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CREDIT MANAGEMENT

SPECIALIST'S

17

JANUARY 17-29, 1983 CONSULTANCY

TO NIAMEY DEPARTMENT DEVELOPMENT

PROJECT PHASE II 683-0240

BY

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NIAMEY, NIGER

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SUMMARY OF FINDINGS

A credit management specialist was called to Niamey to look at the credit problems of the NDD Phase II Project. He looked at the problems of the CNCA, the NDD Credit Advisor, loan distribution procedures, loan repayment and recording and accounting of loan activity.

The main problems were sluggish disbursement procedures, low repayment rate and irregular statistical reporting services.

The main solutions proposed were to decentralize loan disbursement procedures, proceed aggressively toward collecting overdue loans and computerize the loan Portfolio management at the CNCA.

The implementation of the short term (by March 31, 1983) recommendations of this report along with actions already undertaken by the project, will be responsive to the issues raised in the recent NDD Audit report.

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A. CREDIT COMPONENT OF NDD

The Niamey Department Development Project Phase II--683-0240 has the following purpose: "To institutionalize a process of rural development through the establishment of self-managed village organizations capable of assisting farm families with the achievement of increased food production on a self-sustaining basis."

The NDD Project outputs include:

- A system of technical service delivery established and functioning in the Project Zone.
- A system of self-managed village organizations established and functioning.
- Systems of credit delivery established and functioning.
- System of agricultural input delivery established and functioning.
- System to increase women's access to development activities established and functioning.
- Coordination and management system for the Project Zone functioning effectively.

It is in relation to the third output "Systems of credit delivery established and functioning" that the following scope of work was written for this two-week (January 17-29, 1983) consultancy.

B. SCOPE OF WORK

The scope of work for the credit management specialist is as follows:

- Review the current system of providing credit to farmers in the Project Zone.
- Review the procedures by which the proceeds from cash sales (in the case of fertilizer) and farmer reimbursements (in the case of animal traction equipment) are collected by UNCC agents, recorded at the cooperative level, forwarded to the CNCA, and correctly entered into the project's credit account.
- Design a system of monthly credit reports for the cooperative, arrondissement, and department level.
- Make a detailed report of all changes and action steps recommended for CNCA lending procedures, loan collections and overall management and accounting of the project's credit fund.
- Assess the capability of the CNCA to manage a re-designed system and make recommendations for technical assistance to overcome area of institutional weakness; the assessment may address alternative institutional mechanisms for providing agricultural credit to small farmers.

The final report is to contain a detailed description including all forms and reporting formats, of a revised system as well as the institutional setting in which such a system can realistically succeed.

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To accomplish the scope of work as stated above I have focused my attention on the following main issues:

- Prospects for CNCA becoming a self-supporting institution.
- The role of USAID's credit advisor on the NDD project.
- The ability of CNCA/UNCC/NDD to distribute loans efficiently.
- The potential for CNCA/UNCC/NDD to receive a high rate of loan repayment.
- The capacity of CNCA/UNCC/NDD to maintain a set of loan records and accounts adequate to the administrators of the credit program for management and control.

In October 1982 an audit of the NDD project was conducted by a regional inspection group from REDSO/WAFR (See "References consulted", Annex C) and recommended that credit activities be suspended until remedial action could be taken to correct the management and accounting problems with the credit program. Both Straughter's (See "References consulted" Annex C) and my report address the points raised.

II. REVIEW OF CURRENT SYSTEM OF CREDIT

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A. BASIC DATA

NDD is giving loans to small farmers in the Project Zone for the purpose of purchasing animal traction packages. These packages normally include two oxen (about 100,000 FCFA for the Pair), an ox cart (77,000), Basic plow/Weeder (Bati de Base), frame (6,000), and a 5-Tooth Weeder (6,000) for a total loan amount of around 190,000 FCFA. (See Annexes D and E). These loans are given in kind before the crop season (which begins in May) for four years repayable in four equal installments beginning December 31 of the following year. Borrowers pay 12.5% (before April 7, 1982 it was 10.5% -- see annex F and G) interest per year on the outstanding balance. Loans are given to CPT trainees directly and to other farmers in the project zone through their COOP/GM.

A basic test of any credit documentation and statistical reporting system is its ability to answer three basic questions:

- How much has been loaned?
- How many loans have been given?
- What is the repayment rate?

Using information from the Straughter report (see Annex C, "References consulted") I was able to find answers to these three questions. From the beginning of the project (First loans were given in 1977) to December 31, 1982:

- The amount loaned was 78,861,183 FCFA (Table 1).
- The number of loans made was 247 (Table 2).
- The repayment rate was 28% (Table 3).

In spite of any problems Straughter may have had in generating this data the system was able to pass the test of producing answers to these three basic questions.

However, the following observations should be noted about these tables. Whereas we were able to determine the number of loans, we were not able to determine precisely the number of beneficiaries (Table 2). Any CNCA loan without any USAID financing was excluded from these statistics (Tables 1 and 2). Repayment rates were calculated on full loan amounts (CNCA and USAID financing combined) (Table 3). These figures were as of December 31 rather than the end of the USAID/CNCA fiscal year (September 30) because loan due dates are all set at December 31. However, in the future, the end of the fiscal year should be used as the reporting date (Tables 1, 2, and 3). Repayment rates are defined as amount collected as a percentage of the amount that should have been collected (the amount due this year plus the amount overdue from previous years) (Table 3). The only source of data used for these tables was the Straughter Report (Tables 1, 2, and 3).

B. PROCEDURES

1. Requests for loans

Requests for loans are made on a "Demande de Pret Collectif" CNCA form

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TABLE 1

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AMOUNT OF LOANS MADE BY NDD PROJECT FROM THE BEGINNING OF THE PROJECT THROUGH DECEMBER 31, 1982 (IN FCFA)

<u>FISCAL YEAR IN WHICH LOAN WAS MADE</u>	<u>SOURCE OF INFORMATION (STRAUGHTER REPORT TABLE NUMBER)</u>	<u>EX-CPT</u>	<u>COOPS</u>	<u>BLACK SMITHS</u>	<u>BEEF FATTEN-ING</u>	<u>TOTAL</u>
<u>Ouallam</u>						
1977-79	1-7	2,895,900				2,895,900
1979-80	2-7,3-7,4-7	5,931,150	4,984,550	645,610		11,561,310
1980-81	5-7,6-7	3,619,800	5,745,000			9,364,800
Total Ouallam		12,446,850	10,729,550	645,610	0	23,822,010
<u>Filingué</u>						
1977-79	1-9	7,362,362				7,362,362
1979-80	2-9,3-9,4-9,5-9	7,952,584	5,977,000			13,929,584
1980-81	6-9,7-9,8-9	3,827,000	7,231,416		3,478,825	14,537,241
Total Filingué		19,141,946	13,208,416	0	3,478,825	35,829,187
<u>Kolo</u>						
1977-79	1-9					0
1979-80	2-9,3-9,4-9,5-9	4,776,486	1,990,000			6,766,486
1980-81	6-9,8-9	3,052,500	9,391,000			12,443,500
Total Kolo		7,828,986	11,381,000	0	0	19,209,986
<u>TOTAL NDD</u>		<u>39,417,782</u>	<u>35,318,966</u>	<u>645,610</u>	<u>3,478,825</u>	<u>78,861,183</u>

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TABLE 2

NUMBER OF LOANS MADE BY NDD PROJECT FROM THE BEGINNING OF THE PROJECT THROUGH DE-
CEMBER 31, 1982.

<u>FISCAL YEAR IN WHICH LOAN WAS MADE</u>	<u>SOURCE OF INFORMATION (STRAUGHTER) REPORT TABLE NUMBER)</u>	<u>EX-CPT</u>	<u>COOPS</u>	<u>BLACK- SMITHS</u>	<u>BEEF FATTEN- ING</u>	<u>TOTAL</u>
<u>Ouallam</u>						
1977-79 1/	1-7	7				7
1979-80 -	1-7,2-7,3-7, 4-7,	36	14	5		55
1980-81	5-7,6-7	8	19			27
Total Ouallam		51	33	5	0	89
<u>Filingué</u>						
1977-79 1/	1-9	16				16
1979-80 -	2-9,3-9,4-9 5-9, 8-9	43	16		5	64
1980-81	6-9,7-9	7	30			37
Total Filingué		66	46	0	5	117
<u>Kolo</u>						
1977-79 1/	1-9					0
1979-80 -	2-9,3-9,4-9 5-9	28				28
1980-81	6-9,8-9	5	8			13
Total Kolo		33	8	0	0	41
<u>TOTAL NDD</u>		<u>150</u>	<u>87</u>	<u>5</u>	<u>5</u>	<u>247</u>

1/ In f. some loans reported...
70-80 Loans - ... <'70
Contract No. ...

TABLE 3

REPAYMENT ON ALL NDD PROJECT LOAN PAYMENTS DUE FROM BEGINNING OF PROJECT THROUGH
DECEMBER 31, 1982.

<u>FISCAL YEAR IN WHICH LOAN WAS MADE</u>	<u>SOURCE OF INFORMATION (STRAUGHTER REPORT TABLE NUMBER)</u>	<u>BORROWERS</u>	<u>AMOUNT REPAID BY DEC. 31 1982 (FCFA)</u>	<u>AMOUNT DUE BY DEC. 31 1982 (FCFA)</u>	<u>REPAY- MENT RATE</u>
<u>Ouallam</u>					
1977-79	1-7	EX-CPT	1,822,088	3,174,671	57.4%
1979-80	2-7,4-7	EX-CPT	730,266	3,743,968	19.5%
	3-7	COOPS	2,920,652	9,927,338	29.4%
	4-7	Blacksmiths	22,000	407,610	5.4%
	5-7	EX-CPT	0	1,142,500	0%
1980-81	6-7	COOPS	0	2,898,555	0%
	Total Ouallam			5,495,006	21,294,642
<u>Filingué</u>					
1977-79	1-9	EX-CPT	3,305,490	6,082,632	54.3%
1979-80	2-9,3-9	EX-CPT	2,036,855	3,784,382	53.8%
	4-9,5-9	COOPS	3,464,690	9,772,816	35.5%
	8-9	BEEF FATTEN- ING	3,310,685	3,478,825	95.2%
	6-9	EX-CPT	0	1,207,900	0%
1980-81	7-9	COOPS	0	5,974,694	0%
	Total Filingué			12,117,720	30,301,249
<u>Kolo</u>					
1979-80	2-9,3-9	EX-CPT	673,823	3,240,511	20.8%
	4-9,5-9	COOPS	148,830	3,647,242	4.1%
1980-81	6-9	EX-CPT	0	1,152,820	0%
	8-9	COOPS	247,190	6,755,761	3.7%
Total Kolo			1,069,843	14,796,334	7.2%
<u>TOTAL NDD</u>			<u>18,682,569</u>	<u>66,392,225</u>	<u>28.1%</u>

(Annex H) and move from the borrower to the CNCA agency at the Department Level through the GM, COOP, Arrondissement (UNCC Delegate), and COTEDEP.

2. Delivery of Inputs

The inputs (Credit in kind) move from the factory to the borrower through the UNCC (National--Centre D'approvisionnement), UNCC Department warehouse, UNCC arrondissement warehouse, and Cooperative. Each movement is made with a "Bon de Livraison" (Annex I). At the cooperative level the delivery is confirmed by a "Bon de livraison" (Annex I). At each level each kind of equipment is registered and controlled on a "Fiche de Stock" (Annex J).

3. Handling cash

If upon delivery of the inputs they are paid for with cash, the buyer is given a receipt (Annex K) and the money moves to the CNCA Headquarters through the cooperative, UNCC (Arrondissement delegate), UNCC Department office, and CNCA department agency. Each time the money changes hands a similar receipt is written and the transaction is recorded on a "Livre de Caisse" (Annex L).

Cash received as repayment of loans, loan down payments and animal insurance (FAMAT) premiums follow the same route from borrower to CNCA national level and are acknowledged at each level with a receipt (Annex M) and an entry on the "Livre de Caisse" (Annex L). When a receipt is issued at the cooperative level the names of individuals and the amount each has paid is noted on the back of the receipt.

4. Loan Contracts

Loan contracts (Annex K) are issued at the CNCA Department agency level receipt of a copy of the "Bon de Livraison-Facture" (Annex O). Copies are distributed as follows: CNCA National, CNCA Department Agency, NDD, UNCC (Arrondissement Delegate) and cooperative. While waiting for the arrival of the official contract from the CNCA agency a provisional contract is held by the UNCC Delegate (Annex P). These loans are registered at the arrondissement level on a CNCA Comme Client form (Annex Q) and at the Coop level on a Registre des Prets (Annex R).

These procedures are summarized in "Flux physiques et Monetaires" (Annex S) and "Liste des Documents de Gestion" (Annex T). Also suggestions for making these procedures work more smoothly appear in "Propositions de Resolutions Presentees par Les Delegués" (Annex U), prepared by arrondissement delegates attending the Hamdallaye Credit and Inputs Workshop, December 1982.

C. PROBLEMS

In this section several problems of the current system will be pointed out but the main problems can be summarized as follows:

- Low Loan repayment rate (28% as of Dec. 31, 1982)
- Sluggish Loan Disbursement procedures.
- Irregular, inconsistent, and incomplete accounting and reporting procedures.

1. CNCA Management Problems

a. New need for concern for Self-Sufficiency.

Limitations on GON financial resources reduce prospects for receiving government subsidies in the future. Therefore management to achieve the goal of a self-supporting institution are more important than ever.

b. Management procedures

Following are a few of the procedures being used by CNCA that create problems:

-Loan disbursement and contract issuing is handled at the high level of Department agency.

-Identical detailed information is maintained at different levels

-annual financial statements are late in coming out (FY 1980-81 statement is still out).

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2. NDD Credit Advisor Problems

USAID's credit advisor for the NDD Project has had to handle many of the details of the day-to-day administration of the credit system (handling money, delivering inputs, delivering contracts, etc.) which takes time away from the long term management aspects of the system. Also his office is located at USAID rather than at CNCA.

