Credit Agricole.

CPT-based applied research activities planned for Phase II should help considerably to illuminate what is now a very fuzzy area and one which has significant implications for the Project's "spread" or multiplier effect in the Department. NDD applied research should address not only the current technical package, but that considerable attention be given to the possibilities for improving upon the already considerable expertise of NDD zone peasantries. Of all parties in the Project zones, their understanding of "production constraints" is best, and NDD stands to learn a great deal from the strategies these peasant producers have adopted over time in order to insure a meagre subsistence (see Part II).¹⁰

b.) Selection of CPT Trainees

Stier and Enger (PP team agricultural economist) have suggested that a minimum of five to six hectares of land may be necessary in order for the current NDD technical package to pay off; i.e., to cover costs and produce greater yields

9 (continued)

migrations has become a necessary component of a peasant "subsistence" strategy. Another is a generalized monetization process in which all of Niger's peasant producers are caught up, albeit in varying degrees. Increasingly, life within the "subsistence economies" of Niger's peasantries is filled with commodities which can be had only through the use of money as a means of exchange. See Section 2.g below.

¹⁰ It is noteworthy that INRAN shows an increasing appreciation for the suitability of local millet varieties, particularly vis-a-vis P₃ Kolo (introduced to Niger in 1960) and CIVT (the variety currently being promoted by NDD); also that field tests are being conducted on a range of grain varieties. These INRAN trial programs might be usefully linked with applied research activities planned for CPT operations during the second phase of NDD. Concerning the qualities of different millet varieties, an INRAN agronomist remarks that:

CIVT is better than P₃ Kolo; and several other local varieties produced just as good a yield as P₃ Kolo and CIVT at specific locations within the country (Brown 1980:1).

Concerning sorghum, the same author notes that:

The four selected varieties of sorghum L30, 1/2MSB, A₂B₂ and A₄B₄ produced better than the local varieties only at Maradi and Niamey. At all other sites, the local variety of the district gave higher yields of grain. The local varieties tested were Bagoba, El Dele, El Aboua, Jan Dawa (Ja-Dawa), Jan Jare, Mo-Aja, Itchordi, Thebou, Abdou-Kadri, Gotheye, Fara-Dawa, Biyil, Guero, Babodia-Fara, and N'Gabiri Kene (Ibid.:2).

Pradier (1980a) makes much the same point about introduced varieties of cow-peas vis-a-vis local varieties. Finally, see Mooney 1979.

for household consumption and/or sale. Stier's examinations of SAA data on the distribution of sample holding sizes suggests that there is a heavy skew toward smaller holdings in the three arrondissements (Table 2 in Part II). It remains to be seen whether the distribution of accessible land holdings among CPT trainees reflects the distribution of the SAA sample (assuming that the SAA sample is representative). If they fall largely into the smaller than five or six hectare categories, the wisdom of blanket promotion of a relatively expensive technical package becomes a highly questionable strategy. If, on the other hand, CPT trainees are drawn disproportionately from those production units having access to at least six hectares of land, then CPT training and outfitting programs may be disproportionately benefitting medium and large-holders rather than small holders. For details, and discussion of differences in land holdings requirements for profitable use of ox- and donkey-drawn equipment, see Part II.

Reportedly one of the criteria for the selection of CPT trainees is effective access to at least five hectares of cultivable land. It appears, however, that systematic information on actual sizes of trainees' holdings has not been gathered on a routine basis.¹¹ Data of this kind must be routinely obtained and evaluated during Phase II of the Project.

Access to minimal land holdings is only one of several criteria used to select CPT trainees. A second desideratum is that all CPT trainees exercise authority over the land (whatever the size) accessible to them. In the absence of this relative autonomy vis-a-vis senior members (principally fathers) of the agricultural production unit of which they are a part, CPT-trained and equipped trainees may encounter difficulties in the use of the new techniques as recommended. As we have seen on page 8, difficulties of this kind have already been encountered by graduates of the GON CFJA training center at N'Dounga, south of Niamey. In several cases, trained and equipped trainees returned home only to find that their fathers did not allow them to use the equipment (v. Pradier 1979 a & b, 1980 a & b).

