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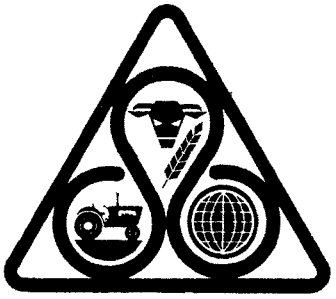

Department of Agricultural Economics and Rural Sociology

THE OHIO STATE UNIVERSITY
COLUMBUS, OHIO
43210

Financial Markets in Rural Niger: Formal and Informal Transactions at the Household Level

(An interim report by the Research Team of Ohio State University to the USAID Mission, Niamey, Niger)

March 1986

Report prepared by Dr. Carlos E. Cuevas, with editorial comments by Professor Douglas Graham, both of Ohio State University. Field work was directed by Dr. Kifle Negash, OSU, and Dr. Michel Keita, IRSH, working as a consultant to OSU. Survey design by The Ohio State University team.

FINANCIAL MARKETS IN RURAL NIGER :

Formal and Informal Transactions at the Household Level

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Financial Markets in Rural Niger : Formal and Informal Transactions at the Household Level

1. Introduction

In this report we present and discuss the first set of findings from the rural-household survey undertaken by the OSU team in July-August 1985. This survey corresponds to the first stage of our program of field work. The second stage deals with credit issues at the cooperative and institutional level. This second stage of field work was carried out in January and February of the current year and will be processed and analyzed shortly. The third stage, scheduled for April-May 1986, will gather further information on informal financial activities in selected rural areas, to complement the findings of the first two stages.

The preliminary results reported here refer to the prevalence, importance, and magnitudes of formal and informal financial transactions in rural areas, at the household level. These findings correspond to approximately two-thirds of the information gathered in the first-stage field survey of 1985. Detailed data on the procedures and costs involved in these financial transactions are yet to be processed and reported on. This remaining analysis of the first stage survey will be undertaken in conjunction with the data gathered in the second-stage survey of cooperatives and institutions, that complements the transaction costs material obtained in the household survey. Likewise, part of the data documenting the features and costs of non-institutional financial transactions will be analyzed once

the results of the third field survey are obtained, since this will help characterize the role of traders, money-keepers, and other individuals participating in these markets.

The next section presents an overview of the characteristics of the rural households in the sample of our first field survey during July-August 1985. This overview emphasizes the main features of their economic activities. Section 3 documents the access to institutional credit by these rural households, and the financial magnitudes involved in these operations. The relevance and characteristics of non-institutional (or informal) credit arrangements at the household level are discussed in Section 4. Institutional and non-institutional savings are the subject of Section 5. This activity will be complemented by information to be gathered during our third field survey in the Spring of 1986. Some concluding remarks and implications are presented in the final section.

2. Overview of the Rural Household

A total of 898 interviews were carried out between July and August 1985 in five departments of Niger: Niamey, Dosso, Tahoua, Maradi, and Zinder. This total number of interviews will be referred to as the "overall sample" and is comprised by five sub-samples. The first sub-sample, of 398 households, was drawn at random in 14 "arrondissements" of the departments indicated above. A second sub-sample consisted of 44 village-leaders ("notables"), who were interviewed in the same villages, randomly

selected for the first sub-sample. The third sub-sample corresponded to 69 women selected at random in these same villages. The other two sub-samples were obtained from different sample frames, and were included in the survey for specific purposes. The loan records of the "Caisse Nationale de Credit Agricole" (CNCA) were the basis for the selection of the fourth sub-sample, that consisted of 230 credit beneficiaries. The purpose of this sub-sample was to obtain a significant number of cases for the documenting of procedures and transaction costs associated with institutional loans. Finally, a total of 157 households were selected for interviews in three villages participating in the INRAN program currently under way in Maradi, and four villages included in the ICRISAT project in the Niamey department. The data on financial transactions obtained in this sub-sample will complement the detailed household information that these two institutions are recording in their respective areas.

In all cases, excepting the sub-sample for women, the interviews were carried out with the head of the household in the local language. The questionnaire, about 60 pages long, included two pages of questions designed for the spouse, to obtain some summary information on her credit/savings activity. In the case of the explicit sub-sample for women however, the full questionnaire was applied to the respondent regardless of her position in the household.

This section presents the main characteristics of the sample in terms of its regional and ethnic coverage, and some major features of the households such as household size and literacy levels, and the type and magnitude of their economic activity. Emphasis is given to documenting the main crop and livestock enterprises undertaken by households, and estimating the value of production, physical assets, and income flows obtained from agriculture.

2.1. Regions and Ethnic Groups in the Sample

This first-stage field survey included interviews with members of six major ethnic groups in the country, Djerma, Haoussa, Touareg, Peulh, Beriberi, and Gourmantche. Their regional distribution in the survey is reported in Table 1 for the overall sample, and in Table 2 for the random sub-sample alone[1]. The corresponding table for the CNCA sub-sample is included in the appendix, table A.1. Tables 1 and 2 show that Djerma and Haoussa households are predominant, followed by Touaregs, and by Peulhs and Beriberis in a third level of participation in the sample. Less than one percent of the interviews corresponded to Gourmantche households. Except for an over-representation of the Touareg group, the ranking of participation of the different ethnic groups in the random sub-

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[1] The total number of observations reported in different tables may not coincide with the numbers indicated above for the overall sample and the sub-samples, due to missing values for some variables entering a particular table.

TABLE 1 .

OVERALL SAMPLE. OBSERVATIONS BY DEPARTMENT AND ETHNIC GROUP

	DEPARTMENT											
	NIAMEY		DOSSO		TAHOUA		MARADI		ZINDER		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
ETHNIC GROUP												
HAOUSSA	11	3.93	11	5.42	82	91.11	174	86.14	67	65.05	345	39.29
BERIBERI	1	0.36	1	0.49	1	1.11	3	1.49	34	33.01	40	4.56
DJERMA	178	63.57	188	92.61	.	.	1	0.50	.	.	367	41.80
PEULH	20	7.14	3	1.48	.	.	19	9.41	1	0.97	43	4.90
TOUAREG	63	22.50	.	.	7	7.78	5	2.48	1	0.97	76	8.66
GOURMANTCHE	7	2.50	.	.	.	.	.	.	.	.	7	0.80
ALL	280	100.00	203	100.00	90	100.00	202	100.00	103	100.00	878	100.00

TABLE 2 .

RANDOM SUB-SAMPLE. OBSERVATIONS BY DEPARTMENT AND ETHNIC GROUP

	DEPARTMENT											
	NIAMEY		DOSSO		TAHOUA		MARADI		ZINDER		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
ETHNIC GROUP												
HAOUSSA	2	1.69	1	1.43	52	98.11	67	93.06	53	65.43	175	44.42
BERIBERI	1	0.85	.	.	.	.	.	.	26	32.10	27	6.85
DJERMA	59	50.00	69	98.57	.	.	.	.	.	.	128	32.49
PEULH	16	13.56	.	.	.	.	2	2.78	1	1.23	19	4.82
TOUAREG	38	32.20	.	.	1	1.89	3	4.17	1	1.23	43	10.91
GOURMANTCHE	2	1.69	.	.	.	.	.	.	.	.	2	0.51
ALL	118	100.00	70	100.00	53	100.00	72	100.00	81	100.00	394	100.00

sample reflects appropriately the participation of these ethnic groups in the five departments included in the survey.

The majority of the heads of households interviewed were men. The proportion of women in the overall sample was about 8 percent of the total, but this includes the sub-sample of women therefore it over-estimates the proportion of women as respondents in the survey. In fact, the proportion of female respondents in the random sub-sample (as heads of households) was only 3 percent. There were no female respondents among the CNCA-borrower sub-sample. Tables A.2 through A.4 of the appendix document in detail the composition of the overall sample and these two sub-samples by ethnic group and sex of the respondent.

2.2. Household Size and Literacy

Given the traditional structure of the rural population in Niger, a distinction was made between the number of households ("menages") comprising an extended family ("famille"), and the number of members in a household or household size. Tables 3 and 4 present the average figures for these two measurements in the overall sample, Table 3, and in the random sub-sample, Table 4. Overall, rural families include an average of two households ("menages"), and these households on the average are comprised of seven members. The averages for the random sub-sample are of similar magnitudes. Variations across ethnic groups are not very important with the exception of the Gourmantche and the Beriberi groups, that register a smaller number of households per family.

TABLE 3 .

OVERALL SAMPLE. NUMBER OF HOUSEHOLDS PER FAMILY AND AVERAGE FAMILY SIZE, BY ETHNIC GROUP

	HOUSEHOLDS-/FAMILY	HOUSEHOLD SIZE
	MEAN	MEAN
ETHNIC GROUP		
HAOUSSA	2.16	7.23
BERIBERI	1.62	4.92
DJERMA	2.43	7.61
PEULH	1.95	6.53
TOUAREG	1.81	6.62
GOURMANTCHE	1.71	8.43
ALL	2.21	7.21

TABLE 4 .

RANDOM SUB-SAMPLE. NUMBER OF HOUSEHOLDS PER FAMILY AND AVERAGE FAMILY SIZE, BY ETHNIC GROUP

	HOUSEHOLDS-/FAMILY	HOUSEHOLD SIZE
	MEAN	MEAN
ETHNIC GROUP		
HAOUSSA	2.11	6.33
BERIBERI	1.44	4.44
DJERMA	2.32	6.30
PEULH	2.00	8.05
TOUAREG	1.66	6.86
GOURMANTCHE	1.00	7.50
ALL	2.06	6.34

Only the Beriberi group has a household size consistently smaller than average.