3. Loan Disbursement Problems

The long and complicated procedures described earlier for processing loan requests, delivering inputs, and issuing contracts have resulted in:

-Animal traction packages being delivered after they are needed for the current crop season.

-Delays of up to two years in delivery of loan contracts.

4. Loan Repayment Problems

In the earlier stages of the NDD project (Both Phase I and Phase II) attention was focused on distribution of animal traction packages and training with relatively less emphasis placed on the importance of loan repayment. The result was the 28% repayment rate as of December 31, 1982 (Table 3). Consequently several aspects of the low repayment problem have emerged.

a. Motivation of Agents

The task of collecting loan repayments from borrowers who had understood poorly the terms of their loan is distasteful to the field level UNCC encadreurs charged with this responsibility, especially if no reward is given for a good result and no sanction is suffered from a bad result. Also the fact that UNCC agents are asked to collect loans given by another institution, the CNCA, is a problem.

b. Procedures

Under "Loan Disbursement Problems" above it was pointed out that loan contracts come out long after the animal traction package is delivered and often after the first or second repayment due dates. Naturally, borrowers are not inclined toward making a loan repayment on a contract they have not yet received.

Loans are made to farmers collectively through a single loan to a cooperative. If farmers appear voluntarily with money in their hands it is very difficult for the collection agent to tell them specifically how much each should pay as their part of the collective loan.

A shortage of receipt forms at the level of the UNCC encadreur who serves as the loan collection agent has been the reason these agents have discouraged (and in some cases refused) repayment by borrowers in small amounts.

Niger does not appear to be different from Upper Volta in loan repayment problems. That is high delinquency rates are more the result of shortcomings in the performance of the lending institutions themselves than from the borrowers (Annex V).

5. Accounting and Reporting System Problems

Though Straughter (see "References consulted", Annex C) has proved that the data exists, no systematic procedure is working to produce the basic statistics needed by management like those in Tables 1, 2, and 3. Duplicate sets of data are being kept at too many different levels.

Stock of agricultural production inputs are loosely controlled at each level.

Loan repayment procedures are relaxed and inconsistent. For example loan repayments are received at different levels in the structure making it difficult for those keeping accounts at lower levels to keep their accounts up-to-date. This casualness in procedures may encourage embezzlement.

III. RECOMMENDATIONS

Although several recommendations will be made the main ones may be summarized as follows:

- Decentralize loan disbursement and record keeping authority to UNCC Arrondissement level.

- Systematize and regularize loan repayment collection procedures.

- Stop keeping duplicate detailed records at different levels.

- Shift duties of NDD credit advisor away from trivia to a higher level of planning and scheduling through a CNCA counterpart to meet three annual deadlines:

- May 1 for loan disbursement,

- Dec. 31 for loan repayment,

- Sept. 30 for statistical reporting.

- Computerize CNCA/UNCC for:

- Loan Portfolio Management

- Stock Management

- Employee Payroll

- Calculation of efficiency premiums for employees

- General accounting

- Set up profit centers in both CNCA and UNCC

A. Short term (1983) Recommendations

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The date of March 31, 1983 should be set as the deadline to accomplish the following:

-Satisfy all unresolved points of the Straughter report (See "References Consulted", Annex C).

-Organize meetings of leaders of cooperatives to set specific dates to return to collect all loan repayments now overdue.

-Complete all loan contracts for loans already made.

-Sign revised Protocol between CNCA/UNCC/NDD.

CNCA Management Recommendations

Clarify lines of direction/authority from CNCA to borrowers through UNCC Delegates and encadreurs and cooperatives. Linked to this is the recommendation that all CNCA/UNCC Agents in this newly clarified chain of command received annual cash performance premiums based on performance criteria as established by the institutions involved (CNCA/UNCC/NDD) such as:

-Number of small farmers receiving loans.

-Amount loaned.

-Repayment Rate.

-Profit earned by the Profit center which includes the employee in question.

-Special premium for hard-to-collect oldest overdue loans.

Establish a clear policy for writing off uncollectable loans. If this is not done then these uncollectable loans show up on the CNCA's annual financial statement as assets when in reality they are not collectable.

Establish a clear philosophy at all levels in the CNCA/UNCC/NDD that interest income is to be used to cover the three elements of costs of administration, cost of money, and uncollectable loans. If CNCA is charging 12.5% interest, and they pay BCEAO 10% for money, they allow 2.5% to cover costs of administration, then this leaves nothing to cover bad debts--in other words a 100% repayment rate is assumed.

2. NDD Credit Advisor Recommendations

It is recommended that the NDD Credit Advisor be installed in the Niamey Department Agency of the CNCA to encourage a more active relationship with his counterpart, the Chief of the agency.

Although the early years of this project required the time and attention of this NDD Credit Advisor to follow details of the day-to-day operations of the credit system (handling money, delivering documents, distributing farm equipment, etc.) The system has evolved to the point where the Nigerien staff can handle the mechanics of operations thereby freeing up the time of the Credit Advisor to work more closely with his counterpart in doing the planning required to meet the three key deadlines of the credit system:

- May 1 - Loans made -- contracts signed
- Dec. 31 - All repayments collected
- Sept. 30 - All statistical reports completed

3. Loan Disbursement Recommendations

It is recommended that, effective immediately, money being used for manufacturing farm equipment, buying traction animals or buying farm inputs be charged interest from the day it leaves the CNCA. The cost of this money should be added to the price of the inputs. The date the inputs move from the supplier to the cooperative would be the date that interest is stopped being charged to the supplier and started being charged to the cooperative. The cooperative would pay interest on the money tied up in the inputs from the day it receives them until the day they are delivered to the farmers. The cost of this interest would be added to the price charged the farmer. The farmer should start paying interest on any part of the animal traction package the day that part arrives (even if the package is incomplete).

It is also recommended that CNCA make loans to a union of cooperatives organized at the arrondissement level and let the union of cooperatives (under the guidance of the UNCC delegate) on-lend to farmers through their respective cooperatives and GM's. This will have the effect of shifting the loan contract preparation from the department to the arrondissement level. This decentralization should allow contracts to be written the day inputs are delivered rather than with the one or two year delay as in now the case.

4. Loan Repayment Recommendations

Develop a schedule of meetings with representatives of cooperatives to announce precise dates for returning to the cooperatives for collecting loan repayments--all to be completed before the due date: December 31.

Distribute an ample stock of printed loan receipts to eliminate the lack of sufficient receipts as the excuse encadreurs have used for not wanting to accept small amounts on loan repayments.

In case of crop failure or other valid excuse for deferring a loan repayment the decision to defer should be on a case-by-case base and not a decision that would apply to everyone in an area. Many farmers have alternate means of making their loan repayments and would prefer to do so. In no case should interest charges be deferred.

5. Accounting/Reporting System Recommendations

As a minimum an accounting/reporting system should answer the three basic questions posed earlier. How much has been loaned, how many loans have been made, and what is the rate of repayment. Additionally; it should show how many people have been served and this should all be broken down by year, zone, purpose and source of funding. The system in place provides the basic information required to do this. From the existing Bon de Livraison (Annex I), Recu (Annex K), Livre de Caisse (Annex L), Contrat (Annex M) or Contrat Provisionnelle (Annex P), and Registre des Prets (Annex R), the

information can easily be found to produce the monthly reports I am proposing to be filled out at four levels of the system: Cooperative, Arrondissement, Department, and National levels. One report is for loans given (Annex W) and the other report is for receipts (Annex X). If these two reports are produced at these four levels then tables like those in Tables 1, 2, and 3 of this report will be produced.

To address the problem of not having detailed information at the cooperative level on individual loan accounts, Thomas Shaw has developed a form to do the job. I endorse this proposal with the small changes as noted on this "Compte Individuel" (as shown in Annex Y).

A basic principle of record keeping recommended is that duplicate records not be kept. Basic details should be kept at the level of arrondissement, and at higher levels all that is needed is summary data on the detail found at lower levels.

One modification is recommended in the "Livre de Caisse" (Annex L) kept at all levels and that is that a balance ("Solde") column be added at the extreme right as is done for the compte client (Annex Q). This balance should equal the amount of cash on hand and serves as a means of control for the credit agents from CNCA who make periodic visits to arrondissements and encadreurs of cooperatives.

It is recommended that Column 7 of the "Monthly Report of Receipts" (Annex X) be split into principal (7A) and interest (7B). This is convenient for the "Profit center" managers to see clearly what goes back into the revolving credit fund (the principal) and what is available from the interest income to pay for administrative costs; the cost of money, and bad debts to be written off.

B. Long Term (1984 and 1985) Recommendations

1. Computerized management

It is recommended that a systems analyst look at the management needs that can be helped through computerization in both CNCA and UNCC. Programs could be developed to help manage:

- the loan portfolio
- the stock of inputs
- the payroll of employees
- the calculation of efficiency premiums of employees
- general accounting

Computerization of the loan portfolio would eliminate the need for field agents to produce:

- Fiche de Stock (Annex J)
- Compte Client (Annex O)
- Registre des prets (Annex R)
- Monthly report of loans (Annex W)
- Monthly report of Receipts (Annex X)
- Compte Individuel (Annex Y)

In fact, the computer would furnish this information to the agents in the field.

2. Financial Management

The services of a financial management specialist could help CNCA in this regard.

3. Organizational Structure and Personnel Administration

The organizational structure and personnel administration of CNCA may also benefit from the assistance of specialists in these areas. For example the installation of a computer might cause some positions to be redefined. Also, productivity of employees might be increased through training, improved logistical support, additional administrative support, a system of premiums to be paid based on efficiency criteria as defined by the institution and fair/equitable salaries. All should fit within the overall goal of self-sufficiency of the institution which would come not as much from reduced costs but from the possibility of increased volume of loan activity without increasing the fixed cost base.

4. Profit Centers

Under "Loan Disbursement Recommendations" in Section III.A.3. above is the idea of each level holding a stock of input supplies, pay interest on the money invested in that stock and pass this cost on to the buyer of that stock. This is presented as part of the philosophy behind the notion of setting up "Profit Centers" in which each center of activity would manage its affairs on a profitable basis in which revenues exceed expenses. If Government subsidies are received these are simply treated as income on the income statements.

IV. CONCLUSIONS

The main points of this report were presented orally before the directors and staff of USAID/CNCA/UNCC/NDD before my departure from Niger. The Director of CNCA reacted by saying that he fully endorsed my points regarding self-sufficiency of the institution and my proposal to computerize the CNCA/UNCC and added a point of his own. He suggested that CNCA try to find additional capital with which loans could be given to cooperatives for buying farm products, storing them until the price rises and selling them at a profit. He pointed out how this would help directly with the problem of loan repayment on animal traction loans. This is consistent with the four points guiding the direction of AID presently: private sector development, institution building, technical transfer and policy development. The CNCA concluded his remarks by endorsing my observation that the low loan repayment rate is more the fault of the lender than the borrower (Annex V).

A draft protocol agreement between NDD and CNCA was drafted on July 17, 1981 (Annex Z1) and is now being revised. I would suggest that the following points be incorporated into the revision:

-Reconciliation of points raised in Straughter report (See "References consulted", Annex C) be accomplished by March 31, 1983.

-Role of NDD advisor be redefined (See "NDD Credit Advisor recommendations" in Section III.A.2. of this report) and that a more active counterpart relation be developed by moving the NDD Credit Advisor to an office near his counterpart, the Chief of the Niamey Department Agency of the CNCA.

-Priority should be given to collecting loans now overdue (See "Loan Repayment Recommendations" in Section III.A.4. of this report) by March 31, 1983.

The system of monthly reports proposed (See "Accounting/Reporting System Recommendations" in Section III.A.5) in this report should be adopted immediately.

-Loan contracts should be written at the arrondissement level (See "Loan Disbursement Recommendations" in Section III.A.3 of this report) and effective March 31, 1983.

-Systematic programs should be developed to meet the three key deadlines of the credit program:

May 1 Loan Disbursement

Dec. 31 Loan Repayment

Sept. 30 Statistical Reporting.

-Premiums should be divided among cooperatives, encadreurs and delegates as follows:

→ Loans due Dec. 31, 1979: 15% of amount collected

Loans due Dec. 31, 1980: 10% of amount collected

Loans due Dec. 31, 1981: 5% of amount collected and that this cost be paid

from NDD Project funds if possible.

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It is my belief that the recommendations of the "Audit Report" (See "References Consulted" Annex C) will all be satisfied from:

1. Actions NDD has already taken,
2. The recommendations of the Straughter report, and
3. The recommendations of my own report, here.

