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RURAL HOUSEHOLDS: WHAT ROLE DOES MICRO_CREDIT
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**AGRICULTURAL INVESTMENT DECISIONS BY RURAL HOUSEHOLDS:
WHAT ROLE DOES MICRO-CREDIT PLAY?
A CASE STUDY FROM SOUTH-CENTRAL NIGER**

By

Jennifer S. Burt

A THESIS

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ABSTRACT

AGRICULTURAL INVESTMENT DECISIONS BY RURAL HOUSEHOLDS: WHAT ROLE DOES MICRO-CREDIT PLAY? A CASE STUDY FROM SOUTH-CENTRAL NIGER

By

Jennifer S. Burt

Farmers in Niger, West Africa consider many different variables prior to investing in their farming system. Both environmental as well as human factors affect a resource poor farmer's decision making process. As it is difficult to control for environmental factors when looking at a farmer's decision-making process, this research attempts to examine a human factor, access to credit and the impact of micro-credit on a farmer's investment decisions. This research posits that Nigerien farmers must be first insured of their basic livelihood, such as access to food and shelter, before making capital or labor intensive agricultural investments in the farming system.

Sixty-five farmers were interviewed in south-central Niger about uses of their farm and non-farm income and the impact of micro-credit on their investment decisions. Borrowers of a rural bank called BRK (Bankin Raya Karkara) and non-borrowers were interviewed, and visits were made to eleven farmer's fields. Three research methods were used during a two month period to gain insight into Nigerien farmer's agricultural investment decisions: survey interviews with farmers; semi-structured interviews with key informants; and participant observation.

The findings indicated that there was a slightly higher percentage of farmers who received credit investing in capital intensive agricultural technologies than those farmers who did not receive credit. The non-borrower farmers in the research were more likely to practice labor intensive, sustainable agricultural technologies.

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To undertake original research requires a team of people. First and foremost, the sixty-five Nigerien farmers are to be lauded for their patience and understanding in speaking with me in my broken Hausa during the course of the research. Their dignity, pride, and consideration for their families and neighbors are an inspiration to me.

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LIST OF ABBREVIATIONS

BRK

Bankin Raya Karkara

NGO

Non-Governmental Organization

SPSS PC+

Statistical Package for Social Sciences

Chapter 1

INTRODUCTION TO THE RESEARCH

The world's population employs diverse strategies to obtain food. For people in more industrialized countries, food entitlement usually translates into using one's salary to purchase food at the grocery store. But for the majority of the world's population, farming is the primary means to obtain food, and when farming fails, a very large share of the household income is used to purchase food. As agriculture still plays a largely subsistence and sometimes precarious role in many Sub-Saharan African countries, it becomes imperative to manage agricultural land correctly in order to ensure adequate production to feed a growing population.

As agricultural land in Niger is subject to severe droughts and degradation, frequently causing food deficits, it is an appropriate site in which to examine the many attempts to ameliorate the lives of the rural poor. Some attempts have shifted focus away from the agricultural sector to the non-farm one in hopes of providing innovative solutions to people who have exhausted environmental resources. Although much attention has been paid to the physical causes of food shortages, it is appropriate, nonetheless, to examine the root causes of decreased soil fertility in the context of the availability of alternatives for poor people to obtain food (i.e. purchase of food with a non-farm income source). The question then becomes, do people who have more alternatives to food entitlement, manage their land more sustainably?

One solution to decreases in agricultural production is the introduction of improved farming technologies with the objective of enabling farmers to manage their land

sustainably. The success of an improved agricultural practice to increase farm revenues is dependent on the implementation of that technology by the population. In Niger, non-governmental organizations (NGOs) and extension services have introduced a number of sustainable farming practices¹ to remedy decreases in agricultural production, but implementation rates have been low (Mariko 1991). Low rates have, in the past, been attributed to ignorance on the part of the farmer, but most recent scholarship on this issue has identified other impediments such as labor shortages, inappropriateness of technology, the burden of poverty, risk aversion, and short-term perspectives of subsistence farmers (e.g., Stonehouse and Protz 1993).

An alternative solution to combat low agricultural production is the introduction of micro-credit programs to assist in raising household incomes and disposable income to purchase agricultural inputs and sometimes in poor, agricultural years to purchase food as well. Hailu (1990) and Garba (1991) identified capital constraints as an additional major reason for low implementation of improved farming technologies in Niger. When capital is lacking, investment in agricultural inputs will be minimal and farmers will not risk implementing a new technology. Capital constraints have been alleviated in other parts of Sub-Saharan Africa through the introduction of micro-finance² programs for non-farm enterprises³ (Reardon *et al.* 1995).

Reardon *et al.* (1995) posit that credit programs assisting non-farm enterprises can contribute indirectly to investment in the farming system. As the overall food security of the household is more secure, the farmer is more willing to take a risk to invest in an innovative farming practice. In order to examine investment in the farming system effectively, it is essential to take into account all the components of that system, both farm

¹Sustainability in this sense refers to farming practices that manage the land for long-term use, for example, soil and water conservation techniques such as zai holes, rock bunds, windbreaks, trees planted in field, and various indigenous techniques.

²For the purposes of the research, the focus of micro-credit will be in the rural, non-farm sector, but there are many initiatives taking place in the urban areas and the farm sector.

³A non-farm enterprise in this case is defined as an income generating activity implemented by a farmer to supplement his/her income. Some non-farm enterprises are food processing, crafts, and commerce (Hopkins *et al.* 1994).

components which includes agricultural production and animal husbandry and non-farm components which includes social as well as economic activities. In doing so, the amount of resource recycling taking place within that system becomes apparent.

The lack of outside inputs into the household livelihood strategy is diminished as the recycling ratio increases.⁴ If the recycling ratio is high which is usually the case in poor, rural households, credit may have a dual effect. On the one hand, credit may make a significant impact on the system by providing scarce working capital for important non-farm or farm investments. On the other hand, credit may disrupt the delicate balance of resources which exist in the farming household by causing the household to incur debt which they may struggle to repay by selling off their assets. These two dichotomous issues are examined in this research.

Support for non-farm enterprises through micro-credit programs has been shown in some studies to contribute to increasing income hence decreasing both poverty and aversion to risk (Sebstad *et al.* 1996). Figure 1 illustrates the exchange between the non-farm, farm, and social sectors (i.e. community networks and social, solidarity groups) and the possible effects of credit within that system.

⁴ The recycling ratio is a concept developed by Axinn and Axinn in which they identified the amount of exogenous versus endogenous resources in a farm household. The higher the recycling ratio, the lesser the amount of exogenous inputs were coming into the system.

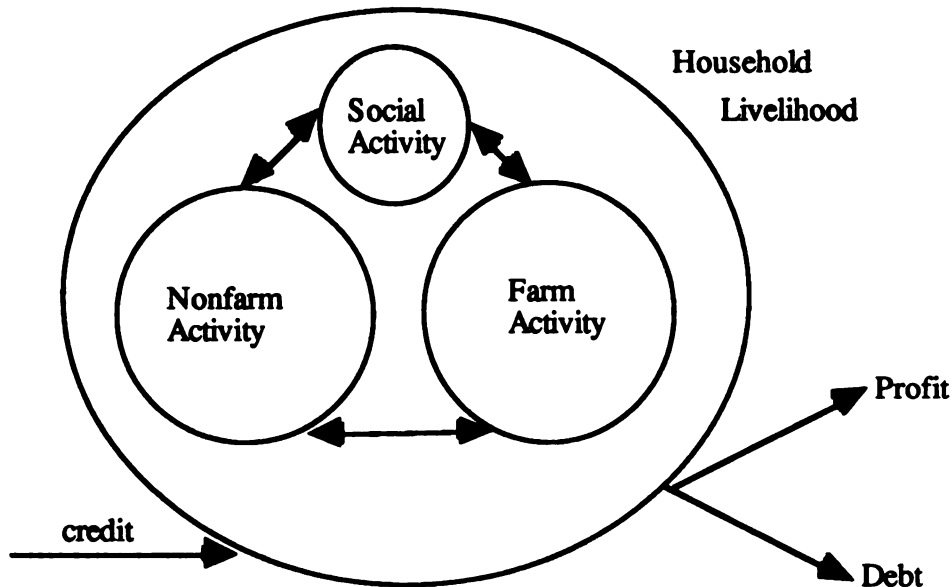


Figure 1 - Effects of credit in household livelihood

There exists a complex interaction in a poor, rural household between the farm and non-farm income, and the social obligations which exist within and outside the household. Credit plays a crucial role within this system, and although micro-credit programs may target a non-farm income, a farmer will diversify the utility of that credit in order to maximize the potential profits (profits could mean in this sense social, economic and financial) from that loan. It is impossible to control for fungibility of micro-credit programs.

Micro-credit programs, both formal and informal, have sometimes contributed to rural incomes by providing working capital for small, non-farm enterprises (Ashe *et al.* 1992). There have been many successes and many failures of micro-credit programs. There are several determinants to a successful micro-credit program. Some of these vary from the capacity of the clients to repay the loan to the level of corruption which exists within the system. These programs have taken on many different forms with several different actors. In some cases, the credit is distributed through a financial intermediary, such as a non-governmental organization and seeks funding from donor agencies. Other

micro-credit programs are autonomous from an NGO, receive start-up capital from an international donor agency, and eventually become financially independent, surviving on income earned from loan reimbursement (i.e. Banco del Sol).

This research investigates how the farm family household uses micro-credit and its direct as well as indirect impacts on the farming system. Past research has examined the role of increased income in overall household security including health and education, but very little on the investment in the farming system.

The association between access to credit and overall household livelihood security, more specifically agricultural investments is examined throughout this research. The study determines the effect of micro-credit and non-farm enterprises on farm household incomes and subsequent investments in new technologies to improve agricultural soil and increase yields. This research posits that the economic and social well being of the farm household must be examined prior to the introduction of a new agricultural technology.

This thesis is divided into five chapters. In the remainder of this chapter, backgrounds on the agro-climatic environment of Niger and CARE International's supported micro-credit institution, BRK, set the scene for the presentation of a problem statement, statement of the importance of the research, and a statement of the research hypotheses and questions. Secondly, pertinent literature establishes the theoretical basis for the research, focusing in particular on previous investigations of the causes of decreased household livelihood security, more specifically agricultural production and micro-credit's role in ensuring this security. Particular attention will be given to farm/non-farm linkages in the household livelihood strategies.

The thesis continues with the third chapter and a description of how these questions are answered through sampling, data gathering procedures and other methodological concerns. The fourth chapter presents the findings from the recently conducted research with special emphasis on the impact of credit on household livelihood and non-farm/farm linkages. The thesis concludes with a summary of findings and recommendations for

future research on this topic as well as recommendations for future micro-credit institutions.

Agro-economic environment of Niger, West Africa

Niger is a land-locked country located in the Sahelian zone of West Africa. The country covers 1,267,000 square kilometers of which seventy-five percent is the Sahara desert and twenty-five percent has a semi-arid climate with annual rainfall ranging anywhere between 250–450 mm (Garba 1991). Eighty percent of the approximately nine million inhabitants reside in the rural areas, where they rely on agricultural production and non-farm enterprise for the livelihood of their household (Mead *et al.* 1990).

Farmers in Niger cultivate mainly subsistence, rainfed crops such as millet and sorghum, and also cultivate cash crops during the rainy season such as peanuts, cotton, or cowpeas (Niger Applied Agricultural Research Project 1992). Nigeriens are primarily smallholder farmers, practicing shifting agriculture where it is still possible. Although it seems as if Niger is a large country geographically, the amount of arable land has been compared to the amount of arable land in Bangladesh. Even though it seems to be a large country with low population, it is actually a country with a small amount of livable land with a high population density.

With a per capita GNP of 270 US dollars (World Bank 1995), agriculture is the primary engine of growth for Niger's economy with non-farm activities such as small-scale enterprises also playing a major role (Mead *et al.* 1990; Haggblade *et al.* 1989). The majority of economic activity, both agricultural and nonagricultural, takes place in the rural areas where most of the population resides. There are several multiplier effects between the non-farm and farm sectors. Much research has examined the expenditure linkages of increased agriculture production on the non-farm sector (e.g., Haggblade *et al.* 1989; Delgado *et al.* 1994; Liedholm *et al.* 1994), but much less research has focused on the

increased investment in agriculture as a result of increased income in the non-farm sector (e.g., Reardon *et al.* 1994).

Niger is quite diverse culturally. The predominant religion is Islam with the primary ethnic groups being Hausa, Djerma, Fulani, and Tuareg. The Hausa people are found in the central eastern region of the country and are the predominant ethnic group. Niger is bordered to the South by resource rich Nigeria. There is a high volume of trade between these two countries due to the highly developed infrastructure of roads, unlike the northern boundaries with Algeria and Libya.

In the drought-prone areas of Niger, where capital is limited, micro-credit can provide invaluable working capital to jump-start a non-farm activity, contribute to an already existing non-farm enterprise, or more basically and more often the case, provide a buffer between famine and survival. Micro-credit can provide much needed capital for a flowering business, to buy food, or to invest in the farming system. It must also be noted that micro-credit is debt, and savings should be encouraged by the lending, micro-credit institutions to curb that debt.⁵

Access to micro-credit can provide essential capital to nurture a growing business, but often micro-credit from commercial banks is not accessible to farmers. Micro-credit institutions such as Bankin Raya Karakara (BRK), which was created by CARE International in 1989, can play a key role in providing rural people with small loans for their non-farm business, and providing that often needed capital to keep a rural family household food security intact.

CARE International and BRK, Maradi, Niger

CARE International began operations in Niger in 1973 with food distribution programs. Their work in Maradi in south-central Niger comprises numerous projects, one of which is the Maradi Small Enterprise Development Project, which "works to develop

⁵Personal communication from Jennifer Isern on August 22, 1997, employee at the World Bank in the CGAP unit (Collaborative Group Assisting the Poorest)

the economy of rural areas throughout Maradi department with the goal of improving the quality of life for the rural poor. Rural credit systems and technical training are some of the tools used in this project" (www.CARE.org).

Like the Grameen Bank in Bangladesh⁶, CARE International created a micro-credit institution called BRK (an acronym in the local language meaning local, rural bank), which, in principle focuses on lending to the poorest of the poor through organized peer groups. A lending agent from BRK works in a specific region where interviews are conducted with potential borrowers. Once the lending agent deems a group of individuals to be creditworthy and has checked their credentials at BRK's central office in Maradi, the loan processing commences. The assurance of loan repayment is increased as a result of group lending. There is mutual guarantee of loan repayment within the self selected peer group. This form of lending also decreases some of the transaction costs for the BRK.

Loans granted by the BRK are often times targeted to an individual's non-farm enterprise, but ultimately the lending agent has very little control over how the money is spent so some may go to farming. The agent wants to be assured that the loan will be repaid according to the reimbursement schedule. This project does not earmark their credit for agricultural purposes as it has proven in the past to be quite risky as Niger is susceptible to periodic droughts. This micro-credit from the BRK is fairly short-term, with a repayment period of ten months or less with an interest rate of 18% per annum. These short term loans allow for a high turnover of loan portfolios. The largest percentage of the borrowers are found in the rural areas. Micro-credit can indirectly contribute to the overall household livelihood security by providing, in some instances, a source of capital to rural farmers so that they can practice an income generating activity apart from farming during the nine dry months of the year.

⁶The Grameen Bank, one of the first group, micro-credit lending projects was founded almost 20 years ago by Dr. Mohammed Yunus. Mostly targeted to poor rural women, The Grameen Bank boasts a 98 percent reimbursement rate and lends over 400 million dollars annually.

Importance of the research

Many approaches have been used to encourage farmer's implementation of new farming technologies, but very few have been successful. If the government of Niger or NGOs like CARE International want to ensure adequate food production by encouraging farmers to implement farming technologies, micro-credit may be an indirect answer to this end.

This research isolates access to credit when examining the implementation of improved farming technologies by comparing those farmers who have received a loan from BRK for their non-farm income with those who have not. BRK will gain evidence of the length of the loan's impact on their recipients. The government of Niger, especially the Ministries of Environment and Agriculture, will discover whether there is an indirect role of micro-credit on a farmer's long-term investments in his/her land management. If, for example, there is a significant difference in farmers who receive credit and their adoption of improved farming practices and farmers who do not receive credit, we can hypothesize that perhaps credit has a role to play in lowering a farmer's aversion to risk and raising that farmer's willingness to adopt an improved farming technology.

Problem statement

The present research evaluates the role of micro-credit and its link to overall household livelihood security, more specifically agricultural production. Resource poor farmers are only capable of making agricultural farming investments if their household livelihood is secured. Credit can play that role of securing household livelihood and increase agricultural investments. Poor management of natural resources, particularly soils, has been shown to stem from the persistence of poverty. Micro-credit has been proven to provide a wedge in that poverty by offering alternatives to resource poor farmers.

This research attempts to address the decision-making process of these resource poor farmers in dealing with problems of poverty in Niger and the role of credit that process.

In order to ensure sufficient agricultural production, the management of the farming system is analyzed. New strategies to educate and encourage farmers to implement more improved farming practices will be adopted only if farmers, themselves, are ensured of their household livelihood.

A variety of approaches have been used to encourage farmers to implement improved agricultural technologies, but many have failed. ¹Improved agricultural technologies for the purposes of the research is defined as long-term, sustainable investments in a farmer's field (e.g. planting trees, implementing soil conservation tech.). International and domestic research institutes have researched new technologies, NGOs and extension agents have implemented innovative communication strategies, and government policies have been adopted to encourage agricultural production. Despite these efforts, adoption rates by farmers have been low. Farmers in Niger must first be guaranteed their basic livelihood necessities (e.g., food, shelter, and health) before they are willing to take the risk of adopting a new technology. Micro-credit which encourages increased revenue from non-farm activities and savings has a key role to play in ensuring household security, more specifically food entitlement in the rural areas of Niger.

Research hypothesis and questions

Food security cannot be examined in isolation by researching only agricultural practices, but as Blakie and Brookfield (1987) argue, poor agricultural practices alone do not cause land degradation, leading to poor agricultural production. Rather it is a complex convergence of endemic political, social, and economic policies contributing to lack of incentives for farmers to experiment with new technologies. The farmer must be willing

to take a risk in order to experiment with a new technology. That risk will only be taken if the Nigerien farmer is assured of a sufficient amount of food and income in which to nourish his/her family. In order to assure sufficient amount of food and income, farmers often diversify their income. Micro-credit can assist in facilitating this income diversification by financing a non-farm enterprise (Reardon et al. 1994).

This research hypothesizes that as a farmer's non-farm income increases from the introduction of micro-credit and household income becomes more diversified, the farmer's aversion to risk has the potential to decrease and adoption of improved farming practices possibly increasing. This research examines farming practices of those individuals who have received micro-credit through BRK , CARE International's micro-credit project and those who have not, and determine whether there is a difference in their innovative farming behavior. The purpose of this study is to assess the role of micro-credit in farm household security, namely food entitlement and the implementation of improved farming practices.

Three research questions to be answered with the data:

- Are there differences in the manner by which those who receive micro-credit invest in their farming system and those who do not receive micro-credit? If so, what are they?
- As a farmer's income increases, does the willingness to invest in the farming system increase?
- What is the effect of increased investment in the farming system on the sustainability of the environmental resources (i.e. land and soil)?

Operational definition of terms

In order to fully appreciate the information presented, it is imperative to define some key concepts and provide operational definitions which are referred to frequently throughout the paper.

Micro-credit institutions:

Micro-credit institutions offer a variety of services, but some of the most common are described in a recent IFAD publication. They write, “Advances in financial intermediation and infrastructure, stimulated by deregulation of financial sectors and facilitated by modern technology, have also put the spotlight on participatory mechanisms for integrating the poor into the economic mainstream. The advances in financial intermediation include recent efforts to design and deliver very small loans to poor borrowers, often women organized into small groups, providing more accessible deposit facilities, and much greater attention to risk management” (p. 9).

CARE’s BRK project does not yet offer deposit facilities for savings, but they do attempt to target the poorest segment of the population which is often the women in rural areas.

Non-farm income:

A non-farm income for the purposes of this research is defined as income earned by a farm household which is not earned from the farm itself. Delgado et al. (1997) defines non-farm income as the following, “off-farm activity of a farm household, including food processing for sale, are labeled as non-farm” (p. 1168).

Reardon (1997) defines the sources of non-farm income as “income from local non-farm wage employment, local non-farm self-employment and migration income” (p. 737).

Farm income:

Farm income is earned from the sale of agricultural production which includes both crops, agricultural by-products (i.e. cowpeas shells), and animals. Delgado again illuminates this definition by writing, “Farm refers to agricultural items in the condition that

they leave the field” (p. 1168). Reardon (1997) writes, “Farm income is cash and in-kind income from cropping and livestock husbandry” (p. 737).

The household:

Preston (1992) defines household as the following: “Households are commonly defined as comprising those living and eating together and include other people, not biologically related, who are part of the sharing unit: this therefore excludes family members who live elsewhere” (p.1). He continues by writing that the household is “the main organizational unit within the domestic mode of production” (p. 2).

Assumptions of the study:

To distinguish how a Nigerien farmer manages household expenses and more specifically investment in the farming system, requires examining a very large number of variables. This research attempted to control for access to credit for the non-farm enterprise while examining investment in improved agricultural technologies. Some of the assumptions of this research are listed below.

Non-farm income and Farm management assumptions

1. As a farmer’s wealth increases, aversion to risk is decreased and the implementation of new farming technologies increases.
2. As more labor becomes available in the rural areas during the off-season with the access to micro-credit to start-up a small enterprise, more labor-using⁷ technologies are implemented.

⁷Vernon and Ruttan classified various agricultural technologies as either labor using or labor saving where labor using means a more labor intensive activity.

3. **Increased income leads to more purchasing power which, in turn, leads to investment in agricultural inputs and more intensive farming practices.**

4. **Implementation of improved agricultural land management will increase agricultural yields over time and eventually, decrease land degradation as a result of land intensification.**

Chapter 2

REVIEW OF RELATED LITERATURE

Introduction

This thesis attempts to take a holistic approach in examining household food security by describing the social, economic, physical, and political aspects. This chapter cites previous research which has dealt with this issue from a more holistic perspective as well as the recent literature on the impact of micro-credit on this security. Following the review of literature, the theoretical framework is described using a model adapted from Anoskie and Coughenour (1990).

In examining household livelihood strategies in Sub-Saharan Africa, more specifically Niger, there are several differing viewpoints taken by previous research. Some of the literature has focused on food entitlement, health care and educational initiatives as related to long-term household security, and access to capital for small business development, to name a few. It would be limiting to simply consider any one of these factors in isolation when developing strategies for overall household food security. A farmer or any human being for that matter, is concerned about where their food is coming from, where their family can receive proper health care, and the educational needs of their offspring. Although this is the most logical and realistic way to examine food security, it is beyond the scope of this thesis. To examine food entitlement as one aspect of household livelihood already can provide an insight into the management of the farming system and allocation of income in the rural, farm household to obtain food.

As most people in Niger are subsistent farmers, strategies to increase agricultural production is one of the most logical steps to improve their access to food. If new

technologies can sometimes prove to increase agricultural production, the determinants to adoption by a farmer must also be examined. The issue of technology adoption cannot be considered from merely an economic perspective but must be considered from social, political and physical perspectives as well.

Literature concerning determinants to adoption of agricultural practices in Africa alone is voluminous. Previous researchers have identified several determinants which include: opportunity costs for farmers; land tenure security; price stabilization; institutional development ; information systems; and ecological factors (Sanders *et al.* 1996; Keck *et al.* 1994; Clay *et al.* 1994; Anosike and Coughenour 1990).

Other studies have noted the absence of capital as a major impediment to adoption (Hailu 1990) as well as government policies favoring cheap food prices for urban consumers and lack of access to favorable markets. A model developed by Anosike and Coughenour (1990) illustrates the infinite number of factors a farmer considers while making a decision in his/her household income and management of the farming system. An adapted version of this model is found in the section named theoretical framework.

To begin this review of literature, both the farm and non-farm activities in a rural Sub-Saharan African household are examined. As economic activities become more diversified it is necessary to consider both the non-farm and farm incomes when examining household livelihood, more specifically agricultural production. Campbell (1990) writes, “economic diversity often extends beyond the realm of primary agriculture production into off-farm activity that provide additional resources that can off-set the effects of recurrent food shortages” (p. 148).

The physical context, in the review of literature, illuminates the causes of decreased agricultural production which provides a clearer idea of why adoption of improved technologies plays a key role in ensuring adequate agricultural production. Agricultural production or the farm income is seen as one element to the household livelihood strategy.