Approximately 36 percent of the heads of households could read and write, without major differences in literacy level across ethnic groups (see Tables 5 and 6). Literacy rates among other members of the household are substantially higher. Sixty percent of the respondents in the overall sample (Table 7) indicated that other members of the household could read and write. In the random sub-sample this rate was almost 56 percent (Table 8). The Touareg group stands out in this aspect, with other members of the household being literate in over 70 percent of the cases. The predominant language of instruction for literate heads of households was Arabic (75 percent of the cases). For other members of the households the language of instruction was primarily French (about 70 percent of the cases).

An interesting contrast can be established between some characteristics of the CNCA-borrower sub-sample and the random sub-sample. The CNCA borrowers have a larger number of households per family, 2.5 as compared to 2 households in the random sub-sample, and a larger household size, over 9 members per household (see table A.5 in the appendix). The CNCA borrowers also show higher literacy rates for the heads of household (48 percent) and for other members of the family (72 percent) as compared to the random group (36 percent and 56 percent respectively). As will be discussed later, the CNCA borrowers are an atypical group in

TABLE 5 .

OVERALL SAMPLE. LITERACY OF THE HEAD OF HOUSEHOLD

	LITERACY HEAD OF HOUSEHOLD			
	YES		NO	
	N	PERCENT	N	PERCENT
ETHNIC GROUP				
HAOUSSA	124	35.94	221	64.06
BERIBERI	15	37.50	25	62.50
DJERMA	138	37.60	229	62.40
PEULH	12	27.91	31	72.09
TOUAREG	28	36.84	48	63.16
GOURMANTCHE	3	42.86	4	57.14
ALL	320	36.45	558	63.55

TABLE 6 .

RANDOM SUB-SAMPLE. LITERACY OF THE HEAD OF HOUSEHOLD

	LITERACY HEAD OF HOUSEHOLD			
	YES		NO	
	N	PERCENT	N	PERCENT
ETHNIC GROUP				
HAOUSSA	64	36.57	111	63.43
BERIBERI	10	37.04	17	62.96
DJERMA	49	38.28	79	61.72
PEULH	6	31.58	13	68.42
TOUAREG	11	25.58	32	74.42
GOURMANTCHE	1	50.00	1	50.00
ALL	141	35.79	253	64.21

TABLE 7 .

OVERALL SAMPLE. LITERACY OF OTHER MEMBERS OF THE HOUSEHOLD

	LITERACY OTHER MEMBERS OF HOUSEHOLD			
	YES		NO	
	N	PERCENT	N	PERCENT
ETHNIC GROUP				
HAOUSSA	198	57.39	147	42.61
BERIBERI	23	57.50	17	42.50
DJERMA	228	62.13	139	37.87
PEULH	20	46.51	23	53.49
TOUAREG	55	72.37	21	27.63
COURMANTCHE	4	57.14	3	42.86
ALL	528	60.14	350	39.86

TABLE 8 .

RANDOM SUB-SAMPLE. LITERACY OF OTHER MEMBERS OF THE HOUSEHOLD

	LITERACY OTHER MEMBERS OF HOUSEHOLD			
	YES		NO	
	N	PERCENT	N	PERCENT
ETHNIC GROUP				
HAOUSSA	97	55.43	78	44.57
BERIBERI	14	51.85	13	48.15
DJERMA	64	50.00	64	50.00
PEULH	11	57.89	8	42.11
TOUAREG	31	72.09	12	27.91
GOURMANTCHE	2	100.00	.	.
ALL	219	55.58	175	44.42

many respects in comparison to the characteristics of the randomly selected households.

2.3. Economic Activity

Crop production was the most important agricultural activity for the households included in the survey. Eighty percent of the respondents declared having grown at least one crop in the crop season preceding the date of the interview, 62 percent had cultivated two or more crops in the same season[2]. Rainfed agriculture predominated, since 96 percent of the respondents had non-irrigated fields. Less than 5 percent worked only on irrigated plots, and about 12 percent cultivated both types of fields. Millet, sorghum and cowpeas were the most important crops. Almost 77 percent of the households had grown millet in the past season, sorghum and cowpeas had been cultivated by 40 percent and 35 percent of the respondents, respectively. Rice was the fourth crop in importance, grown by about 14 percent of the respondents.

Seventy percent of the households owned some type of livestock, almost one half of the respondent declared having two or more types of animals. Among other physical assets the survey obtained information about ox-carts and donkey-carts. Only 10 percent of the households declared hav ng an ox-cart, and less than 7 percent had donkey-carts. In order to obtain an estimation

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[2] Figures and proportions reported in this section are based on the random sub-sample, unless otherwise indicated.

of the value of agricultural assets, livestock were evaluated using the average market prices registered in the different departments in 1984, and some assumptions about the composition of the herds by age categories. Carts were valued at their reported cost as inputs for 1984. The value of agricultural assets, estimated with these two components, is a lower-bound estimate of total household assets, since it does not include other agricultural equipment and tools, other inputs, and other non-agricultural assets owned by the household. However, the two items considered in the estimation, livestock and carts, are the components of total assets most likely to generate a significant flow of income.

The estimated mean values of livestock and agricultural assets (livestock and carts) are reported in Table 9 for the different sub-samples, along with the estimated mean values of crop production for the season preceding the date of the interview. The mean value of agricultural income also reported in this table was computed as the sum of the value of crops plus the income flow generated by agricultural assets, estimated as 20 percent of the value of these assets. Table 9 shows important differences among the different sub-samples. Using as a level of reference the value of agricultural income estimated for the random sub-sample, the group of village leaders enjoys an average income twice as high as the random group of village households in which they belong. The income of the CNCA borrowers was 73 percent higher than that estimated for the random sub-sample. The

TABLE 9 .

MEAN VALUES OF AG. INCOME AND AG. ASSETS BY SUB-SAMPLE, CFA FRANCS 1984

SUB-SAMPLE	MEAN VALUE OF CROPS	MEAN VALUE OF LIVESTOCK	MEAN VALUE OF AG. ASSETS	MEAN VALUE OF AG. INCOME
RANDOM	143029.70	70907.94	84483.81	159926.46
LEADERS	289022.57	153345.95	184189.13	325360.39
WOMEN	21147.38	27742.41	30278.64	27203.11
CNCA BORROWERS	238093.49	114855.34	189243.55	276486.91
INRAN-ICRISAT	140270.71	127526.40	142314.86	169632.86

INRAN-ICRISAT group showed average figures for value of crops and agricultural income very similar to the random group of households. The relative position of the different sub-samples with respect to the random group remains the same when median values instead of mean values are used for comparison (see Table A.8 in the appendix). In all sub-samples median values are considerably lower than mean values, thus denoting a regressively skewed distribution of income and assets in all sub-groups.

The estimated values of agricultural income were classified in four income-level categories for descriptive purposes. These categories were defined according to the quartiles of the income distribution of the random sub-sample, therefore each category includes one-fourth of the observations in this sub-sample. The distribution of agricultural income according to these categories for the different ethnic groups in the random sub-sample is reported in Table 10 [3]. Since the expected proportion of the number of observations in each income level is 25 percent, the income distribution of each ethnic group can be compared against this standard. The agricultural income of Djerma and Peulh households appear relatively higher than that recorded for the other ethnic groups, since their participation in the two highest income categories is substantially larger than the average and, consequently, they show a smaller proportion of cases in the low-income categories. The Beriberi group shows the largest

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[3] Table A.9 in the appendix shows this income-level distribution by ethnic group for the overall sample.

TABLE 10 .

RANDOM SUB-SAMPLE. INCOME-LEVEL DISTRIBUTION OF DIFFERENT ETHNIC GROUPS, BASED ON ESTIMATED AGR. INCOME 1984

	INCOME LEVEL (AGRICULTURE)									
	HIGH-(OVER 200740 CFA/YR)		MEDIUM-HIGH (98625-200740 CFA/YR)		MEDIUM-LOW (33534-98625 CFA/YR)		LOW-(Under 33534 CFA/YR)		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
ETHNIC GROUP										
HAOUSSA	25	15.63	33	20.62	45	28.13	57	35.62	160	100.00
BERIBERI	3	8.00	8	12.00	7	28.00	13	52.00	25	100.00
DJERMA	54	44.63	40	33.05	19	15.58	9	7.39	121	100.00
PEULH	6	31.58	7	36.84	3	15.79	3	15.79	19	100.00
TOUAREG	4	9.52	9	21.43	17	40.48	12	28.57	42	100.00
GOURMANTCHE	.	.	1	50.00	1	50.00	.	.	2	100.00
ALL	91	24.66	98	26.56	93	25.20	87	23.58	369	100.00

proportion of households in the lowest income category, suggesting that this ethnic group would be in general poorer than others.

It is important to keep in mind that the above discussion relates only to agricultural income. Thus this is a lower-bound estimate of total income since, in the majority of the cases, other sources of income exist. Sixty percent of the households in the random sub-sample indicated that they received income from another non-agricultural source. For one-fifth of these households the other source of income was more important than the revenue obtained from agricultural activities and, in ten percent of the cases, the non-agricultural source was as important as agriculture in generating total household income. Reliance upon non-agricultural sources of income was found less important among high and medium-high income levels as defined above, but differences across income categories were not substantial. For example, the highest income-level category shows 49 percent of the cases receiving income from other sources (as compared to 60 percent average for all households) and among these, the other source was more important than agriculture in 16 percent of the cases.