Once again, no systematic data has been collected on these factors, and must be during Phase II in order to better insure that learned innovations will be applied. It is noteworthy that eight of the twenty trainees currently enrolled at the Fandou Mayaki CPT will return home to cultivate fields controlled by their fathers. Cases such as these deserve careful follow-up.

Finally, it is not clear how candidates are selected to become CPT trainees. In principle, "CPT trainees are selected by their cooperatives," but we do not know how the selection occurs within the cooperative. What are the criteria used in the selection process? Who does the actual selection - the cooperative general assembly, cooperative officers, or persons within the cooperative who may wield local political influence? These issues must be more satisfactorily

¹¹ "AID will attempt to ensure that projects do not inadvertently contribute to inequity and that they, in fact, promote equal opportunity..." (FY 1982 CDSS: 7-8). However laudable, good intentions are not enough. They must be translated into procedures.

clarified if in fact the CPT selection process is not to drift into a pattern of promoting inequitable access to resources among Project zone populations. Cooperatives in Niger (and elsewhere in Africa) have been common loci for the inadvertent promotion of inequitable access through the interplay between cooperative structure and local-level, patronage politics. NDD zone cooperatives are not immune to these effects. This is discussed in Section 2.e below and notes 12 and 13.

c.) Structure of CPT Training

Project CPTs presently combine two important functions: training and production. While intimately related, there is some evidence (a) that the emphasis currently given to production outweighs that given to training, (b) that training linked to agricultural production receives a much greater emphasis than that which is not (e.g. literacy), and (c) that the role of women in the training programs is marginal and does not reflect their importance in agricultural production, or in the reproduction and maintenance of peasant households as production units.

We recommend that greater emphasis be given to the essential training role of the CPTs during Phase II, and that if necessary, this re-orientation occur at the expense of the presently heavy emphasis on production per se. Time-use at the CPTs should be critically examined with a view toward optimizing the opportunities of all trainees for active learning in response to real interests and needs. We recommend that literacy be more functionally integrated with other CPT activities, and that it not be relegated to the "off hours" when trainee energies and attention-spans may be low as is often the case at present. In addition to the integration of what are now somewhat isolated elements of the CPT curricula, upgrading of training approaches will be necessary (see evaluation of NDD literacy programs). Greater emphasis should be given to learning activities for women which go beyond the present and marginally interesting limits of national language literacy. Concomitant with this change in emphasis, a change in the structure of women's activities is recommended so that women will have more time and more energy to pursue learning activities responsive to their interests. Possible approaches may entail changes of class schedules, the investigation and promotion of collective provisioning and meal-preparation activities, the installation of grinding mills as labor saving devices and as educational tools, and possibly the provision of some child care for women who are involved in training activities.

Additional support for a variety of educational activities in rural areas of the Project zones will be provided on an experimental basis by CECs for men and women.

d.) CPT Locations

De facto choice of CPT locations appears to depend a great deal on the availability of sufficient land (40 hectares each), and we do not expect this to change much during Phase II. Insofar as possible, however, efforts should be made to install Phase II CPTs in locations representative of the diverse geographical,

ecological, and socio-cultural milieu of Project zones. Furthermore, the content of CPT training programs should be responsive to the opportunities and constraints within each region of Project operations. Given the scattered presence of low-land and marshland areas in NDD zones, and the substantial promise these hold for improved dry-season agriculture, we recommend that one or more of the Phase II CPTs be located in close proximity to a low-land or marsh-land area (Stier provides a partial listing of these areas). This will permit CPT training programs to emphasize the possibilities for improved production within a significant focal point of agricultural production in Project zones which is presently not possible because of (a) CPT locations being some distance from well-watered areas, and (b) the impracticality of experimentation with dry-season agriculture at some CPT locations (e.g., Simiri, where all water is hand-drawn by women from a 74 meter deep well).

e.) Cooperative Organization in Project Zones

During Phase I, NDD supported the promotion of rural cooperatives in Project zones in several ways. Among others, NDD began a program of cooperative warehouse construction at the site of each cooperative seat village in Project zones. Secondly, NDD provided UNCC* with considerable financial assistance in the training and up-grading of elected cooperative officers in Project zones. Third, the Project reinforced cooperative officer-training programs through cooperative education curricula in village level and CPT literacy classes. (See evaluation of NDD cooperative training programs).