V. ANNEXES

Currency Equivalentents

U.S. 1.00 = CFA 345

CFA 1,000 = U.S. 2.90

Weights and Measures

1 kilogram (kg) : 2.20 pounds

1 Metric Ton (T) : 0.98 Long Tons

1 Hectare (ha) : 2.47 Acres

1 Kilometer (km) : 0.62 miles

1 Liter (l) : 1.0567 Liquid Quarts

Acronyms and Abbreviations

AAPC	Afro-American Purchasing Center (New York)
AFN	Association des Femmes Nigeriennes
APS	Agricultural Production Support
BICIN	Banque Internationale Pour le Commerce et L'Industrie du Niger
BCEAO	Banque Central Des Etats de l'Afrique de l'Ouest
BDRN	Banque de Developpement de Republique du Niger
CA	Centre d'Approvisionnement (Input Supply Center)
CDARMA	Centre de Developpement de l'Artisanat Rurale et du Machinisme Agricole (Development Center for Rural Artisans and Agricultural Mechanization)
CEC	Centre d'Education de Cooperative (Cooperative Education Center)
CFJA	Centre de Formation des Jeunes Agriculteurs (Young Farmer Training Center)
CNCA	Caisse Nationale de Credit Agricole (National Agriculture Credit Bank)
COOPRONIGER	(Like BOUOLCAM)
COTEAR	Comité Technique d'Arrondissement (District Technical Committee)
COTEDEP	Comité Technique Departemental (Department Technical Committee)
CPT	Centre de Perfectionnement Technique (Farmer Couple Training Center)
FAMAT	Fonds assurance Morthlite animaux de trait
GM	Groupement mutualiste
GON	Government of Niger
INRAN	Institut National de Recherche Agronomique du Niger (National Agriculture Research Institute)
MDR	Ministère du Developpement Rural (Ministry of Rural Development)
MP	Ministère du Plan (Ministry of Plan)

OPVN	Office des Produits Vivriers du Niger (Food Marketing Board of Niger)
PAID	Pan African Institute for Development
PID	Project Identification Document
PES	Project Evaluation Summary
PMSU	Project Management Support Unit
REDSP/WA	Regional Economic Development Support Office/West Africa (Abidjan)
SONARA	Société Nationale d'Arachide (National Peanut Company)
ULC	Union Local des Cooperatives
UNCC	Union Nigerienne de Credit et de Cooperation (National Credit and Cooperative Union)
USRC	Union Sous Regional Des Cooperatives

PEOPLE CONTACTED USAID

Irving Rosenthal, Director, USAID/Niamey
 John Lovaas, Deputy Director, USAID/Niamey
 Wilbur Thomas, Rural Development Officer USAID/Niamey
 Jim Lowenthal, Project Officer, Niamey Department Development Project, USAID/
 Niamey
 Thomas Shaw, Credit Advisor, NDD Project, USAID/Niamey
 Stanley L. Straughter, Short Term Credit Accounting Consultant, NDD Project,
 USAID/Niamey.
 Richard Roberts, Development Administration Specialist, Short Term Evaluation
 Team Leader, NDD Project, USAID/Niamey
 Teresa Ware, Social Scientist, Short Term Evaluation Team, NDD Project, USAID/
 Niamey
 Mamadou Chekaraou, Accountand, NDD Project USAID/Niamey
 Saley Moussa, Ndd Commandant, USAID/Niamey
 Guingarey Hassane, NDD/CFT, Conseilleur, USAID/Niamey
 Tony Doggett, Evaluation Officer, USAID/Niamey

CNCA

Abdou Issaka, Director, CNCA
 Idrissa Othman, Comptable, CNCA
 Ousmane Djika, Director, Niamey Department Agency, CNCA

UNCC

Amadou Garba, Director, UNCC
 Amadou Yayé, Warehouse Manager, Niamey Department, UNCC
 Ide Yacouba, Délégué, Arrondissement Kolo, UNCC
 Abdou Bawa, Délégué Adjoint, Arrondissement Dolo, UNCC
 Soumana Diaouga, Encadreur, Kouré Cooperative, Kolo, UNCC

REFERENCES CONSULTED

- AUDIT REPORT "The Niamey Department Development Project in Niger--needs more management attention--Audit Report N° 7-698-83-2" in draft by Ankelwich, et al, December 1982.
- "Memo on NDD Audit Report" by Jim Lowenthal, Dec. 14, 1982
- "Memo on Draft Audit Report" by Tom Shaw. December 1982.
- CILSS REPORT "Developpement des Cultures Pluviales au Niger" by Club du Sahel/OECD/CILSS, Sahel D(82) 180 Report, September 1982
- FID "Rural Development Sector Grant" FY 83-86, USAID/Niger, September 4, 1982
- PP "Niamey Department Development Project Phase II 683-0240" Volumes I and II USAID/Niger, April 28, 1981
- SHAW REPORT "Report on the Niamey Department Development Project's Phase I (1978-80) experience with the CNCA/UNCC Credit and Agricultural Inputs Supply System" by Shaw/Wentling/Mullenax, April 1981
- AUDIT REPORT "Memo on Report of Audit Finding N° 1 Niamey Department Development, Credit Fund" from Thomas B. Anklewich, RIG/A/WA to Irving Rosenthal, Mission Director, USAID/Niger, September 3, 1982.
- "Memo on Report of Audit Finding N° 3 on the Niamey Department Development Project 'Need to Improve the Management of the Niamey Department Development Credit Fund'" from Thomas B. Andlewich, RIG/A/WA to Irving Rosenthal, Mission Director, USAID/Niger, September 17, 1982.
- SHAW REPORTS (Continued) "Thomas Shaw comments delivered at Lossa Conference" January 20, 1983.
- CNCA ANNUAL REPORT "Rapport du Conseil d'Administration--Caisse National de Credit Agricole de la Repobliaue du Niger--Exercise 1980 (1^{er} October 1979-30 Septembre 1980)"
- STRAUGHTER REPORT "Report on NDD Credit Accounting System of NDD Project" by Stanley L. Straughter, January 22, 1983.
- ANIMAL TRACTION DOCUMENTS"Catalogue des Materiels Agricole" PPN/MDR
- "Prix de Cession aux Agriculteurs des Intrants Agricoles de la Campagne 1982 Arrete N° 14/MDR/UNCC du 13 Mars 1982" PPN/MDR
- FORMS USED FOR MANAGING CREDIT PORTFOLIO
- "Demande de Pret Collectif" CNCA
- "Contrat de Pret" CNCA
- "Livre de Caisse" CNCA
- "Fiche de Stock" UNCC
- "Recu" UNCC
- "Recu" CNCA

"Bon de Livraison" PPN

"Bon de Livraison" UNCC

"Liste des Documents de Gestion", UNCC, 12 Dec. 1982

"Flux Physiques et Monetaires", PPN, 15 Dec. 1982

"Taches des Encadreur" PPN, 15 Dec. 1982

"Instructions Permanentes sur la Gestion des Stock d'Intrants Agricoles", UNCC, Juillet 1982

NDD/CNCA/UNCC POLICY STATEMENTS

"Propositions de resolutions presentees par les Délégués" PPN, Dec. 12, 1982

"Reglement Interieur de Fonds Assurances Mortalite Animaux de Trait" CNCA, undated.

REPUBLIQUE DU NIGER
MINISTERE DU DEVELOPPEMENT RURAL
DEPARTEMENT DE NIAMEY
PROJET PRODUCTIVITE NIAMEY

PRIX DE CESSION AUX AGRICULTEURS DES INTRANTS
AGRICILES DE LA CAMPAGNE 1982 ARRETE N° 14
/ MDR / U.N.C.C DU 13 MARS 1982

I - MATERIEL AGRICOLES

a) Matériel aratoire

Bati de base + chaine	=	6.000 F
Corps de charrue	=	6.000 F
Canadien 3 dents	=	4.500 F
Canadien 5 dents	=	6.000 F
Lames souleveuse sarcleuse	=	3.750 F
Buttoir	=	3.750 F
Houe asine	=	12.000 F
Semoir manorang	=	27.200 F

b) Matériel de transport

Charrette bovine	=	77.500 F
Charrette asine	=	65.400 F

II - ENGRAIS

Super phosphate simple	=	35 Frs/kg
Super phosphate triple	=	45 Frs/kg
15 - 15 - 15	=	45 Frs/kg
14 - 23 - 12 (6-2)	=	45 Frs/kg
Urée	=	50 Frs/kg
Phosphate naturel de Tahoua	=	28 Frs/kg

III - PRODUITS PHYTOSANITAIRES

Insecticide péprothion TM	=	1.000 Frs/litre
Fongicide	=	50 Frs/sachet de 25g

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ANNEXE

REPUBLIQUE DU NIGER
MINISTERE DU DEVELOPPEMENT RURAL
DEPARTEMENT DE NIAMEY
PROJET PRODUCTIVITE

Du 26 Juillet 1982

Liste de prix de cession des mini matériels
vendus au comptant aux coopérateurs et aux
stagiaires des CPT dans la zone du Projet
Productivité Niamey. Campagne agricole 1982.

DESIGNATION

PRIX UNITAIRE

Joug court	5.000
Joug long	10.000
Démonte pneu	540
Démonte roue	1.060

PRIX ESTIMATIF

Traceur en bois	4.500
Pompe à air	3.000
Pièces à coller	750

21

A compter du 7 Avril 1982, les prêts accordés aux Institutions coopératives, aux Sociétés et Offices ainsi qu'aux salariés et assimilés porteront respectivement les taux d'intérêt suivants: 12,50%, 15,50%, 17,50.

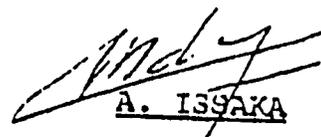
Ces différents taux traduits en commission fixent les coefficients suivants :

DUREE		COOP.	SOCIETES ET OFFICES	SALARIES ET ASSIMILES
1	AN	12,50 %	15,50 %	17,50 %
2	ANS	19,00 %	23,25 %	26,00 %
3	ANS	25,70 %	31,00 %	35,65 %
4	ANS	32,80 %	38,75 %	47,00 %
5	ANS	40,00 %	46,50 %	57,75 %
6	ANS	47,60 %	54,25 %	68,90 %
7	ANS	55,40 %	62,00 %	80,50 %

La présente note de service annule la note de service n° 1075 du 14/10/80.

AMPLIATIONS :

- CHRONO	1
- SCE ENGAGEMENT	3
- AGENCE NY	3
- " MARADI	3
- " TAHOUA	6
- " ZINDER	6
- " DOSSO	3
- INSPECTION	1


A. ISSAKA

C.I.C.A

AGENCE DE NIAMEY

TABLEAU D'AMORTISSEMENTS DE PRETS MATERIELS
ET ANIMAUX 1982

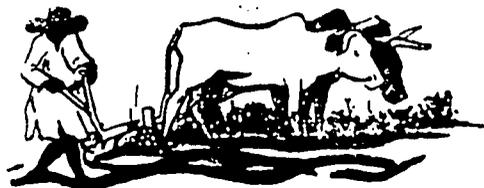
Taux d'Intérêt : 32,80 %

DUREE : 4 ans

DESIGNATION	MONTANT	APPORT PERSONNEL 10 %	MONTANT NET	INTERET AVEC APPORT PERSONNEL	EXEMPLE A REMBOURSE	ECHEA ANNU
CHARRETTE BOVINE	77.500	7.750	69.750	22.878	92.628	23.15
CHARRETTE ASINE	65.400	6.540	58.860	19.306	78.166	19.54
EQUIPEMENT BATI DE BASE + CHAINE	6.000	600	5.400	1.771	7.171	1.79
EQUIPEMENT CANADIEN 3 DENTS	4.500	450	4.050	1.328	5.378	1.34
EQUIPEMENT CANADIEN 5 DENTS	6.000	600	5.400	1.771	7.171	1.79
EQUIPEMENT SOULVEUSE SARCLEUSE	3.750	375	3.375	1.107	4.482	1.12
EQUIPEMENT BUTTOIR	3.750	375	3.375	1.107	4.482	1.12
EQUIPEMENT HCUE ASINE	12.000	1.200	10.800	3.542	14.342	3.58
SEMCIH MONORANG	27.200	2.720	24.480	8.029	32.509	8.12
PAIRE DE BOEUF	120.000	12.000	108.000	35.424	143.424	35.85
ANE	20.000	2.000	18.000	5.904	23.904	5.97

12

REPUBLIQUE DU NIGER
**CAISSE NATIONALE
DE
CREDIT AGRICOLE**



Enregistrée sous la Liste
de Banque sous le n° 3/D

Siège Social : NIAMEY
Boîte Postale N° 201

N°

Date :

DEMANDE DE PRET COLLECTIF

Mutuelle de (1) :

Coopérative de :

Arrondissement de :

Département de :

Nature des Activités du Groupement :

Demande de Prêt à Court ou Moyen terme de (2)

OBJET

(Description - Sommaire et Avis)

-
- (1) N° de la Coopérative
 - (2) Mutuelle classique non rattachée à une Coopérative.
 - (3) Rayer les mentions inutiles

APRECIATION DE LA DEMANDE (COTEAR)
(Par rapport aux projet du développement de la region)

NOTE DE PRESENTATION DU CHEF D'AGENCE

Antécédent

Avis sur la demande

Décision de Cotedep

Date

BON DE LIVRAISON

N° 006004

Destinataire

**PROJET PRODUCTIVITE
NIAMEY**

DESIGNATION DE L'ARTICLE	PRIX	Quantité	MONTANT

Signature Fournisseur

Signature Destinataire

UNION NIGERIEENNE DE CREDIT
ET DE COOPERATION

ETABLISSEMENT PUBLIC
Crée par la Loi du 20 Septembre 1962

Siège : NIAMEY

BOITE POSTALE 296
TÉL. 72-33-01/02
C. C. P. 26-35

PAYEUR

Organisme _____

Agent _____

Signature _____

N° 008711

ANNEXE N

10-2-4597

B. P. F.

93

Les soussignés,

M. Kouadio Kouangou De Cou...

M. U. N. U. Filingué

M. _____

de la _____

reconnaissons avoir reçu de M. Oumarou Yankou
SFP Filingué la somme de :

à titre de Monte du comptant de
du Sapeur triple Filingué

Filingui, le 4/7 19 61

Filingui

011 904

Arrondissement de Filangué N° 10-2-4097

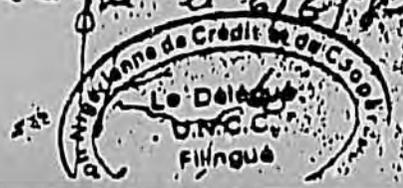
Livre de caisse C.N.C.