A summary assessment of the results discussed above indicates that the rural population represented in the survey can be characterized as very poor in absolute terms. If mean agricultural incomes are related to average household size, per capita figures amount to 22,750 CFA francs per year (about 65 US

dollars) for the random sub-sample, and just over 30,000 CFA francs per capita (88 US dollars) for the CNCA sub-sample. Only the sub-sample of village leaders shows per-capita agricultural income over 100 US dollars per year. Thus reliance on non-agricultural activities becomes important for a majority of the households to improve their income situation. The following sections will now document to what extent and in what ways financial transactions contribute to the operations of rural households.

3. Institutional Credit: Access and Magnitudes

The survey gathered basic information about four aspects of institutional credit in rural areas: first, access to institutional loans over the last five years; second, amounts and distribution of the most recent loans obtained by farmers; third, terms, conditions, and procedures associated with these loans; and fourth, the borrower's non-interest transaction costs implied by these terms, conditions, and procedures. As indicated in the introductory section, this report will cover the first two aspects of this subject, leaving analysis of the terms, procedures, and transaction costs borne by the borrowers to our future report for August 1986. This future report will analyze the operations of the institutional credit system, and the costs associated with these operations at all levels of the institutional credit network namely, the participating institutions, cooperatives, and individual borrowers.

3.1. Access to Institutional Credit, 1980-1984

A majority of the households had received at least one loan during the five-year period preceding the date of the interview. Table 11 shows the distribution of the number of loans received in this period for the overall sample, and the different sub-samples. Overall, 37 percent of the respondents had not received a loan between 1981 and 1985, i.e., 63 percent obtained credit from institutions at least once in this five-year period. However, this overall indicator of access is upwardly biased because of the inclusion of the CNCA-borrowers sub-sample in the overall sample. This sub-sample was intentionally drawn from the records of CNCA to obtain information about loans and borrowing costs, therefore the expected proportion of no-loans in the first column of Table 11 for this sub-sample was zero. Twelve CNCA borrowers however (5.2 percent of the sub-sample) did not acknowledge receipt of any loans.

A more accurate estimate of access to formal loans for rural households is obtained observing the findings for the random sub-sample. Almost half of the households did not receive a single loan in the last five years, 54 percent obtained at least one loan, only 4 percent had "regular" access to credit, since they received five or more loans over this same period (see the last two columns in Table 11). Overall, the respondents in the random sub-sample obtained a total of 446 loans in the last five years, an average of 89 loans per year for the 398 households that

TABLE 11 .

NUMBER OF INSTITUTIONAL LOANS OBTAINED BY INDIVIDUAL BORROWERS IN THE LAST FIVE YEARS, BY SUB-SAMPLE

	NUMBER OF LOANS IN LAST FIVE YEARS															
	NONE		ONE		TWO		THREE		FOUR		FIVE		MORE THAN FIVE		ALL	
	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT
SUB-SAMPLE																
RANDOM	183	45.73	117	29.40	48	12.06	22	5.53	12	3.02	7	1.76	10	2.51	398	100.00
LEADERS	11	25.00	14	31.82	8	18.18	.	.	4	9.09	3	6.82	4	9.09	44	100.00
WOMEN	69	100.00	.	.	.	.	.	.	.	.	.	.	.	.	69	100.00
CNCA BORROWERS	12	5.22	127	55.22	45	19.57	22	9.57	6	2.61	7	3.04	11	4.78	230	100.00
INRAN-ICRISAT	57	36.31	39	24.84	34	21.66	12	7.64	4	2.55	5	3.18	6	3.82	157	100.00
ALL	331	36.86	297	33.07	135	15.03	56	6.24	26	2.90	22	2.45	31	3.45	898	100.00

comprise this random sub-sample. This represents an average access rate of 22.4 percent, or, on average 22.4 percent of the farmers have access to institutional loans.

An important qualification needs to be introduced here, since loans are not a homogeneous commodity. A large number of small seed-loans is included in the loan count used to arrive at the access rate indicated above. This type of loan has been granted primarily in recent years and could be better described as a routine input delivery in which small quantities of seed are distributed with a minimum of formalities. Furthermore, as will be documented later in this section, the CFA equivalent value of these loans is considerably smaller than the average amounts for the other types of loans received by farmers. If these seed loans are subtracted from the total number of loans received by the households in the random sub-sample, the average access to institutional credit reduces to 15.3 percent. This is still an "upper-bound" estimate since the questionnaire could identify the type of loan only for the most recent loan received by the respondent. Seed loans received during the five-year period in question that were not the most recent for the farmer went undetected. With this final qualification, we can assert that each year an "upper bound" average of about 15 percent of rural households in the random sub-sample had access to meaningful institutional loans.

As shown in Table 11, village leaders and households in the INRAN-ICRISAT sub-sample had better access to institutional

credit than the randomly selected households. Women had no access to this type of credit in the last five years according to this survey. The survey detected some differences in access to formal credit across ethnic groups. Table 12 shows that the groups with better access to institutional credit were the Beriberi and the Touareg groups with two-thirds or more of the households receiving at least one loan in the last five years. The proportion of households without a single loan in five years was the highest for the Djerma group, above average for Peulhs and Gourmantches, and lower than average for the Haoussa group[4].

A comparison of access to formal credit between households in different income-level categories is presented in Table 13. Rather surprisingly, households in the lowest income category appear to have the best access, since two-thirds of this group received at least one loan in the last five years, as compared to only one-third of the respondents in the highest income-level class. These figures again consider all loans received, without distinction between different loan types and amounts. As will be discussed below, the pattern of credit distribution by income level looks different when loan amounts are considered.

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[4] The random sub-sample is used in this comparison across ethnic groups, since the regional breakdown of the CNCA sub-sample may have implied an over-representation of the Djerma group in this sub-sample (see tables A.1 and A.10 in the appendix).

TABLE 12.

RANDOM SUB-SAMPLE. NUMBER OF INSTITUTIONAL LOANS OBTAINED BY INDIVIDUALS IN THE LAST FIVE YEARS, BY ETHNIC GROUP

	NUMBER OF LOANS IN LAST FIVE YEARS															
	NONE		ONE		TWO		THREE		FOUR		FIVE		MORE THAN FIVE		ALL	
	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT
ETHNIC GROUP																
HAOUSSA	71	40.34	55	31.25	23	13.07	10	5.68	4	2.27	4	2.27	4	2.27	176	100.00
BERIBERI	6	22.22	14	51.85	2	7.41	2	7.41	3	11.11	.	.	.	.	27	100.00
DJERMA	79	61.24	27	20.93	10	7.75	3	2.33	5	3.88	2	1.55	3	2.33	129	100.00
PEULH	9	47.37	2	10.53	5	26.32	1	5.26	.	.	.	.	2	10.53	19	100.00
TOUAREG	15	34.09	19	43.18	8	18.18	.	.	.	.	1	2.27	1	2.27	44	100.00
COURIANTCHE	1	50.00	.	.	.	.	1	50.00	.	.	.	.	.	.	2	100.00
ALL	181	45.59	117	29.47	48	12.09	22	5.54	12	3.02	7	1.76	10	2.52	397	100.00

TABLE 13.

RANDOM SUB-SAMPLE. NUMBER OF INSTITUTIONAL LOANS OBTAINED BY INDIVIDUALS IN THE LAST FIVE YEARS, BY INCOME LEVEL

(BASED ON AGRICULTURAL INCOME ESTIMATED FOR 1984. INCOME LEVELS DEFINED BY QUARTILES OF INCOME DISTRIBUTION)

	NUMBER OF LOANS IN LAST FIVE YEARS															
	NONE		ONE		TWO		THREE		FOUR		FIVE		MORE THAN FIVE		ALL	
	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT
INCOME LEVEL (AGRICULTURE)																
HIGH-(OVER 200740 CFA/YR)	60	65.22	19	20.65	4	4.35	2	2.17	4	4.35	2	2.17	1	1.09	92	100.00
MEDIUM-HIGH (93625-200740 CFA/YR)	37	39.78	27	29.03	15	16.13	6	6.45	2	2.15	1	1.08	5	5.38	93	100.00
MEDIUM-LOW (33234-93625 CFA/YR)	38	40.85	30	32.26	12	12.90	5	5.38	4	4.30	2	2.15	2	2.15	93	100.00
LOW-(UNDER 33234 CFA/YR)	31	33.70	33	35.87	15	16.30	8	8.70	2	2.17	2	2.17	1	1.09	92	100.00
ALL	166	44.86	109	29.46	46	12.43	21	5.68	12	3.24	7	1.89	9	2.43	370	100.00

3.2. Types and Amounts of Loans

Detailed information was obtained about the most recent loan obtained by the farmer, provided that it had been received in or after 1980. In most cases the respondent did not remember or did not know the equivalent amount of the loan (in CFA francs), therefore this amount was calculated (in all cases) evaluating the inputs included in the loan at the prices prevailing in the year the loan was obtained[5]. The amounts calculated are used in the following discussion.

Types of loans were classified in three categories. Their average amounts are reported in Table 14 for the overall sample, and the different sub-samples that received institutional credit. Equipment and Input loans include all farming equipment that normally comprise the so called "technology packages", oxen, and cattle. Seed loans correspond to small amounts of millet seed and occasionally sorghum seed. A small number of loans that included both some equipment (and/or animals) and seeds are labeled "mixed" loans, and were merged with the first type of loans for the purposes of this presentation. Finally, a reduced number of loans in cash were reported by some of the respondents, thus defining the third type of loan included in Table 14.