A description of policy and economic perspectives follows to describe why a farmer may or may not decide to change or alter his/her farming practices. Exogenous variables which may seem to lie outside of the farmer's day to day life actually have a real effect on a farmer's decisions in the agricultural production system.

The importance of the social context is later described to expand upon the agronomic, policy, and economic perspectives. In doing so, the roles of gender, religion, and ethnicity illuminate the importance of the social context in the domain of developing household livelihood strategies.

Finally, literature concerning micro-credit's role in the linkages between non-farm and farm activities demonstrates how income earned from a credit supported non-farm activity may contribute to the farm enterprise. If micro-credit contributes to raising household security and the non-farm income, the question then becomes does the readiness of adopting a new technology also increase?

Non-farm and farm linkages and household food security

A System's Approach

Recent scholarship has taken a holistic approach in defining household livelihood security as related to agricultural production rather than simply an agronomic or economic one (Tiffen *et al.* 1994, and Abel *et al.* 1987 in Dahlberg 1994; and Campbell 1990). These studies have combined the efforts of social and agricultural scientists to examine the issue of decreased agricultural production from cultural, political, physical, and economic perspectives by considering both the farm and non-farm aspects in a rural household. In doing so, it becomes apparent that a rural person's farm management decisions are rational given his/her economic, political, physical, and social circumstances. If an aspect of the management system changes (e.g., access to micro-credit), agricultural production in the

household could change. Both the farm and non-farm incomes have roles to play in household livelihood, more specifically access to food.

Just as the farmer considers all perspectives in food production, research focuses on all aspects within this system. As Campbell (1990) writes, "A remarkable feature of rural communities in Africa is the variety of resources they may employ to off-set the impact of recurrent food deficits. These resources are based on social interaction, economic stratification and knowledge of the physical environment" (p.150).

Diversification of household incomes is a well-known risk reduction strategy in many parts of Sub-Saharan Africa. Anosike and Coughenour (1990) write, "Diversification can be studied from a decision making point of view because the selection of a certain combination of enterprises over others involves decisions which are inevitably rooted in social, cultural and economic factors" (p. 1).

By examining a farmer's agricultural investment decisions from a systems approach, it becomes evident that there are several considerations one must take into account when developing interventions. If the issue of agricultural investment is taken from only one perspective, proposed interventions would most likely be inappropriate.

Physical context

In many parts of Sub-Saharan Africa, household livelihood is often dependent on agriculture. If there is a poor agriculture year in Niger, for example, people will liquidate assets to buy food. Low agricultural production is still equated with high household insecurity. Previous studies noted that soil erosion along with lack of rainfall are the main physical causes of decreased agricultural production in Sub-Saharan Africa (Stahl 1993; Napier and Sommers 1993).

Soil erosion threatens millions of hectares of land in developed and developing countries alike (Shaxson *et al.* 1989). As soil is eroded, fertility decreases and agricultural

production declines. Sanders (1996) writes, "The principal constraints to agricultural development in the Sahel and in other semiarid regions of Sub-Saharan Africa are soil fertility and water availability" (p. 2).

Although soil erosion has long been cited as one of the main contributing, physical factors to low agricultural production, it must be noted that many of the techniques or "solutions" aimed at combating erosion have not been adopted by farmers (Ashby *et al.* 1996). In unfavorable agroclimatic zones such as Niger, a farmer employs a variety of strategies to ensure food security. Some of these strategies may be to diversify income to purchase food while other strategies include the adoption of agricultural technologies to increase production.

Reardon (1997) argues in favor of income diversification as a means to ensure this household food security. He writes, "Households in the unfavorable agroclimatic zones need to diversify labor supply outside of the zone to manage crop income risk or to cope with crop income shocks" (P. 741). The risk of agricultural technology adoption can sometimes be too high for most farmers as they must be first insured of adequate agricultural production or access to food.

McCorkle (1994) would argue that farmers are more readily to adopt a technology which is a combination of endogenous and exogenous innovations - a synergetic innovation. She continues by outlining steps in which a farmer must take in order to adopt a new technology. These are the following:

1. The farmer first gathers background information from other farmers.
2. With this new information, the farmer then conducts field or trial tests.
3. The farmer then tries to control for major variables.
4. Finally the farmer monitors and evaluates the practice to assist in deciding if he would like to adopt it as part of his farming system.

Campbell (1990) concurs with McCorkle, but recognizes that farmers for years have already been implementing coping strategies in their farming system. He writes, "in

West Africa, farmers plant drought-tolerant millets on well-drained sandy hill soils whereas sorghums, which can withstand water-logging, are the major grain crop in the wetlands” (Campbell 1977, p.150).

As the physical context is important to understanding low agricultural production, it is also imperative to comprehend this environment within the policy, economic, and social contexts of the region under question.

Policy and Economic Contexts

Soil erosion and decreasing soil fertility contributing to low agricultural production cannot be examined in isolation by looking at simply a physical context as it is rooted in several human processes (Blaikie and Brookfield 1987; Campbell 1990). Some of these human processes are: high population growth rates; poverty; unfavorable terms of trade; poor government policies towards farmers; expansion of agricultural land; land tenure insecurities; and lack of access to credit (Stahl 1993; Laing and Ashby 1993; Hudson 1993; and Douglas 1993).

Much research has demonstrated that if there were structural changes made in terms of trade and capital flows then there would be changes in the management of the farming system at each individual farmer level (Dahlberg 1994; Campbell 1990). External factors affecting management of the farm household are many which include prices, policies, technology, institutions, and community assets. (Reardon and Vosti 1995)

Blaikie and Brookfield (1987) argue that the causes of soil erosion and low agricultural production are intricately linked in a dynamic system of human-environment interactions. Land tenure insecurities and lack of access to capital are two specific examples of human processes causing poor management of agricultural land for Nigerien farmers which, in turn, leads to low agricultural production. These considerations are incorporated by examining lack of access to capital both for farm and non-farm sources and its effect on agricultural investment. Previous studies have closely researched the effects of increased income from agriculture on non-farm enterprises, but rarely the reverse

(Delgado *et al.* 1994; Liedholm *et al.* 1994), the effect of increased non-farm income on agricultural investment.

Land tenure insecurities were not closely examined, but it is evident that land is becoming more and more scarce in Niger.⁸ During the time of Seyni Kountché (President from 1974–1987), farmers could claim agricultural land by farming it continuously for more than two years. Kountché wanted to prevent large land owners from leaving their land fallow for years on end, causing food deficits among the smaller landholding farmers.⁹ Consequently, many farmers were encouraged to claim new land so as not to be left landless.

It is a well known fact that the poorer an individual is, the more diversified his/her income will become (Anosike and Coughenour 1990). In regions of high food shortages, such as Niger, this diversification serves as a sort of safety net in extremely bad agricultural years. Campbell (1990) writes, “The most significant characteristic of the economy [in semi-arid parts of Africa] include: diversified subsistence production and market activity; a propensity to accumulate food and other assets in good years; to be liquidated in poor ones; and involvement in local and sometimes regional trade, which reduces dependence upon purely local resources” (p. 147).

The importance of the social networks created both in the markets and the communities is also an important coping strategy and reduces risk for the rural farm household in Niger. This is examined in the next section of the literature review.

Social context

It is also imperative to include the social context in order to illuminate some of the circumstances in which people operate in order to obtain food, either by growing, buying, or trading. Characteristics implicit in this arena are the issues of ethnic group, religion, and

⁸ Personal communication during a key informant interview with Tony Rinauldo, September 2, 1997 in Maradi, Niger.

⁹ Personal communication from Tony Rinauldo, SIMS, Maradi, Niger.

gender, to name a few. These characteristics of individuals within a household and a community all play a role in managing how individuals allocate or delegate responsibility for different aspects of household livelihood security, more specifically agricultural production.

In examining the household and the community in the context of the importance of social relations, language or Hausa plays a significant role in social relationships and solidarity. Weber (19 writes, “Community of language, which arises from a similarity of tradition through the family and the surrounding social environment, facilitates mutual understanding and thus the formation of all types of social relationships, in the highest degree” (p. 138). The Hausa people, united by language and a long-standing tradition of trading and commerce depend on a complex set of social interactions for their household livelihood security.

The social obligations within the Hausa culture (i.e. baptisms and weddings) require people, especially women to manage their household resources carefully in order to not fall out of favor with other members in their communities. This characteristic of social obligation is a form of risk management and is not unique to the Hausa culture. As Campbell (1990) writes, “Help given at one time may represent repayment of assistance given in the past and/or a commitment by those being helped to assist the givers should they too encounter difficulties in the future” (p. 148).

There are both risk management and coping strategies within any culture, but they become more apparent and more rigid in cultures where basic livelihood is threatened. The sharing of resources within a community and the importance of social capital is especially important among the Hausa women. This sharing of resources can also deter the success of micro-credit institutions as it is more important for community members to uphold their social standing with their fellow community members rather than repaying an impersonal micro-credit institution who may not possess social capital.

Like ethnic group, gender plays a definitive role in outlining responsibilities within the farming system and more broadly the rural household. In many rural, African households, women bear the burden of much of the household work as well as the field work. In some ways, their plight is exacerbated in Muslim cultures. As written in the Quran (verse 4:34), "Men have authority over women because Allah has made the one superior to the other, and because they spend their wealth to maintain them." Women in their subservient role in Muslim culture are often subject to obeying their husband's orders which sometimes require more work and hardship. In addition, the burden of the child care like in other polygamous cultures, falls on the mother which includes feeding, clothing, and finding proper health care for her children.

Religion also plays a significant role in not only the organization of the household and the plight of women, but in the administration of micro-credit institutions. Islam plays a role in the interpretation and outlook of many micro-credit projects or other donor related work brought in from the outside. In an anthropological study, Shipton argues (1994) the Protestant work ethic of time equals money, so prevalent in the western cultures, does not apply in a lot of non-western cultures, specifically The Gambia. The concept of an interest rate goes contrary to many Muslim cultures as it says in the Quran, "interest-bearing loans in kind are sinful" (Shipton 1994, p. 299).

People in The Gambia consider the interest rate to be more of a function of an interest ratio (Shipton 1994). This interest ratio is based on a portion of that which is being loaned. For example, if someone is loaned 1,000 fcfa, and they repay 1,100 fcfa, their understanding of the interest rate is not ten percent factoring in time, but as one tenth of the total amount of the loan.

Corruption has also played a significant role in the administration of the micro-credit institution under study. As the relationship between the credit agent and the client is hierarchical where the client is in desperate need for capital, corruption flourishes. Greed and corruption have a tendency to rear its ugly head in banking institutions as the access to

capital is much more facilitated. Axinn and Axinn (1997) write, “this problem of [corruption] is being addressed with systematic study by professionals, especially in international banking and business” (p. 80). They continue, “The issue of human greed and the resulting corruption have been central aspects of the human condition throughout history” (p. 81).

Micro-credit's role in non-farm/farm linkages

One solution to impending poverty and food insecurity is making credit accessible to rural, farm households. It is difficult to assess the role of credit for rural, non-farm enterprises in many developing countries. There are two differing viewpoints on the impacts of credit in the rural farm household. On the one hand, credit can be valuable in providing working capital for rural, non-farm activities to meet transportation cost and purchase goods for resale (Mead et al. 1990), but as formal banking institutions do not lend to the rural sector in Niger, access to formal credit is limited (Burt and Issa 1993).

The other prevailing viewpoint of the impact of micro-credit, in other studies, is that perhaps credit is not the panacea for solving poverty issues and securing household livelihood (Rogaly 1996). In fact it has been demonstrated in some studies that people are made worse off as a result of credit (Rogaly 1996). Rogaly (1996) writes, “Performance of micro-credit varies - the less poor the borrower, the greater the increase in income from a micro-enterprise loan. Some of the poorest borrowers interviewed became worse off as a result of micro-credit” (p. 105).

One solution to lack of access to micro-credit is the development of rural banks or micro-finance institutions which are either autonomous from non-governmental organizations or are a project within an NGO. Several micro-credit lending initiatives (BRK, BRI, Grameen, BRAC) in developing countries presumably target the poor, rural

sector of society. As demonstrated in several previous studies, micro-credit contributes to the income generating activity of the borrower by providing working capital, hopefully increasing that individual's non-farm income (Remenyi 1991 in Rogaly 1996). As one participant in the rural credit project at the Freedom From Hunger Credit for Education project in Mali, stated, "Now that I am making more profits, I can pay people to cultivate for me" (Ashe *et al.* 1992, p. 31).

Increased income, as a result of the loan, may be sometimes invested in the farm in the form of hired labor as shown by the above example as well as other household expenses. Reardon *et al.* (1994) posit, "Non-farm activities can be an important source of cash income, which can potentially improve farm productivity if it is used to finance farm input purchase or longer-term capital investments" (p.1172). Micro-credit can play a significant role in a non-farm activity by either increasing or decreasing this income. If there is increased income in the non-farm activity, there may be eventual investment in the farming system (Sebstad *et al.* 1996). Reardon *et al.* (1995) write, "credit programs that help non-farm enterprise may be as, or more, helpful to farm investment than credit targeted to farming per se" (p. vi.).

What then becomes the role of credit in the rural farm household? Credit in the past has been valuable in bad agricultural years by providing another source of income to food deficient farm families. Credit can also be used to smooth income and food consumption patterns in bad years (Reardon 1992). On the other hand, credit must not be used as the sole blueprint to solve poverty in much of the developing world (Rogaly 1996).

A supplemental income apart from agriculture is required for most rural people in Niger, and credit can play both a negative and positive role in this income. Hopkins *et al.* (1994) state, "Income from activities other than crop and livestock account for 43 percent to 52 percent (across zones) of rural Nigerien household income on average" (p. 1221).

Nigerien farmers diversify their strategies to manage their farm household, one of which is non-farm income generating activities to meet basic food needs.

Much research has sung the praises of micro-credit's impact on the rural household while others the woes. When a micro-credit project, attached to a non-governmental organization begins to transition from a donor dependent credit providing project to an autonomous, profit-making micro-finance institution, the objectives and the beneficiaries of the credit-provided are challenged. Administrators of the project must begin to lower transaction costs and become more efficient to ensure its own survival, and often times this translates into serving a few wealthier individuals in developing countries rather than the poorest of the poor (Rogaly 1996).

Dichter (1995) argues that the role of NGOs' in financial intermediation is short-lived. He writes (1995),

“The role of the NGO as a direct lender may therefore be best thought of as temporary. The NGO contribution has been, as it should be, to take chance, to innovate and experiment and to show the way to others. In micro-finance, that has now been done. At least some NGOs ought to have the courage to move back as it were to the swamplands where the really difficult challenges have always lurked. The frontiers of development today are institutional development, and as always social intermediation” (p. 9).

There are both institutional as well as household level considerations when considering the impacts of micro-credit. NGOs have initial role to play in financial intermediation but not a long-term one.

Theoretical Framework

This research examines the amount of investments and inputs in the rural farm household in Niger for both the non-farm and farm activities. These investments or inputs are in the forms of credit, agricultural inputs, and non-farm material investments, to name a few.

An improved agricultural technology is any technology where net benefits occur in a farmer's agricultural production. These technologies can include but are not limited to fertilizers, soil conservation techniques, insecticides, and improved seeds. In Niger, the acquisition of capital intensive improved technologies (e.g. fertilizers and insecticides) is often difficult due to the lack of markets and capital for the technologies. A farmer must consider several factors before deciding to invest in a technology. This decision process is represented below in an adapted model from Anosike and Coughenour (1990). The non-farm component has been added to the model. This model serves as the theoretical framework for the research. Figure 2 is a modification of this model.

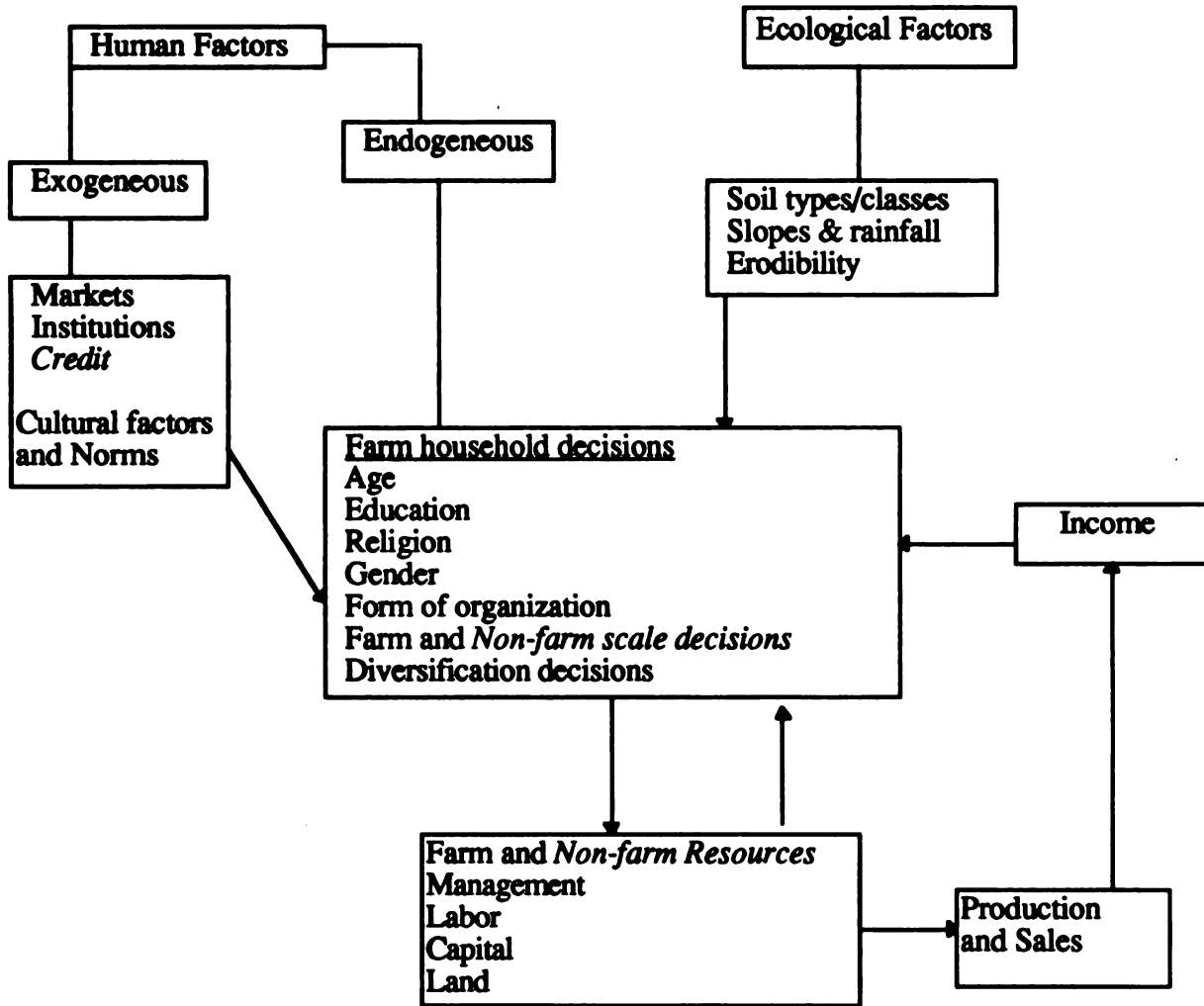


Figure 2 Factors affecting household decision-making in farming system investments
Adapted from Anosike and Coughenour (1990)

Figure 2 illustrates the complexity of household decision making when it comes to investments in the farming system. This model is adapted from an earlier model by Anosike and Coughenour (1990). Non-farm activity and credit are two components examined in this research. The means by which these aspects are examined are described in the following chapter on methodology and data analysis procedures.

Chapter 3

METHODOLOGY

Description of research site: Township of Chadakori

Research was conducted in eleven Gobirawa Hausa villages in the department of Maradi, county of Guidan Roumji, township of Chadakori in South-central Niger to answer the four research questions found in chapter one. Before explaining how the data were collected to respond to the four research questions, the contextual framework for the research site must first be described to set the scene for the research.

The Maradi department (see map on page 33) has often been coined the bread basket of Niger in the past, but in recent years, since 1980, the department has been suffering food deficits every two to three years (UNDP 1997). A recent report by the United Nations Development Program (1997) described the Maradi department as follows:

More than 90 percent of the population are farmers, continuously putting new land under cultivation at a rate of 10 percent of new land per year. Over 80 percent of cultivated land is millet, the main staple of the country.

The area is densely populated with 36 people/km squared at the departmental level, 50 people/km squared at the county level of Guidan Roumji and 34 people/km squared in the township of Chadakori. The agricultural land is comprised of mainly sandy soils that are not conducive to intensive agriculture, but due to increases in population pressure and unfavorable agricultural policies (e.g. rise of fertilizer prices from Nigeria and closing of the phosphate mine in northern Niger), people are required to farm continuously the land without leaving much land fallow to allow the land to regenerate.

As food deficits become more and more frequent and severe, farmers have begun to sell off or rent their land to wealthier farmers and merchants in order to buy food thus exacerbating the differentiation

between the rich and the poor in the rural areas. As a result of lack of farmer ownership, long-term, sustainable, agricultural investments are not readily employed by the rural population.¹⁰

The major ethnic group in the Maradi department is Hausa, comprising 80 percent of the population with Fulanis and Tuaregs making up the other 20 percent, and over 95 percent of the population is Muslim. Most people are non-literate (especially the women), sometimes attributed to the influence of Islam, and the infant mortality rate in this region is high (211 deaths/1,000 births) in comparison to the rest of the country (170 deaths/1,000 live births).

Hausas have often been described as the dynamic merchants of West Africa and have a rich experience and history in international trade throughout all parts of the world. With Maradi's proximity to Nigeria (3 hours south on a paved road), many Hausa farmers sell primary agricultural goods, namely cereals and livestock in the large Nigerian markets, and purchase processed goods from Nigeria to market in Niger.

BRK in the Maradi Department

CARE International's choice of initiating their micro-credit project (PN 07) in the Maradi department was logical given the high volume of economic activity taking place between Maradi and the major markets in Nigeria, mainly Jibiya, Kano, and Katsina. BRK, the CARE funded micro-credit institution has been in the County of Guidan Roumji (the county where the research took place) since 1988 and has provided credit in 50 villages, giving 82 million fcfa (approximately, 164,000 US dollars) for 100 groups of people (UNDP July 1997). The BRK has three primary objectives:

- 1) ameliorate the income of rural and urban populations in the Maradi department;
- 2) initiate the means by which individual men and women or groups of men and women can obtain short-term credit for their micro-enterprises;
- 3) establish an autonomous, profitable, and lasting financial institution which meets the above objectives.

¹⁰ Sustainable, agricultural practice in this sense means those which are both sustainable to the farmer as well as to the environment. They are trees planted in fields, soil conservation techniques such as rock bunds and zai holes, and leaving trees which are naturally regenerated in the field.

Both women and men receive credit from BRK, and the majority of the borrowers are organized into peer lending groups with a designated group leader. The lending period is between eight to fifteen months with an interest rate of 18 percent per annum. The amount of the loans per person vary between 25,000 fcfa (equivalent to 50 US dollars) and four million fcfa (equivalent to 10,000 US dollars) (BRK promotional brochure).

The credit is targeted to a person's non-farm activity, and is given to residents in both major towns and villages within and surrounding Maradi. In the past, the borrower did not need a guarantee or a form of collateral prior to obtaining credit, but in recent years, the BRK has instituted a new system of character-based guarantees from neighbors and village leaders. Unlike other micro-credit programs, BRK does not require savings on the part of the client, but this appears to be changing.¹¹ The proposition is the following: if a client is not able to save, ten percent of the client's total loan amount from the BRK may be set aside as a form of guarantee. This has not been instituted as of yet, but may be in the near future. This guarantee, essentially collateral will be guarded by the BRK in the case of a person who defaults on a loan.

In the past, the credit agent controlled the identification of potential clients and disbursement and recovery of the loans. As the loan portfolios grew between 1990 to 1995 and loans were becoming larger, the temptation to accept bribes grew and corruption flourished. Some agents were fired from their jobs as a result of embezzling funds. One client commented, "Everyone knows that in order to obtain a loan, one must give a bribe." This is still a very real problem for the BRK. The senior staff is currently attempting to find ways to control for this corruption which hits the client the hardest.

Findings will illustrate the varying effects of credit on the people of this region. It is certain that survival strategies in the Sahel demand a diversification of income sources and credit can provide another financial source to these households. Figure 3 illustrates the different regions of Niger.