26

Date	N° Proc.	Libelle	Debit	Credit
14/5/51	008226	Vente au comptant 1 canocher (PPM)	8000	
24/4/51	008446	Vente comptant 1 canocher (PPM)	8000	
4/5/51	008603	Vente comptant 1 canocher (PPM)	8000	
23/5/51	008360	Vente comptant 2 paniers à eau	5000	
1/6/51	008348	Vente comptant 12 vêtements pressés, 5 vêtements sans	15.700	
28/5/51	008337	Vente comptant 3 vêtements sans	4.100	
"	008338	Vente comptant 2 paniers à eau	5000	
3/7/51	008371	Vente au comptant 12 vêtements pressés	17000	
27/4/51	008450	Vente comptant 12 vêtements sans, 40 vêtements pressés	5.100	
2/10/51	008332	Vente comptant 400 kg Super Kugle à Tabla	12000	
21/5/51	008210	Vente comptant 200 kg S.T. à Tabla	6000	
1/3/51	008331	Vente comptant 300 kg S.T. à Kaligero	30.000	
13/5/51	008209	Vente au comptant de 1000 kg S.T. à Kaligero	30.000	
15/5/51	008230	Vente au comptant de 1000 kg S.T. à Damana	30000	
1/5/51	008307	Vente au comptant de 500 kg de S.T. à Damana	15000	
11/1/51	008315	Vente au comptant de 300 kg de S.T. à Kaligero	10.500	
10/1/51	008219	Vente au comptant de 1000 kg S.T. à Bonkankon	3000	

286.80

Filangué le 6/6/51



ANNEX M

10-2-1444

UNION NATIONALE DE CREDIT AGRICOLE

N° 0038748 78

ETABLISSEMENT PUBLIC
créé par la loi du 20 Septembre 1967

SIEGE : NIAMEY
BOITE POSTALE 290

ENCAISSEUR

Organe C.N.C.A.
Agent Leu Franaitc



B P F 116 784

Reçu de M. Noma Sanyi

Responsable corp Ouallaa

la somme de

vingt-quatre mille sept cent quatre
titre de Reçu. Plet National
agricole Ech. 80

Ouallaa, le 26/1/1980

L'AGENT ENCAISSEUR

Assane Saadou Sakhé Koira Iegu
Daouda Morou Karoubedji

CAISSE NATIONALE
DE
CREDIT AGRICOLE

Contrat de prêt à terme

31/12/81 / 31/12/81

Entre les soussignés

La Caisse Nationale de Crédit Agricole (CNCA), Etablissement public fondé en application de la loi 67-32 du 20 Septembre 1967 et décret n° 68-57 du 8 Avril dont le Siège est à Niamey, représenté par :

ABDOU ISSAKA

D'une part

La Coopérative de KOURE
denommé l'emprunteur représente par
son Président

Il a été arrêté et convenu ce qui suit :

Article - 1 - la C.N.C.A. consent à la Coopérative de Kouré
Qui accepte un crédit de 275.400
En vue de l'achat des fournitures ci-après désignées.

V.G.A. pour le compte Elèves CPT Boulla Promotion 1980

Article - 2 - la C.N.C.A. règle au fournisseur le prix des marchandises ou des animaux livrés à l'emprunteur.

Article - 3 - le prêt supporte un intérêt de 10,5 % l'an

Article - 4 - l'emprunteur s'engage à rembourser le montant total de sa dette en capital et intérêt dans un délais maximum de 4 ans

b) le capital et les intérêts seront remboursés en 4 échéances égales de 86.823

c) La première échéance est fixée au 31/12/81
La dernière échéance au 31/12/84

Article (1) En cas de non règlement de l'une des échéances à la date prévue la C.N.C.A. est en droit de faire saisir le matériel et les animaux achetés à l'aide du prêt, les sommes versées lui restants dû.

RELEVÉ DES PRIX
 Ciro Succ. P. Camp 802 51
 DUNNED

CONTRAT	MONIANT DES TAUX	APPORT PER.	DEBLOCAGE	TAUX	LITRE KILT	MONIANT ARENB	ECHANGE	DATE IN	DATE DER	OBSERVATIONS
SI MG 14/10/24	70 860 600 600	70 860	637 740	2.778 3218 2.778 3218	229 178	849 518	211 730	31-12-82	31-12-82	Pret U.C.R

PROPOSITIONS DE RESOLUTIONS
PRESENTEES PAR LES DELEGUES

=====

APPRO

- 1/ La zone projet est exclusivement approvisionnée par le projet ; la zone hors projet par la CA.
Pour clarifier la situation, il est souhaitable que le projet prenne en charge les facteurs de production déjà stockés dans la zone projet
2. Modifier le Bon de livraison en insérant la signature du transporteur et une colonne "observations" assez large pour y noter les réserves. Supprimer le Bon d'entrée.
3. Instituer un Bon de livraison entre la coopérative et le GM.

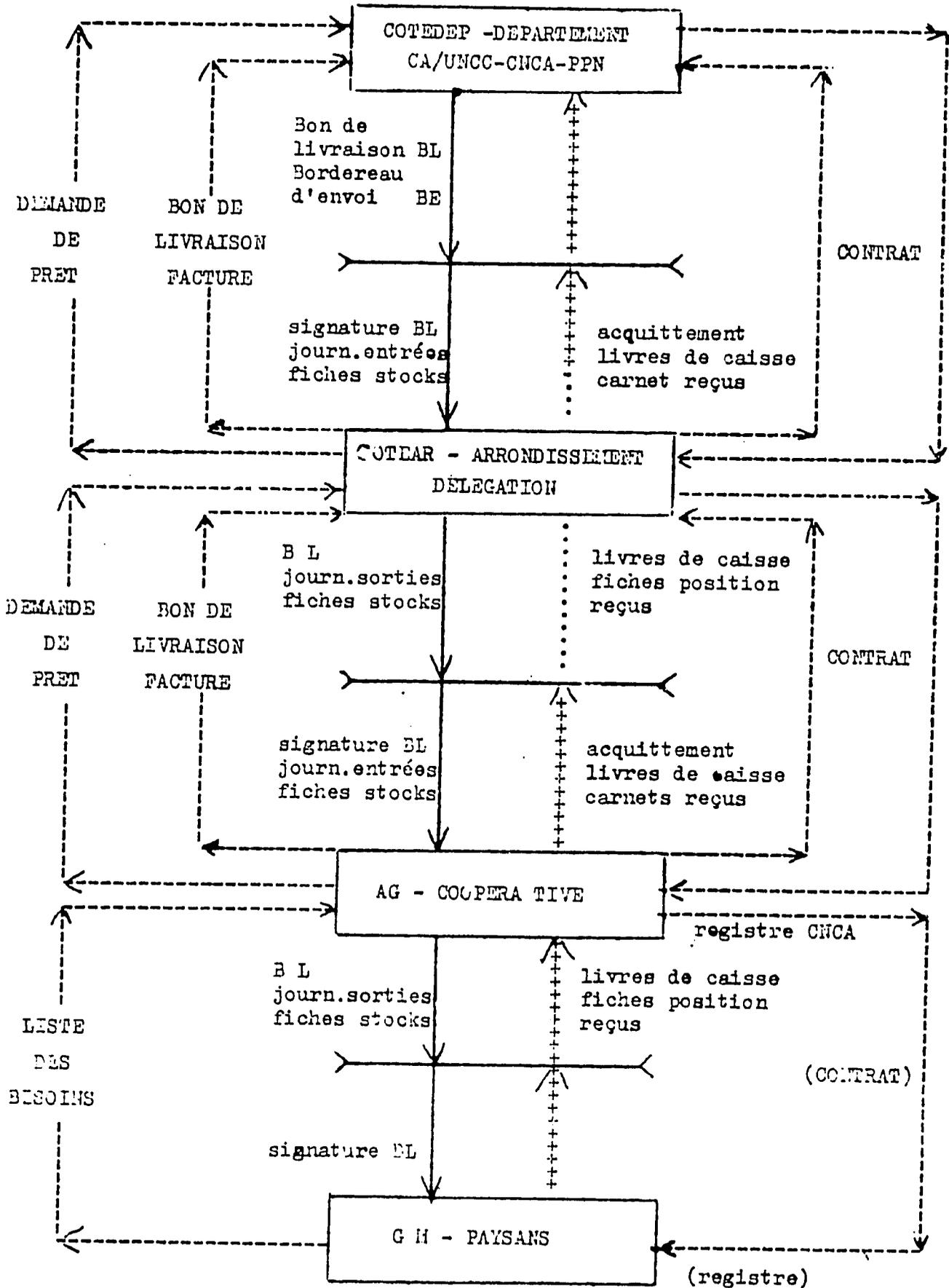
CREDIT

1. Endettement
 - Importance de la situation des impayés. Plus de 10 % d'endettement (moins de 90 % de recouvrement) exclut l'octroi d'un nouveau crédit
 - l'échéance indique la date limite à laquelle le crédit doit être recouvré ; il faut donc le récupérer auparavant.
2. Contrat
 - Etablir un contrat simplifié entre la coopérative et le GM au nom duquel on consigne la liste des bénéficiaires du prêt ractifiée par chacun.
 - Etablir la où c'est possible (ou envisager de le faire quand les conditions seront réunies) un contrat identique entre GM et paysan individuel.
3. Apport personnel
Percevoir l'apport personnel au moment où les UCA sont livrées à la coopérative ; livrer matériels et animaux simultanément au paysan.
4. Echéancier individuel
Sur le registre CNCA, instituer un échéancier individuel par GM qui permette de suivre les recouvrements de chaque bénéficiaire.
5. Carnets de reçus
Noter le numéro du contrat et l'année du prêt.

CONTROLE

1. Donner à la CNCA et l'UNCC les moyens de suivre et de contrôler les opérations de crédit.
2. Pour éclaircir la situation particulièrement embrouillée de l'arrondissement de Kollo, créer une commission spéciale constituée d'un agent de la CNCA, de la délégation de Kollo et du PPN.

FLUX PHYSIQUES ET MONÉTAIRES



SESSION UNCC APPRO / CREDIT

HAMDALLATE 12/16/12/1982

LISTE DES DOCUMENTS DE GESTION

Instance	Documents	Nbre	Destination	
Département : UNCC - CNCA - PPN	Bon de livraison (B L)	4	1 archive	
	Bordereau d'envoi (B E)		1 destinataire	
Arrondissement	Journal entrées	2	2 Délégations / PPN 1 délégation / PPN	
	Fiches	1	1 archive	
	Bon de livraison	4	(1 par produit)	
	Journal sorties	2	Voir B L département 1 délégation / PPN	
	Fiche récapitulative	2	1 archive 1 délégation / PPN	
	Livre de caisse	3	1 archive 1 CNCA	
	Reçus	4	1 délégation 1 archive 1 client 2 CNCA	
	Fiche de position	1	1 archive (1 par prêt / coopérative)	
	Coopérative	Journal entrées	3	1 délégation arrondissement 1 PPN
		Fiches stocks	1	1 archive
		Bon de livraison	4	(1 par produit) 2 arrondissements 1 destinataire
		Journal sorties	3	1 archive
		Fiche récapitulative	3	voir journal entrées 1 arrondissement
Demande de prêt		5	1 PPN 1 archive 2 CNCA 1 arrondissement	
Contrat		5	1 PPN 1 archive	
Registre CNCA		1	Voir demande de prêt coopérative	
Fiche position		1	(1 par prêt)	
Reçus		4	Voir reçus arrondissement	
Livre de caisse		3	1 CNCA 1 arrondissement	
G.M.	Bon de livraison	3	1 archive 1 coopérative 1 destinataire	
	Registre	1	1 archive	

LOAN REPAYMENT DELINQUENCY IN THE EASTERN O.R.D.
(ORGANISME REGIONAL DE DEVELOPPEMENT)
OF UPPER VOLTA

by

Thomas Stickley and Edouard Tapsoba

Workshop on Rural Financial Markets
and Institutions

Wye College, Wye, England
June 12-14, 1979

Cosponsors

Overseas Development Institute
10-11 Percy Street
London W1P 0JB
United Kingdom

Dept. Agricultural Economics &
Rural Sociology
The Ohio State University
2120 Fyffe Road
Columbus, Ohio 43210, U.S.A.

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LOAN REPAYMENT DELINQUENCY IN THE EASTERN O.R.D. (ORGANISME
REGIONAL DE DEVELOPPEMENT) OF UPPER VOLTA

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LOAN REPAYMENT DELINQUENCY IN THE EASTERN O.R.D. (ORGANISME
REGIONAL DE DEVELOPPEMENT) OF UPPER VOLTA

by

Thomas Stickley and Edouard Tapsoba*

A. INTRODUCTION

Upper Volta is one of the Sahelian countries most severely affected by the 1970-73 drought. It has made a strong commitment to increasing agricultural production and improving the quality of life in rural areas where most of its population lives.

Since 1965 the Voltaic Government has pursued a regional approach to rural economic and social development through the creation of O.R.D.'s (Organisme Regional de Developpement). As one of its first recovery projects in the Sahel, the United States Agency for International Development has agreed to provide substantial material and technical assistance to the ORD in the eastern region of Upper Volta through an Integrated Rural Development Program. This program began in January 1975 and is being complemented by various United Nations and European Common Market projects plus bilateral projects from France and Switzerland to provide additional technical and material assistance.¹

The major responsibilities of the ORD's are:

- to provide extension services for farmers and artisans.
- to motivate and organize the population in the planning and execution of development programs.
- to assist in agricultural research.
- to provide farm credit.
- to improve the marketing of farm products.
- to participate in the extension of infrastructural programs.²

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1. The Integrated Rural Development Project of the Eastern ORD

The purpose of USAID's Integrated Rural Development Program in the Eastern ORD is:

- to increase the Eastern ORD's capacity to assist small farmers to increase agricultural production and incomes; and
- to achieve a measurable impact on farmer productivity in four "intensive" zones.

The project purpose is to be achieved through:

1. Expansion of the capacity of the ORD for administration and outreach through:
 - a. the construction and equipment of improved central and field facilities and the provision of logistical support for field staff,
 - b. the training of ORD personnel, and
 - c. technical assistance.
2. Generation of basic data through applied research related to:
 - a. traditional and improved farming systems,
 - b. credit requirements and alternative credit systems,
 - c. technical possibilities and economies of animal traction and animal production, and
 - d. marketed surpluses, marketing systems, and price fluctuations.
3. The testing of production and marketing interventions primarily in the intensive zones with AID providing support mostly in the form of medium term credit for animal traction and a revolving fund for the purchase of cash crops by the ORD.

As a part of its growing involvement in rural development work in the Sahel, the Agricultural Economics Department at Michigan State University engaged in an AID contract to fill five technical assistance positions in AID's Integrated Rural Development Program in the Eastern ORD.¹ This contract began in May 1977 and is expected to continue for a total of 4 years. The technical assistance provided by MSU to the Eastern ORD is a combination of program implementation and applied research to serve the end of improving program design and execution. The five technicians provided by MSU are: Production Economist, Marketing Economist, Credit and Cooperative Economist, Livestock/Range Management Specialist and Audiovisual Specialist.

