

**BASELINE STUDY OF SAVING FOR CHANGE IN MALI:**  
**RESULTS FROM THE SEGOU EXPANSION ZONE AND EXISTING SFC SITES**



*Saving for Change group in Maninga Danga, Mali*

*Prepared by:*  
**Bureau of Applied Research in Anthropology**  
University of Arizona

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## LIST OF ACRONYMS

|           |   |
|-----------|---|
| BARA      | Bureau of Applied Research in Anthropology  |
| BMGF      | Bill and Melinda Gates Foundation   |
| BNDA      | Banque Nationale de Développement Agricole  |
| CED       | Centre d'Éducation pour le Développement (Education Center for Development)   |
| CFA       | West African Franc  |
| CMDT      | Compagnie Malienne du Développement des Textiles (Mali Textile Development Company)   |
| CSCOM     | Centre de Santé Communautaire (Community Health Center)   |
| FFH       | Freedom from Hunger   |
| GRAADECOM | Groupe de Recherche d'Action et d'Assistance pour le Développement Communautaire (Research Group for Action and Assistance for Community Development) |
| HHLS      | Household Livelihood Security   |
| IFAD      | International Fund for Agricultural Development   |
| IGA       | Income-Generating Activity  |
| IPA       | Innovations for Poverty Action  |
| NGO       | Non-governmental Organization   |
| OA        | Oxfam America   |
| PGRN      | Programme de Gestion des Ressources Naturelles (Natural Resources Management Program)   |
| ROSCA     | Revolving Savings and Credit Association  |
| SfC       | Saving for Change   |
| TU        | Technical Unit (for Saving for Change program, based in Bamako, Mali)   |
| UA        | The University of Arizona   |

## EXECUTIVE SUMMARY

### Research Objectives

Saving for Change (SfC) is a community-based savings group program designed and implemented by Oxfam America and Freedom from Hunger in Mali, Senegal, Cambodia, El Salvador and Guatemala. This baseline study of the Saving for Change (SfC) program in Mali is the result of a collaborative research effort in 2009-2010 by Innovations for Poverty Action (IPA) and the Bureau of Applied Research in Anthropology (BARA) at the University of Arizona. This innovative methodology combines qualitative and quantitative approaches to create a nuanced picture of the current SfC program and to document the baseline situation in an SfC expansion zone in the Segou region of Mali, where a randomized control trial (RCT) is currently underway to measure the socioeconomic impacts of the program over a three-year period (2009-2012).

The first section of this report details the methodology of both teams, which combined quantitative and qualitative data collection and analysis. The second section provides baseline results from the Segou expansion zone. The baseline information is based on large-scale quantitative survey research conducted by IPA in 500 villages in the Segou region and complementary qualitative analysis by BARA in 8 of those villages. In keeping with RCT protocol, SfC activities in this expansion zone began only after all field data collection for this research was completed. Follow-up studies in 2012 will help determine the program's impacts for participants.

A third section of this report focuses on evaluating the current functioning of the existing SfC programs in five villages in other regions of Mali. Research in these villages is oriented toward gaining a qualitative understanding of how savings and credit systems function in relation to local livelihood strategies. These results build upon information collected by BARA during a prior study of 4 villages in 2008 that examined the establishment, replication, and function of SfC groups. The key areas addressed in this current research are: (a) household livelihood systems and vulnerability as they affect SfC activities; (b) the relation of SfC to the larger socioeconomic context of rural Mali; (c) the role of savings and credit organizations, both formal and informal, and their relation to SfC participation; and (d) community perceptions of the impact of SfC on livelihood systems and women's lives. Particular attention is paid to the ways in which community members are modifying the SfC model to meet local conditions and needs and several recommendations are offered to strengthen the existing model.

### Overview of the Saving for Change Model in Mali

The Saving for Change (SfC) program, which began in Mali in 2005, enables women to organize themselves into simple savings and credit groups. The program is meant to address the needs of those who are not reached by institutional lenders and traditional rotating savings and credit associations (ROSCAs).