With some modification (principally, a substantial reduction in village-level education centers [CECs] whose installation will be stretched out over the five years of Phase II on the basis of observed success and careful evaluation), NDD will and should continue to support these forms of cooperative promotion. Indeed, this approach is in keeping with GON policy of cooperative promotion in cereal-producing areas with a view toward eventually moving beyond cooperative functions presently limited to credit provision and marketing, and promoting a wide range of cooperatively-based development activities.

Some doubt has been voiced about the capacity of local (i.e., "traditional") social structures within Project zones to mesh with and benefit from the proposed cooperative promotion programs (cf. Charlick 1976:4 and Goldmark 1977: 2; 17-18). While the issue of "socio-cultural" fit can only be satisfactorily answered by longer-term research on indigenous forms and processes of cooperation in Project zones and their relation to introduced cooperative structures, there is no a priori reason on ethnographic or "political" grounds alone to suspect that the "fit" will be poor. These issues require study, and to date none has been done in western Niger.¹² Despite the uniqueness of peasant social formations with-

¹² On the other hand, the potential effects of local-level (particularly patronage) political linkages on the viability introduced cooperative forms of the kind described by Charlick in eastern Niger (1974) and Robinson (1975) in the Dosso (and Tibiri) region may be significant and do deserve careful attention. For this to occur during NDD's Phase II, more than reliance on UNCC will be necessary, for there seems to be a singular disinterest among UNCC field staff in the dynamics of local power brokerage (cf. Holmquist 1980), something which has proved to be important in cooperative success and failure elsewhere.

* Union Nigerienne de Credit et de Cooperation.

ir. NDD zones, the factors of greatest significance for success during Phase II are liable to be super-ethnic in nature, affect all Nigerien peasantries (although with a specificity which remains to be described), and reflect, more than anything, state (GON) cooperative, marketing, and price policies versus the peasant producers in Project zones, rather than ethnic differences between the producers themselves.

It must be recognized that the cooperatives within the Project zones are new -- the oldest existing cooperatives date from 1977, and more than half of the present number date from 1978. As such, their actual functions -- whatever the evolving expectations entertained by GON about their future as the basis for Societes de Developpement -- are limited to those of cooperatives throughout Niger: marketing and credit diffusion. In the past, modest profit margins afforded cooperatives by GON (UNCC) on the basis of their cash-crop and/or staple crop marketing activities furnished the basis for cooperative capital accumulation which, in theory, could be invested in a variety of locally-defined "development" activities.¹³ In practice, cooperatives have not been accorded much autonomy in this area.

¹³ Despite a great deal of rhetoric since the mid-1960s about the "cooperative movement" in Niger, it is important to realize that in the vast majority of cases, cooperative organization has occurred not because of peasant initiative, but because of state planning priorities. This pattern of state intervention in marketing, and to a lesser extent, agricultural production itself (via input-tied credit), takes a particular form in Niger (see, e.g., Keita 1975), but has occurred throughout West Africa as post-colonial states have increasingly moved into areas of capital accumulation based on agricultural marketing in which metropolitan trading companies (e.g., CFAO), Levantine and to a lesser extent, African merchants, long enjoyed privileged access. (See Holmquist 1980 for a brief discussion of the East African case.) These interventions have taken the form of state agricultural marketing boards (in the case of Nigerien groundnuts, the Societe nationale de commercialisation de l'arachide, SONARA) and the creation of rural marketing "cooperatives" which are allowed to sell solely to the marketing boards. The result has been greater state "coverage" of agricultural marketing processes (at low cost, for cooperative officers are not remunerated for their work or are remunerated at levels well below those of civil servants), but not necessarily greater degrees of peasant control. See among others, Goussault 1976 and Holmquist 1980. The case of Nigerien cooperatives is discussed by Bachard 1976, Belloncle 1978, Charlick 1974, and Painter, forthcoming. All of this is not to say that cooperatives cannot serve as vehicles for local initiatives in NDD zones, but to emphasize that in the vast majority of cases elsewhere in Niger, cooperatives have not - that is, have not been able - to function in this manner. As the text suggests, the new orientations being given to rural cooperatives by GON may afford these