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Already the Integrated Rural Development Program has accomplished much in terms of expanding the administrative capacity of the Eastern CRD through extensive logistical and technical support. Through MSU's applied research program, production of the basic economic data either has been or soon will be completed. And through the medium term credit program, 1365 sets of animal traction packages have been placed in the hands of small farmers throughout the Eastern CRD.

The applied research program relating to the animal traction medium term credit program has consisted of:

1. Organization of existing data to establish an accounting system for the animal traction credit program.³
2. Special studies to bring together the data needed on special problems relating to the credit program such as: program of insurance of traction animals, system of payment of incentive premiums to loan collection agents, and special lending activities such as cereal banks and village stores.^{4, 5, 6, 7}
3. A complete inventory of all 869 current borrowers with medium term animal traction loans outstanding.⁸

2. Source of Data

It was in the complete inventory⁸ of 869 current borrowers of medium term credit conducted in October 1978, that data for the current paper was collected.* The objectives of this inventory of credit were:

1. To discover and correct on-the-spot any incorrectly completed medium term animal traction credit contracts.
2. To discover problems with the medium term animal traction credit program and propose solutions.
3. To monitor effectiveness of the program of vaccination of traction animals.

* A larger and more comprehensive credit survey is currently being conducted by MSU's team in the Eastern CRD. Results are expected by the end of 1979. This larger credit survey will deal with such topics as savings potential, real cost of borrowing, and attitudes of borrowers toward borrowing from institutional sources and other sources of credit.

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4. To find the reasons for delinquency in loan repayment.
5. To monitor the insurance program of traction animals.
6. To develop complete statistics on number of borrowers, amount of credit disbursed, and repayment.

B. THE RATE OF DELINQUENCY

Data from the inventory of credit showed delinquency rates on the medium term animal traction credit program to be as follows:

1. Number of Borrowers Delinquent

This measure of delinquency was calculated two ways: (a) as a percentage of all borrowers and (b) as a percentage of those borrowers who had loans due during the accounting year.

- a. Number of borrowers delinquent as a percentage of all borrowers of medium term animal traction credit on June 30, 1978: 71 of the 869 borrowers failed to repay during the accounting year. This is a delinquency rate of 8%.
- b. Number of borrowers delinquent as a percentage of those borrowers who had loans due during the accounting year (July 1, 1977 through June 30, 1978): 149 borrowers had medium term loans that were due for repayment during the accounting period; 71 of these 149 failed to repay either all or part of the instalment that was due. This is a delinquency rate of 48%.

2. Amount of Loans Delinquent

This measure of delinquency was also calculated two ways: (a) as a percentage of all loans outstanding and (b) as a percentage of the loans due for collection during the accounting year.

1. Amount of loans delinquent as a percentage of all loans outstanding on June 30, 1978: 71 of the 869 borrowers failed to repay during the accounting year. This is a delinquency rate of 8%.
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FCFA* was outstanding in medium term animal traction loans of which 706,987 FCFA was delinquent. This is a delinquency rate of 1%.

- b. Amount of loans delinquent as a percentage of the amount of loans that should have been collected during the accounting period: during the July 1, 1977 through June 30, 1978 accounting year, 2,315,205 FCFA should have been repaid. Of this amount 706,987 FCFA was delinquent on June 30, 1978. This is a delinquency rate of 31%.

The practical uses of these varied definitions of delinquency are many. For example, the administrator who wants to show a low rate of delinquency can choose the definition that produces the lowest figure. The authors wish to advance the notion here that the most meaningful definitions of delinquency are 1b and 2b, above. These are: (1b) number of borrowers who failed to repay all or part of their loan instalment as a percentage of all borrowers with loan instalments due, and (2b) amount of loans not repaid as a percentage of all loans due for repayment. In the Eastern CAD of Upper Volta these rates were 48% and 31% respectively for the accounting year of July 1, 1977 through June 30, 1978 for the medium term animal traction credit program.

C. CAUSES OF DELINQUENCY

Regardless of the definition of delinquency preferred, an understanding of the causes for this delinquency is essential if the delinquency rate is to be reduced. The inventory of credit showed that 37% of the cases of delinquency were the fault of the borrowers, 37% were the fault of the lending institution (the CRD), and 26% were the fault of nature.

* 214 FCFA = \$ 1 U.S. (Exchange rate of March 26, 1979).

1. Delinquency Caused by the Borrower (37%)

The 37% of the delinquency cases caused by the borrowers were broken down into borrowers who had an attitude of indifference and of feeling no obligation to repay their loans (19%) and borrowers who were able but unwilling to liquidate chattels to meet their loan repayment obligation (18%).

Of the 867 borrowers included in the inventory, 328 responded to an additional question asked to determine their attitudes toward repaying loans to a private money lender as compared to repaying loans to the ORD. The reasons they would repay their loans to the private money lender before they would repay to the ORD were:

- 51% - It is necessary to repay loans from a private money lender in order to qualify for a new loan next year.
- 12% - Private money lenders are more severe in their loan collection procedures than the ORD.
- 11% - Delinquency of a loan from a private money lender brings disgrace to the family.
- 9% - There is no possibility of not repaying -- one is obliged to repay the private money lender.
- 7% - Repayment to the ORD can be delayed until the borrower has the means to repay.
- 4% - Loans are received from private money lenders in secret and repaid on time to prevent the money lender from telling the secret.
- 3% - Repayment must be the result of the investment made with the loan. If it is not, one is justified in delaying repayment of ORD animal traction credit.
- 1% - The private money lender is located nearer and therefore gets repaid before the ORD.
- 1% - The private money lender is present at harvest time and takes part of the harvest as repayment of the loan.
- 1% - Repayment of ORD credit is not necessary because: (1) the ORD is linked to the government to whom the borrower pays taxes regularly and (2) the borrower gave gifts to the ORD agent to get approval of his loan.

Evident from these responses is the need for the ORD to change its image to one in which the borrower feels that it is as important to repay the ORD as it is to repay private money lenders.

2. Delinquency Caused by the Lender (37%)

The ORD itself was the cause of 37% of the cases of delinquency in repayment of medium term loans either through mistakes or through neglect (omissions in service).

The 37% of the delinquencies caused by the ORD were due to the following mistakes made by the personnel of the ORD:

- 29% - Part of the animal traction package arrived too late for use during the first season of the loan.
- 3% - Traction animals purchased were too small.
- 3% - ORD agents arrive too abruptly (without prior warning) to collect loan repayments.
- 2% - The ORD agent who was sent to collect the loan was different from the person who made the loan.

Besides these mistakes, the credit inventory also brought attention to the following omissions in ORD services linked to the medium term animal traction credit program:

- The practice of doing an economic analysis of a potential borrower's expected costs and returns to determine his debt-carrying capacity was not adopted as a standard procedure to be followed by ORD agents before giving medium term animal traction loans.
- The terms and conditions of the animal traction loans were not made clear to borrowers at the time they accepted the loan.
- Often ORD personnel offered no help in training the traction animals.
- At times no one from the ORD came to ask for repayment of the loan.
- Often no one from the ORD was on hand when borrowers were selling their products to claim loan repayment.

3. Delinquency Caused by Nature (26%)

The 26% of the cases of delinquency caused by nature are divided into causes associated with weather and low crop yields and causes associated with the health and family problems of the borrowers.

Causes of delinquency related to weather and low crop yields are the following: low crop yield caused by the death or

illness of the traction animals (10%) and low crop yields caused by inadequate rainfall (7%).

Causes of delinquency related to the health and family problems of the borrower were the following: borrower was ill during the growing season (5%), death of the borrower (2%), and financial problems in the family (2%).

D. REDUCING DELINQUENCY

Faced with the causes of delinquency mentioned above, the lending institution must search for ways of reducing the effect of these causes and improve the rate of delinquency.

1. Reducing Delinquency Caused by Borrowers

Delinquency caused by borrowers can be reduced through both prevention and cure.

Delinquency caused by borrowers can be prevented through a more careful screening of loan applicants to avoid giving loans to farmers with bad attitudes about their responsibility to repay ORD credit. The motivation for this more careful screening can be through a system in which commissions are paid to field level credit agents as a percentage of loans collected. Field level credit agents motivated to have high collection rates will be thinking of this at the time loan applicants are being screened and be more careful about approving loans.

In the Eastern ORD of Upper Volta such a system of payment of commissions to field level credit agents has been installed. Each field level credit agent and his immediate supervisor are paid commissions on loan collections as follows:

	Percent of Loan Collections for:	
	Field Level Credit Agent	Supervisor of Field Level Credit Agent
Basic commission on all loans collected.	0.8%	0.2%
Additional commission if more than 100 persons benefited from the credit program. . . .	0.4%	0.1%
Additional commission for 100% repayment.	0.4%	0.1%
Additional commission on delinquent loans collected . .	0.4%	0.1%
Additional commission on loans collected before the year in which the loan is due.	0.4%	0.1%

The effects of delinquency caused by borrowers are reduced through loan guarantee requirements. In the Eastern ORD loan guarantee requirements are not all strictly enforced, but more favorable consideration is given to loan applicants who can offer most of the following forms of loan guarantee:

- payment of a registration fee on each loan received. This fee is deposited in a "bad debt" (loan guarantee) fund.
- insurance of traction animals.
- moral guarantee.
- close working relationship with the ORD extension agent (who is also the field level credit agent).
- unlimited liability of a village group for repayment of loans for any group member.
- purchase of stocks in the ORD by the village group of which the borrower is a member.
- sale of harvested crops through the ORD.
- diversification of crops raised on the farm.
- number of years of experience as a farmer.
- favorable result from economic analysis to estimate debt-carrying capacity.

Delinquency caused by borrowers can be cured by putting pressure on those capable of but unwilling to repay their loans. This pressure should come from the other members of the village group. The system of unlimited liability for repayment of loans is needed for this source to be most effective.

Pressure can also come from the field level credit agents of the ORD. A system of payment of commissions for loans collected (described above) can serve as the motivation for the field level credit agent to apply this positive pressure. Pressure in a negative sense can come from the implementation of a strong, fair, and well-publicized loan foreclosure policy. From such a policy farmers will learn that their animal traction package will be confiscated if they do not repay their loans (without any of the acceptable excuses -- these will be discussed later). Such a policy is currently in effect in the Eastern ORD of Upper Volta.

2. Reducing Delinquency Caused by the Lender

Stronger support to field level credit agents, stronger village groups and estimation of a potential borrower's debt-carrying capacity are the principal means for reducing delinquency caused by the lender.

a. Positive support to field level credit agents.

In the Eastern ORD this positive support has taken the form of:

- A technical manual on the credit system was distributed to each field level credit agent and his supervisors.
- Adequate blank forms and other office supplies necessary for administering the credit program are in the hands of the field level credit agents.
- Transportation by motorbikes is available to all field level credit agents.
- A system of commission payments based on loan repayments (described above) is in effect.
- Annual short courses are administered for training all field level credit agents to inform them of changes in the system and to concentrate on solving their problems.

b. Strengthening village groups before distributing credit through them to their members.

In the Eastern ORD credit is administered to individual borrowers through their village groups (pre-cooperatives). Standards have been recently set for these village groups. These

standards are to be met before credit can be distributed through them to their members:

- at least two years since the group was organized.
- stable number of members (not necessarily a large number but a minimum of 10 members).
- cohesion, understanding and confidence among all the members.
- confidence in the officers of the group.
- officers who are active and honest.
- reputation for repaying loans on time.
- successful completion of at least one activity.
- use of democratic procedures in making all decisions affecting the group.
- a treasury that -- even if small -- is steadily growing.
- adoption and use of an acceptable system of accounting for group funds.

Upholding these standards before lending money through village groups to their members will strengthen the village groups and improve repayment rates of loans to their members.

c. Estimation of potential borrower's debt-carrying capacity.

In the Eastern ORD a system is currently in use whereby each field level credit agent together with each potential borrower estimate the potential borrower's debt-carrying capacity. From estimated annual income is subtracted his estimated annual expenses. The resulting net annual revenue is the maximum that he can use for making annual repayments on a loan. With these annual repayment possibilities a total debt ceiling for a medium term animal traction loan is determined. The likelihood of repayment problems later are greatly reduced after making this estimate of his debt-carrying capacity.

3. Reducing Delinquency Caused by Nature

The random incidence of natural hazards affecting loan repayment are difficult to change. There are, however, certain protective precautions that can be taken to reduce the rate of delinquency caused by nature. Those precautions that have been taken in the Eastern ORD for this purpose are as follows:

a. Conservatism in estimation of debt-carrying capacity.

As a precaution against the high incidence of low crop yields resulting from frequent drought conditions in the Sahel, the policy of exercising extreme conservatism has been adopted in doing the economic analysis for estimating the debt-carrying capacity of a potential borrower (described above).

b. Insurance program against death of traction animals.

Borrowers of credit for the purchase of traction animals are required to insure those animals. The cost of this insurance for the full term of the credit is added to the loan amount when the loan is made.

c. Responsibility for loan repayment of borrowers who die.

Surviving family members of borrowers who die are expected to repay their loans. In certain cases, the village groups of which these borrowers had been member may repay these loans. Normally, however, it is the deceased borrowers' families who bear this responsibility.

d. Loan renewal policy.

At the risk of being accused of defining away the rate of delinquency, it must be mentioned here that a loan renewal policy is in effect in the Eastern ORD in which borrowers who have suffered from natural catastrophies can have loans renewed. In this way loans that would become delinquent because of natural causes are saved from the delinquency classification. Excuses acceptable for renewing loans are as follows:

- crop failure resulting from drought.
- death or serious illness of the borrower.
- deficiencies in ORD services vital to the successful use of the animal traction package (for example: traction animals that were not trained in time for use in the growing season and failure to deliver a vital piece of the animal traction package).

The loan renewal policy requires payment -- at the time of renewal

at the time of renewal the loan is extended

e. Bad debt fund.