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[5] In most of the cases where the respondent indicated a loan amount in CFA, this amount was smaller than the amount calculated through the evaluation of inputs received.

TABLE 14.

NUMBER AND AMOUNT OF LOANS BY TYPE OF LOAN, BY SUB-SAMPLE

	TYPE OF LOAN							
	[illegible]		SEED LOANS		CASH LOANS		ALL LOANS	
	N	MEAN(CFA)	N	MEAN(CFA)	N	MEAN(CFA)	N	MEAN(CFA)
SUB-SAMPLE								
RANDOM	34	56410.78	152	968.20	03	[illegible]	189	15915.94
LEADERS	01	106500.00	21	850.00	11	[illegible]	30	29039.67
CNDA BORROWERS	171	15260.00	01	1000.00	00	[illegible]	182	149204.05
INDAN-ICRISAT	17	44000.11	00	940.00	03	[illegible]	90	16551.39
ALL	22	[illegible]	[illegible]	912.99	14	[illegible]	422	67549.19

Average loan amounts are substantially different between loan types, and across sub-samples, as Table 14 shows very clearly. Overall, the average CFA value of equipment-inputs loans is considerably larger than that of seed loans. Indeed, the reduced average amount of seed loans makes their significance as agricultural credit questionable. This is the type of loan that was reported as the most recent loan by the majority of households with credit in all sub-samples, excepting the CNCA-borrower sub-sample.

An important contrast stands out in Table 14 between the average amount of loans received by the CNCA sub-sample and those obtained by the random group. CNCA borrowers record an average loan size about ten times as large as that registered by borrowers in the random sub-sample. This striking difference is explained not only because the majority of loans documented for the CNCA group were equipment loans, but also because, within each loan type excepting cash loans, the average amount is also considerably larger for this group than it is for the borrowers in the random sub-sample. If these average loan amounts are related to the average agricultural incomes discussed in the previous section (Table 9), the credit-to-income ratios for households receiving formal loans are in the order of 9 to 10 percent for all sub-samples, excepting the women sub-sample (zero loans) and the CNCA sub-sample, where this ratio is approximately 54 percent. Even if only the average value of equipment loans is considered to avoid the bias introduced by the different

importance of seed loans across sub-samples, the ratio of loan value to annual income is still considerably higher for the CNCA sub-sample, 56 percent, than for the random sub-sample, 35 percent. The INRAN-ICRISAT group shows a ratio of almost 46 percent, whereas for village leaders the ratio of loan amount to annual income is about 32 percent.

The foregoing discussion helps complement the characterization of the typical CNCA beneficiary in reference to an average randomly selected household. In addition to a larger family size, higher literacy rates, and higher per-capita income, CNCA beneficiaries operate with higher credit to output ratios than the average household in the random sub-sample. Even though it is difficult to determine the causal relationship underlying these contrasts, these findings suggest that there is a certain kind of selection process implicit in the choice of CNCA beneficiaries. Whether this process originates in the institution or results from the relationships prevailing in cooperative organizations and village-level "groupement mutualistes" (GMs) is an interesting issue that our recent survey of cooperative and GM leaders may help to clarify.

The loans most recently received by the respondents were classified into four loan-size categories. These categories were defined using the quartiles of the loan-size distribution, so that each category includes one-fourth of the loans in the overall sample. Table 15 shows the distribution of institutional loans by loan-size category for the different sub-samples. With

TABLE 15.

DISTRIBUTION OF INSTITUTIONAL LOANS BY LOAN-SIZE CATEGORY, BY SUB-SAMPLE

(CATEGORIES DEFINED BY THE QUARTILES OF THE LOAN-AMOUNT DISTRIBUTION)

	LOAN SIZE									
	OVER 113000 CFA		9000-113000 CFA		400-9000 CFA		LESS THAN 400 CFA		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
SUB-SAMPLE										
RANDOM	6	3.33	32	17.78	58	32.22	84	46.67	180	100.00
LEADERS	1	3.33	8	26.67	14	46.67	7	23.33	30	100.00
CNCA BORROWERS	107	58.79	69	37.91	2	1.10	4	2.20	182	100.00
INRAN-ICRISAT	6	6.67	12	13.33	45	50.00	27	30.00	90	100.00
ALL	120	24.90	121	25.10	119	24.69	122	25.31	482	100.00

the exception of the CNCA sub-sample, all other sub-samples have most of their loans concentrated in the smaller loan-size categories, thus reflecting the differences in average loan amounts discussed above.

The main purpose of defining these loan-size categories however, is to compare this distribution against the income-level distribution defined in the previous section. This relationship is presented in Table 16. There is a clear, yet not strong, association between income level and loan size. The borrowers in the highest income category receive loans primarily in the highest loan-size categories. Seventy five percent of all loans received by households in this income level are in the two highest loan-size categories. However, there is a good proportion of very small loans received in this income group (14 percent). Most of the loans received in the lowest income-level category are in the two smallest loan-size categories (70 percent of the total), but this income group is also represented in the higher loan-size categories. The intermediate income categories show fairly homogeneous distributions by loan size, though still following the pattern of association between loan size and income level suggested by the extreme income-level categories.

The absence of a strong association between income level and loan size suggests the absence of a typical banker's criteria in credit allocation. There is no evaluation procedure of individual loan applications where loan amounts are decided taking into account expected revenues, collateral, and other conventional

TABLE 16.

OVERALL SAMPLE. DISTRIBUTION OF INSTITUTIONAL LOANS BY LOAN-SIZE CATEGORY, BY INCOME LEVEL OF THE BORROWER

	LOAN SIZE									
	OVER 113000 CFA		9000-113000 CFA		400-9000 CFA		LESS THAN 400 CFA		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
INCOME LEVEL (AGRICULTURE)										
HIGH-(OVER 200740 CFA/YR)	34	34.00	41	41.00	11	11.00	14	14.00	100	100.00
MEDIUM-HIGH (93625-200740 CFA/YR)	35	29.17	33	27.50	26	21.67	26	21.67	120	100.00
MEDIUM-LOW (33234-93625 CFA/YR)	38	27.94	26	19.12	36	26.47	36	26.47	136	100.00
LOW-(UNDER 33234 CFA/YR)	12	10.81	20	18.02	42	37.84	37	33.33	111	100.00
ALL	119	25.48	120	25.70	115	24.63	113	24.20	467	100.00

evaluation criteria. Once a cooperative, or a GM, is granted a loan, all individuals participating in the loan will most likely receive the same quantities of inputs, thus loans of equal amounts. Income level becomes a factor to the extent that it can affect the influence an individual may have on loan allocation inside the GM or cooperative. However, the other findings reported in this section suggest that village-wide income levels and wealth may be a consideration in deciding credit allocation among cooperatives, as opposed to within cooperatives. This is to say, cooperatives or GMs comprised by individuals with relatively high incomes and wealth may become eligible for relatively large loans. Each individual member of these wealthier cooperatives will then receive a larger loan than that obtained by members of a less affluent organization. This interpretation would explain the weak relationship observed between (individual) income levels and loan size, and at the same time would explain the clear differences between the borrowers in the CNCA sub-sample and the loan beneficiaries in the random sub-sample. The CNCA borrowers are likely to be members of a relatively wealthier set of cooperatives than those to which the randomly selected households belong.

The findings reported in this section indicate that access to institutional credit is limited among rural households. At best, about 22 percent of these households obtain a loan in an average year. The average amount of these loans do not represent more than 10 percent of the household's average agricultural

income. The borrowers in the CNCA sub-sample benefit from relatively larger loans in relation to the average amounts received by the randomly selected households. Furthermore, the relative importance of borrowed funds with respect to the agricultural income of CNCA borrowers is about five times as high as that recorded for households in the random sub-sample.

An estimate of the overall ratio of agricultural credit to agricultural output can be obtained by multiplying the credit access rate (22.4 percent) by the average credit-to-income ratio found for the households receiving loans (9.95 percent). The estimated ratio of agricultural credit to agricultural output results 2.23 percent, a proportion very similar to the ratio of agricultural credit to agricultural GDP that can be calculated from official macro-economic statistics. The average ratio calculated from this source for the period 1980-1983 was 2.05 percent[6].

4. Non-Institutional Credit

When access to institutional credit is somewhat restricted and not very significant, it becomes important to investigate the non-institutional (or informal) financial transactions that are likely to take place in rural areas. This section documents the informal transactions performed by the rural households included in this survey. First, their informal borrowing activities are

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[6] Calculated from statistics published by the Ministry of Planning, "Bulletin Statistique", 1985.

considered, along with a summary of the sources of financial support for the rural households. Secondly, this section documents the role of heads of households as informal lenders, or suppliers of loans and assistance to other members of the rural community.

4.1. Informal Borrowing

The households included in this survey received loans or assistance from several non-institutional sources in the 12-month period preceding the date of the interview. A summary of the number of sources that provided loans or aid to the heads of households is presented in Table 17. Overall, only 18 percent of the heads of households did not receive any non-institutional assistance in the preceding year, i.e., a vast majority of them (82 percent) obtained loans or assistance from at least one source. The proportions reported for the random sub-sample are not very different from these overall figures. Eighty four percent of the randomly selected households received informal support from at least one source in the period in question.

The most important source of loans or assistance was relatives. Over fifty percent of the overall sample had received aid from this source, without major variations across sub-samples (see table A.15 in the appendix). Friends and neighbors were mentioned as sources of assistance in 30 percent of the interviews (appendix table A.16). Almost one-fifth of the heads of households interviewed included traders and merchants among

TABLE 17 .