Given the new orientations which the GON statutes of 1978 and 1979 promise to give cooperative organization in Niger, we may anticipate (but cannot assume) that greater local control will be exercised over cooperative returns from marketing operations. Cooperative "autonomy" is one of several issues which remain to be resolved before the cooperatives in Project zones will become viable, locally-controlled investment and development structures. The issues are complex and cannot be discussed at length in the present paper, but two merit brief mention. The first is GON price policy; the second concerns the real (as opposed to theoretical) possibilities for the generation profit margins by Project zone cooperatives, and the consequent potential for accumulation of capital and investment according to local cooperative priorities.

The rapid expansion of cooperatives in western Niger has not been accompanied by a similar increase in tonnages of cereal and cowpeas marketed by cooperatives as percentages of total production in cooperative zones. This is particularly true of millet, and slightly less true of cowpeas, a staple crop which has replaced groundnuts in much of the west as a major cash crop for export. Substantial differences in purchase prices paid by GON marketing boards and traders on the "free" (i.e., non-cooperative) market result in continuing large portions of total marketed production by-passing GON-installed cooperative markets.

Because cooperative profit margins are in part a function of returns on total marketed tonnages less a wide variety of fixed and variable expenses, a combination of small marketed tonnages and substantial expenses result in cooperative operating losses. Losses of these kinds are absorbed by a nation-wide intercooperative fund, so individual cooperatives which run in the red remain viable in principle, but in fact, any profit margins they might obtain for future local investment purposes are cancelled out by each year of deficit operations.

13 (continued)

local organizational forms the autonomy and clout they must have if they are to be anything more than an inexpensive means of facilitating state penetration into Niger's rural economy. As Holmquist (1980) argues in the case of Tanzania, cooperative viability remains problematic even where the state affords them substantial political and economic support. Elsewhere (e.g., Niger), support of this kind has manifested itself largely in the government rhetoric of cooperative promotional programs and stopped there. There are grounds for some optimism over the nascent Societes de developpement (which even well-placed Nigeriens do not clearly understand) whose foundations are the cooperative structures presently in place, but it will be an uphill battle. A great deal will depend on GON's ability and willingness to deliver the kind of structural support for autonomous operations which viable cooperatives require.

We were unable to obtain information on the operations of all cooperatives in NDD zones since their installation, but details on cooperatives in the Ouallam and Filingue arrondissements for the 1979-80 marketing season provide some indication of the problems alluded to above. All project zone cooperatives in the two arrondissements -- where purchases consisted of millet, cowpeas and some sorghum -- operated at a loss during the 1979-80 season. Individual cooperative losses varied from a low of about 10,500 CFA francs (\$50) to a high of 71,000 CFA francs (\$340); most were in the twenty to forty thousand franc loss range.

If these patterns are representative of cooperative marketing activities throughout Project zones (an empirical question), then we suggest that the health of the nascent cooperatives is in jeopardy, and will probably remain problematic for at least four to five years (depending on the date of creation) during which fixed costs will remain at substantial levels. (An important, but not the only factor in these initial fixed costs is the yearly deduction over five years of about \$84 [17,500 CFA francs] as payment for produce scales provided at unsubsidized cost to each cooperative by UNCC.)

These two issues -- GON price policy and the real capacity of NDD zone cooperatives to benefit from their cooperative activities -- will have an important effect on the viability of these local organizations and the enthusiasm of peasant producers about them.