If all the above mentioned precautions fail to prevent delinquency and the loans have to be written off, the loan fund is protected from erosion with the "bad debt" (loan guaranteed) fund. The source of this fund is a registration fee collected on each new loan given.

E. CONCLUSION

Contrary to the popular belief that institutions should not expect high rates of repayment of loans in drought prone areas such as the Sahel, it is argued here that there is a great deal that lending institutions themselves can do to get higher rates of loan repayment. The excuses of bad weather and recalcitrant farmers have been too willingly accepted as the reasons for loan delinquencies to hide the predominant major reason for this delinquency -- namely, shortcomings in the performance of the lending institutions themselves.

It has been the theme of this paper that the lending institution can reduce delinquency caused by its own inadequacies through improvements in the services it offers to the borrowers. But the responsibility of the lending institution does not stop there. Delinquency caused by the borrower and by nature can also be reduced through certain measures taken by the lending institution.

REFERENCES CITED

1. A Proposal for the Provision of Technical Assistance to the Eastern ORD integrated Rural Development Project in Upper Volta, Department of Agricultural Economics, Michigan State University, East Lansing, Michigan 48824, U.S.A., November 1976.
2. Evaluation of the Eastern ORD Integrated Rural Development Project, Roger Poulin, Alice Norton and Anita Mackie, USAID, Embassy of the U.S.A., Ouagadougou, Upper Volta, December 1977.
3. A USAID Financed Revolving Fund for a Medium Term Credit Program for Eastern ORD of the Government of Upper Volta, Amendment No. 2 to Revolving Fund Implementation Agreement No. 001, Project Agreement 686-0201, Integrated Rural Development, USAID Embassy of the U.S.A. Ouagadougou, Upper Volta, June 1978.
4. A Proposed Structure for the Medium Term Credit Program in the Eastern ORD of Upper Volta, Tom Zalla, Working Paper No. 10, Africa Rural Economy Program, Department of Agricultural Economics, Michigan State University, East Lansing, Michigan 48824, U.S.A., February 1976.
5. Preliminary Inquiry into the Agricultural Credit Situation in the Eastern ORD of Upper Volta, Thomas Stickley, MSU Project, Eastern ORD, Fada N'Gourma, Upper Volta, August 1977.
6. Animal Traction Credit in Six Intensive Zones of the Eastern ORD of Upper Volta, Vincent Barrett, Gregory Lassiter, Desire Mayabouti, and Thomas Stickley, MSU Project, Eastern ORD, Fada N'Gourma, Upper Volta, February 1978.
7. Expose du Programme Pilote Sur Les Banques Cereales, Amidou Dahany, David Wilcock and Thomas Stickley, BAEP et BDC, ORL de l'Est, Fada N'Gourma, Upper Volta, November 1978.
8. Inventaire de Credit Rural Traction Animal, Amidou Dahany, Sinare Moussa, Tu'na Jonas, Yoni Lebene, Edouard Tapsoba, and Thomas Stickley, Section Credit et Cooperation, BDC, Eastern ORD, Fada N'Gourma, Upper Volta, November 1978.
9. Fiche Technique Sur le Credit Rural; Amidou Dahany and Thomas Stickley, Section Credit et Cooperation, BDC, Eastern ORD, Fada N'Gourma, Upper Volta, March 1979.

MONTHLY REPORT OF LOANS

W, Z

LOAN PURPOSE _____ MONTH _____

PREPARED BY: _____ FUND _____

NAME OF ARRONDISSEMENT	NAME OF LOANS	DEPARTMENT NUMBER OF BENEFICIAIRES	AMOUNT LOANED
TOTALS			

MONTHLY REPORT OF LOANS

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LOAN PURPOSE _____ MONTH _____

COMPLETED BY: _____ NATIONAL LEVEL

NAME OF DEPARTMENT	NUMBER OF LOANS	NUMBER OF BENEFICIARIES	AMOUNT LOANED
TOTALS			

*

THE COMPUTER -- AN APPROPRIATE TECHNOLOGY FOR MANAGING
A VIABLE AGRICULTURAL CREDIT SYSTEM IN A LOW
INCOME COUNTRY -- UPPER VOLTA

by

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INTRODUCTION

The Integrated Rural Development Program is an Agency for International Development sponsored project in the Eastern Regional Development Organization (ORD) of Upper Volta. The program is one of many that was implemented in the Sahel following the drought of 1970-73 in an effort to increase agricultural production and improve the quality of life in the rural areas where most of the population lives.

One aspect of this AID/IRD project was the introduction of animal traction to replace the hoe cultivation method used in the Eastern ORD. The author was given the responsibility of developing a technique for managing the agricultural credit system that would support this animal traction program.

The choice of the appropriate technology for managing the credit system was made by assessing the problems facing the existing system and then considering the alternative techniques for solving these problems in light of the resources available.

PROBLEMS FOUND IN THE AGRICULTURAL CREDIT SYSTEM IN THE EASTERN ORD

Problems found in the Eastern ORD's credit system were of two types; those concerned with the central administration of the system and those concerned with the operation of the system at the field level.

At the administrative level an inviable credit system faced a steadily eroding portfolio. This erosion was curtailed temporarily by new

injections of capital from various programs of foreign assistance. Funding came from many sources each of which demanded detailed statistical reporting, often on short notice. Portfolios of loans and loan repayments were incomplete and disorganized. There was a high incidence of errors and omissions in recording loan repayments. Procedures for collecting loans were unclear and irregular. The credit and cooperation section was unable to furnish basic statistical reports. The clerical staff had poorly organized and inefficient work habits.

In the field, loan repayment rates were weak -- an average of only 30 percent of loans due was collected per year from 1976 to 1980. Borrowers did not understand clearly the terms and conditions of their loans. Records of repayment kept at the level of the extension/credit agents in the field were inconsistent with those kept at the headquarters level. These field level extension/credit agents were poorly organized and poorly motivated in their loan collection responsibilities. Embezzlement of loan repayments by these extension/credit agents and their supervisors ran high. Productivity of capital invested through this agricultural credit system was low due to weak technical assistance from the extension/credit agents. A high rate of reassignment of field level extension/credit agents from one post to another created difficulty in maintaining continuity from one year to another in loan collections, recordkeeping and reporting.

Based on these problems a search began for a management technique that would help solve them.

CHOOSING AN APPROPRIATE TECHNOLOGY FOR MANAGING A VIABLE AGRICULTURAL CREDIT SYSTEM

In 1977 and 1978 piecemeal efforts were made to improve the labor-intensive management techniques that had been developed since 1974 when the

credit program began in the Eastern ORD. Loans and loan repayments were all registered by hand. Efforts were made to improve the old system of hand filing loan forms and records of repayment. Some of the demands for statistical information were met by using tedious, slow, error-prone, hand methods of tabulation. In an effort to establish a complete set of basic data on the animal traction medium term credit portfolio, a complete inventory of borrowers of animal traction credit was made in the fall of 1978.¹ An effort to motivate borrowers to repay their loans was made through appeals by radio and in mass meetings. In the name of patriotism and personal honor, efforts were made to convince extension/credit agents and their supervisors not to embezzle loan repayments they had collected from borrowers.

Though these efforts were not without success, they fell short of the mark of establishing a management technique that would produce a viable agricultural credit system. As this became clear the possibility of establishing a computerized system of management was considered. The possibility of having the management tools produced quickly, regularly, and accurately by the computer led to the decision to introduce a computerized system of management designed to solve the problems stated above and to meet the objectives listed below.

OBJECTIVES OF THE COMPUTERIZED SYSTEM

The decision was made to design a computerized system of management that would meet the following objectives:

¹"Inventaire de Credit Rural Traction Animale" by Amidou Dahany, Sinare Moussa, Tuina Jonas, Yoni Lebene, Edouard Tapsoba, and Thomas Stickley, Bureau de Developpement Communautaire, Organisme Regional de Developpement de l'Est, Fada N'Gourma, Upper Volta, November 1978.

1. To produce regular, accurate, and rapid statistical reports on the number and amount of loans and loan repayments by sector of the ORD, by loan purpose, and by source of funding.
2. To improve loan repayment rates.
3. To improve the productivity of ORD employees.
4. To improve the productivity of investments made with capital distributed through the agricultural credit system.
5. To achieve viability of the agricultural credit system, that is a self-supporting credit system in which revenue exceeds the costs of operation.

INSTALLATION OF THE COMPUTERIZED SYSTEM

A. Preparatory Steps

The process of installation of this computerized system began with the following preparatory steps:

1. In November 1978, administrators and programmers of the National Data Processing Center (CENATRIN) of Upper Volta met with the Eastern ORD to discuss the problems to be solved and the objectives of the system to be met.
2. The Eastern ORD and CENATRIN produced a plan of work for installing the system.¹

¹"Cahier de Charges pour la Gestion Automatisee des Credits Agricoles" by Thomas Stickley, Hamidou Dahani, Etienne Ouedraogo, and Oumarou Tiemtore, Centre National de Traitement de l'Information, B.P. 1132, Ouagadougou, Upper Volta, February 1980.

3. Twenty-nine different programs were written by CENATRIN programmers in COBOL (Computer Business Oriented Language) to classify, aggregate, and analyze basic statistical data.
4. All short-term and medium-term loans were classified by year and by village since the ORD credit program began in 1974.
5. Basic data codes, code indexes, and coding forms were developed.
6. Data coders were trained.
7. Preliminary coding was done for use in testing the program.
8. The 29 programs were tested and refined using the computer facilities of CENATRIN in Ouagadougou.

B. Continuous Operations

Following these preliminary steps, the following continuous operations were started:

1. Coding of all 3821 short-term and medium-term loans given from 1974 through 1979.
2. Coding of all loan repayments received since 1974.
3. Verification and correction of coding.

INPUT AND OUTPUT OF THE COMPUTERIZED SYSTEM

Following are the input and output of the computer used in the system.

A. Input

1. Nature of the Input

The input is of two types: the input needed to establish the system and the input provided on a continuous basis.

a. Input to Establish the System

Twenty-nine programs were entered into the computer to register the basic data (6 programs), to produce annual and semi-annual output (18 programs), to produce quarterly output (3 programs), and to list basic data codes (2 programs).

Basic data codes were also entered into the computer to identify loan types, loan terms, loan purposes, borrowers, borrowers' villages, and sources from which funds were received.

b. Input Provided Continuously

As new loans are disbursed they are coded and entered into the computer. Likewise all repayments received are coded and entered.

2. Input Schedule

Input is fed into the computer on the following schedule which conforms to the loan disbursement period (January 1 through September 30) and the loan repayment period (which is continuous but has a common due-date for the repayment of all loans of March 31).

a. Input to establish the system was fed into the computer at the beginning of the program in 1979 but can be added to or changed at any time.

b. New loans are coded as disbursed and code sheets are accumulated throughout the lending season (January 1 through September 30). These are then punched into the computer in October each year after the close of the lending period on September 30.

c. As loan repayments are received they are coded immediately and punched into the computer quarterly (or more often if repayment activity is intense).

B. Output

1. Nature of the Output

The output produced is of three types: statistical reports, aids to field extension/credit agents in doing their jobs, and calculation of commissions to be paid to extension/credit agents based on loan repayments received.

a. Statistical Reports

Statistical reports are produced on number of loans made, number of persons benefiting from loans, amount of money loaned, amount of loan repayments received as a percentage of loan repayments due, number of delinquent borrowers as a percentage of all borrowers with loan repayments due, and list of uncollectable loans to be written off. These reports are broken down by fiscal year, sector of the ORD, factor of production (loan purpose), and source of funding.

b. Aids to Field Extension/Credit Agents in Doing Their Jobs

The following output is produced to help the extension/credit agents do their jobs more efficiently: bills to borrowers, lists of these bills, lists of live loans, lists of overdue loans, lists of paid-off loans, lists of borrowers who were overcharged/undercharged interest according to date repayments were made, loan repayment control sheets, monthly reports of loan repayments received, lists of borrower identification numbers already assigned, and lists of village identification numbers already assigned.

c. Calculation of Commission to be Paid to Extension/Credit Agents Based on Loan Repayments Received

To encourage extension/credit agents to give and collect more sound (productive) loans, commissions are calculated [at the rate shown in Table 1] and produced as the output of the system.

TABLE 1

CALCULATION OF COMMISSIONS TO BE PAID TO AGENTS
BASED ON LOAN REPAYMENTS RECEIVED

Type of Commission	Extension/ Credit Agent	Sub- Sector Chief	Sector Chief	Chief of Credit and Cooperation Section in Each Sector
(Percentage of Money Collected)				
a. Base commission on all loans collected	1.6%	0.4%	0.10%	0.10%
b. Supplemental commission for collection of loan installments not yet due	0.8%	0.2%	0.05%	0.05%
c. Supplemental commission for overdue loans collected	0.8%	0.2%	0.05%	0.05%
d. Supplemental commission for collection of 100% of loan installments due	0.8%	0.2%	0.05%	0.05%
e. Supplemental commission if at least 100 persons were served by the credit system in an extension unit	0.8%	0.2%	0.05%	0.05%

An extension/credit agent in the Piela extension unit, for example, received a commission of 6443 FCFA for the 1979-80 fiscal year. This amounted to about 2 percent of his annual salary of approximately 300,000 FCFA.

2. Output Schedule

The computer output is produced on the following schedule which is built around the farm production season (May through September) and the government's fiscal year (April 1 through March 31):

- a. Once per year in October:
 - List of live loans.
 - Bills for each borrower.
 - List of these bills.
 - List of borrower identification numbers already assigned.
 - List of village identification numbers already assigned.
 - Number and value of each factor of production sold on credit.
 - Number of loans made and amount loaned.
- b. Once per year in April:
 - Loan repayment statistics.
 - List of paid-off loans.
 - Statements of underpaid/overpaid interest on paid-off loans.
 - List of these statements.
 - List of loans to be removed from the computer registry because they have been paid-off for more than ten years.
 - Calculation of all commissions to be paid to agents.
- c. Twice per year in April and October:
 - Loan repayment control forms.
 - List of overdue loans.
 - List of uncollectable loans.

d. . Once quarterly (in January, April, July, and October, or more often if necessary):

- Status of loan repayment activity.