¹¹ In a recent retreat with the BRK staff (October 1-3, 1997), it was proposed that ten percent of the loan amount be set aside as a form of monetary guarantee.

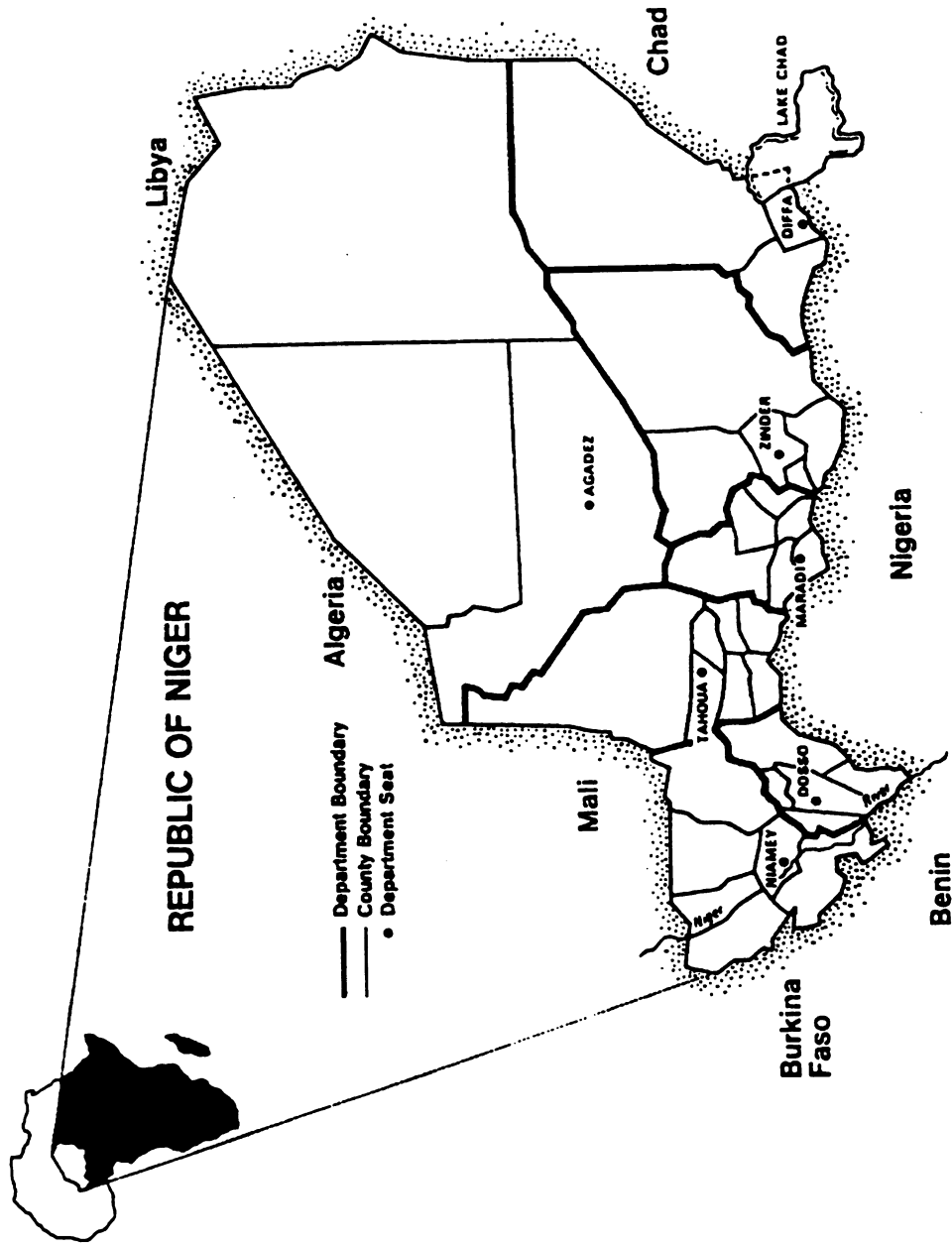


Figure 3 Map of Niger
Taken from Niger: Personal Rule and Survival in the Sahel by Robert B. Charlick. 1991.

Data collection strategies

Several different steps and various methods were used to carry out this research. This research is descriptive in nature, and comprises an ex post facto component as all the borrowers interviewed had first received a BRK loan five years ago. A variety of triangulation of research methods allowed the researcher to verify accounts from various sources and produce more reliable data. Multiple methods of data collection have proven to give a more well-rounded view of the situation in question rather than relying on one source of data collection (denBiggelaar and Gold 1995). The processes and methods are described below.

Rapid appraisal

To commence this research, a rapid appraisal (Casley and Lury 1987; Chambers 1989) of the township in question (Department of Maradi, County of Guidan Roumji, Township of Chadakori) was conducted. During the rapid appraisal stage of the research which lasted one week (August 25-September 1, 1997), in-depth interviews were conducted and visits to the field were made. These interviews were conducted with key informants at both the departmental, township, and village levels (see Appendix A for list of key informants). Questions concerning the farming system, land tenure issues and the credit programs in the region, specifically CARE's BRK were asked in unstructured interviews in order to gain more up-to-date information to address local people's needs and pertinent concerns in the upcoming research.

The information gathered from this rapid appraisal allowed the researcher to update and modify the data collection instrument. Several more questions were added to the interview guide after talking to the local BRK staff and the agricultural agent in the region. These additional questions were designed to meet their programmatic needs. Most questions on the BRK (see Appendix B for questionnaire example in English) consisted

of topics such as the conduct of the credit agent, bribes, the client's understanding of the interest rate, and whether it was easy or difficult to obtain a loan. Questions pertaining to the uses of loans and the end result of the loan were suggested by the agriculture and forestry extension agents located in Chadakori.

Pre-testing procedures

Once the questions for the interview schedule were designed, they were field-tested with a selected sample of the population. This sample was not representative in nature, but assisted in identifying questions that were perhaps not understandable by the general population. The interview schedule was pre-tested with seven BRK borrowers and five non-borrowers who were not located in the research zone. For the purpose of this field test, the borrower's sample was obtained by visiting the two BRK centers in Maradi, and the interview schedule with borrowers coming to the bank to reimburse their loans. The non-borrower's sample was obtained by talking to CARE employee's guardians and neighbors.

As a result of the field-test, some abstract and historical recall questions which the sample of respondents could not easily answer, were identified. For example, one question asked respondents to explain what they would do with a profit of 50,000 fcfa, approximately 100 US dollars, from their business. Most respondents said that they had never possessed a profit of 50,000 fcfa, and could not answer this question. It became apparent that the amount of profit needed to be lowered in order for the respondents to fit the question into their frame of reference. The revised question asked the respondents what they would do with 10,000 fcfa, approximately twenty US dollars, and this was more easily understood.

There were several recall questions on the survey designed to assess the longitudinal impact of the credit on the recipients. All recipients had begun receiving credit from CARE in 1992. It quickly became apparent that it was too difficult for the

respondents to recall up to five years to answer questions pertaining to their farming system and number of animals they currently possess versus possessed in the past. Casley and Lury (1987) state, "If a long recall period is used the respondent, instead of attempting the impossible, will reply with a figure that he believes approximates an average or normal level" (p. 79).

To remedy this situation, the questions pertaining to investments in the farming system prior and after receiving the loan were suppressed, and only investments in the current farming system were analyzed. No longitudinal assessments were made in the empirical data, but the qualitative data describe in more detail the loan's impact.

After corrections were made from the feedback from the field-test exercise, the instrument was finalized and reproduced and in-depth on-farm interviews were conducted. Questions pertained to farming practices; off-farm income sources; effects of micro-credit on the farming practices; and few demographic information.

Sampling

The two target populations for this research were borrowers of the BRK and non-borrowers of the BRK who both live in the township of Chadakori. To define the sample for this study, the BRK senior staff wanted to interview recipients who had first received credit in 1992. According to them, this allowed a sufficient amount of time to be able to assess the impact of the credit on its recipients. The credit agents in the region where the research was conducted along with the head of the credit center were contacted and two visits were made to their offices to define the sample population. Two distinct groups were chosen for this study. The first group consisted of those individuals who received their first loan in 1992, and were either individual loans or group loans, both men and women. The second group consisted of non-borrowers.

For the borrower group, a stratified random sample was taken from the four borrower groups mentioned above; group male, group female, individual male, and

individual female. For 1992, there were a total of 25 loan portfolios with a total of 314 borrowers. In order to gain a representative sample, eleven loan portfolios were chosen with a total of sixty-three borrowers or twenty percent of the total number of borrowers. The calculation in choosing the eleven loan portfolios is found in Appendix C. From these eleven loan portfolios, two individual male borrowers, one individual female borrower, three female group borrowers, and five male group borrowers were selected.

There were three individual borrower's loan portfolios chosen, and eight group loan portfolios, comprised of both men and women. In certain group loan portfolios, there were more than ten people per lending group while other loan portfolios did not comprise ten borrowers. In order to remain consistent with BRK's current philosophy, which is to have ten borrowers or less per loan portfolio, ten people from those group portfolios with more than ten borrowers were systematically selected by counting every n th name on the list. Ten names were chosen as this is now the standard set by the BRK. Loan portfolios currently are not to exceed ten borrowers.

Other impact assessment studies of micro-credit projects have used a sample size of thirty as the minimum number of credit recipients in order to conduct significant statistics (Gaile 1996). In order to compare this group with the general farm population, a second sample of 30 people was chosen randomly from farmers who are not BRK clients. This control group was identified as follows:

Once the sample of long-term micro-credit recipients was identified in the villages, their closest neighbor who has not received a loan from the BRK and who is of the same gender was chosen for the control group.

This method of sampling procedure for the non-borrower group proved to be reliable by an Ohio State University research team doing similar research on credit unions in Niger. Unfortunately only seventeen non-borrowers were contacted by employing the above procedure. This is a major limitation of this study. There are several reasons for which only 17 were contacted, namely lack of financial resources, time, and an emphasis to contact more BRK borrowers to provide important data for CARE.

Of the 63 sampled borrowers only 54 were contacted. In some cases, the person from a certain loan portfolio group simply did not exist. Both the researcher and her co-researcher, Harouna, would ask many villagers, the chiefs, and people would say that the name of the borrower was fictitious. This was no surprise to BRK administrators in the central office as it was well known that some credit agents would make up names, take the loans, and a fictitious person would be default on the loan with no way to prove who was the borrower. There were other cases where the borrower had died or the client had received the loan and left for Nigeria, and no one had heard from him again.

In total, 71 people were contacted in and around Chadakori of which only 65 were analyzed as six respondents were not farmers. As this region is very specific for Niger, there exists great homogeneity among the population. All people interviewed were Gobirawa Hausa, were from this rural region, and practiced some kind of economic activity. This factor must be taken into account when considering the representativeness of the sample used.

Data gathering procedures

Four different data collection methods were employed during the course of the two month research period. These are described below. It must be noted that in order to gather relevant, reliable data, it is imperative to triangulate the information gathered to verify whether what is being reported, is correct. This multi-method research approach has been used in several similar studies (denBiggelaar and Gold 1995, Kiefer 1996).

Interview schedule with farmers:

Better known as survey research, this data collection method consisted of 71 face-to-face interviews with both borrowers and non-borrowers of CARE's BRK project in South-central Niger. In total, 65 farmers were interviewed (the other six respondents were not farmers so these cases were omitted from the analysis), and eleven on-farm visits were made. The researcher walked to all villages except for four, and she was accompanied by a villager from Chadakori, a nephew of the traditional chief. The researcher visited eleven villages, and was guided there by a co-researcher who was the nephew of the township chief. He proved to be invaluable as he was able to direct the researcher to the right houses, and legitimize her research as he was a co- relative of the much respected township chief. Seven villages were contacted by foot while the remaining four were reached by a motorcycle supplied by CARE International.

Questions on the interview guide were divided into four sections. They are:

- 1) description of the farming system and uses of farm income;
- 2) description of the non-farm activity and uses of non-farm income;
- 3) impact of credit in the household, household consisting of both farm and non-farm activities; and
- 4) demographic information (e.g. educational level, age, number of animals, and wealth indicators).

These interviews asked farmers both quantitative and qualitative questions concerning their assets and wealth, whether they had a non-farm income, whether and how they invested in their farm, and what kinds of improved farming techniques they chose to implement. Reliability was ensured by asking questions more than once to the same respondent. The questionnaires possessed a simple check-off design with some open-ended questions. The time frame for the agricultural questions asked was up to the previous rainy season. It was discovered during the pre-test that it was much harder for respondents to give accurate and precise answers for periods longer than one year. Questions concerning the respondent's loan history (i.e. uses and results of the loans) were asked up to five years previously as respondents were more confident in their description of the uses and results of the BRK loans.

The interview guide was administered through personal interviews by the researcher in Hausa, the predominant local language. The researcher's fluency in Hausa added much to the data collection. An anecdotal description of the data collection by the researcher is found in the postscript. In short, the researcher was able to probe more on certain questions, to clarify certain questions if it seemed as if the respondent did not understand or the answers seemed inappropriate to the question.

Participant observation:

As the researcher had been a Peace Corps volunteer in this region for over two years and is fluent in Hausa, she had observed many agricultural and social practices in the villages during this period of time. This two month research period gave her the opportunity to live in the villages with families, and observe specifically their household livelihood strategies.

Participant observation has several advantages as a research tool. As Kiefer (1996) notes, "This method involves living with the subjects of the study and gaining their confidence so that the information they give you reflects the reality of their situation" (p. 1).

This research was carried out towards the end of the rainy season, September 2-October 1, 1997, which was the perfect time of year to visit farmer's fields and observe their agricultural practices. In total, eleven farms were observed with each respective farmer and dozens more were observed while the researcher was walking to and from villages.

Apart from visiting farmers' fields and observing their agricultural practices, six days were spent in the BRK's field-office in Tibiri where borrowers would come to either receive or reimburse their loans. Here, the researcher was able to observe first hand the interaction between how the credit agents and the clients, and the process by which a borrower either received or paid back a loan.

The fact of observing rather than interviewing or interacting with the research subjects proved to be an invaluable experience. To observe facial expressions and body

language and overhear secondary conversations provided a wealth of information. Often times, people were not aware that the researcher could speak the language, and several interactions between the credit agents and clients illustrated the disrespect that sometimes existed between two.

Bernard (1994) in Kiefer (1996) lists several advantages of participant observation and they are the following:

- Participant observation allows the researcher to collect many different kinds of data. The fact that the researcher integrates him or herself into the community allows for multiple opportunities to observe rare or private behaviors.
- Participant observation also reduces the subject's "reactivity" to being observed. This means that the subjects are less likely to change their behavior as they become more accustomed to having the researcher present in their daily lives.
- Participant observation aids the researcher in formulating relevant questions for other data gathering methods such as surveys and interviews.
- Participant observation gives the researcher a deeper understanding of events and allows for greater confidence in the conclusions drawn from observations. (p. 3)

Perhaps the most enriching part of the participant observation research in this particular case was being allowed to enter a farmer's household and to observe the set-up of the *concession* or yard. This usually consisted of animals tethered in one corner, various buildings scattered throughout for the wives of the family and the cooking buildings, and the granaries, sometimes inside the yard or just by the doorway. As the researcher is a woman in a Muslim culture, she was allowed to enter the house which would not have been the case for a male researcher.

Semi-structured interviews with key informants:

These interviews were conducted with BRK central office and field staff, government officials from the Ministries of Environment and Agriculture, other non-governmental agency staff, and people in the traditional hierarchy (village and township chiefs). Information gathered from these interviews allowed the researcher to complement

some of her findings, generate further hypotheses, and gain a fuller picture of the history of the micro-credit institution. A list of all key informants is found in Appendix A.

In order to identify the key informants for the study, the researcher used personal contacts from her time as a Peace Corps volunteer as well as other individuals who were recommended by other key informants. These interviews took place many times with one key informant.

In order to define improved farming practices and possible effects of credit on those practices, Tony Rinauldo with Sudan Interior Missions and Amadou Haya, who works for the Ministry of Environment, were interviewed. To identify certain obstacles in obtaining credit and variables to include in the interview guide, BRK senior staff as well as field agents were interviewed, namely Cheibou Samna, Ross Croulet, Chima Miko, and Abdou Gadi. To determine the cultural context for the research as well as the operation of savings and credit at the village level, agents from another credit project (Caisse Populaire) as well as staff from a CARE project called Women on the Move and key villagers in Chadakori were interviewed.

Archival research:

Prior to the data collection part of the research in Niger, several documents on micro-credit, household livelihood strategies, and documents of CARE's BRK project were analyzed and many are cited in this work.

The researcher explored baseline data collected by CARE International. CARE's data collected on their BRK clients at the loan processing stage were minimal. The only data gathered by CARE on their micro-credit recipients consisted of gender, economic activity, and the village where they resided.

Previous research had recently taken place in Chadakori (Keifer June 1996) and the department of Maradi (Household Livelihood Survey, University of Arizona 1996) in general so the research was able to obtain important data from these two reports.

By employing four different data collection methods, the amount of data collected was voluminous. This thesis attempts to answer the four research questions explained above, and draws additional data into the report which seem to be relevant, significant and interesting.

Timetable of research activities

Prior to traveling to Niger during the Summer of 1997, a review of the literature was done to describe 1) characteristics of farmers in Niger who have received micro-credit loans for their non-farm business and the effects of this additional income on their farming system; 2) improved farming practices identified in Niger by previous research; and more generally 3) results of micro-credit lending and natural resource management practices in Sub-Saharan Africa.

Research began in Niger on August 19, before commencing the data collection at the research site in the Maradi department. While in Maradi, the research focused on the rapid appraisal at the regional, county and village levels. Interviews were conducted with government officials in region as well as people in the traditional power structures (e.g., chef de canton in Chadakori, Sarki Mahamane, chef de village de Kouroumgassaou) as well as groups of villagers. Variables were identified to be explored in farmer's resource management as it pertains to agricultural production. Farmers were identified who have received micro-credit for their non-farm enterprise and farmers who were about to receive micro-credit with the assistance of the BRK central office staff.

For one month, interviews were conducted with farmers. While conducting these interviews, visits were made to farmers' fields and implementation of farming practices were observed. There were multiple visits to the same farmer in order to clarify questions and issues.

At the completion of the research in the beginning of October, 1997, a compilation of findings were communicated in French to the participant farmers, government agents, and NGO partners (CARE International and SIMS). Data were analyzed by developing a descriptive framework relying on theoretical propositions that have led to the research. A four-page newsletter was given to the CARE director, the Assistant director, and the central staff of the BRK in Maradi.

Data analysis procedures

Data were first entered into one spreadsheet in SPSS PC+ (Statistical Package for the Social Sciences) at the CARE office in Maradi. A preliminary descriptive analysis was conducted in order to leave CARE with some preliminary findings. These findings were written up in French in the form of a bulletin and given to BRK staff who assisted with the research.

Upon the researcher's arrival in the United States, the data were entered into three different spreadsheets in SPSS PC+, and they were divided as follows: 1) household level data with one respondent per case number; 2) individual level field data; 3) individual level micro-credit data. Spreadsheets two and three were analyzed apart and then certain variables were aggregated (number of parcels, field size, plantings, total number of loans etc.) in order to obtain household level data. These aggregates were then merged into spreadsheet number one.

Cross-tabs and t-tests were run in order to analyze significant associations and differences in how borrowers and non-borrowers invest in their farming system. Multiple response cross-tabs were run with the independent dichotomous variable, *Did the respondent obtain credit?* and various investments in the farming system (e.g. fertilizer, pesticide, planted trees). The results of these tests are found in the following chapter.

Limitations of the study:

There were numerous limitations as there was an American researcher who hired a Nigerian, research assistant. She is an American who speaks Hausa fluently, but she is a foreigner all the same. This may have hindered the validity of some of the answers as the research deals with some sensitive topics. As she has lived in the region for three years, people knew her well so this assisted with the data collection.

The researcher had only limited financial resources and time so this resulted in not obtaining a representative sample of the non-borrower population. To remedy this limitation, a more thorough data analysis was conducted between those who reimbursed their loans and those who did not. This proved to illustrate the distinguishing determinant of a creditworthy individual. A larger sample of both individual and group borrowers and non-borrowers could have improved the precision of the hypotheses testing.

As this research was conducted in one point in time and was not longitudinal in nature, it becomes impossible to provide empirical evidence on the effects of the increased investment in the farming system on the sustainability of the environmental resources, mainly land and soil. What this research can provide is the expressed views of farmers interviewed, and examine the effects of each of investment on the agricultural production as a whole.

Chapter 4

FINDINGS AND DISCUSSION

Introduction

People view the world through different filters, and it is through these filters in which people make various decisions. Some of these filters can be controlled through quantitative research, but others cannot. For those filters such as opinions, feelings, and outlooks on life which influence people's day-to-day decisions, qualitative research fills in the blanks where quantitative research cannot.

Both qualitative and quantitative data are analyzed and described in this chapter. Quantitative data are analyzed using SPSS PC+ (Statistical Package for the Social Sciences) software. Descriptive statistics and tests for associations and differences were used to analyze the data. The descriptive analysis comprises a description of the respondents, their farm and non-farm incomes and the amount and kinds of micro-credit in their household.

Comparison between credit recipients and those who did not receive credit is made using cross-tabs and t-tests as appropriate for the type of question. The data from respondents who received credit and those who have not will be analyzed and compared for differences and similarities. The non-farm activity and implementation of agricultural technologies is examined to see whether credit for a non-farm activity plays a role in investment in the farm.

The qualitative data are analyzed by including information gained from the surveys (see Appendix E for open-ended answers), semi-structured interviews and the researcher's

field notes (see Appendix F). These data complement the findings from the quantitative data. To measure improvement in a farmer's field is a difficult task, and much of the data collected to answer this question are qualitative in nature from informal conversations with both the farmers and key informants.

Description of respondents

In total, sixty-five people were interviewed, face-to-face, using an interview schedule. These people come from eleven different villages and they are found within a ten kilometer radius from the township capital of Chadakori. Of the sixty-five respondents, seventeen were women while forty-eight were men.

The mean age of all respondents was 45.6 years old with a standard deviation of 12.1 years, a maximum age of 78 and minimum of 25. The mean number of children is six per respondent. As polygamy is a common practice in this predominantly Muslim culture, men answered as having more children (six children as compared to five for the women) than the women. This could be due to the fact that the women could have only counted their own children while the men counted their children from all of their wives. Figure 4 illustrates the frequencies of response to number of wives per household.

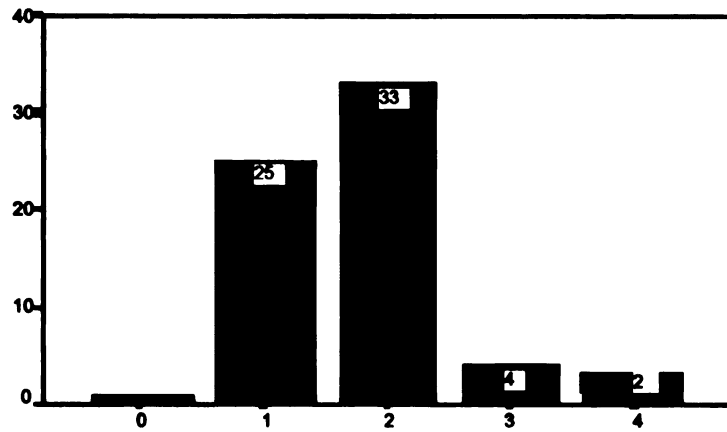


Figure 4 Number of wives per respondent

Forty-six percent of respondents have not gone to school while fourteen percent had some primary school, but had not continued to middle school. Two percent responded that they had had either a middle school diploma, nineteen percent indicated quranic school, and twenty percent functional literacy classes.

All respondents ($N = 65$) are farmers, and have small land holdings. The average number of parcels per farmer is 4.37 and the average farm size is 6.51 hectares.¹² Once again there is a significant difference between the number and sizes of the holdings for the men and those for the women. On the average, the men have a mean number of parcels of 4.83 while the women have 3.06 parcels. These number of parcels translates into a mean farm size of 7.74 ha. for the men and 3.27 ha. for the women. Men have more holdings which are significantly larger than the women. This difference is significant at the .05 level ($p = .01$ for total number of fields and $p = .001$ for total number of hectares).

The farm size in hectares was calculated by translating the number of measures into hectares. A measure or *tija* in Hausa is a bowl full of seed, a universal measurement for the planting and selling of seed for all farmers in Niger. Most farmers were able to respond to the question concerning the seed rate used per field, and then the researcher simply added up the total number of measures to calculate the total farm size.

¹² One hectare is equal to 2.47 acres.