SfC's fundamental approach starts with savings. Twenty or so women voluntarily form a group that democratically elects officers, sets by-laws, meets weekly and collects savings from each member. At meetings, each woman contributes a savings amount (previously established by the members) to a communal pool, which grows in aggregate size each time the group meets. When a woman needs a loan, she proposes the desired amount to the group. Once all demand has been voiced, the group collectively discusses whether there are enough funds and how to divide funds, and prioritizes requests if there is more demand than funds. Loans must be repaid with interest, at a rate set by the members. The interest collected on the loans continually increases the size of the fund and the amount of money available to the women. The commitment of regularly saving in a group mobilizes greater savings than each woman would save individually. Each group manages its own funds that are mobilized entirely from the internally generated savings (with no matching or external loans provided).

At a predetermined date, the group divides the entire fund equally among members. The timing can coincide with times of high cash flow requirements such as festivals or the planting season. The interest from the loans generally gives each member a return on her savings of 30 to 40 percent or more, at an annual rate. The group then decides whether to start a new cycle, and under what conditions. At this time, groups sometimes opt to increase their weekly contributions, accept new members or change leadership positions. Among the principal advantages of the SfC program is that since the group is lending its own money to its members, collateral is not required. The fact that all money originates from the women themselves, as opposed to outside loans or savings-matching programs, also increases the incentives to manage this money well.

Oxfam America and Freedom from Hunger's program in Mali began with a feasibility study in 2004, after the Norwegian-based Stromme Foundation showed interest in underwriting the introduction of the Saving for Change program. Based on this study, Oxfam, Freedom from Hunger, and Stromme selected two Malian NGO partners to form the first SfC groups: Tonus and CAEB. By August 2005, 216 SfC groups with 5000 members had been formed. While 13 percent of the original 5000 members were also members of credit unions and other microfinance groups, and half were members of informal *tontines* (a local form of ROSCAs), SfC also reached women who were not being served by either of these financial products.

One of the problems that SfC identified early on was that literacy rates in Mali were so low that many groups without literate women had to rely on literate men or NGO agents to keep track of their accounts, impeding the independence of the groups. In October 2005, a system of oral accounting was created, based on innovations observed in SfC groups. In 2006, a pictorial training manual was developed through collaboration between Oxfam America and Freedom from Hunger and used to successfully train new groups. By March of 2006, SfC had grown to 11,000 members.

In 2007, SfC expanded into the Kayes and Sikasso regions, and total membership rose to 55,000. As areas became "saturated" with SfC groups, technical agents were redeployed from saturated zones into newer zones served by their partner organizations. By July



2008, SfC had 95,000 total members with a growth rate of 2,600 new members per month.

The Bill and Melinda Gates Foundation provided funding for a further expansion starting in September 2008. New Malian NGO partners were recruited with the goal of completely saturating most of four out of the five non-desert regions in Mali (Kayes, Koulikoro, Segou, and Sikasso). Membership is projected to increase to 346,000 members by 2011. The table below provides summary statistics for the current program operations in Mali. In addition to funding expansion, the Gates Foundation grant supported extensive impact research, including this baseline report.

**Table 1: Summary Statistics of Saving for Change in Mali (December 2009)**

|                               |             |
|-------------------------------|-------------|
| Number of SfC groups          | 10,087      |
| Number of Members             | 231,219     |
| Group Funds                   | \$3,145,523 |
| Group Funds per Member        | \$14        |
| # of loans outstanding        | 149,357     |
| Value of Loans Outstanding    | \$2,516,844 |
| Average loan size             | \$17        |
| % of funds allocated to loans | 80%         |
| % of members with loans       | 65%         |
| Annual Return on Savings      | 54%         |
| Cumulative Savings            | \$2,312,234 |
| Savings per member            | \$10        |
| Average Funds/ Group          | \$312       |
| Average members/ group        | 23          |

### **Summary Results for the Expansion Zone (BARA and IPA Joint Study)**

A combination of quantitative and qualitative research by IPA and BARA in the Segou expansion zone, including the circles of Bla, San, Segou, and Tominian, provides baseline data describing the situation in early 2009, prior to the advent of the SfC program in this area. The data provides a clear sense that these populations are living in situations of chronic vulnerability to shock, with limited access to basic infrastructure for drinking water, health services, education and transportation.