INFORMAL BORROWING. NUMBER OF SOURCES OF LOANS AND ASSISTANCE FOR THE HEAD OF HOUSEHOLD, BY SUB-SAMPLE

	INFORMAL LOANS FOR HEAD OF HOUSEHOLD (LAST 12 MONTHS)											
	NONE		ONE		TWO		THREE		FOUR		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
SUB-SAMPLE												
RANDOM	64	16.08	133	33.42	131	32.91	53	13.32	17	4.27	398	100.00
LEADERS	7	15.91	20	45.45	12	27.27	3	6.82	2	4.55	44	100.00
WOMEN	31	44.93	25	36.23	9	13.04	2	2.90	2	2.90	69	100.00
CNCA BORROWERS	54	23.48	102	44.35	50	21.74	21	9.13	3	1.30	230	100.00
INRAN-ICRISAT	7	4.46	34	21.66	61	38.85	40	25.48	15	9.55	157	100.00
ALL	163	18.15	314	34.97	263	29.29	119	13.25	39	4.34	898	100.00

their sources of informal loans or assistance (appendix table A.17). Finally, one-half of the respondents indicated other miscellaneous sources of assistance (appendix table A.18), among which they included emergency aid from various organizations[7].

The predominant form of informal borrowing was in grains, primarily millet and sorghum. Almost seventy percent of the respondents that received some assistance in the last year mentioned grains as one of the forms in which they received it. About 48 percent had obtained help in cash, and 10 percent of the heads of households indicated other forms of informal borrowing, including different types of livestock[8].

Even though spouses did not have access to institutional credit, they did reported receiving informal loans or assistance. Table 18 shows that about one-fourth of the spouses in the overall sample obtained aid from at least one source in the year preceding the interview. The spouses in households in the random sub-sample show similar access to this type of borrowing. This finding implies that access to informal loans or assistance by the household as a whole (i.e., heads of households and spouses) is even wider than that indicated above for heads of households. Table 19 summarizes the informal borrowing undertaken by the

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[7] The sum of the percentages reported in this paragraph exceeds 100 percent due to the existence of multiple sources of loans or assistance for many households.

[8] This time the sum exceeds 100 percent because some informal borrowing included more than one form, e.g., grains and cash.

TABLE 18.

INFORMAL BORROWING. NUMBER OF SOURCES OF LOANS AND ASSISTANCE FOR THE SPOUSE, BY SUB-SAMPLE

	INFORMAL LOANS FOR SPOUSE (LAST 12 MONTHS)											
	NONE		ONE		TWO		THREE		FOUR		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
SUB-SAMPLE												
RANDOM	303	76.13	45	11.31	39	9.80	10	2.51	1	0.25	398	100.00
LEADERS	25	56.82	9	20.45	9	20.45	1	2.27	.	.	44	100.00
WOMEN	68	98.55	1	1.45	.	.	.	.	.	.	69	100.00
CNCA BORROWERS	210	91.30	6	2.61	10	4.35	4	1.74	.	.	230	100.00
INRAN-ICRISAT	51	32.48	58	36.94	43	27.39	3	1.91	2	1.27	157	100.00
ALL	657	73.16	119	13.25	101	11.25	18	2.00	3	0.33	898	100.00

TABLE 19 .

INFORMAL BORROWING. NUMBER OF SOURCES OF LOANS AND ASSISTANCE FOR THE HOUSEHOLD, RANDOM SUB-SAMPLE

	INFORMAL LOANS FOR SPOUSE (LAST 12 MONTHS)											
	NONE		ONE		TWO		THREE		FOUR		ALL	
	N	PERCENT OF TOTAL	N	PERCENT OF TOTAL	N	PERCENT OF TOTAL	N	PERCENT OF TOTAL	N	PERCENT OF TOTAL	N	PERCENT OF TOTAL
INFORMAL LOANS FOR HEAD OF HOUSEHOLD (LAST 12 MONTHS)												
NONE	55	13.82	7	1.76	2	0.50	.	.	.	.	64	16.08
ONE	113	28.39	12	3.02	6	1.51	2	0.50	.	.	133	33.42
TWO	91	22.86	19	4.77	16	4.02	5	1.26	.	.	131	32.91
THREE	32	8.04	7	1.76	11	2.76	3	0.75	.	.	53	13.32
FOUR	12	3.02	.	.	4	1.01	.	.	1	0.25	17	4.27
ALL	303	76.13	45	11.31	39	9.80	10	2.51	1	0.25	398	100.00

household, considering both the head of household and the spouse. The proportion that needs to be highlighted here is found at the top left-hand corner of this table. Only 14 percent of the households did not receive any informal loan or assistance in the past year, i.e., over 86 percent of the households in the random sub-sample obtained at least one form of aid in this period, either through informal borrowing by the head of household, or through informal borrowing by the spouse.

Despite the wide variety of forms and units of measurement under which informal borrowing occurred (more than five types of grains measured in about ten different units, three types of livestock, etc.) an estimation of the CFA equivalent amount of informal borrowing was attempted with the information obtained in the interviews. When possible, loans received in kind, primarily grains, were evaluated at the retail prices of the items in question, since this was considered the best estimate of the opportunity cost of these commodities. The average amount of loans and assistance obtained by heads of households is reported for the different sub-samples in Table 20. The overall sample average and the average for the random sub-sample are very similar, a little over 31 thousand CFA francs per loan. As components of this weighted average, loans or aid in cash and loans or assistance in kind had similar average amounts.

The average magnitude of informal borrowing reported in Table 20 can be contrasted and analyzed with the figures obtained for institutional credit reported in the previous section. This

TABLE 20.

INFORMAL BORROWING. AVERAGE VALUE OF LOANS AND ASSISTANCE RECEIVED BY HEADS OF HOUSEHOLDS, BY SUB-SAMPLE

	VALUE OF LOANS AND ASSISTANCE	
	N	MEAN (CFA)
SUB-SAMPLE		
RANDOM	303	31757.24
LEADERS	35	39899.25
WOMEN	31	35633.06
CHCA BORROWERS	171	36934.86
INRAN-ICRISAT	147	21556.63
ALL	687	31448.44

analysis will concentrate on the results for the random sub-sample, since the purpose is to characterize the average (randomly selected) rural household.

As reported in the preceding section, a household in the random sub-sample that received a formal loan obtained on average the equivalent of 15,916 CFA francs (see Table 14 in section 3). This amount represented almost 10 percent of the household's agricultural income estimated for the year preceding the date of the survey. On the other hand, a randomly selected household that succeeded in borrowing from non-institutional sources received the equivalent of 31,757 CFA francs (Table 20, this section), or almost 20 percent of its annual agricultural income. It follows from the foregoing discussion that a household receiving both types of credit, formal and informal, would obtain an average of 47,673 CFA francs in some combination of cash and kind. This total average amount represents about 30 percent of the average annual household income from agriculture.

At this point it is important to incorporate the findings related to access to institutional and non-institutional sources of loans or assistance. By doing so it is possible to estimate the weighted average amount of total borrowing for the average randomly selected household. As reported in section 3, an annual average of 22.4 percent of the households in the random group had access to institutional credit, each loan with the average amount indicated in the previous paragraph (15,916 CFA francs). Thus the "expected value" of an institutional loan for the average

household becomes 3,565 CFA francs (i.e., 15,916 times 0.224). A similar computation for the expected value of informal borrowing gives the amount of 26,651 CFA francs. This results from multiplying the average magnitude of an informal loan or assistance (31,757 CFA francs) by the proportion of households in the random sub-sample that engaged in at least one informal borrowing operation (83.92 percent). Therefore, the average amount of formal plus informal borrowing by the average randomly selected household is the equivalent of 30,216 CFA francs. This magnitude represents 18.9 percent of the estimated average annual agricultural income of these households. These calculations also indicate that informal financing or assistance provide about 88 percent of the total indebtedness acquired by the average rural household, thus highlighting the importance of non-institutional credit arrangements in rural areas.

4.2. Informal Lending

A large number of heads of households had provided informal loans or assistance to other members of their rural communities. Table 21 shows that two-thirds of the interviews in the overall sample provided some kind of help to others during the twelve months preceding the survey. The proportion observed in the random sub-sample and in the CNCA sub-sample are essentially the same as that observed for the overall sample. An even larger percentage of the village-leaders sub-sample and of the

TABLE 21.

INFORMAL LENDING. LOANS OR ASSISTANCE PROVIDED TO OTHERS BY THE HEAD OF HOUSEHOLD, BY SUB-SAMPLE

	LOANS OR ASSISTANCE LAST 12 MONTHS					
	DID PROVIDE		DID NOT PROVIDE		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT
SUB-SAMPLE						
RANDOM	261	65.58	137	34.42	398	100.00
LEADERS	33	75.00	11	25.00	44	100.00
WOMEN	33	47.83	36	52.17	69	100.00
CNCA BORROWERS	151	65.65	79	34.35	230	100.00
INRAN-ICRISAT	127	80.89	30	19.11	157	100.00
ALL	605	67.37	293	32.63	898	100.00

households in the INRAN-ICRISAT sub-sample had provided loans or assistance in the last year.

Among the households that did provide loans or assistance, almost 80 percent did so to relatives, and 15 percent to friends or neighbors. Half of the loans or assistance were provided in kind, about 22 percent in cash and 28 percent in a combination of both. Less than two percent of the respondents that supplied loans or assistance to others acknowledged having charged interest. The average amount of the loans or aid provided was the equivalent of 21,000 CFA francs, according to the estimation of the respondent.