The success of cooperatives in Project zones appears to hinge less on their "fit" with local cultural practice and values than their capacity to help peasant producers in the region obtain returns on their investments of time, energy, and money, as they attempt to optimize in a very harsh environment. Unfortunately, NDD in itself can do little to affect these factors which are in large part determined by GON policies.

Finally, there remains the thorny issue of GON's policy of cooperative "collective responsibility"* for agricultural loans which in fact are accorded to heads of households. It appears that Zarma society has even less low-level political centralization than Hausaphone groups in the east of Niger. A variety of non-cash remunerated mutual assistance/labor exchange forms (collectively referred to here as boogou among the Zarma, with parallel forms among the Tuareg and Hausaphone people in the Filingue region)¹⁴ are found in NDD zones, but we know nothing about their incidence or their economic importance in agricultural production. In any event, they are spontaneous, ephemeral, and appear to be in a transitional stage in which they are being replaced by variations on the theme of agricultural wage labor. Since 1974, GON has made considerable efforts to revalorize local youth organizations -- the Samaria -- but largely for the completion of

¹⁴ See Guillaume 1974:71-73 and Olivier de Sardin 1974:14-17, among other sources.

* Actually, a collective security (caution) or guarantee.

state-sponsored community development and improvement activities, and as a means of fostering support among Niger's youth for the government. (This is not the first time that efforts have been made to rejuvenate the Samaria for political purposes; much the same thing happened during the 1960s under the Diouri regime.)

We have no good reason to expect that a policy of collective responsibility for agricultural credit in the absence of a program of massive social mobilization and re-socialization will be any more successful in NDD zones than anywhere else in Niger.¹⁵ True to form, the Groupement mutualiste (G.M.) remains the basic social "cell" of cooperative organization, but as a "functional entity," Zarma villages appear to offer even less promise than Hausa villages in the east (v. Charlick 1976 and Goldmark 1977). Insofar as the fit between indigenous and introduced cooperatives is concerned, there is one bright spot in the recent GON cooperative statutes. The GM may be a village or a quarter within a village or a tribe (in the case of nomadic groups). For the first time in the history of cooperative promotion in Niger, there is some promise of a linkage between GON-sponsored cooperative structures and forms of indigenous cooperation based on linkages of kinship. These issues deserve careful study during Phase II, for our current understanding of potentially relevant structures, and processes of cooperation among peasantries of project zones is very poor.

The relative youth and apparently precarious health of NDD-zone cooperatives also affects areas of NDD programs which are not, strictly speaking, economic in character. We hypothesize that the disappointing results of Phase I literacy programs may be traced in large part to an inadequate answer for a question peasants in project zones may reasonably ask: "National language literacy for what?" In a real sense, a satisfactory answer to this question depends on the viability of cooperative organization in the rural areas where literacy is being promoted. Elsewhere in Niger (Maradi and Zinder departments), substantial impetus was given to "functional literacy" programs in rural areas by the enhanced possibilities literacy offered peasant producers for participation in and management of local marketing and credit cooperatives.¹⁶ The promise of increased capacities of this kind in NDD zones is a novel development, and in many respects, may not be considered very risk-worthy by many peasants. Quite reasonably, their response to these activities may be one of hesitation until they see more. The proposed improvements in project literacy programs (CPTs and CECs for men and women) will doubtless improve the situation, and because of this are considered necessary. In a more general sense, however, the health of NDD literacy programs will remain linked to the health of the cooperatives being installed in project zones. In the short run, the only way to break out of what may be a chicken-egg dilemma during the formative period of Project zone cooperatives is to replace the present heavy emphasis on literacy per se within Project training programs with a more diversified curriculum. This has been proposed in the section on literacy programs.

¹⁵ See Bachard 1976:60-75.