Some basic statistics illustrate these points. Just over half of the sample villages are further than 15 kilometers from a paved road, and only about two-thirds of them have a regular market within three kilometers. Most villagers (55.7%) depend on unprotected wells as their main source for drinking water, and only about two-thirds of villages have a health center within 10 kilometers. Less than a quarter of adult men have any formal education (24.7%), and adult women far less (11.3%). Most of the villages in the sample

have experienced flooding (51.9%) in the past five years; 59.5% have experienced drought; and over a quarter of them (27.7%) have experienced food crises.

At the household level, a full 60.1% of households have experienced a shock in the last year that adversely impacted them economically. In all parts of the expansion zone, millet and sorghum dominate the agricultural production of survey participants, with rice also cultivated in some areas. However, most households of any type will run out of these important staples at some point during the year.

Several indicators were used to measure different aspects of poverty and vulnerability for this population. According to the Freedom from Hunger Food Security Scale (FFS), over a third of expansion zone households are food insecure, and over a quarter suffer from chronic food insecurity, a very serious health condition. According to the Progress out of Poverty Index™ (PPI™) for Mali, over 90% of expansion zone households are estimated to live below the two-dollar-a-day line, and the majority (55.9%) also live below the one-dollar-a-day line. Finally, based on detailed survey information on food consumption over the previous seven days, 58% of households live below the one-dollar-a-day line and 92% live under the two-dollar-a-day poverty line. The indices are not very highly correlated with one another for specific households, which may appear desperately poor according to one measure but somewhat less poor according to another measure. However, all three measures paint a consistent picture of stark poverty in this area of Mali.

Households are generally large in this region of Mali, and this report discusses how households are structured. Average household size in the quantitative study is over 21 members. Larger households tend to contain a number of subunits, which exercise some amount of autonomy. For example, a subunit could include a man and his wife or wives and their children, whereas the larger or “complex” household as might also include the man's brothers and/or father and their families. Nearly three-quarters (74.4%) of women in the quantitative sample live in “complex” households, defined as households with more than one subunit. Among simple households, which are defined as those with only one subunit (the household itself), the average household size is only 8 people. Polygamy is common in the sample: over 30% of household heads are polygamous.

In addition to having limited access to infrastructure for health care and potable water, households in the RCT sample struggle with their health. Around a quarter (22%) of adults report experiencing an incident of illness in the previous month, with health incidents causing 4.5 lost days of work for adults on average. Only 35% of adults who report experiencing illness have visited a health facility.

Fever, one symptom of malaria, is the most commonly reported ailment. In spite of this presumed high prevalence of malaria, women in the sample demonstrate low levels of knowledge about malaria. Almost half of women interviewed do correctly identify mosquitoes as a cause of malaria, but a bit less than 20% of women know that mosquitoes are the only cause. Less than half of adult women and around half of children under the age of 5 used a mosquito net the previous night.

School attendance is generally very low. Only about half of children aged 7-11 attend school and less than 45% of children aged 12-16. Secondly, there is a strong gender disparity in education; school attendance is about 10 percentage points lower for girls than for boys. Similarly, women are much less likely to be literate than men (28% compared to 50%), though both groups have low literacy rates.

In the overall quantitative sample, around half (50%) of sampled women run at least one small business. Women at all poverty levels own businesses, with only very modest differences in the number of businesses, between the poorest third and the wealthiest third of the food consumption distribution. However, women make very little use of formal financial systems for saving, taking out loans, or helping to finance their businesses. While these services are technically available in some villages, they are not a practical option for women due to high collateral requirements, fear of negative social repercussions for cases of non-repayment, and other factors. Although there are significant percentages of active, married women who are engaged in entrepreneurial activity (50.4%) or are controlling their own agricultural activities (38.9%), the use of formal institutions to support income-generating activities is so small as to be negligible. Instead, women save their money at home and rely on friends, neighbors and relatives for credit even where formal institutions are technically available. Consistent with limited use of formal institutions, women report having an overall higher level of trust in their neighbors (49% report complete confidence and only 4% report no confidence) than in NGOs and MFIs, where only about 30-35% of women report complete trust in these institutions and 14% report no confidence.

The use and prevalence of tontines is far more limited in the overall sample than in the eight villages selected for the BARA qualitative study (see next sub-section). One-third (33.5%) of villages in the overall sample have no tontines at all (compared to only 25% of the BARA villages), and only 18.6% of women are currently participating in a tontine. Most participants in the survey (58%) have never participated in a tontine at all.