There was a consistent association between the frequency of cases that provided informal loans or assistance and the income level of the respondent, as can be seen in Table 22. However, these differences across income categories are not substantial. Even in the lowest income-level class 62 percent of the respondents had provided some assistance to others in the last twelve months, as compared to 76 percent in the highest income category. This indicates that informal lending and assistance among rural households is a very widespread activity, with little differences between different income levels.

A more important and interesting relationship exists between access to institutional loans and informal lending. Table 23 shows the number of households providing informal loans or assistance in the last twelve months according to their degree of access to formal loans. Even households with no loans in the past

TABLE 22 .

INFORMAL LENDING. LOANS OR ASSISTANCE PROVIDED TO OTHERS, BY INCOME LEVEL OF THE RESPONDENT

	LOANS OR ASSISTANCE LAST 12 MONTHS					
	DID PROVIDE		DID NOT PROVIDE		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT
INCOME LEVEL (AGRICULTURE)						
HIGH-(OVER 200740 CFA/YR)	181	75.73	58	24.27	239	100.00
MEDIUM-HIGH (93625-200740 CFA/YR)	128	67.72	61	32.28	189	100.00
MEDIUM-LOW (33234-93625 CFA/YR)	147	65.63	77	34.38	224	100.00
LOW-(UNDER 33234 CFA/YR)	115	62.16	70	37.84	185	100.00
ALL	571	68.22	266	31.78	837	100.00

TABLE 23.

INFORMAL LENDING. RELATIONSHIP BETWEEN ACCESS TO INSTITUTIONAL LOANS AND PROVISION OF LOANS TO OTHERS

	LOANS OR ASSISTANCE LAST 12 MONTHS					
	DID PROVIDE		DID NOT PROVIDE		ALL	
INST. LOANS IN LAST FIVE YEARS	N	PERCENT	N	PERCENT	N	PERCENT
NONE	209	63.14	122	36.86	331	100.00
ONE	196	65.99	101	34.01	297	100.00
TWO	91	67.41	44	32.59	135	100.00
THREE	47	83.93	9	16.07	56	100.00
FOUR	20	76.92	6	23.08	26	100.00
FIVE	16	72.73	6	27.27	22	100.00
MORE THAN FIVE	26	83.87	5	16.13	31	100.00
ALL	605	67.37	293	32.63	898	100.00

five years engaged in some informal lending activity (63 percent of the households in this group). The proportion of respondents performing this activity increased as the access to formal credit improved. On average, two-thirds of the households that received two institutional loans or less in the past five years provided some type of informal loans or assistance. On the other hand, almost eighty percent of the respondents that obtained three or more formal loans in this five-year period engaged in informal lending activities. This relationship between access to institutional credit on the one hand, and supply of informal loans or assistance on the other hand, indicates some degree of transmission of credit supplied by institutional sources through the initial beneficiaries to other members of the rural communities. The increased liquidity gained by the households that obtain formal loans allow them to engage in greater informal lending than they might do if they did not have access to institutional loans.

This section has shown clearly the importance of informal transactions between rural households as a mechanism of transmission and reallocation of liquidity. In a twelve-month period, more than eighty percent of the rural households received some sort of loans or assistance, whereas at least two-thirds of the same households engaged in some form of informal lending or provision of assistance to others. Cash transactions were important, even though in-kind transactions (primarily grains) were predominant. This should not be surprising since in-kind

transactions are likely to be the least costly type of transaction at the village level. Informal borrowing and lending may explain an important part of the use of temporary surpluses generated in rural activities. This subject will be discussed further in the following section, along with the role of institutional and non-institutional savings in the rural economy.

5. Savings Activity

The provision of deposit services by financial institutions in the rural areas of Niger is very limited. It is restricted to a small number of bank branches in major cities, notably the "Banque de Developpement de la Republique du Niger" (BDRN) with 14 branches, and to the post office network, with 47 branches throughout the country. The post office network provides deposit services on behalf of the "Caisse Nationale D'Epargne" (CNE)[9]. Given this limited development of formal financial intermediation in the rural areas, it was unlikely that the survey would find any significant household savings activity involving formal financial institutions. Non-institutional financial savings, if any, and non-financial forms of savings were expected to play a more important role than formal deposits at financial institutions. This section presents the preliminary findings of our survey in this area. The results of our third stage field

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[9] A study of the banking system of Niger with emphasis in the analysis of financial services for rural areas will be included in our final report (August 1986). A separate section on the CNE will also be included in the August report.

work on informal financial activity in rural areas (April-May, 1986), and of our on-going study of the CNE will complement the initial findings reported here. Thus a complete analysis of the current state and the potential for savings activity in rural areas will be a subject of our August report.

5.1. Institutional Savings

A very small proportion of the households included in the survey had some form of financial savings with depository institutions. Only three percent of the respondents in the random sub-sample were holding deposits with institutions on the date of the interview. Of these households, 43 percent had accounts at the post office, i.e., the CNE, and almost 30 percent had their deposits at the BDRN. Other "institutions" indicated in the interviews were cooperatives and "caisses samarias", that indeed cannot be considered formal financial intermediaries. The use of depository services in institutions was even more limited among the spouses of the respondents. One and one-half percent of the spouses had deposits at a financial institution.

The foregoing results confirmed the expectation that formal financial savings activity are almost non-existent in the rural areas of Niger. The potential for the development of the savings side of financial intermediation will depend on the extent to which other forms of financial and non-financial savings exist. A first glance at these issues is given below.

5.2. Non-Institutional Savings

The survey obtained information on the use of local savings groups or associations as depositories of financial forms of savings by the households. Non-financial forms of savings were detected through a set of questions about the different ways in which the households allocated their operational surpluses. The first part of the discussion in this section concentrates on the role of informal groups or associations, and that of money-keepers, as depository entities in rural areas. The second part of this section analyzes the findings on the existence and use of operational surpluses, and the savings potential implicit in these surpluses.

Savings activity in informal savings groups or associations was not important among the households interviewed in the survey. The number of households in the different sub-samples holding deposits in these informal organizations on the date of the survey is shown in Table 24. About 3 percent of the respondents in the overall sample had deposits with a group or association on the date of the interview. The proportion of heads of households with non-institutional (financial) savings was close to 4 percent in the random sub-sample. The sub-sample of women registered the highest rate of use of local groups or associations, almost 6 percent. The proportion of spouses of the respondents holding deposits of this kind (not shown in Table 24) was close to 3 percent.

TABLE 24 .

NON-INSTITUTIONAL SAVINGS. HOUSEHOLDS HOLDING DEPOSITS AT SAVINGS GROUPS OR ASSOCIATIONS, BY SUB-SAMPLE

	DEPOSITS IN SAVINGS GROUPS/ASSOCIATIONS					
	YES		NO		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT
SUB-SAMPLE						
RANDOM	15	3.77	383	96.23	398	100.00
LEADERS	1	2.27	43	97.73	44	100.00
WOMEN	4	5.80	65	94.20	69	100.00
CNCA BORROWERS	3	1.30	227	98.70	230	100.00
INRAN-ICRISAT	3	1.91	154	98.09	157	100.00
ALL	26	2.90	872	97.10	898	100.00

The predominant type of informal group or association was the "tontine", where almost 80 percent of the heads of households with deposits held their savings. Among the spouses, the "tontine" had even more importance. Over 90 percent of the spouses that were holding some informal financial savings on the date of the interview, were doing so by participating in "tontines".

Almost one-third of the respondents knew of the existence of money-keepers in the village or its neighborhood. About 14 percent of the heads of households had used the services of these money-keepers in the year preceding the date of the interview. Among the households that had used these services, one-fourth of them had remunerated the money-keeper in cash or in kind. However, this proportion does not include the services that individuals are likely to provide to the money-keeper, that are not considered explicit remuneration.

The potential for financial savings exists when there are at least other non-financial forms of savings or accumulation. These in turn depend on the ability of the household to generate an operational surplus from its economic activities. Table 25 shows that approximately 13 percent of the households had obtained some operational surplus in the season preceding the date of the survey. It is important to note here that this refers to overall surplus and does not capture temporary surpluses that may occur during the course of the year. This distinction will be further discussed later.

TABLE 25.

HOUSEHOLDS WITH OPERATIONAL SURPLUS IN THE LAST YEAR, BY SUB-SAMPLE

	OPERATIONAL SURPLUS LAST YEAR					
	YES		NO		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT
SUB-SAMPLE						
RANDOM	50	12.56	348	87.44	398	100.00
LEADERS	5	11.36	39	88.64	44	100.00
WOMEN	9	13.04	60	86.96	69	100.00
CNCA BORROWERS	30	13.04	200	86.96	230	100.00
INRAN-ICRISAT	28	17.83	129	82.17	157	100.00
ALL	122	13.59	776	86.41	898	100.00

The predominant uses of surpluses were purchases of grains (68 percent of the households with surplus in the previous year), purchases of other durables (34 percent), purchases of animals (34 percent), and personal savings not in institutions or local organizations (32 percent of the respondents with some surplus)[10]. Eight percent of the households with surplus in the previous year had used it in deposits at savings groups or associations.

As documented in the preceding section, informal lending and informal borrowing are important mechanisms of transmission and reallocation of liquidity among rural households. This explains in part the reduced role of local savings groups or associations found in the survey. Temporary surpluses appear to be used in the provision of short-term loans or assistance to other households running a temporary deficit, instead of deposits with savings organizations. The expectation of receiving similar assistance in return at some time in the future substitutes for the explicit return that could be obtained from holding financial forms of savings.