Ninety-one percent of the respondents also had a non-farm activity which varied from sewing clothes to making farming implements. For the most part, respondents had been conducting their non-farm activity for a long time with a mean of 12.19 years and a standard deviation of 10.03 years.

Farm revenue and the household

In order to examine the household livelihood strategies, it is imperative to take characteristics of the household first in isolation to gain a comprehensive understanding of this element's contribution to the whole. Agriculture obviously plays a significant role in these household livelihood strategies, and this section describes the income gained from agriculture and how it's used in the rural, Nigerien household. Following an understanding of this income, the sources of non-farm income will be examined and its use in the household will also be described. In conclusion, a description of rural, household credit activity and the impact of this credit in both the farm and non-farm activities will be examined.

Fifty-three farmers of the sixty-five farmers interviewed sell some part of their harvest. Of the fifty-three farmers, about three-fourths of the respondents (75.8 percent) sell their peanut harvest. Others sell hibiscus (3 percent), millet (1.5 percent), and other (1.5 percent). The remaining or 18.2 percent of the respondents replied that they did not sell their harvest. This fact of not selling their harvest is mainly due to poor agricultural yields for the 1996 crop year. There was not enough agricultural production surplus to market.

For the peanut harvest sales, the mean number of one hundred kilogram sacks sold is 8.52 sacks per year with a standard deviation of 8.16 sacks. The large variance is due to the fact that some individuals sell very few sacks (one or two) while others sell a lot (fifteen or more). The farming of peanuts is mainly a male activity as there is a significant difference in the mean number of peanut sacks a man sells (9.92 sacks) and the mean

number of sacks a woman sells (4.08 sacks). This difference is significant at the .05 level ($p = .013$).

The mean price per peanut sack sold is 5,926 fcfa (500 fcfa = one US dollar) with again a high standard deviation of 3,021 fcfa per sack. There is a high standard deviation as some farmers will sell their peanuts immediately following the harvest in October when the prices are the lowest. They are forced into doing this for various reasons, according to respondents. They may have a social obligation in their family, pay taxes which are collected during the harvest time, or repay their loans, both informal and formal, from CARE and villagers.

The informal and formal credit markets offer different forms of credit at different interest rates. The most common form of informal credit discovered during the course of this research was seed, both millet and peanut. The borrower is then required to reimburse the seed in-kind at a rate of one hundred and fifty percent. For example, if farmer Abdou received four sacks of peanuts on loan from farmer Magagi to plant during the rainy season, at harvest time farmer Abdou is required to reimburse the four sacks with six sacks.

Thirteen percent of farmers indicated that they are able to wait for the price to rise, and can sell their peanuts at a much higher price in either January or February. Of the seventy-five percent of farmers who sell their harvest over one third (33 percent) will keep a portion of their harvest or one or two sacks in storage to plant for the following rainy season.

Figure 5 illustrates when farmers sell their peanut harvest. This is indicated by the interviewees' responses to the time of year. Often, the farmer indicated selling their agricultural production immediately after the harvest, immediately before the rainy season, or during the dry season. As these are three very distinct seasons as defined by the farmers, Figure 5 illustrates these three seasons rather than by each month as the farmers do not refer to the year by months in the traditional calendar year.

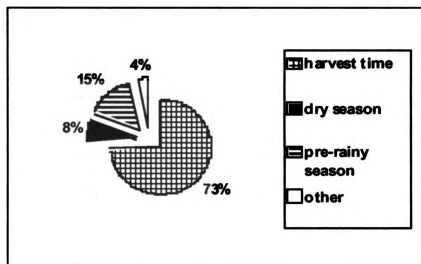


Figure 5 Seasons when farmers sell harvest

As illustrated in Figure 5, seventy-three percent of the farmers sell their peanuts immediately following the harvest. This is mainly due to the reasons stated above. There may be some social obligations in the family, to repay debts incurred before and during the rainy season, or to buy additional food to stock as the price is lower immediately following the harvest.

The farmers were then asked about the use of the money from the sale of their peanuts. Table 1 indicates their responses.

Table 1 Use of farm revenue in the rural, family household (N= 53)

Use of farm income	Number of respondents	Percent of total
Baptisms or weddings	20	37.7 percent
Spend on household expense (e.g. clothes and food)	9	17 percent
Buy an animal	7	13.2 percent
Invest in non-farm activity	6	11.3 percent
Pay taxes	5	9.4 percent
Repay one's loan	5	9.4 percent
Construct a house	1	1.9 percent

Many respondents (37.7 percent) use their income from the sale of their agricultural production for baptisms or weddings. This fact represents the importance of social obligations which exist in Hausa culture. No matter how little resources someone may have, the social bonds and solidarity made in the villages is extremely valued both culturally and economically. If, for example, a woman gives birth, the monetary or in-kind food gifts brought to her baby's baptism must be reimbursed at twice their value to the bearer of the gifts when she gives birth.¹³ Giving at social events becomes an informal kind of investment for these women.

As a visit to one of the research villages illustrates, women interviewed said that they would use money from their non-farm business for baptisms. The following is taken from the researcher's field notes¹⁴,

Garin Boueye is an interesting village. The food situation in this village is pretty serious. Last year they had a bad harvest and it looks like this year will be bad as well. The women in this village have a lot of animals as a form of security, and almost every woman said that she would use the profits from her business in baptisms. Baptisms are big in this region. Other women who did not receive a loan [from BRK], really do not have business for which to put the money. Nevertheless, they really want a loan in this village. Apparently the men are really motivated and are part of the good clients committee.

¹³ Key informant interview on Monday, September 1, 1997 with the Project Assistant, Women On The Move (PN 22), CARE International, CARE/Niger, Maradi.

¹⁴ Taken from researcher's field notes dated Monday, September 22, 1997.

As Charlick (1991) writes, "Patronage and gift exchanges are firmly rooted in most of the cultures making up contemporary Niger and are at the very heart of the Nigerien way of conducting social and political affairs " (p.23). This will be a common theme in this thesis as it is impossible to consider the impact of credit on the household if the cultural and social aspect is not taken into consideration.

There is a marked difference in the manner by which women and men use the income from their farm in the management of their household. Most women (50 percent) use the income for baptisms and weddings while men invest in their enterprise (20 percent) or spends on household expense such as buy food for the family, pay taxes, or build a house (35 percent).

As is the tradition in Muslim culture, it is the responsibility of the head of the household to nourish his family, and if he is not able to do this, his wives have the right to divorce him. A man is not allowed to take more than one or two wives, if he is not able to nourish and clothe them. This group of Hausa men, the Gobirawas, are notorious for not providing for their wives, and taking many wives even when they cannot provide for them. Some men will even go so far as making their wives work in their fields, and not compensating them for that work.¹⁵ Women are also sometimes required to feed and clothe their families while their husbands travel to the Coast or take other wives.

Apart from the income gained from agricultural field production during the rainy season, there is also the farm income from the raising and sale of animals. As the last few years have produced poor agricultural yields (see Appendix D for copy of rainfall chart for 1961-1997), many individuals had sold off their animals to buy food. A significant difference in the number of animals held in the household exists between the men and women. Table 2 illustrates the number of the different kinds of animals held by the women and the men at the current point in time. To verify the number, the researcher asked to see the animals in the yard.

¹⁵Ibid.

Table 2 **Number of animals in the household between men and women**

Animals	N	Mean	Standard deviation	t-value	p =
Cows:					
men	48	1.17	1.53	.10	.69
women	17	1.47	1.33		
Donkeys:					
men	48	.50	.62	2.31	.001*
women	17	.24	.44		
Goats:					
men	48	1.52	2.50	3.81	.004*
women	17	5.41	4.29		
Sheep:					
men	48	.73	1.40	2.52	.03*
women	17	2.53	3.73		

* Indicates significant difference at the .05 level.

Table 2 illustrates the differences in animal holdings between the men and women interviewed. Traditionally men raise the horses and cows while the women raise the smaller ruminants such as goats and sheep. The goats and sheep are especially used as a sort of savings account for hard times. If the harvest is not so good one year, they (the women) are able to sell off their goats or sheep in order to buy millet, the main staple. A large standard deviation exists with the goats and sheep indicating that the variance of the sheep and goat holdings is quite large. Some women may only have one or two sheep while others have many more.

There is not a significant difference between the men and women and their cow holdings. Some women borrowers indicated that they were able to purchase cows with the profits from their loans. This will be examined in the later part of the thesis. Both men and women were asked about their horse holdings, and none of the women indicated that they had a horse while the mean number of horses for the men was less than one.

Originally the difference in animal holdings prior to receiving a loan and the present number of holdings was going to be examined, but this factor did not prove to be indicative of the impact of the loan. There were two reasons for this lack of indication of loan impact. Firstly, several people had to sell their animals last year to buy food as it was a poor agricultural year (300 mm. of rainfall). Secondly, there was an animal epidemic, according to the respondents which affected the goats and sheep two years earlier. This epidemic was verified by the agriculture agent in Chadakori. The agriculture extension agent explained that the animals, both goats and sheep, contracted something called carbon bacteridian.¹⁶

The symptoms of the disease were shortness of breath and loss of appetite with the goats and sheep. When the animals' owners began to see these symptoms of the disease, they would either sell the animals off right away, consume them in their homes, or simply let the animals die. During the course of the research, one respondent provided the following description. All names are pseudonyms.

“Hadiza had no cows previous to receiving her loans, and now she has two and a plow. Her sons do all her work, and she no longer works in the fields. She sold off five goats before the rainy season because they were sick, but as a result of the loan she was able to buy five more. She has two fields where she plants millet and peanuts.”¹⁷

Non-farm income from and for the household

As previously stated, most respondents (N = 59 or 91.5 percent) indicated that they do have a non-farm income in addition to their farm one. This finding would be consistent with other findings on household livelihood strategies in low-income countries, especially in Sahelian West Africa (Reardon 1997; Campbell 1990). People tend to

¹⁶ Key informant interview on Thursday, September 11, 1997 with the agricultural agent in Chadakori, Niger.

¹⁷ Taken from researcher's field notes, Friday, August 29, 1997.

diversify their income generating activities as much as possible in order to capitalize on profits from various sources in an unpredictable environment.

Charlick (1991) writes, “the rural people [in Niger] are not exclusively farmers and herders. Historically, they learned to also produce crafts for the market; engage in local, regional, and even long-distance trading; and practice non-farm professions, including raiding, to diversify the economic risks of a harsh environment” (p. 98).

People indicated practicing a wide variety of non-farm activities. Table 3 indicates how people interviewed responded to the questions concerning what they did for their non-farm income.

**Table 3 Activities indicated by respondents for the non-farm activity
(N = 59)**

Non-farm Activity	N	Percent
Trader	21	35.6
Animal fattening herder	9	15.3
Peanut oil producer	6	10.2
Food processor	9	15.3
Tailor	5	8.5
Metalworker	4	6.8
Medicine seller	3	5.1
Artisan	2	3.4

A large portion of respondents indicated that they traded some kind of commodity while others fattened sheep for Tabaski, the biggest Muslim holiday, produced peanut oil, or processed food. Both men and women indicated as having a non-farm business and the number of years and employees of the business varied tremendously. Of the men who stated that they have a non-farm business, they have been practicing this activity, on average, for 14 years (SD = 11 years) while the women have been in business, on average, eight years (SD = 7 years).

Over one third of the respondents (35.6 percent) practiced some kind of trading in which they bought something, usually an unprocessed, primary, agricultural product and resold the product at, hopefully, a higher price. The money from the sale of these goods was either used to buy more of the same good, was invested in processed goods, or was used for household expenses (i.e. food and clothing) or social events (i.e. marriages or baptisms).

These primary, agricultural products ranged from animals to skins and hides to mangoes to millet. Regardless of the product, the farmers, primarily men, are required to travel to several markets in order to buy and sell the product in question. Sometimes markets even bring the farmers to Nigeria where the primary good from Niger is sold, and then the farmers buy processed products (i.e. plastic pots, sauce condiments, gasoline) to sell in Niger. Traveling to Nigeria brings with it an assortment of transaction costs in the forms of transportation and paying bribes at the border crossing.

Respondents indicated that their non-farm activity is either done alone or with the assistance of a family member. On average, men have more employees (one employee per business) than the women business owners (not quite one or 0.72 full-time employees). The businesses are either run out of the house or from a market stall. Table 4 illustrates the number of markets attended and approximate location by number respondents (see Appendix G for list of markets' names attended by respondents).

Table 4 **Number of markets attended per week (N = 59)**

Number of markets attended/week per respondent	N	Percent
One market	26	44.1
Two markets	6	10.2
More than two markets	12	20.3
Attend markets in Nigeria	2	3.4
Work out of my house	13	22.0

Table 4 indicates that most of the respondents (54.3 percent) attend one to two markets per week. There is also a large portion of respondents who attend more than two markets per week (20.3 percent) or work out of their homes (22 percent). There tends to be an association ($r = .37$) between gender and where the product is marketed. There is a higher percentage of women (40 percent) who market their products out of their home than men (18 percent).

While 78 percent of the men will attend one or more markets per week, 60 percent of the women respondents will attend no more than two markets per week. No women indicated attending markets in either Nigeria or more than twice per week. The remaining respondents not listed on this table do not have a non-farm business and therefore were not asked this question.

The second most common non-farm activity of the respondents (25.5 percent) was food processing. This activity is exclusively found amongst the women and comprises making peanut oil, selling already prepared food, and preparing green leaves to sell. Like the men who resell primary, agricultural products, the women only practice their activity during the dry season. A large portion of women (40 percent) do not attend markets to sell their products. In the traditional Muslim culture, married women are not allowed to go to the market, unaccompanied by their husbands. The women do not have paid employees for this business, but the burden of marketing the processed food falls on their school-aged daughters. This is often another reason for which there are not a lot of educated women in Niger. The necessity to assist in earning money for the household tends to prohibit the girls from attending school.

Arts and crafts work was indicated as the third most common non-farm activity of the respondents (16 percent). This entails sewing cloths, embroidery, and making decorations for horses. This activity was not dominated by either men or women as it could be conducted either at the market or in the home. The location of an activity plays one of the largest roles in determining whether a women can participate in that activity. As

Islam in Niger prohibits married women from leaving her household and attending public gatherings where other men may be present, this factor limits women's participation in various economic activities.¹⁸

In order to discover role of the non-farm income in the household, respondents were asked how they used their income from their non-farm activity. Like farm income, the small business owner has a variety of uses of his/her non-farm income. Table 5 illustrates the uses of the income earned from the non-farm activity by those respondents who indicated that they have a non-farm income. The remaining respondents indicated as not having a non-farm activity.

Table 5 Uses of non-farm income in the rural, family household

Uses of non-farm income	Number of respondents	Percent of total
Spend in home	20 respondents	33.9 percent
Invest in non-farm activity	17 respondents	28.8 percent
Invest in farm	11 respondents	18.6 percent
Spend on social events (weddings and baptisms)	8 respondents	13.6 percent
Reimburse loan	2 respondents	3.4 percent
Put into savings	1 respondent	1.7 percent

As illustrated in Table 5, many people responded that they would invest their income earned from their non-farm activity in that activity. Others responded that they would invest this income into their farm. This could be in the form of agricultural inputs, purchase of a field, or animals for animal traction. A large share of income from the non-farm activity is also spent on household expenses such as food, clothes, and shelter.

¹⁸ Key informant interview on Thursday, September 3, 1997 with a female school teacher in Chadakori, Niger.

Credit obtained from the BRK: Amount, Utilities, and Results

Loans from the BRK can vary from between 2,500 fcfa to five million fcfa. The sample of respondents was not distinguished by amount, but by the first time they obtained a loan. In this case, the year of 1992 was chosen to allow enough time in order to examine the impact of the loan over a five year period.

There is a significant difference between the number of loans and the amount of those loans received between men and women. Men, in general, tend to receive more loans with larger amounts. On average, men reported receiving 2.4 loans which totaled 214,189 fcfa while the women received 2.3 loans which totaled 74,615 fcfa. Although the men and women received on average the same number of loans, the amounts varied tremendously.

Women have proven to be better credit risks than men, and this research affirms this fact. In fact, after conducting a crosstab between gender and a dichotomous variable, *has the loan been repaid*, there is some association ($r = 0.25$). More women (82 percent of the total number of women) have reimbursed their loans whereas 57 percent of the total number of men have reimbursed their loans.

Not only are women more creditworthy, but may also be easier to work with. In response to the question concerned with *was it easy to obtain a loan from BRK?*, there is a some association ($r = .25$) between this variable and gender. Women, in general tended to agree that it was easy to obtain a loan from BRK while the male respondents did not agree.

Respondents used the loans for various purposes, and 50 percent used the loans for what they told the credit agent, they were going to do. The remaining 50 percent of the respondents did not use the loan for what they indicated to the credit agent. Table 6 illustrates the uses of the loans as described by the respondents.

Table 6 Use of BRK loans (N= 50)

Use of loan	Number of respondents	Percent of total
Trade of goods	12	24.0
Bought animals to fatten	10	20.0
Gave to others as loans or gifts	8	16.0
Bought peanuts	4	8.0
Bought inputs for field	4	8.0
Bought seed to stock	3	6.0
Social events (i.e. baptism)	3	6.0
Bought metal to forge	2	4.0
Bought medicine to sell	1	2.0
Bought a sewing machine	1	2.0
Bought skins and hides	1	2.0
Combination of two of the above	1	2.0

As represented in Table 6, the majority of respondents used the loans for trading (24.0 percent), buying animals to fatten (20.0 percent), or gave to other people as loans (16.0 percent). This third category of giving others loans is an interesting, unexpected use for the loan. This factor illustrates the argument that the social obligations within this culture are extremely important to the point that an individual borrower would risk not being able to reimburse the loan by giving all or a portion of the loan to a friend or family member. In doing so, s/he stays in good standing with his/her relatives within the community who weren't able to receive the loan.

There is also a differentiation in Table 4 between *bought peanuts* and *bought seed to stock*. The peanuts were bought by the women to use in the production of peanut oil while seed to stock was purchased by both men and women to sell at a later date.

The results from these loans varied from respondent to respondent. When asked if the loans were useful nearly every respondent replied immediately that they were, but upon further examination and probing on the part of the interviewer, there was a different story underneath. The open-ended responses on the utility of the loan can be grouped into four general categories: respondents emphatically insisting that the loan was useful, certain

borrowers expressing that they had some difficulty in repaying the loan, the loan was useful for the short term but its utility did not last a long time, and the loan is not useful for someone who does not know what to do with it.

One respondent stated, "The loan was useful, but I wish I had some kind of training on how to manage the money. I didn't know what to do with it at first." Another stated, "The loan was incredibly useful. With the 40,000 fcfa loan, I think I made about 20,000 fcfa." While still another said, "The loan was useful in the beginning, but it was also a big burden because the rainy season did not go well. If the rainy season is not good, we have a lot of difficulty in repaying our debts. "

There also seems to be a threshold point where borrowers who have received more loans, are able to distinguish the impact more clearly. In two interviews, the following was noted,

Zenabou is an amazing woman. She started out with nothing, and as a result of seven loans from CARE she was able to buy two sewing machines, four cows, and two peanut shelling machines. It seems that in order to see the impact of these loans, the person has to have received the loan at least five times. Another tailor borrower that I spoke with later in the afternoon has had the same experience. The more loans he received the more people he was able to hire for his business. There seems to be a limit that a certain number of loans provides a limited number of opportunities for the recipient.

On the other hand, borrowers who weren't able to receive many loans like these tailors often struggled to reimburse their loans. As one interview with a farmer demonstrated, sometimes people had lost money in the process of reimbursing these loans.¹⁹

We were able to talk to six people in Boungougi (three borrowers and three non-borrowers). The most interesting interaction was with a "sarkin noma" (in Hausa for best farmer). He had received a loan, and in order to reimburse the loan, he sold his store of peanut seeds at 6,000 fcfa/sack. When it came time to plant his peanut field, he had to repurchase the peanut seed at 7,000 fcfa/sack. He lost 2,000 fcfa as a result of selling his peanuts earlier to reimburse his loan. The question now, is would he have had to sell those peanuts

¹⁹ Taken from researcher's field notes, Thursday, September 18, 1997

regardless? Maybe not, but maybe the loan allowed him to meet some immediate needs without thinking about the long-term. This seems to be the overriding reason to take out a loan.

Inferential Statistics: Responses to research questions

A combination of t-tests and crosstabs were run to compare non-borrowers with borrowers for significance and association and their investments in the farming system to respond to the four research questions.

Research questions #1: Are there differences in the manner by which those who receive micro-credit invest in their farming system and those who do not?

In order to discover if there were differences in the manner by which those who received micro-credit and those who did not invested in their farming system, a number of variables had to first be considered. To analyze these variables, both tests for differences and relationships were run. The variable, *did you receive micro-credit?* with a possible answer of yes or no was considered the independent variable and crosstabs and t-tests were conducted. The dependent variables became the possible investments in the farming system (e.g. fertilizers, insecticides, planted trees, applied manure, practiced either natural regeneration or drs).

Agricultural inputs

The data showed that there were slight differences and relationships between borrowers and non-borrowers and investment in inputs for the farming system. A multiple response analysis was conducted for a series of dichotomous variables. These variables asked farmers whether they invested in the following agricultural inputs and practices: fertilizer, insecticide, planted trees, left already existing trees, and implemented soil conservation techniques. Overall, both borrower and non-borrower respondents indicated having practiced natural regeneration (32.2 percent), planted trees (11.3 percent),

practiced soil conservation (11.9 percent), applied fertilizer (6.2 percent), insecticide (4.5 percent), and manure (33.9 percent).

As these farmers are short on capital, it is no mistake that those technologies that do not require capital were most widely used by both groups (e.g. natural regeneration, applied manure, planted trees, and soil conservation techniques). As farmer recognize their decreasing soil fertility in their farm fields, these practices were implemented as all three of these activities contribute to improving the soil quality. In other words, no significant differences were observed between BRK borrowers and non-borrowers in the adoption of most of these practices.

However, comparing the borrowers with non-borrowers, there is a slight association in how they invest in their farming system when considering the above mentioned inputs which is significant for the planted trees category ($p = .02$). Table 7 represents the two groups responses to their investment in the following agricultural inputs.

Table 7 Adoption of agricultural improved practices by respondents

Agricultural input	Did not receive credit	Did receive credit
Soil conservation	40%	30.6%
Fertilizer	13.3%	18.4%
Natural regeneration	100%	85.7%
Insecticide	6.7%	14.3%
Planted trees*	6.7%	38.8%

* Indicates a significant association between access to micro-credit and planting trees.

As a respondent answered yes or no to all categories, the percents comprise more than 100 percent. There is a slightly higher percentage of borrowers who invest in either fertilizer, insecticide, or planting trees than non-borrowers. There seems to be a slight association ($r = .28$) which is significant ($p = .02$) between receiving a loans and planting trees. Those who have received loans tend to plant trees more often than those who did not

receive a loan. Sometimes farmers are required to purchase trees so this could be attributed to a capital intensive farming practice.

Both the insecticide and fertilizer are also more capital intensive so perhaps the borrowers of credit from BRK either used their loans to invest in this technology, had added capital to invest in this technology from their non-farm business, or decided to intensify their land with these technologies as a result of having less of it. One could also argue that farmers who receive micro-credit are self-selected and already are better off even prior to receiving the loan. They have the capital to invest in their fields in the form of fertilizer and insecticide.

Animal traction

Investment in animals and animal traction represent often times a significant expenditure in the farming system. Farmers were asked if they used animal traction and if so, what kind. The variable was defined where there were four possible answers: none, oxen, donkey, or both. Table 8 illustrates both borrowers and non-borrowers responses to the four choices.

Table 8 Use of animal traction by borrower and non-borrower of the BRK

Status of animal traction	Did not receive credit	Did receive credit
I do not use animal traction.	21%	38%
I farm with oxen.	53%	32%
I farm with a donkey.	13%	18%
I farm with both a cow and a donkey.	13%	12%

Table 8 illustrates that there is no significant association between receiving credit and whether one uses animal traction or not. In fact, a higher percentage of non-borrowers use oxen animal traction than borrowers. A slightly higher percentage of borrowers use donkeys for animal traction than non-borrowers but this difference is not significant.

Oxen and donkeys are primarily used in animal traction, and a t-test was run to examine whether there is a significant difference in the number of oxen and donkeys and borrowers verses non-borrowers. Non-borrowers possess a mean of 1.41 oxen while borrowers have a mean of 1.07 oxen so practically no difference. As far as donkeys, non-borrowers possess .44 as the borrowers have .40 donkeys so again practically no difference.