Patterns in the data are surprising in the distinctions they do *not* make. For nearly every parameter discussed in this report, there is very little difference observed between the circles of Bla/Segou, San, and Tominian, although there are significant ecological and ethnic differences between these areas. There is also little evidence that distance from a paved road, as a basic indicator of accessibility, correlates with any of the variables one might expect (i.e. food security, presence of development projects, or health and education infrastructure).

Such remarkable consistency across circles suggests both relative homogeneity and reliable data. It may be that ecological differences (and their associated impacts on livelihood and other parameters) are more detectable along a north-south gradient than by the east-west division of these circle boundaries.

As the next stage of the randomized control trial, in May 2009, 210 of the 500 study villages were selected to receive the SfC program, while the remaining villages will serve as a control and will not receive the program before at least 2012. An essential role for the baseline study in a randomized control trial evaluation of a project such as Saving for

Change is to confirm that the randomization process for selecting villages to receive the program from among all those village studied generated the same types of people across treatment and control villages. In fact, this report shows that across eight essential characteristics, including distance from a road, poverty measures and school enrollment rates, there are no significant differences between the randomly selected treatment and control villages.

The randomized control trial will also test which of two replication strategies is more effective, an organic process in which village agents are trained one-on-one and a structured training process with a formal 3 day training and a pictographic manual for each village agent. The treatment group of villages was randomly divided in half to receive one of the two types of trainings. The two sets of villages for organic and structured replication were also found to be statistically equivalent.

### **Summary Results of Existing SfC Villages (BARA Study)**

In addition to the mixed methodology employed in the expansion zone, the BARA team also studied five villages in other parts of Mali that already had SfC groups. In undertaking this research, the BARA team built on their earlier knowledge from the prior operational study in 2008 in four different SfC villages. The five pre-existing SfC villages for the current phase of qualitative research were selected to cover a broad range of the environments in which SfC currently operates, from small and isolated tight-knit communities with few entrepreneurial outlets to relatively large villages where SfC exists alongside multiple credit and savings alternatives.

Infrastructure support correlates strongly with the accessibility of villages in this sample. Water is consistently identified as the greatest limiting factor in the improvement of the quality of life for these SfC villages, since it has direct effects on current agricultural production, health and sanitation. Water is also the major limiting factor for any potential expansion of agricultural activities and animal husbandry. Remote villages have no health services to speak of, apart from periodic visits from health agents for vaccination campaigns. Many SfC villages closer to urban centers also lack adequate health care, but NGOs are available to fill the gap.

It would be difficult to overstate the importance of NGO assistance to the SfC villages studied, particularly in providing economic opportunities for women. In villages where NGOs (other than SfC organizations) are totally absent, women are limited in their ability to capitalize on the savings opportunities SfC provides, and tend to identify its benefits in terms of social cohesion rather than economic growth. The same pattern of government neglect and NGO absence from inaccessible regions is also found in education infrastructure.

Absolute wealth may be less important as an indicator of the long-term potential of SfC in a village than the degree of stratification of wealth within the community. Communities in which ethnic and religious homogeneity among the few clans in the village have reduced the gap in wealth between the richest and poorest families to an

almost negligible distinction are also the villages that have thriving SfC programs without loan defaults or internal disputes.

Agriculture, and particularly the production of staple grains, dominates household livelihood strategies. Animal husbandry is also a major strategy in most villages, but is declining in the peri-urban zone. All communities strive to supplement production in the rainy season for consumption needs with off-season gardening for sale, but the viability of this strategy is highly contingent upon the availability of water and the accessibility of markets. Firewood collection and charcoal production provide important complements to dominant strategies.

Economic activities are highly segregated by gender throughout Mali, although even with these separate economic systems, women are often expected to help men of the household during the periods of peak labor demand (clearing, planting and harvesting). The lives of women in SfC groups are dominated by domestic responsibilities, and younger women also spend a tremendous amount of time working in their own fields and in those of their household. Women's activities are shifting toward petty commerce in all of the SfC villages visited in this phase. For example, women are becoming increasingly involved in shea butter production, and their activities in peri-urban communities are shifting away entirely from agriculture (for home consumption).