In summary, the results presented in this section indicate that financial savings activities, institutional and non-institutional, are limited among rural households. As discussed in section 4, most temporary surpluses are used in informal lending transactions performed in highly liquid commodities,

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[10] The sum of the percentages exceeds 100 percent because some households use their surpluses in more than one form.

grains and cash. Overall operational surpluses are primarily used in non-financial forms of savings and accumulation. Under these circumstances, the potential role for improved financial intermediation depends upon the lack of coincidence of temporary surpluses and temporary deficits, both geographically and over time. Direct informal financial arrangements are efficient and least costly when surplus units and deficit units coincide in the same place (i.e., in the same village) at the same point in time. However, when these transactions must be performed across long distances, or when liquidity must be "stored" in some form before an informal loan or assistance can be granted, then informal transactions become more costly to perform and a more formal vehicle for financial intermediation may be justified.

6. Concluding Remarks and Implications

This preliminary report has documented the main features and relative importance of formal and informal financial transactions in the rural areas of Niger, at the household level. The study covers the main regions of the country and the most important ethnic groups comprising its population.

The rural households investigated in this survey had very low agricultural incomes, estimated at the equivalent of 22,750 CFA francs per capita per year (about 65 US dollars). A majority of these households relied upon other non-agricultural sources of revenue to complement their agricultural income.

Access to institutional credit was limited among rural households. At most 22.4 percent of these households obtain a loan in an average year. The average amount of these loans do not represent more than 10 percent of the household's average agricultural income. Thus the implicit ratio of (institutional) agricultural credit to agricultural output is only 2.2 percent, a very low figure in comparison to other low-income countries.

Given the limited significance of formal credit, it was not surprising to find that informal transactions played a very important role in the reallocation of liquidity among rural households. Over 80 percent of the households engaged in some form of informal borrowing, while two-thirds of the same households provided some type of informal loans or assistance to other members of the rural community. Overall, the value of these informal transactions was considerably more important than institutional credit, since it accounted for almost 90 percent of total borrowing by the households in the survey. Even when institutional and non-institutional credit are pooled together, total borrowing does not represent more than 19 percent of agricultural income for the average household.

Direct informal financial transactions between households predominated over institutional and non-institutional forms of savings. Temporary surpluses were used primarily to alleviate other households' temporary deficits through informal lending. Overall operational surpluses, when they existed, were allocated

mainly to non-financial forms of accumulation (physical accumulation of crops and livestock).

Under the circumstances described in this interim report, the potential role of new or improved financial intermediaries will depend upon the extent to which households with temporary surpluses do not coincide with households with temporary deficits, in the same place and at the same time. Formal financial intermediation could help service these seasonal disequilibria in cash flow needs. More importantly, it could facilitate inter-village or inter-regional intermediation, something that informal finance carries out less efficiently. The relative efficiency of intra-village informal financial transactions will decrease particularly in the presence of increased liquidity in the system, derived from increased operational surpluses obtained by households, or from inflows of external funds. Any expansion in agricultural activity should seriously consider low-cost alternatives of financial intermediation to complement the positive role of direct informal finance currently predominant in rural areas.

APPENDIX

TABLE A.1

CNCA-BORROWERS SUB-SAMPLE. OBSERVATIONS BY DEPARTMENT AND ETHNIC GROUP

	DEPARTMENT									
	NIAMEY		DOSSO		TAHOUA		MARADI		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
ETHNIC GROUP										
HAOUSSA	7	8.43	6	8.33	17	70.83	42	87.50	72	31.72
BERIBERI	.	.	.	.	1	4.17	3	6.25	4	1.76
DJERMA	57	68.67	65	90.28	.	.	1	2.08	123	54.19
PEULH	1	1.20	1	1.39	.	.	.	.	2	0.88
TOUAREG	13	15.66	.	.	6	25.00	2	4.17	21	9.25
GOURMANTCHE	5	6.02	.	.	.	.	.	.	5	2.20
ALL	83	100.00	72	100.00	24	100.00	48	100.00	227	100.00

TABLE A.2

OVERALL SAMPLE. OBSERVATIONS BY ETHNIC GROUP AND SEX

	SEX					
	MALE		FEMALE		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT
ETHNIC GROUP						
HAOUSSA	317	91.88	28	8.12	345	100.00
BERIBERI	33	82.50	7	17.50	40	100.00
DJERMA	346	94.28	21	5.72	367	100.00
PEULH	39	90.70	4	9.30	43	100.00
TOUAREG	67	88.16	9	11.84	76	100.00
GOURMANTCHE	7	100.00	.	.	7	100.00
ALL	809	92.14	69	7.86	878	100.00

TABLE A.3

RANDOM SUB-SAMPLE. OBSERVATIONS BY ETHNIC GROUP AND SEX

	SEX					
	MALE		FEMALE		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT
ETHNIC GROUP						
HAOUSSA	172	98.29	3	1.71	175	100.00
BERIBERI	26	96.30	1	3.70	27	100.00
DJERMA	123	96.09	5	3.91	128	100.00
PEULH	18	94.74	1	5.26	19	100.00
TOUAREG	41	95.35	2	4.65	43	100.00
GOURMANTCHE	2	100.00	.	.	2	100.00
ALL	382	96.95	12	3.05	394	100.00

TABLE A.4

CNCA-BORROWERS SUB-SAMPLE. OBSERVATIONS BY ETHNIC GROUP AND SEX

	SEX			
	MALE		ALL	
	N	PERCENT	N	PERCENT
ETHNIC GROUP				
HAOUSSA	72	100.00	72	100.00
BERIBERI	4	100.00	4	100.00
DJERMA	123	100.00	123	100.00
PEULH	2	100.00	2	100.00
TOUAREG	21	100.00	21	100.00
GOURMANTCHE	5	100.00	5	100.00
ALL	227	100.00	227	100.00

TABLE A.5

CNCA-BORROWERS SUB-SAMPLE. NUMBER OF HOUSEHOLDS PER FAMILY AND AVERAGE FAMILY SIZE, BY ETHNIC GROUP

	HOUSEHOLDS-/FAMILY	HOUSEHOLD SIZE
	MEAN	MEAN
ETHNIC GROUP		
HAOUSSA	2.48	10.19
BERIBERI	3.25	9.75
DJERMA	2.63	8.80
PEULH	3.00	5.50
TOUAREG	2.05	7.10
GOURMANTCHE	2.00	8.80
ALL	2.53	9.07

TABLE A.6

CNCA-BORROWERS SUB-SAMPLE. LITERACY OF THE HEAD OF HOUSEHOLD

	LITERACY HEAD OF HOUSEHOLD			
	YES		NO	
	N	PERCENT	N	PERCENT
ETHNIC GROUP				
HAOUSSA	34	47.22	38	52.78
BERIBERI	4	100.00	.	.
DJERMA	53	43.09	70	56.91
PEULH	1	50.00	1	50.00
TOUAREG	14	66.67	7	33.33
GOURMANTCHE	2	40.00	3	60.00
ALL	108	47.58	119	52.42

TABLE A.7

CNCA-BORROWERS SUB-SAMPLE. LITERACY OF OTHER MEMBERS OF THE HOUSEHOLD

	LITERACY OTHER MEMBERS OF HOUSEHOLD			
	YES		NO	
	N	PERCENT	N	PERCENT
ETHNIC GROUP				
HAOUSSA	51	70.83	21	29.17
BERIBERI	4	100.00	.	.
DJERMA	90	73.17	33	26.83
PEULH	2	100.00	.	.
TOUAREG	15	71.43	6	28.57
GOURMANTCHE	2	40.00	3	60.00
ALL	164	72.25	63	27.75

TABLE A.8

MEDIAN VALUES OF AG. INCOME AND AG. ASSETS BY SUB-SAMPLE, CFA FRANCS 1984

SUB-SAMPLE	MEDIAN VALUE OF CROPS	MEDIAN VALUE OF LIVESTOCK	MEDIAN VALUE OF AG. ASSETS	MEDIAN VALUE OF AG. INCOME
RANDOM	66299.94	22998.40	27686.70	79347.56
LEADERS	81794.97	71529.56	127053.97	102787.66
WOMEN	0.00	1073.60	1610.40	4151.04
CNCA BORROWERS	92819.94	85705.56	173205.56	124670.50
INRAN-ICRISAT	73569.94	56896.00	64065.50	90667.38

TABLE A.9

OVERALL SAMPLE. INCOME-LEVEL DISTRIBUTION OF DIFFERENT ETHNIC GROUPS, BASED ON ESTIMATED AGR. INCOME 1984

	INCOME LEVEL (AGRICULTURE)									
	HIGH-(OVER 200740 CFA/YR)		MEDIUM-HIGH (93625-200740 CFA/YR)		MEDIUM-LOW (93625-93625 CFA/YR)		LOW-(UNDER 93625 CFA/YR)		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
ETHNIC GROUP										
HAOUSSA	58	16.16	64	19.51	107	31.62	104	32.71	333	100.00
BERIBERI	31	10.53	61	15.79	91	23.68	15	50.00	38	100.00
DJERMA	157	44.43	91	25.73	70	19.83	35	9.91	353	100.00
PEULH	13	31.71	10	24.39	13	31.71	5	12.19	41	100.00
TOUAREC	9	13.04	16	23.19	24	34.78	20	28.99	69	100.00
COURIANTCHE	3	28.57	2	28.57	1	14.29	2	28.57	7	100.00
ALL	288	28.37	169	22.11	334	33.79	181	18.18	886	100.00