Hired labor

To hire labor illustrates another indication of a farmer's wealth and perhaps the impact of credit on the farming system. There is no significant association, as a result of this study, between having received a loan or not and having the capacity to hire labor. Thirty-eight percent of the borrowers indicated that they hire laborers while only twenty percent of the non-borrowers indicated that they do not hire laborers to farm their fields. There is a slight difference but this is not significant.

For those farmers who are not receiving credit, they are investing somewhat less in the capital intensive farming inputs such as fertilizer and insecticide than those farmers who are receiving credit. There tends to be a weak association which is significant between those who have received credit and plantation of trees in their fields. Those who have received credit indicated more often as having planted trees in their fields than those who had not received credit.

On the other hand, recipients of micro-credit have, on average, smaller land holdings than non-recipients. The reasons for the this fact are many, and could also explain why there is more investment in capital intensive technologies. The smaller land

holding farmers want to intensify their farm in order to maximize potential profits from their land. This intensification translates into making investments in fertilizer and pesticides.

Recipients of micro-credit may also be more occupied with their non-farm activity as their loan was designated to this activity. Profits from this activity may far outweigh profits from their farm so they have decided to concentrate their efforts on the non-farm activity.

Research question #2: As a farmer's income increases, does the willingness to invest in the improvement of farming system also increase?

Several wealth indicators are used to define a farmer's income. Some of these, for the purposes of this research, are the number of animals, farming implements, the kind of house, and the farm size. For the purposes of not being redundant, the differences in goat and sheep holdings will be compared between borrowers and non-borrowers as cows and donkeys were analyzed under research question number one. Table 9 illustrates borrowers and non-borrower's responses to this question.

Table 9 **Number of goats and sheep by borrowers and non-borrowers**

Kind of animal	Did not receive credit	Did receive credit
Average number of goats	2.20 (SD = 2.81)	2.64 (SD = 3.69)
Average number of sheep	.67 (SD = 1.23)	1.36 (SD = 2.59)

Borrowers and non-borrowers are no different in the number of goats and sheep they possess. As the loan may have been used to purchase necessary household goods such as food and clothes, there was not a significant long-term impact of the loan on the

number of animals. As the environment is so precarious in Niger, poor agricultural years lead farmers to sell off all assets, including animals to buy food to nourish their families.

One indication of wealth is also the number of parcels and farm size possessed by respondents. Interestingly enough, it was discovered after running a t-test between number and size of fields that the non-borrowers possessed more land and larger holdings than the borrowers. Table 10 illustrates this t-test.

Table 10 Number and size of land holdings by borrowers vs. non-borrowers

	Total number of parcels	Total farm size
BRK borrowers	4.18 fields	6.35 hectares
Non-borrowers	5.00 fields	7.07 hectares

Non-borrowers have slightly more fields than the borrowers. One would imagine this to be the reverse as some borrowers also purchased land with their loans or the profits from the loans, the largest investment that a farmer could make in their farming system. On the other hand, several key informants mentioned that former borrowers of BRK had to actually sell their land to reimburse their loan.²⁰

A cross-tab was also conducted between access to credit and whether the respondents had a non-farm business, another form of income in the farm household. Some individuals who did not receive credit had a non-farm business, but it was apparent that a person who received credit was much more likely to have a non-farm business than a non-borrower. This association was moderate ($r = .42$) and significant ($p = .00$) at the .05 level.

Number of employees in a micro-enterprise has also been used as an indication of the financial health of the enterprise (Mead et al. 1991). The borrowers tended to have

²⁰ Key informant interviews with Amadou Haya, Ministry of Environment and Tony Rinauldo, SIMS.

more people working for them in their non-farm business (1.20) than the non-borrowers (.33). This difference is significant ($p = .016$) at the .05 level.

The capacity for an individual to save is also an indication of their economic health and income stability. There were no significant differences between borrowers and non-borrowers and their capacity to save. Both groups did not save consistently, and the percentage of borrowers who saved (38 percent) was slightly lower than non-borrowers (41 percent) who also indicated that they save. Of the respondents who saved, they indicated saving in the form of money (53.6 percent), seed (32.1 percent), and animals (14.3 percent).

Response to research question #3: What is the effect of increased investment and [other exogenous variables] in the farming system on the sustainability of the environmental resources (i.e. land and soil)?

Farmers who received loans from the BRK were more likely to invest in capital intensive and less sustainable farming practices, such as fertilizers and insecticides. On the other hand, borrowers indicated more often than non-borrowers that they planted trees in their fields. Planting trees in field has been proven to increase soil fertility and the sustainability of natural resources.

Implicit in this description of the effects of these investments on long-term sustainability are examples of problems encountered by the farmer respondents in the management of their farming system. These examples are physical, economic, social and political in nature.

An example of the effects of poor government policies as contributing to soil erosion and decreases in soil fertility was discovered during the course of this research. Nigerien farmer's lack of fertilizer use in their farming system was as a result of elevated prices due to Niger's economic neighbor Nigeria. The government of Nigeria suppressed their fertilizer subsidy which then caused the price to rise drastically. This increase in price

prevented many of the farmers interviewed from investing in fertilizer when many of them had invested in past.

It was demonstrated throughout the course of this research that rainfall is the main determinant to agricultural production. As last year was a poor year (see Appendix F for rainfall chart), many farmer interviewed were required to sell off any previously acquired assets to purchase food. If farmers do not have sufficient food to eat, they are not going to purchase agricultural inputs unless they can receive some kind of credit. Access to credit does not guarantee that investment in the farming system will increase as this research demonstrates.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Research was conducted in South-central Niger, West Africa during September and October, 1997. The purpose of this research was to examine the small holder farmer's agricultural investment decisions and the impact of micro-credit on these decisions. It was hypothesized that farmers must first be assured of their household livelihood, more specifically food self-sufficiency prior to investing in their farming system. A farmer may be less risk averse due to access to micro-credit by either assuring food security or providing extra income to invest in the farming system.

In order to examine this hypothesis, four research methodologies were employed. These research techniques were an interview schedule with sixty-five farmers, semi-structured interviews with key informants, participant observation in eleven villages, and archival research of key documents. This research was descriptive in nature, and data from the interview schedule were analyzed using SPSS PC+ to test for differences and associations.

Four questions were examined through the course of this research. The purposes of which were to answer an overriding question on the impact of micro-credit in the rural Nigerien's household and expenditures in the farming system. To examine the impact of an intervention *ex post facto* such as access to micro-credit elicits several considerations

and questions for further research. This research illustrated that there were only slight differences between borrowers of BRK and non-borrowers and the manner by which they invested in capital intensive agricultural technologies (e.g. planting trees, applying insecticides and fertilizers).

In an economy where the majority of the population are subsistence farmers who depend on an unpredictable rainfall for their livelihood, the role of micro-credit on the farming system has a dual effect. In good rainfall years, investments made on the farm have enormous pay-offs. The farmer produces a sufficient amount of food, and is not required to liquidate non-farm assets to purchase food. This fact allows the farmer to continue to practice a non-farm activity during the nine dry months of the year.

On the other hand, in poor rainy seasons, the farmer falls further into debt as the household is not able to produce enough food and is required to sell off their assets (e.g. goats, sheep, non-farm activity products) to purchase grain stocks. The later case is more often the scenario in Niger where the rainfall has not been adequate during consecutive years.

To examine the role and impact of micro-credit over a five year period becomes a difficult task as there have been both good rainy seasons as well as the latest poor rainy season in 1996. People interviewed were still recovering from a poor previous agricultural year, and it was difficult for them to express the impact of credit received even just three years previously on their household. Any assets acquired, as a result of the impact of the loan, were sold last year to buy food.

The data from this research indicate that there were significant differences in how men and women operated in their respective household activities, both non-farm and farm. These differences stem from traditional social structures built on mainly religious understandings of the roles for men and women. Their different economic activities contributed differently to their understanding and management of their credit. Men were

more likely to look outward, beyond the household for more risky income generating activities, and trade at distant markets

On the other hand, women were more likely to operate out of the household, and spend more money on social obligations. Women proved to be more creditworthy than the men, and also more pleased with their interactions with the BRK.

In response to the first and second research questions, there is a slight association between credit and investment in capital intensive agricultural technologies. Those who received BRK credit were more likely to invest in fertilizers, insecticides, and planting trees. There is no difference between borrowers and non-borrowers and investment in labor intensive technologies such as soil conservation techniques, applying manure, and practicing natural regeneration. For other farming investments such as hired labor and animal traction there is no association between credit and these investments.

This research disproved the assumption that as farmer's income increases as a result of micro-credit, he/she will more readily invest in the farming system. In fact it appears as if credit plays a small role in a farmer's decision to invest in his/her farming system. One farmer said, "I have been practicing natural regeneration and applying fertilizer prior to receiving a [BRK] loan. One or two loans is not going to cause me to change my farming practices. If I want to invest in my farm, I will find the means to do it."

The third research question asked if the willingness for a farmer to invest in the farm increases as the non-farm income increases. This research used several indicators of wealth to distinguish the differences in income between borrowers and non-borrowers of BRK. It appears that there is no difference nor association between the two groups. There is a slight difference between credit and number of goats and sheep, but this difference is

not significant. There was also a slight association between number of people who planted trees and credit. As one farmer explained²¹,

If a man earns a profit from his non-farm income, he is able to farm more land, because he can hire people to farm his field. If he has more land, he will plant trees/leave trees in his field because he already has a lot of space to plant his crops. He is not worried about lack of food as he has both his non-farm income, and a large farm. He will gain enough food during the harvest regardless if he plants trees in his field or not.

If another person does not have a non-farm income, and depends solely on his farm income, he probably does not have extra money to hire workers so he is constrained by labor and how much land he can farm.

If he is constrained by the amount of land he can farm due to shortages of labor, he will not have a lot of trees in his field because he must gain all he can out his field for his household. According to the guardian and his friends, trees take up space in a field and produce shade so the plants cannot grow. Due to this fact, a smaller, less wealthier farmer will not plant a lot of trees in his field.

Conclusions

Micro-credit has been touted as a quick fix to poverty (Rogaly 1997), but as this research illustrates micro-credit is only a small solution to a much larger problem. This problem is political, social, and physical in nature, not simply economic or financial. This research rejects the hypothesis that there is a difference in the manner by which borrowers of the BRK project and non-borrowers invest in their farming system. Production in the farming system can have an effect on the credit recipient's ability to reimburse the loan, but credit does not have a primary role in the borrower's ability to invest in the farming system.

There are two distinct types of credit borrowers which were discovered throughout the course of this research. There are those borrowers who found the loan to be useful in the short-term. It was more difficult to distinguish the longer term impacts of these loans. As credit is a burden, borrowers have struggled to pay off their loans, and in some instances were forced to sell off their assets (i.e. animals, fields etc.) in order to reimburse

²¹ Taken from researcher's field notes, Saturday, August 22, 1997.

their loans. As Nigerien's livelihood is agriculturally based, a poor rainy season translates into a struggle to find enough food to nourish growing families.

On the other hand, those farmers who produced enough during the rainy season (either their land holdings were larger or they invested in agricultural inputs) were able to reap a profit from the loan and did not struggle as much to reimburse the loan. The major determinant to a creditworthy individual is that person's agricultural production in this region of Niger.

At the commencement of BRK's work in the Maradi department, credit was warmly welcomed by the recipients as it acted as a buffer between subsistence and starvation. Many individuals who were in a crisis food situation borrowed money to act as this buffer. After awhile it became evident that the utility of the credit was only short-lived. There were not tight controls on the disbursement or recovering of funds and the rural bank fell farther and farther into debt.

A combination of bad agricultural years and animal epidemics resulted in making it almost impossible to see the impact of credit during the course of this research. Assets acquired during and shortly after the loan period, were sold off to purchase food in these poor agricultural years. All respondents indicated that last year's rainy season was as bad as the famine in 1985. As the crops are dependent on the amount and time the rains fall, lesser rains can have a devastating effect on agricultural yields. The timing of the rains must be impeccable in order to ensure a sufficient harvest. Last year's rainfall was comparable to the rainfall in 1985, but the timing was somewhat better.

Nevertheless, people were required to sell off their assets in order to buy food or even in some cases to pay back the BRK loan. This fact illustrates the assertion that credit is not a panacea for rural development. There are significant environmental considerations and constraints that must be examined in a rural farm household's livelihood prior to

allocating funds to micro-credit in households. Agricultural production seems to be the major determinant in whether or not a farmer is creditworthy.

Not only did bad agricultural years translate into selling off assets, it also was disastrous for some borrowers who invested their loan money in their farming system. If all the loan money was invested in the field, and the rainy season was not adequate, this farmer had no reserves to reimburse the loan. Over thirty percent of borrowers used the loan for agricultural purposes or to raise animals. This endeavor is just too risky in this delicate, Sahelian environment.

Charlick (1991) writes, "Perhaps an inescapable fact of life in the Sahel is now obvious: In such a fragile environment, people definitely influence soil quality through their activities, and any development of the region must be based on an awareness of the limited nature of the resources" (p. 5). As soil quality decreases, the farmer's agricultural production decreases. This factor combined with low rainfall results in food deficits and shortages of capital to repay loans.

Recommendations

This recommendation section is divided into three sections: the first part is on recommendations to the administration of the BRK; the second section offers; recommendations for the formation of future micro-finance institutions the Sahel region of Africa; thirdly, recommendations for future research which deals with the impacts of micro-credit are described.

Administration of the BRK

Although a borrower of the BRK is ultimately responsible for reimbursing the loan, the administration of a project can also play a significant role in that individual's capacity to reimburse the loan. Lack of information and corruption are both major costs to

the borrower which were prevalent in the BRK project. Some borrowers did not have a clear idea of what they were going to do with loan, but they were in need of capital to meet household needs.

In other cases, borrowers were told that in order to receive money, one must give money in the form of bribes. This provided to be another cost to over forty percent of the borrowers. Other borrowers mentioned that they had many unnecessary transportation costs of going to the credit office to obtain their loans and were told to return at a later date. Often times when the later date came, they were again told to return at a later date.

The original design of the BRK project was to limit transaction costs and increase the number of borrowers so as to make the transition from a financial intermediary under CARE to an autonomous credit and savings institution that much easier. To do this, the credit agent, in the beginning, was given much autonomy to conduct his/her job. This system had its advantages and disadvantages. The advantages were mostly financial in nature, limiting both the transportation and labor costs as the agent was the sole contact with the borrowers in the specified region.

The main disadvantage of having an autonomous credit agent was the lack of controls and follow-up. It was later discovered that agents were giving villagers loans without doing thorough background checks on the person's potential to repay the loan.

As one key informant stated, "there is not enough research on the assets of the potential BRK client prior to giving him the loan. You take a lot of risk, and give money to whomever wants it." This fact allowed the turn around time of a loan to be fairly short and efficient in the beginning, but not effective in identifying creditworthy clients. This expedited process was not conducive in educating the borrowers about the importance of credit and instilling a firm commitment to reimburse the loan. Rather, as several borrowers mentioned, credit was distributed freely to whomever desired it.

Initially, the time from completing a first borrowers loan portfolio to this person actually receiving the loan was fairly short (two-three weeks). As the volume of loans increased, the reimbursement rate decreased, and the controls over the loan processing tightened. Loan delivery slowed down considerably. Approved borrowers were told many times to contact the loan office to receive their money, but when they arrived they were told to return. For a poor farmer this presents a considerable expense in transportation costs and thus, encouraged bribes.

The corruption in the banking system became rampant as there was more and more loans going out to borrowers and less and less controls over the credit agent. Some administrators of BRK and CARE International argue that this burgeoning corruption is as a result of the poor wages and low educational level of the agents. Of the seventeen credit agents, five agents do not have higher than a fifth grade education while six have a ninth grade education, and the remaining six have some high school or a high school degree.

Agents made up fictitious names of borrowers, were accepting bribes from potential borrowers, and for the most part, were not conducting sufficient background checks on the potential borrowers. A culmination of these factors resulted in lower reimbursement rates for the BRK. Not only was the BRK worse off as a financial intermediary, but villagers who had paid bribes and transportation costs were also suffering.

As this research clearly demonstrates, there is no follow-up after a client is approved for a loan, receives it, and is in the process of reimbursing the loan. The BRK staff doesn't know what the purpose of the loan is and whether or not borrowers can manage large sums of cash. The indication of a successful micro-credit project is the reimbursement rate (Rogaly 1997). This fact could be misleading as people may reimburse a loan, but at the expense of what?, one must ask. In fact, very few borrowers could

identify from where they received their loan. In their understanding, the loans came from the credit agent in Tibiri.

The idea of a financial lending institution is foreign to many nonwestern societies, especially in predominantly Muslim cultures. Shipton (1994) writes,

“The differences in assumptions underlying Islamic law about usury and the more secular European rules are not just philosophical or religious. They also influence real behavior and thus resource flows. Project and program designers interested in issuing or recovering loans in the western Sahel, or in mobilizing savings there, should pay attention to both these sets of rules, as well as to local customs on which they are superimposed” (p. 309).

Credit has addressed a segment of a much larger undefined problem in Niger. Poverty, as viewed in western terms is in terms of income, and credit is used to increase or hopefully positively impact this income. Poverty is not viewed in these terms in several nonwestern countries so credit serves only a short-term purpose of providing short-term capital for household expenses. Hulme and Mosley (1996) write,

“Chambers (1983, 1995) has recorded the many forms of deprivation that very poor people identify themselves in experiencing that are not captured by income-poverty measures. These include vulnerability to a sudden dramatic decrease in consumption levels, ill-health and physical weakness, social inferiority, powerlessness, humiliation and isolation. Such dimensions of poverty are significant in their own right and are also essential analytical components for the understanding of income poverty” (p. 105).

Recommendations to other Micro-finance Institutions:

Education from the micro-finance institution is critical to first-time borrowers. This education should include how to manage their finances, the importance of credit, and the concept of a banking institution. For all borrowers, there was a lack of information on the BRK as an institution. This concept of an institution possessing money is foreign to

most, rural Nigeriens. An obvious gap in understanding emerges between the source of money and the client. Many individuals interviewed had never heard of the BRK, some had heard of CARE, and everyone knew the credit agent “with all of the money”. This inevitably led to corruption as one person appears to possess all the money.

The credit agent must possess less power and autonomy. Perhaps with the creation of the good clients committees (recently instituted in September 1997), the decision making power will be diverted solely from the credit agent and put more in the hands of the committee members. On the other hand there is also the danger that these committees can become too political, choosing only close friends.

More questioning and education need to occur in order to obtain creditworthy borrowers who are aware of their rights. Credit provides a short term solution to poverty by providing important capital for Nigerien farmers to purchase food in the poor years and long-term capital for the wealthier Nigeriens. By decentralizing the accounting procedures of the BRK a sense of ownership in how to manage money will be encouraged.

In a recent study in *World Development* (Vol. 24, No. 1, 1996), Pankaj S. Jain outlines eight points to ensure success after examining the Grameen Bank model in Bangladesh. Most of these points are applicable to the BRK.

- a) Repeated supervision and cross-checks of field functionaries on their performance.
 - b) Making “administration” locally responsible to problems of field functionaries.
 - c) Clear community commitment and repeated explanation of the rationale and justification of organizational policies.
 - d) Conceptual/ideological articulation of the significance of routine field-level tasks.
 - e) Smooth flow of services.
 - f) Protection of field functionaries.
 - g) Training and induction of field functionaries.
 - h) Boosting the self-image, pride in task of field functionaries.
- (p. 88).

Clearly, these are several points that are crucial to the success of a rural-based, micro-finance institutions. Many of which are not currently being implemented by the BRK.

Recommendations for researchers studying the impacts of micro-credit

There have been several studies on the methodological concerns when looking at the impacts of micro-credit on the household, but not on the impact on the farming system (Gaile and Foster 1996). This research tries to fill that gap. Does micro-credit have a role to play to encouraging more investment in the farming system through increased income in the non-farm sector?

1. The year a person first received a BRK loan defined the sampling frame for this research. These sampling frame parameters were not appropriate. It is more appropriate to determine how many loans and the monetary amount one person has received and conduct a stratified random sample of different loan amounts received per each sampling group. To consider time as a parameter for the sampling frame is not appropriate in this case. Those who had received one or two loans experiences short-term impacts, and later defaulted in the third or fourth loans. Those who had continued to receive up to five or six loans were able to pass an important threshold in which they were able to experience more long-term impacts from the loans.

It was also recommended to take three sampling frames in which there were cases who had been long-term borrowers, others who were about to receive a loan, and still others who had not been in contact with the BRK. This sampling frame would have helped to control for self-selection bias. This technique is found in other micro-credit impact studies. Gaile and Foster (1996) argue, "Because of the issues of fungibility and selectivity bias, sample design and execution in micro-enterprise impact studies is complex

and critical. Selection bias arises both in terms of the program clients and the location of the programs” (p. iv.).

2. To distinguish credit’s impact on the recipients, the researcher must have a longitudinal data. Unfortunately, the BRK gathered minimal data (age, economic activity, village resided) on their clients so it was difficult to conduct a pre- and post- study of the credit recipient’s farming practices, non-farm business, and overall household livelihood to distinguish this impact.

The researcher for this study asked several recall question, but their reliability should be scrutinized. In asking the questions on the impact of the loan, the respondents were required to remember five year previously, and this was nearly impossible.

APPENDIX A

LIST OF KEY INFORMANTS

BRK staff members:

Ross Croulet	CTP, Principal Technical Advisor
Cheibou Samna	Contentieux and Interim Director of BRK
Hainikoye	Auditor
Pascal Marino	Controller
Tengy Gravot	Past CTP

BRK Field agents:

Elise Hama	Center chief for Tibiri
Fati Omar Kimba	Center chief for Tessaoua
Chima Miko	Agent in Maradi
Abdou Gadi	Agent in Tibiri

Government agents:

Hassan Labo Almadjir	Agricultural Extension Agent in Chadakori
Amadou Haya	Forestry Chief in Maradi
Yacouba Sangare	Extension trainer based in Niamey

NGO representatives:

Rahila Dare	CARE/Maradi, Women On The Move
Halima Idi Issa	World Food Program, United Nations
Mariama Kwame	Caisse Populaire representative in Chadakori
Brian Larson	CARE Assistant Director, Niamey, Niger
Zakari Maidougou	CARE Regional Director, Maradi, Niger
Salamatou Seydou	CARE/Maradi, Women On The Move
Tony Rinauldo	SIMS, Project Director
Rabiou Mummon	SIMS, Project Agent
Yan Schoellart	CARE Director, Niamey, Niger

APPENDIX B

INTERVIEW INSTRUMENT

Bakin Raya Karkara and Michigan State University
Questionnaire on Farm and Nonfarm Practices in the
Canton de Chadakori, Niger
Tumbaiyoyi bisa aikin gona da aikin sona'a cikin Jihar na
Chadakori, kasa Niger.

Date of interview: _____ Respondent ID # _____
Time Began: _____ Village ID # _____
Time Ended: _____

I. Introduction

Sallam aleikum. Sunana Jamila kuma ina so in yi maka wasu tambayoyi gane da aikin gonaka da aikin sona'aka. Mi yan makaranta ce can amerika kuma ina karanta sana'ar aikin gona, kuma zan rubuta takarda a kan horkokin aikin gona da sona'a. Wannan takarda za ta taimaka wan jama'a to wurin samun kayan noma irin na zamani da masu aikin da dan kasuwan ce. Sai kun ba ni labari, kuma kun koya mini akinku.

Za ni yi maka wasu tambaiyayi kuma ina so in shaida maka cewa duk amsoshin da ka bayar za su zama. Idan akurai tambayoyin da ba za ka iya bada amsa ba, don Allah ka fada mini.

I am going to ask you a series of questions. I want you to know that participation in this study is voluntary and all of your answers are kept confidential. If for any reason you do not want to answer any questions, please let me know and we will go on. You indicate your voluntary agreement to participate by answering these questions so if at any time, you do not want to answer a part or all of a question, please let me know, and I will go on. Would you like to participate in this survey?

Circle only one,

[0] No

[1] Yes

If yes, begin interview.....

To Bismillah, zan fara yi ma ka tamboyoyi.

II. Background information on farm income

Tambayoyi bisa ga aikin gona.

In this section, I will ask you questions about your farm, number of crops you plant, and what you do with your crops.

Yanzu ina so na yi maka tambayoyi, bisa ga aikin gonarka, da yawan shibka da ka ke yi, da kuma irin abubuwan da ka ke shukawa, da lokacin girbe.

1. Do you farm annual crops? _____

Ka na yin aikin gona?