The first women to join SfC in a village are often those best positioned to undertake an uncertain economic activity. Once formed, groups tend to remain remarkably stable. Titled positions are generally granted to older women whose advice is culturally given great respect; in some cases, these positions become figureheads as signs of respect, and real leadership roles are given to younger, more dynamic women. The initial division of groups that are formally trained by SfC agents (henceforth termed formal groups) and those formed by local replicating agents or spontaneous community leadership (henceforth termed informal groups) is generally established by the conscious design of technical agents. Women form groups based on affinity and kinship, which often results in women from common neighborhoods joining the same groups. Groups generally have annual elections for SfC leadership positions (president, treasurer, etc.) after the division of funds, when the group decides on its future existence, composition and objectives.

Most SfC loans are used for income-generating activities (IGAs), but in all villages the ability to also receive loans for household consumption is an essential benefit of the program. The most valued of these consumption-based loans are those used to cover medical costs and those used to provide food during the hungry season, or *soudure*.<sup>1</sup> For many women, the pattern of consumption versus IGA loans is seasonal: during the difficult months, when food resources have run out but the year's harvest is not yet in, loans are often for agricultural inputs and food needs. The overall ratio of consumption

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<sup>1</sup> Soudure is a term derived from French that is commonly used in the Sahel to denote the hungry season when food supplies from the previous harvest are waning and food insecurity tends to be high (generally between the months of April to September).

to income-generating loans is remarkably low overall. Women in wealthier households, who use SfC as a supplement to a strong income source for the larger household, often take out loans exclusively for income-generating purposes. The ability to sustain SfC-funded enterprises is closely related to the stability of household livelihoods; households or sub-units that are relatively better off are therefore more likely to take these risks and be successful. Overall, the range of income-generating activities observed using SfC loans is relatively narrow and restricted to low-risk ventures. Petty commerce dominates in all villages, and includes seed and labor purchases for either regular or off-season agriculture, food preparation and sale at local markets, and the purchase of food commodities for resale when prices rise. Many women also practice *embouche* (fattening animals for resale), especially after the annual division of the savings fund. No collective loans were observed in any of the groups in this phase of research.

Most women interviewed use profits from their market activities (the money made after paying back the loan and its interest) on household consumption. While many women take loans for petty enterprises and commerce, they tend to co-mingle the profits with general household income. These enterprises are thus frequently decapitalized as funds are diverted to meet immediate household needs. This leads to a pattern of repeated loans to sustain the same activity, and the activities rarely grow under these conditions. Even in areas where SfC has had a longstanding presence, women are by and large taking out loans for the same activities as when they began the program. The few women we observed who have been able to realize transformative economic growth through SfC enjoyed relative wealth and stability before the program arrived.

Women often view formal banking institutions used by men as beyond their economic scale, loaning larger amounts and requiring larger minimum savings than most women can typically afford. Although prior to SfC's arrival in their village women were not heavily using the services of these formal institutions, most women interviewed said that since SfC's arrival, they no longer use savings or credit systems outside the village at all. However, women continue to use savings systems within their villages after joining SfC, including the longstanding Malian tradition of women's *tontines*, or rotating credit associations. Most of these systems are highly informal, and are based on pooling the profits from collective labor for disbursement during festivals or times of general need. SfC women also have access to a broad range of credit instruments, from informal loans between neighbors to village credit banks. Loans made between villagers are generally made on the basis of social relationships, do not accrue interest, and may be in kind or in cash.

### ***Strengths of the SfC Program***

SfC provides a highly valued option within the spectrum of savings and credit systems available to rural women in Mali. For many women, it provides an essential buffer against crises and stabilizes short-term fluctuations in income. Women find the program highly accessible, and its inherent flexibility and transparency set it apart from alternative strategies. In the areas where SfC has been introduced, women have been

able to expand their economic activities, and in some cases have even transitioned away from less profitable livelihood strategies toward petty commerce.

We found strong indications that these economic shifts translate to greater empowerment for SfC women in their household sub-units, their larger households, and in their communities. SfC group members are powerfully bonded to each other by their common objectives, and they are successfully maintaining a democratic and mutually beneficial system of managing their economic behavior after graduation. Oral accounting has been a successful mechanism to assure transparency for all members, and allows for financial management by the group even when more complex systems such as multiple shares are introduced.