EVALUATION

Evaluation of the computerized system is done here on the basis of the objectives to be met.

1. Regular and accurate statistical reports of the number and amounts of loans and loan repayments are produced by sector of the ORD, factor of production (loan purpose), and source of funding. This objective has been satisfied.

2. Loan repayment rates are expected to improve as a result of the effect of several aspects of the computerized system. The bills sent to each borrower reminds them of the amount due to be repaid and the date it is due. Embezzlement by agents is controlled by the pressure put on these agents by borrowers who receive bills for loans they have already repaid. The prospect of being paid a commission which is a percentage of loans collected serves as an incentive to these agents to increase these loan collections. When borrowers are given their bills the agents are given a listing of these bills. This listing helps the agents organize their job of collecting loan repayments.

3. Productivity of ORD agents has improved. At the administrative level among the clerical staff this improvement has been the result of fewer, simpler and more clearly defined duties and the computerized control of mistakes. At the field level, productivity of agents has improved resulting from incentive commissions based on loan collections and improved knowledge of loan portfolios in each extension unit from the lists of live loans, lists of loan payments due, lists of overdue loans, lists of paid-off loans and monthly reports of loan repayments received.

4.. Productivity of capital invested in agriculture through the credit system seems to have improved from the increased incentives of field extension/credit agents to give more and sounder loans in order to receive a higher commission on loan collections and the pre-loan economic analysis of loan purpose already being used by extension/credit agents.

5. Viability of the credit system was improved as the result of improved repayment rates, improved productivity of the ORD staff and improved information from statistical reports for use in evaluation, financial analysis, and budgeting of the rural credit account.

Though a meaningful cost-benefit analysis of the computerized system cannot be done before the system has functioned for two years, some of the elements of such an analysis have started to emerge.

- a. Additional costs of the computerized system compared to the old system include: (1) fixed costs: the Eastern ORD's share of the cost of writing the 29 programs (about \$12,000), training coders (about \$500), ORD staff time used in installing the system (about \$1,000) and training agents in the field to use the computerized system (about \$1,500) -- this makes a total of about \$15,000 as the fixed cost of installing the system; and (2) variable costs: registration of loans, registration of repayments, computer time to produce bills, lists, commissions and statistical reports, and paper, printing, and binding -- this amounts to roughly \$2.00 per loan registered which is based on the variable costs associated with the original 3821 loans registered -- due to the economies of scale, this cost will go down as number of loans registered increases.
- b. Additional benefits that should be measured in this analysis are: increased repayments, decreased embezzlement, increased speed and accuracy with which

statistical reports are produced, increased productivity of capital invested through the credit system; and reduced costs resulting from discontinuing the annual inventory of credit at the field level.

c. The following items were unchanged by the system and therefore would not be included in the cost-benefit analysis: number of persons employed for the agricultural credit system; logistical support for the credit system (office space, office furniture, vehicles, and travel costs); and basic loan contract forms and receipts used by field level extension/credit agents.

RECOMMENDATIONS

Following are recommendations suggested for others installing such a computerized technique for managing a viable agricultural credit system in a low-income country.

1. The purpose and objectives of the computerized system of management should be kept simple at first. Inclinations toward adding tasks to the computer program which could complicate the system must be overcome in the early stages of its development. Tasks can be added later after the original simplified program has been thoroughly tested and tried.

2. Even though the distance between computer programmers and users of the program may be great, close communication between these two parties must be maintained during the time programs are being written and tested.

3. Procedures must be clear and simple for registering loans, registering repayments, correcting mistakes, and making changes in the basic data in order to sustain frequent reassignments of ORD personnel at all levels.

④ Stress thoroughness, regularity, accuracy, and punctuality in training of clerical staff dealing with the program.

— 5. Coding should not begin before basic data to be coded is complete and classified, and borrowers have been assigned mutually exclusive beneficiary numbers.

✓ 6. Bills should not be distributed to borrowers by the extension/credit agents suspected of having embezzled repayments asked for by those bills. Credit and cooperative chiefs in each sector should distribute these bills.

7. Local facilities for key-punching, computer programming, and data processing must be of sufficient quality (this is clearly sufficient in Upper Volta).

CONCLUSIONS

A computerized system for managing a viable agricultural credit system in a low-income country -- Upper Volta -- was chosen over alternative labor-intensive methods to gain speed, accuracy, regularity and thoroughness in production of the statistical reports, aids to field staff and calculation of commissions.

Based on the evaluation (presented above) of the experience of one year, the system has been successful in reducing the problems discussed earlier in this paper.

Even in low income countries which are using the agricultural credit system to introduce the earliest steps of agricultural development -- for example, moving from the hoe to a donkey and plow, as in the Eastern ORD of Upper Volta -- the computer can be the most appropriate technology for managing a viable agricultural credit system.

ANNEXE

L'ORDINATEUR --- UNE TECHNOLOGIE APPROPRIÉE POUR LA GESTION
D'UN SYSTÈME DE CRÉDIT AGRICOLE VIABLE DANS UN PAYS À BAS
REVENUS --- HAUTE-VOLTA

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I N T R . D U C T I O N

Le programme de développement rural intégré est un projet de l'Agence pour le Développement International mis en oeuvre dans l'Organisme Régional de Développement de l'Est de la Haute-Volta. Il fait partie des nombreux programmes qui furent mis sur pied au Sahel suite à la sécheresse de 1970-73, dans un effort pour accroître la production agricole et améliorer la qualité de vie dans les zones rurales où vit la majorité de la population.

Un aspect de ce projet DRI/ADI a été la vulgarisation de la traction animale pour remplacer la méthode de culture à la houe utilisée dans l'ORD de l'Est. On confia à l'auteur la responsabilité de développer une technique de gestion du système de crédit agricole qui appuyerait ce programme de vulgarisation de la traction animale.

Le choix de la technologie appropriée pour la gestion du système de crédit fut effectuée en évaluant les problèmes rencontrés avec le système actuel et en considérant les techniques alternatives en vue de les résoudre à la lumière des ressources disponibles.

Problèmes identifiés dans le système de crédit agricole de l'ORD de l'Est.

On a rencontré deux types de problèmes dans le système de crédit de l'ORD de l'Est: ceux ayant trait à l'Administration centrale du système et ceux reliés au fonctionnement du système sur le terrain.

Au niveau administratif, un système de crédit non-viable fit face à un portefeuille qui s'érodait constamment.

Cette érosion diminua momentanément par des injections de capital à partir de divers programmes d'assistance extérieure. Le financement vint de plusieurs sources, chacune exigeant des rapports statistiques détaillés, souvent avec avis préalable très court. Les portefeuilles de prêts et de remboursement de prêts étaient incomplets et désorganisés. Il y avait un nombre élevé d'erreurs ou d'omissions dans l'enregistrement des remboursements. Les procédures de perception des remboursements étaient nébuleuses et irrégulières. La section du crédit et de la coopération était incapable de fournir des rapports statistiques simples. Le personnel de bureau possédait des habitudes de travail très peu organisées et inefficaces.

Sur le terrain, les taux de remboursement des prêts étaient faibles - une moyenne de 30 pourcent seulement des montants dûs fut collectée chaque année de 1976 à 1980. Les emprunteurs ne comprirent pas clairement les termes et conditions de leurs prêts. Les registres de paiement maintenus au niveau des agents d'encadrement et de crédit sur le terrain étaient inconsistants avec ceux de l'administration centrale, les agents sur le terrain étaient peu organisés et motivés dans leurs responsabilités de perception. Les détournements des remboursements par ces agents d'encadrement et de crédit et leurs surveillants étaient nombreux. La productivité du capital investi par l'intermédiaire de ce système de crédit agricole était assez basse due à une assistance technique médiocre de la part de ces agents. Un taux élevé de roulement du personnel sur le terrain d'un poste à un autre a créé des difficultés dans le maintien de la continuité d'une année à l'autre pour les fonctions de perception des prêts d'enregistrement et de rédaction de rapports.

Par conséquent, une recherche fut entreprise en vue d'identifier une technique de gestion qui pourrait aider à résoudre ces problèmes.

LE CHOIX D'UNE TECHNOLOGIE APPROPRIÉE POUR LA GESTION D'UN SYSTÈME VIABLE DE CRÉDIT AGRICOLE.

En 1977 et 1978, des efforts fragmentaires furent effectués pour améliorer les techniques de gestion intensives en main d'oeuvre qui furent développées depuis 1974 lorsque le programme de crédit fit ses débuts dans l'ORD de l'Est. Les prêts et leurs remboursements furent tous enregistrés à la main. Des efforts furent entrepris pour améliorer le vieux système consistant à compléter à la main les formulaires de prêts et les registres de remboursements. Une partie des demandes de données statistiques furent satisfaites en utilisant des méthodes manuelles de mise en tableaux lentes, fastidieuses, propices aux erreurs. Dans un effort pour établir un ensemble complet de données de base sur le portefeuille du crédit à moyen terme pour la traction animale, un inventaire complet des bénéficiaires du crédit rural - traction animale fut réalisé en automne 1978. 1/ Un effort pour motiver les emprunteurs à rembourser leurs prêts fut effectué au moyen d'appels à la radio et de réunions de masses. Au nom du patriotisme et de l'honneur,

1/ Inventaire du Crédit Rural, Traction Animale par Amidou Dahany, Sinace Moussa, Tuina Jonas, Yoni Lebene, Edouard Tapsoba et Thomas Stickleby, Bureau du Développement Communautaire, Organisme Régional de Développement de l'Est, Fada N'Gourma, Haute-Volta, Novembre 1978.

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des efforts furent effectués pour convaincre les agents et leurs surveillants de ne pas détourner les remboursements reçus des emprunteurs.

Quoique ces efforts ne furent pas sans succès, ils restèrent en deça des conditions requises pour une technique de gestion qui produirait un système de crédit agricole viable. C'est alors que la possibilité d'établir un système informatisé fut considérée. La possibilité d'avoir des outils de gestion produits rapidement, régulièrement et avec précision par l'ordinateur conduisirent à la décision d'introduire un système informatisé de gestion destiné à résoudre les problèmes précités et à rencontrer les objectifs énumérés ci-dessous.

OBJECTIFS DU SYSTEME INFORMATISE

On décida d'élaborer un système de gestion informatisé qui rencontrerait les objectifs suivants:

1. produire rapidement des rapports statistiques réguliers et exacts sur le nombre et le montant des prêts et des remboursements par secteur de l'ORD, par objet du prêt et par source de financement;
2. améliorer les taux de remboursement des prêts;
3. améliorer la productivité des employés de l'ORD;
4. améliorer la productivité des investissements effectués avec le capital distribué par l'intermédiaire du système de crédit agricole;
5. parvenir à un système de crédit agricole viable et autonome dans lequel les revenus excéderaient les coûts de fonctionnement.

INSTALLATION DU SYSTEME INFORMATISE

A. Mesures préparatoires

Le processus mis en place de ce système informatisé commença avec les mesures préparatoires suivantes:

1. En novembre 1978, les administrateurs et les programmeurs du Centre National pour le Traitement de l'Information (CENATRIN) en Haute-Volta rencontrèrent des représentants de l'ORD de l'Est pour discuter les problèmes à résoudre et les objectifs du système.

2. L'ORD de l'Est et le CENATRIN ont produit un plan de travail pour la mise en place du système.
3. Vingt-neuf programmes variés furent élaborés par les programmeurs du CENATRIN en COBOL (Computer Business Oriented Language) pour classer, rassembler et analyser les données statistiques de base.
4. Tous les prêts à court et moyen terme furent classés par année et par village depuis le commencement du programme de crédit de l'ORD en 1974.
5. Des codes de données de base, des indices de code et des formulaires de codage furent développés.
6. Les préposés au codage des données furent formés.
7. Un codage préliminaire fut effectué afin de tester le programme.
8. Les 29 programmes furent testés et raffinés en utilisant les ordinateurs du CENATRIN à Ouagadougou.

B. Operations Permanentes

Suite à ces mesures préliminaires, les opérations permanentes suivantes furent initiées:

1. Codage de tous les prêts à court et moyen terme (3,802) octroyés de 1974 à 1979.
2. Codage de tous les remboursements reçus depuis 1974.
3. Vérification et correction des données.

INTRANTS ET EXTRANTS DU SYSTEME INFORMATISE

Voici les intrants et les extrants de l'ordinateur utilisés dans le système.

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A. INTRANTS

1. Nature des intrants

Les intrants sont de deux types: les intrants requis pour établir le système et les intrants fournis sur une base continue.

a) Les intrants pour établir le système

Vingt-neuf programmes furent insérés dans l'ordinateur pour enregistrer les données de base (6 programmes), pour produire un extrant annuel et semi-annuel (18 programmes), pour produire un extrant trimestriel (3 programmes) et pour énumérer les codes des données de base (2 programmes).

Les codes des données de base furent aussi insérés dans l'ordinateur pour identifier les types de prêts, les modalités et affectations de prêts, les emprunteurs, les villages des emprunteurs et les sources de financement.

b) Les intrants fournis continuellement

Lorsque des nouveaux prêts sont accordés, ils sont codés et entrés dans l'ordinateur. Il en est de même pour les remboursements reçus.

2. Calendrier des intrants

Les intrants sont insérés dans l'ordinateur selon le calendrier suivant qui est conforme à la période de déboursement des prêts (du 1er janvier au 30 septembre) et la période des remboursements (qui est continue mais comprend une échéance commune pour les remboursements de tous les prêts du 31 mars).

a) Les intrants servant à établir le système furent insérés dans l'ordinateur au début du programme en 1979 mais peuvent être ajoutés ou modifiés en tout temps.

b) Les nouveaux prêts sont codés au fur et à mesure qu'ils sont débloqués et les fiches de code sont accumulées tout au long de la saison de l'octroi des prêts (1er janvier au 30 septembre). Les fiches sont alors perforées dans l'ordinateur au mois d'octobre de chaque année, à la fin de la période d'octroi des prêts au 30 septembre.

c) Lorsque les remboursements sont reçus, ils sont immédiatement codifiés et leur fiche perforée dans l'ordinateur sur une base trimestrielle (ou plus souvent si les activités de remboursement sont plus intenses).