TABLE A.10

OVERALL SAMPLE. NUMBER OF INSTITUTIONAL LOANS OBTAINED BY INDIVIDUALS IN THE LAST FIVE YEARS, BY ETHNIC GROUP

	NUMBER OF LOANS IN LAST FIVE YEARS															
	NONE		ONE		TWO		THREE		FOUR		FIVE		MORE THAN FIVE		ALL	
	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT	N	PCT
ETHNIC GROUP																
HAOUSSA	119	34.00	106	30.29	56	16.00	24	6.86	11	3.14	14	4.00	20	5.71	350	100.00
BERIBERI	14	35.00	16	40.00	4	10.00	2	5.00	3	7.50	.	.	1	2.50	40	100.00
DJERMA	126	33.69	159	33.18	56	14.97	21	5.80	12	3.21	5	1.65	7	1.86	378	100.00
PEULH	25	58.14	6	13.95	6	13.95	4	9.30	.	.	.	.	2	4.65	43	100.00
TOUAREG	24	30.77	35	45.15	12	15.38	4	5.13	.	.	1	1.28	1	1.28	78	100.00
GOURMANTCHE	1	14.29	4	57.14	1	14.29	1	14.29	.	.	.	.	.	.	7	100.00
ALL	309	35.72	327	38.15	135	15.07	56	6.25	26	2.90	21	2.46	31	3.46	896	100.00

TABLE A.11

RANDOM SUB-SAMPLE. SOURCES OF CREDIT (ACCORDING TO THE BORROWER) BY TYPE OF LOAN

	TYPE OF LOAN									
	1. EQUIPMENT & INPUTS (FERTILIZER)		2. SEED LOANS		3. MIXED LOANS (1 & 2)		4. CASH LOANS		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
SOURCE OF LOAN (ACCORDING TO BORROWER)										
C.N.CA.	3	3.33	1	0.76	.	.	.	.	4	2.23
U.N.C.C.	10	11.11	19	14.50	2	33.00	.	.	31	17.32
PRODUCTIVITY PROJECT	3	3.33	1	0.76	.	.	1	10.00	5	2.79
"GROUPEMENT MUTUALISTE"	.	.	5	3.82	.	.	.	.	5	2.79
COOPERATIVE	18	50.00	92	70.23	6	66.00	2	80.00	118	65.92
OTHER	2	5.56	13	9.92	.	.	1	10.00	16	8.94
ALL	36	100.00	131	100.00	8	100.00	4	100.00	179	100.00

TABLE A. 12

CNCA SUB-SAMPLE. SOURCES OF CREDIT (ACCORDING TO THE BORROWER) BY TYPE OF LOAN

	TYPE OF LOAN									
	1. EQUIPMENT & INPUTS (EXCL. SEED)		2. SEED LOANS		3. MIXED LOANS (1 & 2)		4. CASH LOANS		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
SOURCE OF LOAN (ACCORDING TO BORROWER)										
C.N.C.A.	39	23.64	3	60.00	.	.	3	66.67	45	25.42
U.N.C.C.	34	19.39	1	20.00	.	.	1	33.33	34	19.21
PRODUCTIVITY PROJECT	29	17.58	.	.	.	.	.	.	29	16.38
"GROUPEMENT MUTUALISTE"	1	0.61	.	.	.	.	.	.	1	0.56
COOPERATIVE	61	36.97	2	40.00	1	100.00	.	.	64	36.16
OTHER	4	2.42	.	.	.	.	.	.	4	2.26
ALL	165	100.00	5	100.00	1	100.00	6	100.00	177	100.00

TABLE A.13

RANDOM SUB-SAMPLE. DISTRIBUTION OF INSTITUTIONAL LOANS BY LOAN-SIZE CATEGORY, BY INCOME LEVEL OF THE BORROWER

	LOAN SIZE									
	OVER 113000 CFA		9000-113000 CFA		400-9000 CFA		LESS THAN 400 CFA		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
INCOME LEVEL (AGRICULTURE)										
HIGH-(OVER 200740 CFA/YR)	2	8.70	12	52.17	5	21.74	4	17.39	23	100.00
MEDIUM-HIGH (93625-200740 CFA/YR)	2	4.44	12	26.67	10	22.22	21	46.67	45	100.00
MEDIUM-LOW (33234-93625 CFA/YR)	2	4.55	4	9.09	14	31.82	24	54.55	44	100.00
LOW-(UNDER 33234 CFA/YR)	.	.	4	6.90	26	44.83	28	48.28	58	100.00
ALL	6	3.53	32	18.82	55	32.35	77	45.29	170	100.00

TABLE A.14

CNCA SUB-SAMPLE. DISTRIBUTION OF INSTITUTIONAL LOANS BY LOAN-SIZE CATEGORY, BY INCOME LEVEL OF THE BORROWER

	LOAN SIZE									
	OVER 113000 CFA		9000-113000 CFA		400-9000 CFA		LESS THAN 400 CFA		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT	N	PERCENT
INCOME LEVEL (AGRICULTURE)										
HIGH-(OVER 200740 CFA/YR)	29	55.77	22	42.31	.	.	1	1.92	52	100.00
MEDIUM-HIGH (93625-200740 CFA/YR)	31	63.27	17	34.69	1	2.04	.	.	49	100.00
MEDIUM-LOW (33234-93625 CFA/YR)	34	68.00	15	30.00	1	2.00	.	.	50	100.00
LOW-(UNDER 33234 CFA/YR)	12	41.38	15	51.72	.	.	2	6.90	29	100.00
ALL	106	58.89	69	38.33	2	1.11	3	1.67	180	100.00

TABLE A.15

INFORMAL BORROWING BY THE HEAD OF THE HOUSEHOLD :
RELATIVES AS SOURCES OF LOANS AND ASSISTANCE, BY SUB-SAMPLE

	BORROWING FROM RELATIVES					
	NO		YES		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT
SUB-SAMPLE						
RANDOM	176	44.22	222	55.78	398	100.00
LEADERS	21	47.73	23	52.27	44	100.00
WOMEN	34	49.28	35	50.72	69	100.00
CNCA BORROWERS	137	59.57	93	40.43	230	100.00
INRAN-ICRISAT	65	41.40	92	58.60	157	100.00
ALL	433	48.22	465	51.78	898	100.00

TABLE A .16

INFORMAL BORROWING BY THE HEAD OF THE HOUSEHOLD :
FRIENDS AND NEIGHBORS AS SOURCES OF LOANS AND ASSISTANCE, BY SUB-SAMPLE

	BORROWING FROM FRIENDS OR NEIGHBORS					
	NO		YES		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT
SUB-SAMPLE						
RANDOM	265	66.58	133	33.42	398	100.00
LEADERS	33	75.00	11	25.00	44	100.00
WOMEN	58	84.06	11	15.94	69	100.00
CICA BORROWERS	183	79.57	47	20.43	230	100.00
INRAN-ICRISAT	90	57.32	67	42.68	157	100.00
ALL	629	70.04	269	29.96	898	100.00

TABLE A.17

INFORMAL BORROWING BY THE HEAD OF THE HOUSEHOLD :
TRADERS AS SOURCES OF LOANS AND ASSISTANCE, BY SUB-SAMPLE

	BORROWING FROM TRADERS					
	NO		YES		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT
SUB-SAMPLE						
RANDOM	308	77.39	90	22.61	398	100.00
LEADERS	38	86.36	6	13.64	44	100.00
WOMEN	64	92.75	5	7.25	69	100.00
CHCA BORROWERS	197	85.65	33	14.35	230	100.00
ICRAN-ICRISAT	120	76.43	37	23.57	157	100.00
ALL	727	80.96	171	19.04	898	100.00

TABLE A . 18

INFORMAL BORROWING BY THE HEAD OF THE HOUSEHOLD :
OTHER SOURCES OF LOANS AND ASSISTANCE, BY SUB-SAMPLE

	INFORMAL BORROWING FROM OTHER SOURCES					
	NO		YES		ALL	
	N	PERCENT	N	PERCENT	N	PERCENT
SUB-SAMPLE						
RANDOM	221	55.53	177	44.47	398	100.00
LEADERS	23	52.27	21	47.73	44	100.00
WOMEN	63	91.30	6	8.70	69	100.00
CNCA BORROWERS	126	54.78	104	45.22	230	100.00
ICRAN-ICRISAT	17	10.83	140	89.17	157	100.00
ALL	450	50.11	448	49.89	898	100.00

TABLE A . 19

INFORMAL BORROWING. NUMBER OF SOURCES OF LOANS AND ASSISTANCE FOR THE HOUSEHOLD, OVERALL SAMPLE

	INFORMAL LOANS FOR SPOUSE (LAST 12 MONTHS)											
	NONE		ONE		TWO		THREE		FOUR		ALL	
	N	PERCENT OF TOTAL	N	PERCENT OF TOTAL	N	PERCENT OF TOTAL	N	PERCENT OF TOTAL	N	PERCENT OF TOTAL	N	PERCENT OF TOTAL
INFORMAL LOANS FOR HEAD OF HOUSEHOLD (LAST 12 MONTHS)												
NONE	143	15.92	11	1.22	7	0.78	2	0.22	.	.	163	18.15
ONE	249	27.73	38	4.23	22	2.45	5	0.56	.	.	314	34.97
TWO	176	19.60	40	4.45	42	4.68	5	0.56	.	.	263	29.29
THREE	67	7.46	23	2.56	22	2.45	6	0.67	1	0.11	119	13.25
FOUR	22	2.45	7	0.78	8	0.89	.	.	2	0.22	39	4.34
ALL	657	73.16	119	13.25	101	11.25	18	2.00	3	0.33	898	100.00