The administrative structure of SfC has been effective in preparing women for such autonomous control. The NGOs and technical unit do an excellent job of facilitating vertical communication both from above and below: technical agents we spoke with are universally appreciated by their communities, and the groups and replicators they train find them supportive without imposing limits on community ownership of the program. In turn, these agents report that Oxfam's technical unit and their respective coordinators provide them with strong support. The structure of SfC allows feedback from agents and groups to be communicated well to supervisors, and allows innovations in one group to easily spread laterally. Institutional measures to support and evaluate performance appear effective in assuring that agents are well trained and of excellent caliber.

Where it has already been introduced, SfC is universally appreciated for the particular niche it occupies within the spectrum of previously available formal and informal mechanisms for savings and credit. In comparison with traditional *tontines*, SfC's low weekly contributions and training phase make it accessible even to women who feel incapable of the commitment required for *tontine* membership or unsure of their financial abilities. In the expansion zone, there is a clear role for SfC even in contexts where multiple systems are already available. SfC's demonstrated flexibility (through innovations such as multiple shares and social funds), and its use as a complementary, parallel strategy alongside *tontines* and other existing savings and credit systems, suggest that there are few economic contexts where it would not be a welcome addition.

Households in rural Mali operate in a climate of extreme and chronic vulnerability. In mitigating the effects of such setbacks, SfC creates a more stable platform upon which livelihoods can be built. Over time, women in SfC may gradually transition toward economic behavior that allows them to absorb greater risk and reinvest more and more of their earnings into further income generation.

### ***Impacts of SfC***

Women are very appreciative of the positive effects they see from SfC, even though the economic impact of such savings activity is very small relative to the overall household economy. The economic benefits that women themselves perceive primarily address

consumption needs for the household, particularly the availability of funds for women to seek health care and purchase medicine for family members in case of illness or emergency. In keeping with their traditional economic responsibilities within the household, women tend to cite SfC's advantages in terms of the education of their children, their ability to contribute to household food supplies throughout the year,<sup>2</sup> and their access to the material goods necessary to properly celebrate annual festivals and other ceremonies important to the household. With the access to credit that SfC provides, some women have also been able to shift their livelihoods toward petty commerce. And, many SfC women point to their ability to acquire livestock or increase livestock holdings as evidence of the economic impact of SfC on their lives.

In describing the impacts of SfC on their ability to save, women tend to describe a shift in their savings mentality rather than their access to economic opportunities. Women credit SfC with providing them with entrepreneurial skills, and also impelling them toward greater economic activities than they would normally undertake, through competition and the fear of public shame in case of non-reimbursement. For many women, the mere presence of a program that validates their economic struggles and establishes a buffer against risk is enough in itself to motivate them toward savings and credit where previous systems did not. For this reason, the increased confidence and leadership skills that technical agents often ascribe to SfC graduates are not separable from the economic impacts of the program.

Membership in SfC demonstrates to both fellow members and non-members that a woman is responsible, reliable, and worthy of respect and consideration. Women tend to emphasize the social cohesion of group membership, and the strength and motivation that they find in collective activity. SfC members were universally appreciative of the malaria prevention program and associate greater awareness of sanitation and health with a general sense of pride and self-worth after the program. Men in SfC households also appreciate women's ability to manage their finances and care for their children, and do not view women's increased economic contributions as a potential threat to their own roles as primary earners within the household.

### ***Potential challenges to SfC***

The spread and long-term sustainability of SfC depend on intergroup communication, which allows the program to expand spontaneously without continued inputs, and facilitates the lateral transmission of innovations between groups. Inter-village SfC associations have been established in some areas with the partial objective of establishing a horizontal network of information flow without dependence on NGO structure. However, SfC associations do not appear to be well developed as instruments for idea exchange between groups, and other data indicates that there are real limits to the kinds of information that can be incorporated into women's behavior without the

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<sup>2</sup> Malian women generally contribute the ingredients used to make sauces (condiments, vegetables, dried fish and meat) while men are generally responsible for providing the grain.



reinforcement of formal supervision. Spontaneous groups do not often form in villages where SfC is not already present.