[0] No, if no, go to question # 7. *(In onon, zaka ga tambaiya bokwe)*

[1] Yes

2. If yes to #1, see attached table for questions about crop production.

3. When did you sell your crops last year?
Yaushe kake saida abinda gonaka?

Crop sold last year? (<i>Shibka</i>)	Amount sold? cfa/kg. (<i>Nawa?</i>)	When sold? (Month) (<i>Yaushe?</i>)

[0] I do not sell my crops. *Ba ni saida kayan na gona.*

4. What do you do with the income from the sale of your agricultural production?
Mi kake yi da reeba daga aikin gona?

- [1] Buy other cooking products (oil, sugar, spices) (*Sayan kayan abinci*)
- [2] Buy an animal (*Sayan bisashe*)
- [3] Buy clothes or other textiles (*Sayan kayan sawa da zannuwa*)
- [4] Spend on family events (weddings, baptisms) (*Kashe kudi ga bikis da armes*)
- [5] Buy other goods (e.g. bicycles, radios etc..) (*Saya wasu kaya kuma keke, radio*)
- [6] Put in savings (*a sa ga ususu*)
- [7] Invest in nonfarm activity (*a sa ga sona'a*)
- [8] Other: _____

III. Background information on nonfarm income

In this section, I will be asking you questions about your nonfarm income.

Nonfarm income is income obtained through activities beyond your agricultural ones. Some of these can be commerce, food processing and selling, tailoring, metalworking, and crafts. Please answer every question to the best of your knowledge, and do not hesitate to ask for clarifications if necessary.

Yanzu, za ni yi maka tumbaiyoyi bisa ga albashin da kake samu to hanya daban, banda ta hanyar aikin gona. Watau ina ma'anar to hanyar wata sana'a wanda ba ta shefi aikin gona ba, kama sana'ar dinki, kasuwanci, tukin mota, ko makeri. Don Allah ka bada amsoshin ka iya gwargwado kuma in ka na da tambayoyi, ina so ka gaya mini.

5. In the past year, have you had any income besides your farm income?
Tin daga bara, kake samu kudi ta hanyar wata sana'a wanda bata shafi aikin gona ba?

- [0] No, go to question #20.
- [1] Yes

6. From where did you earn most of your nonfarm income in the last year?
Ta hanyar wace sana'a ce ka ke samun kudi?

Activity	How often?	Investment?	Profit ?

7. How long have you been doing this activity and earning an income?
 _____yrs.
Shekara nawa kake/kike yi wannan aiki? _____shekaru.
8. How many people work in your business, including yourself? _____
Mutane nawa, suke aiki cikin aikinka/ki, tare da kai? _____mutane.
9. How much do you pay them? _____
Nawa kake biya su? _____
10. Where do you market your products from your business?
Ina kake saida kaya daga sana 'a?
-
-

11. Do you have a savings?
Kane da age? Karhin Bashi Bayan bashi
Before loan After loan

If yes, what? *Mi kake age?*

12. Have you received a formal and/or nonformal loan for your nonagriculture
 enterprise in the past five years?
*Cikin shekaru biyar da suka wuce, ka taba samun rancen kudi daga wurin hukuma
 ko banki domin wannan sona 'ar taka?*
 [0] No, if no, go to question #20.
 [1] Yes

13. From whom did you receive your loan, when, and for how much?
Daga ina kake/kike samu bashi, yaushe kake samu kuma dan nawa ka samu?

Loan source	Year	Amount	Use for what	Repayment	Result

Some examples of where they may receive a loan are the following: Family member (daga gidana); CARE International; BRK; PN 36; Friend (daga abokai); Formal Bank like BIAO (banki); Community tontine (daga asusu); Another NGO.

NOTE: *If loan was received from Bakin Raya Karkara, proceed to BRK questions.*

- 13a. What are your impressions of the BRK/CARE and the agent who works for BRK?
 Is s/he helpful?
Yaya kake gani aikin na CARE da BRK? Hina ta hiya da kyau koko akwai wannun lahi anka samu?
- 13b. How much did you reimburse? _____ cfa.
Kudin nawa, ka meda musu bayan ka samu bashi?

- 13c. Do you know why you paid more than you received?
Ka gani mia sa biyaka ta hi bashi yawa? Reeba na bashi da kudin takardu?
[0] No
[1] Yes
- 13d. Did you give money or a present to the agent before receiving the loan?
Kake bada kudi koko tamaka ga agent karhin kake samu bashi?
- 13e. If someone does not repay their loan right away, how should they penalized?
In mutun bashi bia tin da wuri, yaya za mu shira da shi?
- 13f. If the agent was going to offer you a loan how would s/he know if you could reimburse the loan? *In mushebashin ya zo wajen ku in baku bashi, yaya za shi sani za ku cika alkowali?*
- 13g. Why do some people not reimburse on time?
Dommi mutane ba su bia bashi tin da wuri?
14. If respondent did not receive a loan from BRK, ask them if they have heard of BRK and why they did not receive a loan from them?
In baku samu bashi, ka teba jin labarin BRK. In eeee, ina suke jin labari?
15. What has happened to your nonfarm income after receiving the loan?
Mi ya samu ga sana'aka tin da ka samu bashi?
[1] Stayed the same (zamna dai dai)
[2] Has grown (ya kara)
[3] Has diminished (ya zamna karami)
[4] Other (Wasu): _____
16. What do you do with the income from your nonfarm activity?
Mi kake yi da reeba daga sona'aka?
Check all that apply:
[1] Reinvestment in business (*sa kudi cikin sana'a*). If yes, how?
[2] Invest in farm (*sa kudi cikin kaya gona*). go to question #18.
[3] Spend money on household expenses (*Kashe kudi cikin gida*).
If yes, how?
[1] Buy more clothes for him/herself since the loan.
[2] Buy more clothes for children since the loan.
[3] Buy books for school since the loan.
[4] Buy medicine at dispensaire.
[4] Give loans to family and friends (*Bada kudi ga gidanna*)
[5] Other:
17. For example, if you were to receive 10,000 cfa in profit, what would you do with this money?
Mun yi lisahi, in kin samu jika hamsin na reeba, mi za ki yi da shi?

Amount of money?	For what?

V. Investments in farm from nonfarm income

18. Has nonfarm income made it possible to buy something you couldn't buy before in your farming system? [0] No or [1] Yes, if yes, what?

Reeba daga aikin sona'a, tana iyawa saya wane abu gona ba ka iya saya tin daga da?

<i>Check if yes</i>	<i>Karhin bashi</i>	<i>Bayan bashi</i>
	Before the loan	After the loan
[1] Hired labor	_____	_____
[2] Fertilizer	_____	_____
[3] Improved seed	_____	_____
[4] Rock bunds or other soil conservation techniques. _____	_____	_____
[5] Manure	_____	_____
[6] Plant trees	_____	_____
[7] Obtain more land to farm	_____	_____
[8] Other: _____	_____	_____

19. How have these investments affected your profit from your agricultural work?
Yaya, kake gani wannan saysay, kana samu reeba gare su? Wane irin reeba?

VI. Background information on personal characteristics of farmer

In this part of the interview, I want to ask questions about you as a person. If you don't know the answer, please let me know and if you need more clarification, let me know.

Cikin wanung magana lokacin, za ni yi maka tombaiyoyi da wata kamar karatu da kayi da sauran su.

20. What is your gender? (observe rather than ask)

- [1] Male (*namiji*)
[2] Female (*mace*)

21. What is your educational level?

Wane irin makaranta ka yi?

- [1] Some primary school
[2] Diplome de CEG
[3] Baccalaureet
[4] Diplome d'universite
[5] License professional school (accounting, ag. tech. etc..)
[6] Koranic school
[7] Nonformal education/functional literacy classess

22. What is your age?

Shekara nawa gare ka?

23. What kind of house do you own?

Wane irin gida gare ka? (observe rather than ask)

- [1] Square mud hut with thatched roof (*gidan kasa da zana*)
- [2] Square mud hut with metal roof (*gidan kasa da rufin kwano*)
- [3] Round mud hut (*gidan kasa karai*)
- [4] Cement house (*gidan siminti*)

24. How many animals do you manage?

Dabobi nawa gare ka?

	Avant the loan <i>Karhin bashi</i>	After the loan <i>Bayan bashi</i>
[1] Goats (<i>awaki</i>)	_____	_____
[2] Cows (<i>shanu</i>)	_____	_____
[3] Sheep (<i>rago</i>)	_____	_____
[4] Horses (<i>doki</i>)	_____	_____
[5] Donkeys (<i>jaki</i>)	_____	_____
[6] Camels (<i>rakumi</i>)	_____	_____

25. What kind of farming implements do you own?

Wane irin kayan aikin gona gare ka?

(check all that apply)

- [1] Plow (chariot)
- [2] Hand hoe (*kwache*)
- [3] Upright hoe
- [4] Other: _____

26. How many children who work in the fields live in this household?

Yara nawa gare ka wanda suna aikin ga gona?

27. How many wives in this household?

Mata nawa cikin wanung gida?

28. Are any people from the household on the coast who send remittances back?

Akwai yara na gidanka kuma basu nan yanzu?

- [0] No
- [1] Yes

Commentaire:

APPENDIX C

SAMPLING CALCULATION FOR BORROWER GROUP

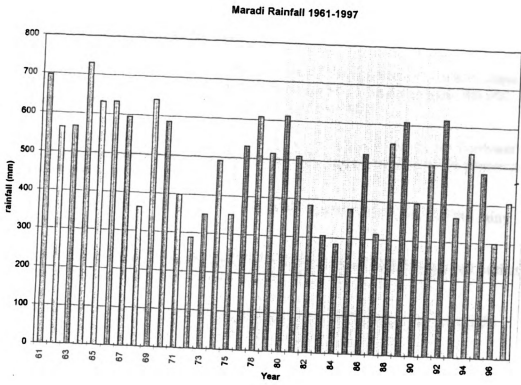
Individual male borrowers	= 4 l.p./25 l.p. * = 16 % X 10 =	2	l.p.
Individual female borrowers	= 1 l.p./25 l.p. = 4 % X 10 =	1	l.p.
Female group	= 8 l.p./25 l.p. = 32 % X 10 =	3	l.p.
Male group	= 12 l.p./25 l.p. = 48 % X 10 =	5	l.p.
		<hr/>	
Total:		11 loan portfolios	

* l.p. = loan portfolio

There were a total of twenty-five loan portfolios for 1992. In order to obtain a representative sample of each of the four loan portfolio types, they had to be weighted accordingly. For example, there were four individual male borrowers portfolios for 1992 so four was divided by twenty-five to determine the percentage to take from ten as the sample would be ten loan portfolios.

APPENDIX D

RAINFALL CHART



APPENDIX E

OPEN-ENDED ANSWERS

Question #13: Results of the loans: how were they used and were they useful?

“The loan was useful because with the profit from the loan, I could buy animals, and sell the animals in a bad rainy season to buy food.”

“The loans was useful because I was able to buy a millet grounding machine and peanuts to stock. It has been though to repay the loan.”

“With the loan I bought animals to sell in other markets. I also gave some butchers loans of animals and now I am having problems paying back the loan. I have at least 100,000 fcfa worth of loans with butchers, and they have not paid me back.”

“The loan is not too much of a burden. The brunt of the burden is borne by the borrower not the lender. I have had some problems paying back the loan as I still have six payments to make on a loan given to me in 1993.”

“I have had a hard time to repay the loan. I invested my loan in field work, and the rainy season was not very good.”

“With the money from the loan, I bought a field and I have reaped a lot of profit out of that field so obviously the loan has been useful for me.”

“The loan was useful for me, but I don’t feel good about not reimbursing the loan right away.”

“The loan was useful in the short term, but bad rainy seasons have prevented him from repaying the loan. There is a lot of hunger here.”

“The loan was very useful because you could control your own money to buy and sell stuff.”

“This money was very useful to have something in my pocket that I could use to pay every month.”

“I felt good about the loan because I was able to buy a donkey with the money.”

“I was able to have a stock of money with which to do my commerce. I really appreciated this.”

“The lack of food/millet has caused my profit to decrease for my business. It was useful for a short while, but not for the long term.”

“Prior to receiving the loan, I did not understand what to do with the money. Now I understand what I would do. I bought a field with the money, and this did not help to reimburse the loan immediately.”

“I still have not reimbursed my loan, but the loan wasn't so much the problem. It was how I managed the loan which was the problem.”

“The loan was incredibly useful. With the 40,000 fcfa loan, I think I made about 20,000 fcfa.”

“There was a profit with the loan, but it did not last until the next loan. It is necessary to keep giving loans.”

“It was useful as I was able to get married. If a person does not know what to do with the loan, they must not take it and CARE must not give them a loan.”

“There is no burden with the loan, but if there is no millet (food) then there is no stock left in the household because it all goes to buying food.”

“If you are able to do something with the money, then there is no problem and the loan is worthwhile.”

“There is no problem with the loan, but I did not use it for my business.”

“The loan was useful in that it provided me extra money with which to feed my family. I used the loan also to buy animals and there are a lot of expenses in raising animals (special food). The profit did not last a long time.

“The loan was useful, but I wish I had some kind of training on how to manage the money. I didn't know what to do with it at first.”

“I was grateful for this money because it gave me my own money with which to do commerce.”

“The loan was useful as I was able to buy a field with the profit from the loan.”

“I had no problem paying back the loan as I have a business, but those people who do not have a business have a very hard time paying back their loans. A person must have a nonfarm activity prior to receiving any kind of loan.”

“This loan was useful because I was able to buy cows with the profit from the loan.”

“This loan was useful because I was able to buy animals to keep in my house.”

“Yes, the loan was useful because I bought a goat with the profits from the loan.”

“With the small loan I have received, I have been able to buy animals, and they have now given birth.”

“Yes it was useful and we want more.”

“This loan was useful because I have been able to buy more sewing machines and increase the amount of work I do. When I increase my amount of work, I increase my profits, and then I can keep investing in my business.”

“With this loan, I am able to keep working as a mechanic and keep buying equipment to make my shop more modern.”

“The loan was useful for about five months, and the market did not go well. After the five months most of my profits from business were gone.”

“A lot of people thought they would make a lot of money off of these loans, but unfortunately their market activities did not go well. There were a lot of people in my group of borrowers who did not like this loan. It was too much to give, and not enough market opportunities.”

“It was useful in the beginning, but it was also a big burden because the rainy season did not go well. If the rainy season is not good, we have a lot of difficulty in repaying our debts.”

“These loans are useful for those people who are used to the market, but those who have never had a small business, the loans are not very useful and it is very difficult for these people to repay the loans.”

“I spent my loan on my family and this money lasted three months (a loan of 25,000 fcfa). I have not repaid all my loan, and the only place I will receive the money to repay the loan will be from my fields. Right now people do not have money, and when people do not have money, there is no market.”

“I have received many loans, and used to receive many trainings as well to improve my forging skills. I feel as if I do the most modern kind of work in this area as a result of these trainings, and I don't have to ask others for advice or for money. I feel really good about my work right now.”

“The loan was useful as I was able to eat and drink with this money. I was also able to have a baptism for a family member with the money from the loan.”

“This loan was useful to me.”

“It was useful to me because everyone is in need of food and clothes.”

“We feel good about these loans because they help you to provide for your families with food and clothes.”

“This loan was useful because it gave us a piece of mind.”

“These loans are a good idea because you don't have to ask someone else for a loan.”

“These loans are a good idea.”

“I have received loans over eight times and it has helped me out tremendously. I now have my own money from my own business and I don’t have to ask my husband for money. I no longer need loans because I have enough things and assets.”

Question #19: What does someone do with profit from a nonfarm business? And How these investments affected your profit from your agricultural work?

“I invest all my money in both my business and field.” (4 respondents)

“I would put all the profit into my field.” (3 respondents)

“I would invest my money in business.” (3 respondents)

“I put my profit in my business, and I buy peanuts which I am going to resell later.”

“It depends on the time of year when I earn this profit. If I earn it before the rainy season, I put the money into my field. If I earn it after the rains, I buy seed to stock.”

“This has had a positive effect on my agricultural work.”

“ My working capital has only increased as a result from the loan.”

“I have put all of the profits into my home.”

“I invest any extra money into my farm as this is where I make most of my profits. I make profits from my nonfarm business, but not as great as my farm.”

“I invest profits into animals for animal traction on my farm.”

“I put more money into my farm as there is a greater pay-off. There are a lot of people and less land so I try to buy more land when I have more money.”

“I will always farm and there is a profit if there is rain. The next best activity is animal husbandry. After animal husbandry there is commerce which replace lack of food in bad years.”

“If rains come, profit will come, but if rains don’t come, no profit.”

“I make more investments in peanuts as a result of profits.”

“There is more profit as I bought another field with the money, and from that field have obviously made a profit.”

“I definitely made a profit from this loan.”

“If all of my household expenses are met, I will put more of the profit in my business.”

“I will usually invest more money in my field as this shows more of a profit.”

“There is a profit from these loans.”

“Any profit I make will go towards baptisms and household expenses.”

“I would use any profit to put into farming and to buy animals.”

“I would invest money into improved modern farming tech. rather than my business.”

“If I earn the profit before the rainy season then I invest the money into my field.”

“I would reimburse my loan with the profits.”

“I will invest my money in both peanuts and my business.”

“I buy clothes for myself and children.”

APPENDIX F

RESEARCHER'S DAILY JOURNAL

Tuesday, August 19, 1997

I left Lansing at 6 am. on a flight to New York. I spent about three hours in the airport of JFK before taking my flight to Niger. This Air Afrique was an experience. We first landed in Dakar, Senegal and we had to get off the plane for an hour before continuing on the same flight to go to Abidjan. In Abidjan, I had to wait for at least eight hours before taking the next flight to Niamey. It was a crazy flight, I have to say.

Wednesday, August 20, 1997

Luckily, there was a CARE vehicle at the airport to meet me, and they took me off to Brian Larson's house in the middle of the city. There, I met BRK'S Director who is currently CARE's director of the BRK even though the BRK is trying to become more autonomous. I found out that there are quite a number of agents who are taking money from the BRK, and that the former director had a different management style and how he ran the BRK. This attitude may have been detrimental to the success of the BRK as people were not held accountable to the organization. Currently they are in the process of trying to decide how the BRK project should be organized and if they should close their doors altogether. There just aren't enough qualified people who can handle the volume of clients they are receiving.

The director worked for the OIC prior to coming to CARE. The OIC works on small enterprise development in developing countries, and he worked on projects in Lesotho, Ghana, Guinea, and Burkina. I am not sure which ones he worked on. Anyway, he then lived and worked in Benin for several years.

There will be a meeting with the CARE central staff about the future of BRK. A former director believes that if the situation does not brighten before November then BRK should definitely close their doors. The former director will be commencing a credit mutual in Birnin Konni before the end of this year. He has received funding from the Credit de France Pour le Developpement.

Some documents were given to me that look very useful and I am in the process of reading through these. The more I am here, the more I realize how little time I have. The BRK director will return on Sept. 17, and will then be out in Maradi. In the interim, I will be talking to the comptroller and the interim BRK director. Should the BRK stay open? This is the big question. The BRK director wanted to see some questions on the survey concerning BRK and people's impression of its work. I may add these also. This survey may be getting very large although questions pertaining to the BRK will only concern those recipients of loans from BRK. The BRK director also reminded me to make sure I ask about other loans people may receive from other projects/ family members. My focus of this work is on the adoption of agricultural technologies and not so much on the loans, but I fear it is becoming the reverse. How can what I find out profit the agents in the field that they are more effective in their work? We'll see. As I talk to more people, it may become more necessary to focus on household security as a whole and the role of the loan.

The BRK director has also mentioned this question of fungibility. It doesn't seem as if BRK really knows where the loan is going although they may try to reclassify the loans as targeted for agriculture and other places. This will affect the repayment schedule

as agricultural loans are more long term or the repayment doesn't begin until after the harvest.

For dinner, the BRK former director and I went to the Marquis 2000, and we were able to talk some more about the BRK. He worked on the BRK for a couple of months prior to the BRK director. He was the director interim between the BRK director and Michel Duvall. Apparently, M. Duvall was also disheartened about the BRK, and recommended to CARE that the doors be closed. The director of CARE, asked Michel to find other solutions besides closing the doors.

Thursday, August 21, 1997

Today, the chauffeur picked me up at 8:30 am, and took me to the bank. After changing money I went to the Peace Corps office. There I met some volunteers and also saw some chauffeurs and the CARE director Bonin.

After seeing people at Peace Corps, I was brought to the CARE office. Here I met with the country director, and he seemed so so about my research. I didn't feel as if I was very assertive about what I want to accomplish, and he recommended several different things. First he recommended that I keep the impact of BRK broader than just on the farming system. He feels that people will probably invest more into their nonfarm business rather than into their farm, and may get out of farming altogether. I think this may be the case, but I also think people will continue to farm more than he may think. They may not feel completely secure with just their nonfarm activity so farming provides another kind of safety net, another means to obtain food.

He recommended that I choose people across all social strata. I am not sure if I will do this. I may try to focus my research on those who receive small loans/group loans. He said that those who receive loans are divided into several categories: small group loans, small individual loans, large group loans, large individual loans. He would be interested in seeing something across all sized groups. I will have to discuss this with the comptroller or the interim BRK director.

Questions for BRK:

- 1) What are the criteria for selection of clients?
- 2) Are there different categories of loan portfolios (e.g. small loan, large loan, and large group loan)?
- 3) How are the clients entered into computer? What kinds of information?
- 4) Is the canton, arrondissement, dept. etc.. in their dossier?
- 5) How can I get a list of recipients in the Canton de Chadakori?
- 6) What partner agencies do you work with? Both governmental and nongovernmental?

In some way, I think he sees my survey as kind of unrealistic. What did he say? He asked what my hypothesis is? I said that it is, as farmers income increases, then investment in the farm increases as well.

First of all, how can I attribute increased income to the credit? And if the income increases, who is to say that it is invested in the farm? This was Murari's question before I left also. I may have to make the impact even broader. In fact, I am sure I will. So he asked the *so what* question? *So why I am doing this research?* To what will this contribute? I answered by saying if an extension agent knows what causes a farmer to invest/adopt a technology then s/he can better target his/her programs. Maybe there could be a link-up between CARE and the ag. service. Is there already this connection? Does

BRK partner with any other NGOs in the region or other governmental services? I must talk to the ag. agent in Chadakori. Also in knowing the complete impact of these kinds of loans on the client, is it worth keeping the rural bank open regardless of the administrative mess is it in? BRK may be justified in the face of all of the administrative mix-ups. We'll see.

The CARE director also mentioned several studies that have been completed in Maradi, and I could look at the data. First there was a household security survey carried out in the Department in Maradi and will be carried out in other regions of the country (Tahoua, Agadez, and others). These data were entered into SPSS PC+ and is all found in Maradi. Zachary will know where this is, and I should ask him, according to the CARE director. My study could actually fall nicely on the coattails of that data, and just be more concentrated in the region. Like the volunteerism survey in East Lansing. In fact, I will start to make a list of questions for Zachary.

- 1) Where would I find the household security survey data?
- 2) Where would I find the natural resource management survey data?
- 3) What are his perceptions of BRK?
- 4) Should BRK stay open?

CARE evaluated all of their natural resource projects also that they have ever conducted in Niger, and all of this data is also found in Maradi. Maradi is the place to be. I will head out there tomorrow with the former director in his car. There may be questions on this survey from the effects of nonfarm activity on land management or what are the determinants to adoption of certain technologies (e.g. soil conservation etc...).

The CARE director also mentioned to ask people what they think/know about the interest rate. Do they understand what this is based on the opportunity cost of capital and defined by the central banking system etc..? It is interesting to see the institutional structure of CARE where you have the natural resource management project apart from the credit project apart from the health project. If the interest rate is high, people will save more, but this isn't always the case. Even though the interest rate is high, people in Niger will still take out loans to invest in their non-farm business.

Administratively, this makes sense, but from the point of view of the farmer, it may not make sense. BRK almost gives me some kind of structure to work under in order to talk to farmers, but the questions will no doubt spread out from beyond the loan structure and the farming system to a farmer's management of his/her household. They all have their own separate roles while farmers are thinking of everything together. This is something I have never explored, and it would be interesting for me to see how people handle their finances and assure food security in their household.

What else did the CARE director say? He would like some kind of debriefing before I head back to the US, and he was also wondering if there would be anyway to extend my travel. I know there is no way that this could be possible. I must work for Murari when I return. I just hope I can complete all of this work before I leave. I will spend next week in Maradi, and perhaps part of the following one. I would like to spend the week of August 25 in Maradi defining my sample and I may go to Sabon Matchi that Tuesday, August 26 to attend the market and test some of my questions. Then I would refine my questionnaire.