B. Extrants

1. Nature des Extrants

Les extrants produits sont de trois types: rapports statistiques, outils d'information pour assister les agents d'encadrement/crédit sur le terrain dans leur travail, et calcul des commissions à être payées à ces agents sur la base de remboursements reçus.

a) Rapports Statistiques

Des rapports statistiques sont produits sur le nombre de prêts accordés, le nombre de personnes bénéficiant de ces prêts, le montant d'argent prêté, le montant des remboursements reçus en pourcentage sur les montants dûs, le nombre d'emprunteurs coupable de non-remboursement dans les délais prévus et leur pourcentage sur tous les emprunteurs ayant des prêts à rembourser, et la liste des prêts impossibles à percevoir et devant être déduits, les rapports sont divisés par année fiscale, secteur de l'ORD, facteur de production, (but du prêt) et source de financement.

b) Outils d'information pour Assister les Agents d'Encadrement/ Crédit dans leur Travail

Les extrants suivants sont produits pour aider les agents d'encadrement/crédit à remplir leurs fonctions plus efficacement: factures aux emprunteurs, listes de ces factures, listes des prêts actifs, listes de prêts arriérés, listes des prêts remboursés, listes des emprunteurs à qui on a perçu trop ou pas assez d'intérêts suivant les remboursements effectués à date, feuilles de contrôle du remboursement des prêts, rapports mensuels des remboursements reçus, liste des numéros d'identification déjà assignés aux emprunteurs et liste des numéros d'identification déjà assignés aux villages.

c) Calculs de la Commission à être Versée aux Agents d'Encadrement/Vulgarisation Basée sur les Remboursements Reçus

Pour encourager les agents d'encadrement/crédit à octroyer et percevoir des prêts plus judicieux (productifs), des commissions sont calculées (à un taux figurant au tableau 1) et constituent des extrants du système.

TABLEAU No.1

CALCUL DES COMMISSIONS A ETRE VERSEES AUX AGENTS BASEES SUR LES
REMBOURSEMENTS RECUS

<u>Type de Commission</u>	<u>Agent Encadrement Crédit</u>	<u>Chef Sous- Secteur</u>	<u>Chef Secteur</u>	<u>Chef de la Section Crédit et Coupéra- tion dans chaque Secteur</u>
(Pourcentage des montants perçus)				
a) Commission de base pour tous les prêts perçus	1.6%	0.4%	0.10%	0.10%
b) Commission supplémentaire pour la perception des versements qui ne sont pas encore arrivés à échéance	0.8%	0.2%	0.05%	0.05%
c) Commission supplémentaire pour les remboursements en souffrance perçus	0.8%	0.2%	0.05%	0.05%
d) Commission supplémentaire pour la perception de 100% des versements dûs	0.8%	0.2%	0.05%	0.05%
e) Commission supplémentaire si au moins 100 personnes ont été deservies par le système de crédit dans une unité d'encadrement	0.8%	0.2%	0.05%	0.05%

Par exemple, un agent d'encadrement/crédit dans l'unité d'encadrement Piela a reçu une commission de 6 443 F CFA au cours de l'année fiscale 1979-80, le montant compte pour approximativement 2% de son salaire annuel qui se situe autour de 300 000 F CFA.

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Calendrier: des Extraits

Les extraits de l'ordinateur sont produits selon le calendrier suivant qui est établi en fonction de la saison agricole productive (mai à septembre) et l'année fiscale du gouvernement (1er avril au 31 mars):

a) Une fois l'an, en octobre:

- liste des prêts actifs
- factures pour chaque emprunteur
- liste de ces factures
- liste des numéros d'identification déjà assignés aux emprunteurs
- liste des numéros d'identification déjà assignés aux villages
- nombre et valeur de chaque facteurs de production vendu à crédit
- nombre des prêts et montants accordés.

b) Une fois par année, en avril:

- statistiques sur les remboursements des prêts
- liste des prêts soldés
- relevé des intérêts surpayés ou sous-payés sur les prêts remboursés
- listes de ces relevés
- listes des prêts à être retirés de l'ordinateur parce que remboursés depuis plus de 10 ans
- calcul de toutes les commissions versées aux agents.

c) Deux fois l'an, en avril et octobre:

- formulaires de contrôle du remboursement des prêts
- liste des prêts impayés
- liste des prêts irrécouvrables.

d) Chaque trimestre (en janvier, avril, octobre ou plus souvent si nécessaire):

- statut des activités de remboursement de prêts.

Evaluation

L'évaluation du système informatisé est effectuée sur la base des objectifs à être réalisés.

1. Des rapports statistiques réguliers et exacts sur le nombre et les montants des prêts et des remboursements sont produits par secteur de l'ORD, facteur de production (but du prêt) et source de financement, cet objectif a été satisfait.

2. On s'attend à ce que les taux des remboursements s'améliorent suite à l'impact de plusieurs aspects du système informatisé. Les factures envoyées à chaque emprunteur leur rappellent le montant et l'échéance du remboursement qui reste à effectuer. Les détournements des agents sont contrôlés par la pression exercée sur eux par les emprunteurs qui reçoivent les factures des prêts qu'ils ont déjà remboursés. La perspective de recevoir une commission qui constitue un pourcentage sur les remboursements perçus, sert de stimulant aux agents pour accroître ces perceptions. Lorsque les emprunteurs reçoivent leurs factures, les agents reçoivent une liste de ces factures. Ces listes aident les agents à organiser leur travail relativement à la perception des remboursements.

3. La productivité des agents de l'ORD s'est améliorée. Au niveau administratif parmi le personnel de bureau, cette amélioration a été le résultat de l'assignation de fonctions moindres, plus simples et plus clairement définies et du contrôle des erreurs par l'ordinateur. Sur le terrain, la productivité des agents s'est améliorée grâce aux commissions versées pour les perceptions de remboursements et à une meilleure connaissance des portefeuilles de prêt dans chaque unité d'encadrement à cause des listes sur les prêts actifs et remboursés, sur les remboursements dûs et arriérés, et des rapports mensuels sur les remboursements effectués.

4. La productivité du capital investi dans l'agriculture au moyen du système de crédit, semble s'être améliorée grâce à la motivation accrue des agents d'encadrement/crédit à octroyer des prêts plus nombreux et de façon plus judicieuse afin de recevoir une commission plus élevée sur la perception des remboursements et de l'analyse économique préalable sur le but du prêt déjà utilisée par les agents d'encadrement/crédit.

5. La viabilité du système de crédit fut améliorée grâce à de meilleurs taux de remboursement, à une productivité accrue du personnel de l'ORD et à une meilleure qualité de l'information tirée des rapports statistiques utiles à l'évaluation, à l'analyse financière et à l'élaboration du budget du compte créditeur rural.

Quoiqu'un analyse coûts-bénéfices du système informatisé ne puisse être effectuée avant que le système ait fonctionné deux ans, quelques-uns des éléments d'une telle analyse ont commencé à apparaître.

a) Les coûts supplémentaires imputables au système informatisé par rapport au vieux système comprennent: (1) coûts fixes: la contribution de l'ORD de l'Est au coût de rédaction des 29 programmes (environ \$12 000), la formation des préposés au colage (environ \$500), le temps consacré par le personnel de l'ORD à l'installation du système (environ \$1 000) - ceci fait un total d'environ \$15 000 comme frais

fixe d'installation du système; et (2) coûts variables: l'enregistrement des prêts et des remboursements, le temps de l'ordinateur à émettre les factures, listes, commissions et rapports statistiques, le papier, l'imprimerie et la reliure - ces coûts s'élèvent à peu près à \$2.00 par prêt enregistré, montant qui est basé sur les coûts variables associés avec les 3821 prêts originaux enregistrés à cause des économies d'échelle, ce coût diminuera au fur et à mesure que le nombre des prêts enregistrés s'accroît.

b) Les bénéfices additionnels qui devraient être mesurés dans cette analyse sont: les remboursements accrus, la diminution des détournements, l'augmentation de la vitesse et de l'exactitude avec lesquelles les rapports statistiques sont produits, la productivité plus élevée du capital investi au moyen du système de crédit; sans compter les coûts réduits résultant de la discontinuation de l'inventaire annuel du crédit sur le terrain.

c) Les éléments suivants ne furent pas modifiés par le système et, par conséquent, ne devraient pas être inclus dans l'analyse coûts-bénéfices; le nombre de personnes employées pour le système de crédit agricole; le soutien logistique pour le système de crédit (espace, et fournitures de bureau, véhicules, coûts de déplacements); et les formulaires principaux pour les contrats de prêts et les reçus utilisés par les agents d'encadrement/ crédit sur le terrain.

RECOMMANDATIONS

Les recommandations qui suivent s'adressent à ceux désirant établir ce type de système informatisé pour gérer un système de crédit agricole viable dans un pays à bas revenus.

1. Le but et les objectifs du système informatisé de gestion doivent être simples au début. La tendance à ajouter les fonctions au programme de l'ordinateur qui pourrait compliquer le système doit être évitée au cours des premières phases de son développement. Des fonctions peuvent être ajoutées par la suite, après que le système original simplifié aura été testé et mis à l'essai.
2. Même si la distance entre les programmeurs en informatique et les usagers du programme peut être grande, une collaboration étroite entre ces deux parties doit être maintenue au moment où les programmes sont rédigés et testés.
3. Les procédures d'enregistrement des prêts et des remboursements, la correction des erreurs et la modification des données doivent être claires et simples afin de pouvoir soutenir une rotation fréquente du personnel de l'ORD à tous les niveaux.

4. Mettre l'emphase sur la minutie, la régularité, l'exactitude et la ponctualité au cours de la formation du personnel sur le programme.
5. Le codage ne devrait pas commencer avant que les données de base à être codées soient complètes et classées et qu'on ait attribué à chacun des emprunteurs un numéro de bénéficiaire.
6. Les factures ne devraient pas être distribués aux emprunteurs par des agents d'encadrement/crédit suspects d'avoir détournés des remboursements exigés par ces factures.
7. Les facilités locales pour saisies, la programmation sur ordinateur et le traitement des données doivent être d'une qualité suffisante (ceci est clairement suffisant en Haute-Volta).

CONCLUSIONS

Un système informatisé pour gérer un système de crédit agricole viable dans un pays à bas revenus - Haute-Volta - fut choisi à l'instar des méthodes intensives en main-d'oeuvre afin de gagner en rapidité, exactitude, régularité et minutie au niveau de la production de rapports statistiques, d'outils au personnel sur le terrain et du calcul des commissions.

Selon l'évaluation (présentée ci-dessus) de l'expérience d'une année, le système a réussi à réduire les problèmes abordés au début de ce document.

Même dans les pays à bas revenus qui utilisent le système de crédit agricole pour poser les premiers jalons du développement agricole - par exemple, passer de la houe à la charrue comme dans l'ORD de l'Est en Haute-Volta - l'ordinateur peut être la technologie la plus appropriée pour gérer un système de crédit agricole viable.

17/11/81

Niamey, le 17 Juillet 1981

REPUBLIQUE DU NIGER
MINISTRE DU DEVELOPPEMENT RURAL
DEPARTEMENT DE NIAMEY
PROJET PRODUCTIVITE

LE DIRECTEUR DU PROJET PRODUCTIVITE
NIAMEY

N° _____ / PPN 81

Monsieur le

Objet : Programme crédit Agricole
Projet Productivité Niamey

J'ai l'honneur de vous adresser ci-joint un projet d'accord
relatif aux modalités de crédit à mettre en place dans le cadre de
la deuxième phase.

Nous souhaitons recevoir vos observations éventuelles
au plus tard le 30 Juillet 1981.

SALLEY HOUSSA

Application :

- Préfet de Niamey

ACCORD POUR LA GESTION DU PROGRAMME DE CREDIT ET APPROVISIONNEMENT DES
INTRANTS ET EQUIPEMENT AUX COOPERATIVES DANS LA ZONE DU PROJET PRODUCTIVITE
NIAMEY

1. Cet accord, sujet à des amendements, définit les modalités de gestion d'un programme de crédit et approvisionnement des intrants, animaux, et matériels destinés à couvrir les besoins des coopératives dans la zone du Projet Productivité Niamey.

2. Un compte courant sera créé à la C N C A .

Ce compte est destiné à satisfaire les besoins en crédit et gérer les fonds du crédit des coopératives dans la zone du Projet. Sa première fonction est de financer à titre de crédit l'équipement et intrants nécessaires à l'application des thèmes techniques préconisés par le service de la vulgarisation pour le mil et niébé. Cependant, sa fonction n'est pas limitée à cela. Il doit servir à financer toutes les activités économiques des exploitants et coopératives nécessitant du crédit. Celles-ci peuvent comprendre parmi autres l'embouche bovine, l'achat des moulins, le maraichage; l'aviculture et les boutiques coopératives.

3. Ses modalités de gestion doivent faire preuve d'une souplesse permettant de répondre à chaque besoin selon sa nature. Les apports personnels, la durée des prêts et les échéanciers de paiement doivent être définis en tenant compte des potentialités financières des éventuels bénéficiaires.

4. Le taux d'intérêt est celui fixé par la C N C A

5. Pour ce qui concerne les intrants et matériel agricole, afin de raccourcir les délais de livraison, un stock de matériel sera créé au niveau de chaque magasin coopératif par anticipation des besoins.

L'inventaire à y maintenir sera arrêté par les COTEARS en collaboration avec les intrants du Projet Productivité Niamey et les coopératives en tenant compte de l'importance de la population à desservir, la nature habituelle de leurs besoins et leur situation financière.

5. En même temps que cet inventaire, il sera arrêté un montant correspondant à la valeur des animaux du trait nécessaires à l'utilisation d'équipement de culture attelée. Ces stocks doivent comprendre également les pièces détachées et accessoires pour le quipement, les engrais, les semences et éventuellement les produits phytosanitaires qui seront vendus soit au comptant soit à crédit. En général, l'établissement des stocks doit tendre à faciliter la vente au comptant de tout matériel.