For women in highly vulnerable areas of Mali, linking SfC to outside credit sources could potentially increase the program's long-term impact by providing women with access to larger-scale loans that they can't raise themselves. In addition, the high-interest, short-term structure of SfC loans may severely restrict the variation in the kinds of economic activities that women are likely to undertake with an SfC loan, particularly in areas with limited economic opportunity. It may be necessary to organize marketing cooperatives, provide marketing trainings, or link SfC to profitable enterprise development in neglected areas for the program to move beyond the level of a savings collective.

The most significant factor limiting women's economic development is their tendency to use profits from income-generating activities for consumption demands rather than reinvesting in their expansion. It may be that profits do not reach some minimum threshold to allow women to meaningfully expand their enterprises, or that women are unable to keep their profits in a sufficiently inaccessible form to protect them from consumption demands. These are almost certainly part of the explanation. But it may also be that the idea of reinvestment of capital does not come naturally to women who are not accustomed to having savings, and may be another example where financial training could provide real benefits.

Because women generally begin SfC with limited prior experience with microfinance, they tend to avoid any behavior that might endanger their savings. Thus, although technical agents follow a model that is emphatically democratic, their suggestions toward best practices are often interpreted as dogma, so much so that groups in their first few years exhibit very little variation from village to village. Women appreciate SfC as a commitment strategy for saving and borrowing money, which drives them through peer pressure toward economic risks they would not normally have the courage to take. Once groups recognize that pooled money grows faster with increasing loan size and frequency, they goad each other into even greater risk. In this phase of research, evidence that some groups make loans mandatory for all members, whether formally or *de facto*, raises concerns over whether such commitment strategies through solidarity networks are pushing some women beyond a threshold of risk they can reasonably absorb.

Several key recommendations for the future expansion of the SfC program, which are detailed at the conclusion of Section III of the report, include the development of market cooperatives in SfC villages, the addition of other programmatic modules, further empowerment of local actors to administer SfC without external NGO oversight, and improvement of program evaluation methodologies at the local, regional and national level.

## I. RESEARCH OBJECTIVES AND METHODOLOGY

### 1.1 RESEARCH OBJECTIVES, SAMPLING AND METHODOLOGY OVERVIEW

This report brings together preliminary descriptive statistics from the IPA baseline household survey and data from BARA's qualitative baseline evaluation within the expansion zone and in five pre-existing SfC sites. The baseline work described in this report was conducted in February to May of 2009 and can be divided into two parts. Part 1 studied the context of the expansion zone where SfC activities are now beginning, combining quantitative research conducted by the IPA in 500 villages with BARA's qualitative analysis in 8 villages. All of these villages will be studied again in 2012, after some of them have received the Saving for Change program, as part of a randomized control trial, to determine the impact of the program. Part 2 of the study relied on qualitative methods to evaluate the current functioning of existing Saving for Change groups in Mali, by studying five villages in the Koulikoro and Sikasso regions. These sites will be re-evaluated after three years of the study (2012) to determine impacts and evolution of SfC.

**Table 2. Summary of Study Phases**

| Study Phase                                    | Dates of field research | Type of research | Research agency | Number villages studied | Report                    |
|--|-------------------------|------------------|-----------------|-------------------------|---------------------------|
| Operational Evaluation in 4 Existing SfC Sites | July 2008               | Qualitative      | BARA            | 4                       | Previous BARA 2008 report |
| Baseline Part 1: Expansion Zone                | Feb-Apr 2009            | Quantitative     | IPA             | 500                     | This report, Section II   |
|  | May 2009                | Qualitative      | BARA            | 8                       |                           |
| Baseline Part 2: Existing SfC Sites            | May 2009                | Qualitative      | BARA            | 5                       | This report, Section III  |
| Impact Study Part 1: Expansion Zone            | Estimated Spring 2012   | Quantitative     | IPA             | 500                     | Future work               |
|  |                         | Qualitative      | BARA            | 8                       |                           |
| Impact Study Part 2: Existing SfC Sites        |                         | Qualitative      | BARA            | 5                       |                           |