I will also have to send a letter to Chadakori about staying out there for six weeks (from Monday, Sept. 1 to Friday, Oct. 10) carrying out my research. I would like to pay rent at a house that has a bed. I would also like to pay someone to cook for me. I will ask Sarki where might be a better place to stay in the arrondissement. We'll see. I need to figure out how much I can afford. If I have 240.000 cfa with me now, and I am staying

for 35 days in Chadakori, I can spend 80,000 cfa on rent and the same amount on food. I don't think it will be anywhere near that amount, but we'll see.

All of this can be figured out next week. I just have to get through this one day at a time. I also must be in touch with John. That's all for now. More notes later.....

Friday, August 22, 1997

I drove to Maradi with Bindi, an Australian woman and former director, a French guy who was the director of BRK before the BRK director. The former director has a wealth of knowledge about microcredit and the effects of microcredit. He will be starting up a credit mutual in Konni pretty soon. He would like to see questions on the survey concerned with the BRK and what people think about the bank/organization etc...

We arrived in Maradi around 8:30 PM., and I was so glad to see Gado and Oro and Mariama and duka mutane wanda sun zamna nan Maradi.

Saturday, August 23, 1997

On this day, I pretty much hung out with Gado, Oro, and Mariama. I met some of the volunteers staying in the hostel, and they filled me in on all of the news taking place around Maradi. The biodiversity team is now called the NRM team. They are moving further and further north from the border with Nigeria. They still work with Bawa Mati, and I am going to try to see him before I head out to Chadakori. We'll see.

We drank tea, and caught up on all of the news. I practiced my survey with Gado and Oro, and they understood everything that I was asking. There were a couple of issues that arose. First, all the money that Gado earns doing the guardian work and the sewing, he invests in animals. When he started working at the hostel six years ago, he had only three cows, and now he has thirteen. He was able to save enough money to buy more animals. He also has at least twenty goats and sheep that are up north with Hassan. Oro received a loan from BRK of 50,000 CFA. With that money, he bought cloth and had clothes made to embroider. With every bolt of cloth, they (Gado and Oro) figured they can make 38,000 CFA in profit after paying the tailor and for the cloth.

Oro saw two problems with the BRK. One was with the reimbursement. He thought that the reimbursement was too fast. He would have liked to have waited for a couple of months before beginning the repayment. In the initial meeting with the credit agent, he had to pay 1,000 CFA and he didn't understand what that was for. The agent did not explain why he had to pay that 1,000 CFA. In total, he said he reimbursed 54,500 CFA. He really wasn't sure about why he paid the extra 4,500 CFA. Another aspect of the operations of the BRK that they were not satisfied was the fact that they had to operate in a group. It is hard for them to find a group of people to work with. The minimum number of persons with whom BRK will give a loan is five people. Both Oro and Gado do not want to operate in a group. They would prefer to work among themselves.

After hanging out with Gado and Oro all morning, I headed over to the former BRK's director's house to get Bindi's phone number. He and his wife were napping so I hung out with the guardian and asked him some questions about how he manages his household. This was another practice for my upcoming interviews. He gave me a lot of useful information, and did it very readily. I also asked questions about what kind of difference a loan would make in his life/his farming system. He and some other folks were saying that if profits from a non-farm activity increase, the investment in the farm increases. They gave the following example:

If a man earns a profit from his non-farm income, he is able to farm more land, because he can hire people to farm his field. If he has more land, he will plant trees/leave trees in his field because he already has a lot of space to plant his crops. He is not worried about lack of food as he has both his non-farm income, and a large farm. He will gain enough food during the harvest regardless if he plants trees in his field or not. If another person does not have a non-farm income, and depends solely on his farm income, he probably does not have extra money to hire workers so he is constrained by labor and how much land he can farm.

If he is constrained by the amount of land he can farm due to shortages of labor, he will not have a lot of trees in his field because he must gain all he can out his field for his household. According to the guardian and his friends, trees take up space in a field and produce shade so the plants cannot grow. Due to this fact, a smaller, less wealthier farmer will not plant a lot of trees in his field, according to these men.

This discussion was very informative, and gave me some other ideas for my research. Maybe the fact that someone receives a loan and his/her income increases, this means that s/he is able to hire laborers to work on more land. More land is used for agricultural purposes (possibly leading to degradation), but more trees may also be planted as a result of not having a fear/need of not having food to eat. The more land someone has, the more economically secure they are they are able to produce their own food and have some to sell. They can also more readily plant trees or practice sustainable agriculture because not every bit of land needs to be taken up by crops. A poorer farmer must reap the most out of his field as this may be his sole source of income. He may less readily adopt planting trees or implementing more sustainable practices that take part of his field out of production.

Following this discussion, I went to BRK, and I met comptroller and the other accountant. We spoke a little about the upcoming schedule for the agents at BRK. There is a big meeting with the CARE director on Tuesday, August 25th. I asked them the kinds of information that are collected by the agents, and they said I can find out the exact village and the canton.

I returned to the hostel and spent the rest of my time over there, hanging out with Oro and Gado, and I also spoke some with the coordinator for the NRM team in Madarounfa.

Sunday, August 24, 1997

There was an amazing storm during the night, and then also during the early morning. I didn't wake up until around 10 am. After waking up, I jumped up and went out to Chadakori. I took a taxi out there to the road to Chadakori, and then I headed out to the village by way of a small motorcycle. When I arrived I was told that the chef de canton wasn't there, but his wives were there. I found Chima there, and she wasn't feeling very well. She was completely shocked to see me out there. I hung out with her for a couple of hours, and I explained what I was doing there. She said that I could stay in her room with her. I was so glad she said that. I will move out there on Sept. 2. and stay for about 4 weeks, until the end of the month. Sarki wasn't there. He was in Dosso for a meeting with the new government. The moto taxi came back and picked me up around 3 pm., and I headed back into Maradi.

I arrived in Maradi around 5 pm., and then I headed over to Bindi's house. I hung out with her for a couple of hours, and she invited me to eat dinner at the guest house. I also spoke with Debo about staying there for a couple of nights. After Bindi's I went to the hostel and hung out with Gado and Oro for a little while, then headed over to the guest house. Sadio, former director's wife invited me to stay with her after her husband leaves. I will go over there on Tuesday until the following Monday, I think?

Monday, August 25, 1997

Today has been great so far. I met the interim BRK director, and he seems to think he can find me a moto to use for my research. He would like me to do this study in more areas than just Chadakori. We'll see. He gave some interesting information. He is spear-heading this effort to form village committees to receive advice on who should get credit from the BRK. He also thinks that the information that I gain from my interviews will be useful for the agents to know where their communication is not getting through, and where it is. He would also like me to cover more areas than just the Canton de Chadakori. I told him that I really couldn't without some form of transportation.

As far as the reimbursement rate and the number of borrowers, the interim BRK director is in charge of recuperating loans that have not been paid. He explained that there are at least 1200 dossiers that have not been reimbursed. Some of them are as old as the project. These 1200 dossiers comprise approximately 4000 people. In total, he thinks at least 10,000 people have been affected by the BRK. He sees many problems with the repayment schedule, and thinks he will recuperate a lot of the loans after the rainy season ends and people have harvested their crops. He also implied that maybe they should designate where the loans are going for, and then this would affect the repayment schedule. He seemed to imply that they were going to give loans to people who just farmed, and I responded by saying that it seems that there is a real danger in this. If a person does not have another income source (i.e. sona'a/market something), it seems like there is a slim chance that they will have extra money around to repay the loan.

The disbursement of funds has also been a problem in the past. Apparently there are no banks or a post office to disburse funds, and an agent from the BRK has to travel with millions of cfa and bring that out to the villages. He would prefer to set up some system where the client could obtain the money by him/herself with a promissary note or something. He wants to try to make this happen as well.

In the past, people would receive funds from the traditional moneylenders, but now more and more are receiving loans from BRK. This is infuriating the moneylenders as they are losing business. Often times, people who have taken a loan from BRK, and have difficulty in repaying the loan as there are several social obligations in the villages. Money that was supposed to be reimbursed the next day is spent on bringing someone to the hospital.

The interim BRK director gave me an earful when it came to the loans to people in Chadakori. Apparently, there were three groups of people comprising at least 15 loan recipients. These loan recipients gave the reimbursement money to the only guy who had a moto in the village. That guy pocketed all the money. He now owes at least one million cfa, and the interim BRK director has set up a repayment plan with him. I guess Chadakori is not in good shape?!? We'll see about the surrounding areas as well.

That was all with the interim BRK director told me. I passed on a copy of my questionnaire to him to look over, and add any questions if he has them. I think he probably will add something. I saw a lot of people who I knew --- Elise, Aissatou, the drivers, the money dispenser, Mme. Chima Miko. A lot of folks. The rest of the day I

worked on the two computers, typing in my research notes and defining my theoretical framework. This whole study is becoming more and more interesting, I am finding.

For lunch, I was invited to Bindi's house, and then I came back here around 2:30 until 4:30 pm. I also worked on typing in another copy of my questionnaire. I can't seem to bring my copy up on this computer. I guess I did everything on a level that was much higher than this one here.

A driver brought me to the market and I bought a pagne, some cloth for pants, and a fulani pagne. I will pick up the pants on Friday at the market. They are black with embroidery on the bottom. I returned to the hostel and hung out with Gado and Oro and Mariama. Everyone. The comptroller was coming to pick me up at 7:30 am so I went to bed fairly early.

Tuesday, August 26, 1997

Bright and early, up and out of there. I checked out of the hostel and now I will go stay over at Sadio and the former director's house. This should be nice. I am sure it will be super clean and nice. I will stay there until Monday, possibly Tuesday, Sept. 2 since this will be when Chima will return. The administrator of the BRK is going to find me a moto to use, and he will also find me a car to go to Tsibiri. I received a fax this morning from my mom and now I should go to the post office to send my mom and John faxes. I will pass by the sous-bureau du CARE to see the director of Mata Masu Dubara. This afternoon I will meet another CARE project director and Mamadou and show them how to operate SPSS PC+. I will go to Tsibiri on Thursday as Elise will not be there tomorrow.

I ended up working all morning in the office. What did I accomplish? I was working on the questionnaire and trying to incorporate a bunch of questions. I was a little discouraged when I went to lunch because, apparently, the CARE director wanted to know what I was going to contribute to BRK if they were going to support me with a moto. At lunch time, I told him what I could contribute, but there was a whole issue of insurance and if I got into an accident. I will now show him all the member cards I have for insurance purposes. I was a little discouraged when I left the BRK office for lunch, and then I walked down to the road. On my way to the road, someone called out my name, and there was Idi, the egg man. Well, he is no longer selling omelettes, but he still has a coffee stand. We hung out for a half an hour, just talking. I ended up leaving his place around 1:15 to head over to comptroller and Bindi's for lunch. We ate lunch and then I headed over the CARE's office. I was at CARE for the rest of the afternoon, and I missed my rendez-vous with the assistant director of, *Mata Masu Dubara*. She was a little bit upset, but we are meeting next Monday. I was able to meet with another CARE project director and Mahamadou. This CARE project director explained the HHLS (household livelihood security survey) that was conducted by University of Arizona. He didn't know too much about it, and said I should probably talk to Zachari when he returns. Mahamadou was a huge help and showed me the files on SPSS. There had to be at least ten files just for SPSS. It was unbelievable!! He then showed me the draft of the results from the survey. They were really interesting, and I was especially interested in seeing their methodology (see attached files with notes from report). I was also able to see the final report on MMD and this is easy to read as it is in English. She did an interesting report, but you can really tell that she is an anthropology major. I like how she incorporates all the stuff together.

I left CARE around 5:30 pm. and headed over to the poste to send two faxes (my mom and John). I miss John and I have not heard from him yet. I may send him another today with my fax number. I should buy some postcards also. I returned to Sadio's house, changed my clothes and ran down to the club. I played tennis with the CARE

director, comptroller, and another CARE project director until around 7 pm, and then we went to comptroller and Bindi's house for dinner. That was really nice.

Wednesday, August 27, 1997

Today started out with a meeting with the interim BRK director responsible for legal matter for loan recovery (contentieux). I asked him a bunch of questions about the BRK. I wanted to know what are the primary objectives of the BRK. If the BRK was a successful project, what would success look like? He said there are two objectives: 1) increase the standard of living for people in the Maradi department; and 2) that the loans are repayed in a timely manner. I then asked him what do the Danes want to see after five years with BRK if they are giving all of this money? He said that the BRK is self sufficient, does not need financing, and is making a profit. In the beginning, the BRK had a more humanitarian and social role, and this is changing. In order to continue to have an impact on the people, a sustainable institution must be in tact.

He gave a little history of the BRK, and he said that in the beginning, agents gave credit to everyone even those people who did not have any commerce, and sometimes they gave too much credit to the point that the amount they gave depassed the means of the individual. The BRK must be managed very strictly if it is to be sustainable. Can the bank be sustainable and also have a humanitarian calling?

Table 11 Past and Present Situation of the BRK

Past situation of BRK	Current situation of BRK
Credit was granted to all and for any amount without any consultation by other people in the agency nor other villagers.	The agents write a dossier, go to the chef de centre which then is presented to the contentieux and the auditor.
Time took two weeks	Time takes two-three months.
Salary based on repayment rate.	A set salary all the time.
Members of a group are from all over.	Members of a group must be from same village.
Salary based on repayment.	Much more detournement of money by the agents which means that maybe the clients have reimbursed more than what is believed. the interim BRK director thought that maybe 10-15 % of the outstanding debts are from the agents.

The more accountability there is among the agents, the lower the transaction costs. If the agent has clients who are responsible and reimburse fairly quickly then the agent doesn't need to go out to visit the client.

In the beginning, there was also a lot of sensibilization with people in the villages, encouraging them to take credit. The idea of credit practically meant cadeau and did not have to be reimbursed. the interim BRK director attributes the fact of low repayment rate to this fact. He thinks that there should have been much less sensibilisation and more organization in the office. I see this as leading to high transaction costs, and not much profit from the sale of money. Essentially, this bank wants to see money to as many people as possible and gain interest. As far as the interest rate, the interim BRK director said this is a little bit lower than moneylender in the village. This is an interesting fact, and one wonders if they folks are a little bit upset. The interest rate is compounded at 18 %.

This means that the longer one waits, the more the interest rate decreases, and pays more in the long run.

As far as giving loans, the agent must now verify that the potential client has an activity and then verifies this person with the chef de centre. The chef de centre then sees the contentieux and the auditor to check this person out.

This interview with the interim BRK director was very informative, and even though he has not been at the BRK very long, he has instituted many things. There are now a bunch of forms that the agent must fill out to guarantee the loan. There are now at least three steps that the agent must cross before the client actually receives the loan. This is what is leading to the high transaction costs, and is taking at least two months. Hopefully they will reduce this time.

Later in the morning, I spoke with the auditor. He is going to conduct un etude d'impact fairly soon of the BRK. We spoke some about the different sampling groups, and I explained to him about my work with the BRK. I offered to add some questions to my survey that could be useful to BRK, and possibly, could complete the etude d'impact for the agence in Tsibiri. He really liked this idea, and we started brainstorming some questions together. He thought having some questions about the frais de dossier and the taux d'interet would be a good idea to see if people understand these. If they do not, then there needs to be more training on the part of the agent. He thought it would be interesting to compare credit received from BRK to credit received from other places. He also wants to know if people understand the consequences of not paying their loan.

For the sampling issue, he was imagining 10 dossier/agence. A dossier could comprise from 1-10 people. He would like one third of the sample be a women's group and the other two thirds will be made up individual women, men, and groups of men borrowers. We then tackled issue concerning what groups to interview and we came up with four different groups:

- 1) Group 1: ils ont eu du credit depuis 5 ans;
- 2) Group 2: ils ont fait leur dossier, mais ils n'ont pas eu un pret;
- 3) Group 3: ils vont recevoir un pret bientot;
- 4) Group 4: ils n'ont jamais fait leur dossier, et ils n'ont pas eu un pret.

For one sample in one agency, the most respondents we could have would be 46 persons, and this was calculated in the following manner.

3 dossier des femmes:	30 personnes
1 dossier d'homme:	10 personnes
6 dossiers d'individu:	6 personnes

46 personnes

If the sample group of borrowers is 46 persons then the other groups would have to be 46 as well, and this would mean a total of 184 people. This would be in an extreme case, the most I would have to interview. I would have to do at least 40 interviews/week, and this just may not be possible. I will have to see when I go out to Tsibiri tomorrow with the auditor how many on average are in a group.

What else did we discuss? We talked about all of the paper work someone must do before receiving a loan. This is incredible. He even gave me copies of everything which was really nice. He also explained that the reimbursement that someone pays depends on how long they take the loan out for.

We will go out Tsibiri tomorrow, and define the sample. This should be interesting. I will be able to see how this whole thing is organized, and will be able to make a comparison between those who had a loan six years ago and who are about to receive a loan.

Another CARE project director had a small fete chez lui, and we all went to this. It was in honor of Odile who is leaving to work at CARE's headquarters. There was tons of food, but not too much dancing. We played tennis on Tuesday and Wednesday also. It was fun. the CARE director and I won everytime.

Thursday, August 28, 1997

The trip to Tibiri went really well. The auditor road his motorcycle out there with me on the back, and we worked pretty hard all day (9:30 am to 3:00 pm). We spoke with Elise for awhile about the BRK and how the work is panning out. She gave us a lot of news. Her region covers from Guidan Roumji to Dakoro to Tsibiri to Chadakori. It seems like quite a large area. In total, there are currently 181 dossiers with excess of at least 500 individual clients. Some of these dossiers are individuals and the majority of them are groups of five or more usually. Elise is in charge of supervising three agents (Zara in Tibiri, Abdu in Dakoro, and Idrissa in Guidan Roumji). She also gave me a little about the history of the BRK. First clients would come to the BIAO to open a caisse d'epargne, and they would receive a loan. In the loan, they would pay half and CARE would pay the other half. This system went on for a few years, and then CARE bought out all of the loans at the BIAO, and put it all in the CCP/Poste. People would receive loans, and then go to the poste to pay the loan. After a while, CARE wanted to take money out of the poste and then the post had no money to give them. All the money from the post was gone. The money was then taken from the poste and put back into the BIAO and the BRK was created. BRK now loans money from the bank, and then gives this money to the people. The people reimburse BRK for the loans.

As far as selection, previously the agent would put a group of people together, and then they would receive the loan. Now the people decide who will be in their group rather than the agent. There is much more of a process to guarantee the loan, especially for individuals. Before, there was not much of a guarantee for the repayment of the loan and this caused problems. Elise admitted that clients now are much more serious. I then asked her about the committee of good clients, and she said that this had been tried in the past, but it became too political. People who were creditworthy were not receiving loans because they were not in the same political party as the president of the committee. In order to ensure that the committee chooses good clients, there must be some incentive. What is their incentive to choose people who will pay back the loan? For them, they will want to have their relatives/friends in the bank, and they will get kickbacks from these folks. **There is more of an incentive for them to give money to their friends and family rather than to someone who can really pay back the loan.** She explained that in the past, she and her assistant had people who were trustworthy and could pay back the loan rather than having a committee choose the person who would receive the loan.

Elise then told a whole story about how in the past there used to be an esprit d'equipe, but now there really isn't this feeling. Before everyone would talk about what was happening even the drivers and agents together. Now it seems that things are discussed and told to the agents in the field to implement. She feels like it should not be this way, and that those who are on the terrain know best how to operate the bank. There are directions from the office without consulting people, and this causes the agents to not work well together. Before BRK really was aggressive about looking for clients, and when

they first approached Chadakori, they asked a friend of theirs who would be a good person to give money to. This guy pocketed all of the money, and the villagers blame BRK for this fact. Another complaint that Elise had was about carburant. They definitely do not have enough money for gas per month. The chef de centre has a little bit more money for gas, but it is definitely not enough.

The last topic we spoke about was this whole thing about penalties. If someone does not pay right away then for everyday they are late, they pay a 2% penalty against their original loan. They actually only pay this penalty once, and then they only pay again if they are late the next month.

We left Tibiri around 3 pm., and travelled back to Maradi. I typed up the sampling frame and the method we used to obtain the sample. Everyone has always talked about how hard it is to obtain a sample, but it seemed pretty easy to me. I guess because we had good lists of people to choose from.

Friday, August 29, 1997

I had a leisurely morning. I went to the post office at 9 am., and received a fax from John. From there, I went by and visited with Gado and Mariama for a little while. After visiting with them, I headed over to the BRK office downtown to meet with Chima at 10:30 am. She was in a meeting with the interim BRK director, and they were forming the Comite des Bons Clients. This whole meeting seemed pretty animated. I hung out and talked to some agents and women who were paying back their loan like the one in Tibiri. It's so funny because at first they totally don't understand what I am saying, and then after awhile they get it then they start talking. Two women were giving me news of their small enterprises, and the impact of the credit from CARE. They kept referring to the credit institution as CARE and not BRK. It was so funny. Anyway, one woman has received a loan five times since 1995, and since that time she has been able to buy two cows and a plow, four goats, and another field to plow. She bought the field for 60,000 cfa. She plants peanuts, millet, beans, and sorghum on her fields. If she plants one measure of peanuts, she receives 14 measures. So for every sack of peanuts she plants, she is able to harvest 24 sacks.

The other woman, Hadiza, had no cows previous to receiving her loans, and now she has two and a plow. Her sons do all her work, and she no longer works in the fields. She sold off five goats before the rainy season because they were sick, but as a result of the loan she was able to buy five more. She has two fields where she plants millet and peanuts.

Both of these women used to go to Nigeria to buy goods and bring them back up to Niger to sell, but they said they are afraid now of having their things confiscated at the border. These women sell pagnes, flip flops, cola nuts, omo, earrings, blouses, and scarves. They said they gain the most profit from the sale of cola nuts. When asked what they would do with a 50,000 loan, they said they would buy stuff (named above) with all the money. They wouldn't spend the money on anything else.

After speaking with these women, I met with Chima for about an hour. I asked her questions about the history of BRK, and changes she has noticed. Before there were much less people between the chef and the agents. Now the agents report to the chef de centre who reports to their superior in the main office. Sometimes news bypass the chef de centres and goes directly to the agents, and then the chef de centres do not understand what is going on. There seems to be too many steps in between in order to accomplish anything. Initially no one knew about BRK so it was the job of the agents to sensibiliser everyone and work with them in groups. A lot of loans were given out without a lot of suivie. The driver even explained to me that sometimes loans were given to one person

out in the middle of nowhere and it wasn't worth the gas to go out there to collect on the loan. There are definitely problems with transaction costs.

As far as the situation with the good client committees, Chima saw this fail miserably in the past. Committee members would not choose good clients and it would become too political. The situation as it stands now may work if there are enough people who have a voice and help in the decision making process.

In response to the question about whether or not, CARE should leave the BRK on its own or not, Chima thinks that they are not ready for this right now. This could happen, she thinks in a couple of years.

I then asked her if she had any specific questions she would like to include on the survey, and she said that she would like to know what people know about the penalties that are new (tara).

I invited the comptroller, Bindy, and Sadio out for food and drink at the jardin publique. I had invited the interim BRK director also, but we didn't come until later so he missed us. I was sort of bummed, and felt badly that we gave him a faux rendez-vous. He is so nice, and has been so helpful that it was too bad we stood him. For some reason, I thought he would wait for us for a longer period of time. Oh well.

Saturday, August 30, 1997

I ended up working in the morning because I wanted to finish up with my questionnaire. I worked from 9-noon, and then I was invited to Rekia Abdu's house. I went back to Sadio's house, and waited for Rekia, but she didn't come. Finally she called around 2 pm., and she was waiting for me at her house. There was definitely a lack of communication. I went over to her house until around 3:30 pm, and then headed over to Gado and Mariama's place. Since I have been working at CARE, I haven't had time to go over to see them.

Gado, Oro, and I went out to buy drinks for the party for another NGO person that the volunteers organized. This began at 6:30, and then I was invited over to comptroller and Bindy's house at 8 pm. I hung out with the volunteers and another NGO person and Liz until around 7:30 and then headed back to Sadio's house. Sadio and I went to Bindy's house from 8 pm. until around 11 pm. I just love hanging out with them.

Sunday, August 31, 1997

I spent the whole morning at Gado and Mariama's, drinking tea and hira. At noon, Saidou came to get me to bring me to Rahaila's house. We drove over there, and she wasn't there. She was still in Danja, but one of her sisters wanted to go there. Saidou brought us to the post de police, and we took a taxi from there to Danja. Rahaila was shocked to see me. We hung out and she showed me photos of Norway.