¹⁶ Critical analyses of the links between "functional literacy" and cooperative growth in Niger are rare and overwhelmingly restricted to experiences in groundnut producing areas in the east. See essays in Belloncle 1978, but especially Easton 1971; for a more thoroughgoing analysis and comparative data from Mali, see Easton 1978.

f.) Effects of NDD Interventions on Local Tenure

The transitional nature of "traditional" land tenure in the Project zones was briefly discussed earlier (see Stier and Goldmark 1977). Within the context of these changing tenure patterns, NDD is introducing a range of productive innovations whose success depends in part on and is likely to have consequences for access to land in Project zones.

It is not impossible (although on the basis of current data no predictions are possible) that Project "spread effects" will disproportionately benefit medium and larger holders in Project zones (for reasons suggested above) unless some assurance is provided that beneficiaries represent a cross-section of Project zone producers or are deliberately selected from among smaller holders. On the other hand, given the character of the terrain in much of the Project zones, it is not at all likely that land accumulation will occur as a result of Project activities, for overall valorization of rain-fed cultivation areas will probably be minimal.¹⁷ The long-term, cumulative effects of repeated application of recommended inputs remains to be seen.

In those areas of Project zones where the valorization of land has been relatively greater due to better soil quality (greater loam content, greater accessibility of water, etc.) there is a greater possibility that some accumulation of land holdings will occur as investments in the production of agricultural commodities (market crops) increase. It may be anticipated that the tempo of this process will be greater in those better-endowed areas (low-land and marsh-land areas) which are in closer proximity to regional market centers or road networks providing access to consumer populations in towns and cities. On the other hand, it is almost certain (but presently unknown), that most of these areas already have claimants even though they are under-utilized. Tenure in low-land and marshy areas deserves further study.

Finally, considerable attention should be given to the nature of women's land tenure in Project zones during Phase II. A strength of Phase II design lies in the provisions therein for credit funds earmarked solely for

¹⁷ Accumulation does occur in the Nigerien countryside, however poorly the phenomenon has been studied in NDD zones. Not surprisingly, those most likely to benefit are engaged in commerce or have privileged access to the state (civil servants, veterans, "traditional" chiefs, etc.). See DeLatour Dejean 1975:205-216 et passim on tenure changes in Mawri country (cf. Derriennic 1977:295). This topic, like several other issues raised by NDD interventions, deserves careful field study. Changes in land tenure are all the more interesting given Goldmark's (1979) preliminary study and the suggestion by Poncet that the quantity of land in one's possession -- cultivated or not -- is much more important among the Zarma (see Stier's discussion of descendants of captive castes in NDD zones and their terms of access to land) than among Hausaphone peoples of Niger (Poncet: 30-31; cf. Laya 1973:137 and Derriennic [1977:243-244], who cites sections of an article by Henri Raulin who argued in a similar vein ten years earlier! [1965]). See Painter 1979:62-64 and notes 24-28 concerning the Dallo| Bosso and Dallo| Mawri regions of the neighboring Dosso department.

women's agricultural activities. If women are to benefit from investments resulting from their access to this fund, a modicum (i.e., more than one season) of security of tenure will be necessary. Otherwise, it may prove unrealistic to expect women to make more than minimal investments in rainy-season and dry-season crop and garden cultivation as long as the plots allocated to them are liable to summary repossession by the owners.

g.) Migrations in NDD Zones

The NDD goal of increased productivity levels in staple and cash crop (cowpeas) production carries with it the expectation of increased real incomes for rural producers. One anticipated result of this -- however implicit -- is some reduction in the current pattern of seasonal migrations from Project zones, and an accompanying reduction in the drain on household labor resources these migrations entail.

Data on the scope and the economics¹⁸ of labor migrations in the Project areas are sketchy, but observations are numerous enough to suggest that the seasonal outflows of living labor from some Project zones are considerable, particularly in the Zarmaganda region (Sidikou 1974:66-68, 143-158 and 1978) and the Dallol areas in the southern part of the Filingue arrondissement (Beauvilain 1977:157-160 and Guillaume 1974:110-111).

¹⁸ Figures on the participation of NDD zone populations in migrations vary considerably. On the basis of 1966 census data, Sidikou estimated that 1.6% of the Simiri canton's population was absent on migrations (1974:143), while Beauvilain estimates that as much as 36% of all household heads in the Dallol Bosso region (in the Dosso department, just southeast of NDD zones) are absent during periods of seasonal migration (1977:159). Once again from data collected in the neighboring Dosso region, Poncet estimated in 1974 that 60% of all active males were absent from some Dallol Bosso villages on seasonal labor migrations (1974:15). Poncet's high estimates were given considerable support by observations made early in 1978 by staff of the Dosso Department's Service du Plan who found that as many as half of all active males in a sample of ten villages they visited in the Boboye region (northwestern Dosso Department) were absent on migrations (Painter 1979:69, note 11).

Details on migrants' earnings and their importance to the local economy within NDD zones are even sketchier than those on incidence of participation in migrations. Sidikou very briefly mentions migrants' incomes, but in areas beyond the limits of NDD operations (1974:156-157). Data from nearby areas in the Dosso department are indicative of the seasonal influx of money repatriated by migrants, most of whom work in the Guinea Coast countries (cf. Painter 1980: 2-3; 32). A survey by the Dosso Service du Plan of all money order receipts recorded by Dosso Department post offices revealed that 39 million, 96 million, and 120 million CFA francs entered the department solely by mail during the migrant labor seasons of 1974, 1975 and 1976 respectively. During 1974, 4,119 money orders averaging 21,800 CFA francs entered department post offices. The figure for 1975 was 9,284, averaging 19,900 CFA francs each, while 9,600 money orders with an average value of 22,600 CFA francs were recorded for 1976. Overwhelmingly the money orders originated from Guinea Coast countries, and the most massive influx occurred during Niger's dry season months (Painter 1979:51-52).

"Wanderlust," "rites of passage," and "psychological" factors all figure importantly in popular accounts of these seasonal labor migrations from rural project areas to the towns and cities of Niger and the Guinea Coast states (e.g., Ivory Coast, Ghana). We are in no position to discount the social-psychological factors which figure in seasonal labor migrations, but the socio-economic matrix in which they occur is of particular interest and overriding significance. We would do well, for example, to examine the historical and economic changes which have so affected peasant social formations in Western Niger that seasonal labor migrations have become validated as part of the transition from youth to adulthood ("rites of passage"). In a related sense, rather than taking this "natural" fact of life in some Project zones as a given, we might inquire into the sequence of events which has made labor migrations such a predictable feature of the social landscape.

The topic is a complex one and cannot be treated at length here, but a search for explanations must necessarily lead us to a consideration of the changing nature of peasant "subsistence" economies throughout western Niger. Labor migrations, for many households in NDD zones, have become an integral part of an overall subsistence strategy whose aim is the maintenance and reproduction -- the social continuity -- of the household form of production and consumption. These migrations, rather than adventurous forays, have become a necessary household activity which involves both benefits and costs (neither of which are very well understood). Some (not all) earnings are returned by migrants, and some of these are converted into staple foods and livestock; others are spent less productively. On the other hand, the migrants' absence drains labor resources from the household as a unit of production.

Insofar as NDD operations prove themselves to make economic sense to peasant producers in Project zones, i.e., to enhance their capacity to increase production and incomes with a minimum of risk, it is possible that some very modest modifications of the present pattern of labor migrations may occur. Gains will have to be substantial and risks rather low. It is less than certain that the NDD -- or GON -- can provide such a combination. In the meantime, until the opportunity costs of migration are greater than those of remaining in a situation of marginalized subsistence or adopting the ensemble of productive techniques being promoted by the project, these migrations will continue. At present, these opportunity costs are not known. Nor for that matter, is the economic viability of the Project technical package under a variety of "normal" conditions. What is more, there is the possibility, as suggested in Section 2.a above, that current Project strategies, if continued unaltered during Phase II, may contribute to an increase in seasonal labor migrations for reasons which are by no stretch of the imagination, "psychological." Substantial attention to these factors will be necessary during Phase II of NDD.

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