Upon my return to Maradi, I went over to the BRK to print out my questionnaire. I couldn't figure out how to turn on the computer where I print things out all the time so I didn't stay that long. After BRK, I went home and hung out. It was so nice to be in one place, just chilling. I organized my stuff, and I will leave a bag of clothes at Bindy's house. I will head out to Chadakori tomorrow afternoon to start my interviews.

Monday, September 1, 1997

I feel like I have accomplished so much already. I completed my questionnaire and made 30 copies to start. I will probably come back down to make some more. I also bought some stuff at the store for Chima, and interviewed the ass. director from Mata

Masu Dubara. She gave me some interesting information about the traditions of men and women in this department. Apparently, the men do not help out in the expenses of the household very much. The women use their money for feeding and clothing their families. The men pretty much do as they please with their money. Men will also ask the women to give them loans whereas men in Tahoua would never ask this. They are too ashamed to ask their wives for loans.

I also finished the survey in French. I will make the corrections tomorrow and print that out as well. I must get started on the report. I should try to finish an introduction today before I head out to Chadakori. I had everything made that I wanted to have made, and now I just have to go out to the bush for a couple of weeks to work with Sarki and folks out there. I think I will hang out and talk to Sarki today and tomorrow and get his feelings on the study, and find out where the villages are. I also need to find out when is the best time to reach people. I think I would probably head out after lunch to go meet folks.

Tuesday, September 2, 1997

Well today I head out to Chadakori. Before I head out, I will start on the report a little bit. Some of the stuff I have gathered I think will be useful for people here at BRK. I won't have this computer with me as I will be out in the bush for a while. I wonder if I should leave it right here on the desk. I will ask the interim BRK director or comptroller. I need to stay pretty diligent with keeping my notes.

Last night I went to dinner at another NGO person's house. This was really good to be able to talk to another NGO person about his work. He is doing a lot of experiments with zai holes, natural regen., and other stuff like that. He wants to also figure out ways to attract birds to the fields, and have them nest there. If they are nesting there, their manure will help to fertilize the soil. The soils here are lacking in phosphorous, and bird manure is high in phosphorous. I guess they were doing some work with rock phosphate, but it is too expensive, and the mine here in Niger is on strike for some reason.

He has said they have also pulled out of several villages where the people just were not motivated. Apparently, people are just too spoiled from other projects, and another NGO person suggested CARE really be careful to whom they give loans. He suggested that I go and talk to Rabiou about his work with zai and natural regen. to find out what motivates people to actually put these into their fields.

In passing my hypothesis by this person, he seems to think that it is more when someone is in a crisis situation that they would actually decide to implement DRS work. If their soil has been totally exhausted then they see the advantages of implementing soil conservation tech. I passed by him the whole idea of someone's income increasing, and increased investment in the farming system. It's true that there will be increased investment in the form of cattle and plows, but there may not be more adoption of "more sustainable practices". In fact it may be the reverse. If, for example, someone has more money, they are able to purchase more fields, then they can farm more areas. This doesn't necessarily mean that they will practice more sustainable agriculture. What does sustainable mean anyway? They care for the soil with chemical inputs or they conserve the soil with zais and trees. I consider it more the latter. The only people, according to another NGO person who pay to have zai holes dug in their fields are his agents. They are already convinced of the advantages of zai holes, and they have the means to pay someone to dig them. Someone who is not convinced of their utility will not pay someone to dig them for them.

This whole question of land tenure is pretty precarious in the region where I will be doing my research. There is no longer land left over. During the time of Kountche, he

declared that anyone who stayed on land longer than three years, then that land belonged to them. He did this to discourage the large landholders who had a lot of land, but never farmed it. He wanted everyone to have a chance at having land. Now that land is scarce in this region, people sell off their land, and in fact, there are quite a number of people who are landless. In times with lack of moyen, people sold off their land to buy food, but this NGO person said that people even sold their land to take another wife. He said that larger landholders may rent parcels of their land, but they will not allow one person to farm that parcel for more than two years. People are paranoid that if someone farms that land more than two years then they will declare that land as theirs. As far as implementing improved farming tech., people who own their land are somewhat hesitant as they are never sure who gets to profit from the trees on the land. If they want to cut their own trees, they are supposed, en principe, get a permit from Eaux et Forets. Often times people do not do this, and if they get caught will receive a penalty by being fined.

If someone is renting land, the landlord highly discourages that person from planting a tree as this represents putting down stakes and claiming the land. People do not like this. This will have to be a major question on my survey. If someone does not own land, then they surely are not going to invest in the soil. This was like the situation in Guidan Karo and the women who planted cowpeas on one field. They had invested money into fertilizer, planted cowpeas, and now the chef de village was going to reclaim that land. He probably is lacking in land, and that land is now pretty fertile with the fertilizer and the residue from the cowpeas.

The dinner at another NGO person's house was informative as usual, and it was great to just hang out and hear what he had to say. I don't imagine doing any of my surveys before the weekend. These next few days will be for me to hang out, and get to know the area again. Maybe I will walk over to Guidan Karo and say hi to Mari. She may also come to the market on Thursday. We'll see.

Today two volunteers came over to talk to me at the office about their lives after Peace Corps. You could tell they are just a little bit worried about what they will be doing afterwards. Life only gets easier from here on out. It's so funny. The older one gets, the more clever one is about how one does things.

I will take good notes in the village and then enter these in the computer when I return in two weeks time. I think I may not stay out there longer than two weeks. We'll see. Two weeks from today would be the sixteenth and the weekend would be the nineteenth, twentieth, and twenty-first. Maybe I will come in for that weekend.

I headed out of Maradi around 3 pm., and arrived out here in Chadakori around 3:30 pm. Chima wasn't here and neither was Sarki. They are both in Niamey. It's no problem because Harouna came over and brought all the stuff in the house, and said for me to just make myself at home.

In talking to Harouna, he knows everyone around this area so I think we will start working together tomorrow. He said that you can usually reach people around 11 am. or after. I will probably hang out in the mornings talking to people, and then head out right after lunch. Hopefully I can do about 3-4 interviews/day. It seems like all the villages are fairly close by. I will be able to go to a lot of them on foot, and then when I have a moto, I will get on the moto and go to those.

Hopefully Chima will come back tonight. If not, I will see her later in the week. Sarki should be back here on Thursday. I think I am going to like staying here. This house is all hustle and bustle and I guess there is always someone around.

Wednesday, September 3, 1997

Well, I did not sleep well the first night I was here. It was just way too hot, and there were too many mosquitos. Needless to say, I woke up early and did not feel well rested. Howa asked me if I wanted to go over to Hajia's house. It was more of an order than an invitation so I went over there with her. There were so many flies. It was so gross. I am definitely not used to being here at the moment.

At 9:00 am., Abou and I reviewed the questionnaires and all of the questions. I figured I would take Abou and Harouna as research assistants for this job of interviews. I think I will pay them about 20-25,000 cfa for the month. We'll see. Harouna came over around 10 am., and I reviewed the questions with him. We left Chadakori at 10:45 am for Don Madotchi. It took about 30 minutes to walk there, not too long. The sun was beating down pretty hard though by the time we arrived. We ended up interviewing five people (one man and four women). Luckily I have Abou and Harou here to help me out with interviews. People just don't get my Hausa. I feel like I am not getting the answers I want. It is hard to distinguish this impact. There are a few things that have been pretty useful.

- 1) The time between the loans is too long. Loans are mainly used as a safety net and do not necessarily make a huge impact in people's lives.
- 2) As far as possessing more animals or having none means to market stuff, so much of people's wealth is based on the rainfall and good health with animals. Apparently last year was a bad one for rain and two years ago there were a lot of sicknesses with the animals.

There definitely to be some trends emerging. People sell their peanut harvest, eat their millet and meet other household needs with their millet. Last year was not a good year for either crops or animals so any profit people received from their loan was eaten up by last year's bad harvest. As far as BRK is concerned, people are pleased with its work and would like to continue to receive loans. Many realize that it is as a result of other people's lack of payment that they are not receiving a loan.

Thursday, September 4, 1997

Again today we went out around 11 am to try to reach people to talk to. In the morning we just hung out, talked and I looked over what I had done yesterday. I think the more I do, the more I will be able to see how much people are in common. Today we pretty much stayed in Chadakori. We were able to talk to seven people so this makes 12 people en tout.

Some interesting things:

- 1) people give penalties to one another. If people do not pay right away when it comes time to repay the loan, a penalty of 500 cfa is enforced.
- 2) money lenders charges an interest rate similar to BRK. If a person receives 7,000 in a loan, he has to repay 8,500 cfa.
- 3) one group of ten is still waiting for their third loan. They gave 7,500 cfa to one person (chef de groupe) to give to the agent, and they sill haven't heard anything.
- 4) people have realized that if they give money to the lending agent that they are more likely to receive a loan.

People really do tell the truth during these interviews, and it is obvious that they enjoy talking about their crops.

Friday, September 5, 1997

Today was a productive and tiring day. Harou and I left around 10:30 am for Don Madotchi and I did 3 interviews with people there. I then went on to Garin Mountoundai with Harou. It was about a 2 km. walk from Don Madotchi which wasn't so bad, but we didn't eat anything. People in Guidan Mountoundai were scared of me. I guess I can't blame them that a woman, white from America drops into their life, totally unexpectedly. I guess this would be a little scary for folks who aren't used to seeing a bature. The first guy we spoke to would barely give us a response. We had to ask questions over and over again in order for him to respond. Kumya, ta yi yawa!! After finishing our questions with him, he brought us to the guy's house who was in charge of their group. He was also hesitant at first, but after I assured him I wasn't there to take anything from him, he was definitely more responsive. Harou and I were so hungry that I asked the guy if someone sold garin rogo. We ended up talking to four people. A lot of people who have received a loan from CARE were no longer in the village. One guy actually took the money and went to Nigeria. We finished up in Guidan Mountoundai and started our trek back to Chadakori. We ended up getting back to Chadakori around 5:30 pm. Both Harouna and I were pretty tired. We ate and went to sleep.

Saturday, September 6, 1997

Today I was going to work with Harou, but then Howa asked me to go with her to Tomroro. I told Harou that I was going to accompany Howa to Tomroro so he told everyone that I wasn't coming. It turned out that the carriage that was going to bring us was broken. I ended up hanging all day with Amina, Howa, and the girls. I went over to Hassana's house, and we joked around. They tried to put braids in my hair, but it didn't work. It was nice to relax, but I was hoping to be able to do some work.

Sunday, September 7, 1997

Harou and I were able to talk to eight people today. Some were very informative, and other interviews weren't as informative. Sometimes I feel I am imposing in on people. There was one guy who really didn't want to talk to me. His life seemed so hard. Last year was bad for him, and then his baby died. Life is hard for these folks.

The topic on which I am talking to people about is definitely kind of sensitive. People are scared that I am coming to them because of some problem or maybe it isn't this. I guess I'll have to live with it for awhile. We'll see what happens.

Monday, September 8, 1997

Today is a big celebration for the Day of Literacy. People have been preparing for this for two days. It should be really fun. I am not going to work today as everyone will be involved in the festivities. I only have one survey left. Last night I tried to complete a ninth interview, but there was just too much noise. I will complete this interview today with Tshiro. They sent me a moto yesterday so I will be able to start going out en brousse. It should be fun.

Tuesday, September 9, 1997

I went to Maradi today to make copies of my survey. I left first thing in the morning so that no one would see me on the moto. As I was leaving, the moto just would not go very well so I ended up stalling about five times. After stalling so many times, I road the moto to En Kouka and left it there. From En Kourka, I took a taxi from there into Maradi. I arrived in Maradi around 9 am, and went straight to the office. I made copies of the survey, and then gave an update to the auditor and the interim BRK director. They were definitely interested to hear what I had found out. What have I discovered? Some interesting stuff, but no a helluva lot for my research. Credit does not make a huge difference in people's lives.

Thursday, September 11, 1997

Yesterday was an uneventful day. We left Chadakori around 10 am. for Sonmaili, and we didn't see anyone that we wanted to talk to. People were either not there or they did not live in that village. We ended up talking to three people who had never had loans, and one person who has had a loan. They gave some good info, but I am still wondering if there will be any sort of difference between the two groups. I think there will be by the mere fact that those who received a loan are probably already better off that those who have not received one. It's so hard to tell the kind of impact that this credit project has had in the long term in people's lives. As it was fairly long ago, any profit made off the loan has probably been eaten up by buying food. People liquidate their savings in times of famine or drought and as last year was a bad one, they can never quite get out of this vicious circle of poverty. Agriculture is definitely seen as the primary activity with animal fattening/raising as second and commerce as third. People definitely see that they make more off the land than any other activity. They will invest all their savings and everything in agriculture before augmenting their non-farm activity.

In asking the question about where people would invest their profit from their non-farm activity - in agriculture or non-agriculture, everyone said that they would unequivocally invest in the farm. This is interesting because in working so hard in farm/non-farm activities it becomes apparent that for much less owrk, there is much more profit in the farm than the non-farm activity.

We returned to Chadakori around 4 pm, and we were so beat. I went over to Mariama Kwame's house in Chadakori. See key informant interview notes on Mariama Kwame.

Saturday, September 13, 1997

I feel like I have not been as productive as I would have liked to be. I think since Wednes. I only interviewed five-six people. I guess that's not too bad considering BRK folks came out to Chadakori on Thurs. I really wasn't able to talk to too many on Thurs. because I think when they saw the CARE car, they fled out of the village. Yesterday I was able to talk to Hassan, the ag. extension agent and Marima Kwame from the Caisse Populaire. These two interviews proved to be very useful. I obtained some interesting info. Hassan thought that people weren't telling the truth about investments in the farm. He thought more people would spend money on bikis and their petit enterprise than on their farm. He then proceeded to explain the loans he has given out for fert and seed. These loans were over five years and they began in 1994. They will end in 1999. We

talked for awhile, and he proved to give very interesting information. I should type these up so they are more legible.

I talked to Mariama in the afternoon, and she also gave some good information. The Caisse definitely requires more of a guarantee, and she said she would prefer to obtain a loan from the BRK than the Caisse. If you save 15,000 fcfa in the Caisse, you can only receive a loan of 30,000 fcfa, but if you want more than this then you have to ask others to be your witness or back you up in your loan. BRK has nothing like this in place, and it also may be difficult for certain people to obtain a loan if they cannot save. She believes everyone is able to save, and it is just a change in mentality. Over and over again she kept saying how the Caisse does not take a risk. BRK does take a lot of risks, according to Mariama.

Sunday, September 14, 1997

After an incredibly tiring day, I am now at Bindi and the comptroller's house. It is a bit of a culture shock to come here, and be waited on hand and foot. What a day!! I left Chadakori, and got totally lost in the bush outside of Chadakori. I then ran out of gas just before the road to Dakoro. I was so bummed, swearing like crazy etc.. Ugh!! I finally arrived in Bata Fadoua, and was able to talk to two people. I have actually finished my interviews in Bata Fadoua, and figured out where the other people live from the chef de village. People just have such a bad attitude. When I finished up my interviews, I went to get back onto my moto and the clutch cable snapped. This was definitely not my day.

All in all this week, I did find out some interesting stuff, and I realize how intricate this whole system of management of household expenses has become. People try to get their money to buy food if it's been a bad year which it normally is in Niger. Niger is just in bad shape agriculturally. People are so desperate for food to survive, it is almost unfathomable that people could live like this here and also live in a whole different state in the US. There is just such a disparity between the haves and have-nots. It is so unfair!!

What have I found out? A loan contributes to the management of the household economy in the short-term it seems rather than the long-term. The loans seem to help the farmer lessen risk in the management of the household economy. Leather traders do not need to take a loan from a bigger trader from Maradi where they do not earn much of a profit.

Thursday, September 18, 1997

I spent all-day in Maradi on Sunday. I called Jane B. in Niamey to see what she wanted to talk about, and she filled me in on the job and what PC/WDC was up to. We spoke for about 30 min. I then called Zakari at the CARE office in Maradi. He said he wanted to meet with me in the evening before he heads out to Niamey on Mon. I spent sometime with Gado and Mariana before meeting Abdu and Cheibou for lunch at the Berolina. We had a good discussion about privatization in Niger.

I went to the CARE office to meet with Zakari. He and I hung out for about one hour talking about the training I will be doing for them. Right after this, I headed out to Chadakori. I spent the night on Sunday and Monday in Chadakori. We went out to Bounougou in the am. on Mon. to talk to folks. We were able to talk to six people, three who had received a loan and three who had not. The most interesting interaction was with a sarkin noma. He received a loan, and in order to reimburse the loan, he sold his store of peanut seed at 6,000fcfa/sack. When it came time to plant his peanut field, he had to

repurchase the peanut seed at 7,000fcfa/sack. He lost 2,000 fcfa as a result of selling his peanuts to repay the loan. The question now is would he have had to sell those peanuts regardless? Maybe not, but maybe the loan allowed him to meet some immediate needs without thinking about the long-term. This seems to be the over-riding reason to take out a loan.

Others mentioned the difficulty of having to give bribes in order to receive a loan. Why would an agent do this? This is my big questions. Harou and I headed back to Chadakori around 3 pm. I was really beat by the time I returned.

Tuesday morning I headed out to Maradi on the little moto in hopes to switch motos. I met up with the interim director on my way into the office, and he said he would give me a new one. I typed up the program for the SPSS training and the letters to Murari and John. I went to the Sous-Bureau to fax the two letters, and then I went by Sadio's house to pick-up my cloth. She was asleep so I just gave the money to Issa. From there I went over to the Literacy office to check out the cloth there. There were no more left so I ordered one. They said they would bring it out to Chadakori. I ate lunch and then returned to the office. At the office, I tried to complete the program for the SPSS training before receiving the phone call from WDC. They called me at exactly 16h00, and there were three people on a speaker phone who asked me questions for an hour. Some of the questions were pretty hard. For example, Niger is considered the poorest country in the world and USAID is no longer here. Should Peace Corps even be here? A good, but difficult question, I think. After finishing the interview, the folks at BRK asked me how it went. They are all so caring about stuff.

At the office on Wednesday morning, I called Jane Bonin, and she said she heard the interview went really, really well. It was now up to her to interview me and to see how it goes. We set up a time for her to call me and in the meantime I finished the program for Zack. Jane called me and we spoke for about an hour. She asked about my experiences between Peace Corps and now. I then spoke with Nelson, and this was great to hear what he was to. I will probably stay with him and his family when I come to Niamey.

Monday, September 22, 1997

Well this weekend was pretty crazy. Harou and I went to Garin Boueye to talk to the women out there. We were able to meet with six women, and found out some interesting info. While we were in the middle of talking to Chima, Jacques and Oro walked up. We spoke for a little while and I said I would meet them in Maradi later that night. Harou and I left Garin Boueye around 3:30 pm, and we ended up getting a flat tire on the road to Chadakori. We had to push the moto for about five km. Actually Harou pushed it the whole way. It was quite the pain. I ended up getting the tire patched up, and driving into Maradi. Jacques and I were able to talk a little bit. He has a new woman who is Tuerag. His work has ended here and he will try to find more work. He really wants to stay here. He said something interesting. He said that the system of animal husbandry that was set-up for the Hausas cannot be transposed in the pastoral zone. He asserts that no one knows how to work up in the pastoral zone right now, and he thinks it would be an interesting experience to work up there. I think it would be interesting too, but what can he provide for people up there? This is my question. He seems more infatuated with the fact of working with them than doing something that really makes a difference. Maybe this isn't such a bad thing. We went over to a CARE proj. director's house so he could meet him. We stayed there for about one hour, and then went out to look for something to eat. We ate around 10 pm at the Jardin Publique. We didn't go to sleep until around midnight or 1 am, and woke up at 6 am. It was pretty early, and I felt like I definitely did not get enough sleep. Jacques left for Zinder around 7 am., and I hung out with Gado, Oro and

Fati until about noon. I then went to BRK, and then off to make photocopies. I made 30 copies, bought an inner tube and brought messages for Chima from her brother. I then headed out to Chadakori. I arrived around 2 pm. and hung out all afternoon with Chima and Abou.

Today I am off to Kadata with Abou and then Wareau. Hopefully we can finish these two villages today. Tomorrow and Wednesday I will go to Tibiri and Thurs. I will meet Rabiou.

Garin Boueye was interesting. The food situation in this village is pretty grave. Last year they had a bad harvest and it looks like this year will also be bad. The women in this village have a lot of animals as a form of security and almost every woman said that she would use profits from her business in bikis. Bikis are big in this region. Other women who did not receive a loan, really do not have a business to work for. They really want a loan in this village. Apparently the men are really motivated and are part of the comites des bons clients. I will stop by Zara and Elise's today to see if there is a place for me to stay in Tibiri. I think I have almost finished with most of my interviews. I will have to talk to Chima's neighbor, and if we can get a car to bring us to Inwala Sarkin Toudou, this will be good.

Wednesday, September 24, 1997

Well I spent all day in Tibiri yesterday. I arrived at 8 am. to meet Hainikoye, and of course, he didn't come. Abdu and I went around Tibiri, and he showed me where I can find all of the clients in Tibiri. I went back to the office and spoke with Salamatou and her c-epouse. Slamataour is an amazing woman. She started out with nothing, and as a result of 7-8 loans from CARE she was able to buy two sewing machines, cows, and two peanut shelling machines as well. It seems that in order to see the impact of these loans, the person has to have received the loan at least five times. A tailor that I spoke with later in the afternoon has had the same experience. The more loans he received the more people he was able to hire. There seems to be a limit of a certain number of loans provides a limited number of opportunities for the recipient. For some reason Wednesday was a tiring day. I didn't sleep very well at Balki's house. Her son kept waking up and crying. I dropped her off at work, and then I went to interview Laouli before the auditor showed up. This went well, and he gave some interesting information on the BRK.

Sunday, September 28, 1997

Well I am back in Maradi, and I think I will head over to the BRK office later today. My stay in Chadakori was definitely worthwhile and I will go back out there one more time to say goodbye to folks and to see Sarki, I hope. I can't believe the whole time I was out there, I never saw Sarki. since last Wednesday, I went to Kouroumgassaou.

Friday, October 17, 1997

Well, today is the depart for the US. I can't believe how quickly my time has passed here. I am definitely satisfied with my visit, my research, seeing friends, and winning the job at Peace Corps. Apparently, there was stiff competition so I was lucky to win out. Yeah!!! My outlook on life and the work of development has changed dramatically also. I thought I would love to work for CARE, and this was my dream to work on a project or as a project manager in Maradi, but now I can't think of something I would like least.

Since I have been in Niamey, I have been able to meet up with some friends and people. I have seen Halima, Chris Mathis, Soumana, Moussa, Yacouba, and folks at Peace Corps. I am so glad to be working with Peace Corps, it's unbelievable, and to be able to work with the CARE director also, I am really glad about that. Halima had some interesting things to say about CARE and the changes it has gone through since the time of Mike. I guess when I left Charles Tapp was the Country Director, he was very good at being respectful towards the staff, and giving advice and allowing the staff to remain autonomous. When Mike came, he didn't quite understand the system of the BRK, and apparently wasn't very respectful towards the staff. He would hire consultants without letting the chef de projet know what he was doing. Halima said this really frustrated her with Mike and the CARE director.

According to a previous BRK director, he said that the whole philosophy of the BRK has changed drastically as a result of different Country Directors. Each time CARE itself changes country directors, the whole management style and politics of CARE changes as well.

Moussa and Yacouba were great to see, of course. They just come from such a good family. I really appreciate their attitude and background etc. Moussa brought me to his house before I left, and I was able to see his wife and kids and everyone. It was really nice.

What else? I tried to call the BRK and say goodbye to folks there, but I couldn't get through. Hopefully they will hear news from me from Seydou.

My work at Peace Corps is going to be chockful of stuff when I return. It should be so great, busy, a learning experience etc. I really feel up to this challenge.

Well I am out of here tonight. I can't believe it. What a shock! Back to the good ol' US of A. To see John and see friends and family. It has been so hard to keep in touch with everyone. It will be a small miracle if I actually get in touch with everyone during this weekend. Goodbye Niger until 1998.

APPENDIX G

MARKETS ATTENDED

Markets attended	Day of Week
Maradi	Mon, Fri.
Tibiri	Wed.
El Kolta	Sat.
Chadakori	Thurs.
Sabon Matchi	Tues.
Kornaka	Sun.
En Gobirawa	Sun.
Dadin Kowa	Mon.
Age Kwaria	Sat.
Guidan Roumji	Sun.
Kano, Nigeria	Daily
Jibiya, Nigeria	Sun.
Katsina, Nigeria	Daily

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