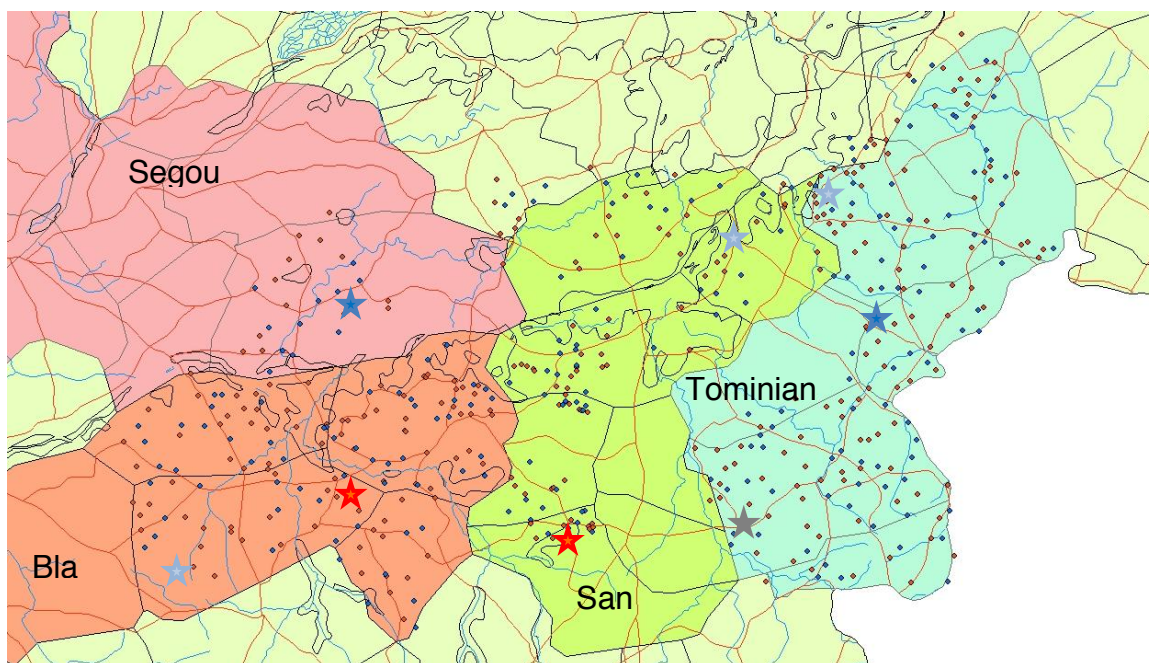
Part 1, which studied the SfC expansion zone, combined quantitative research conducted by the IPA with BARA's qualitative analysis, and is presented in Section II of this report. The research included a large-scale survey that was conducted by IPA in February-April 2009 in the circles<sup>3</sup> of Segou, San, Bla and Tominian. A total of 500 villages were randomly selected out of the complete list of villages in communes in

<sup>3</sup> In this report, "region", "circle" and "commune" are literal translations of the Malian administrative units *région*, *cercle* and *commune*. Following upon the French system, the commune is the smallest territorial division for administrative purposes, while a circle is composed of multiple communes and a region of several circles. Their closest analogues in the American system might be states (*régions*), counties (*cercles*), and districts (*communes*). All of the research described in this report took place in the Segou region.

these circles where no NGO was known to have supported village saving and loan groups<sup>4</sup>. In the 500 sampled villages, a census was conducted of all adult women in the village and 12 women per village were then sampled from the census list and asked to participate in the study.

Information was collected at the village, household and individual level and covered a broad range of topics, including health, education, livelihood systems, coping strategies, investment and asset management, access and availability of resources, and social networks.

*Figure 1. Location of IPA and BARA research sites in the Segou expansion zone*



Blue points on the map indicate treatment villages for the Randomized Control Trial, red points indicate control villages. Stars indicate villages included in the BARA study; as with the RCT study, blue stars indicate treatment villages and red stars control villages, with villages marked with lighter blue stars part of the lower replication strategy. Diora, marked by a grey star, has been excluded from the RCT study.

<sup>4</sup> A number of communes were removed from the sample frame for this reason, particularly in the circle of San. Also, only communes east of the city of Segou in the circle of Segou were included in the sample frame.

**Table 3. Sample Overview for the RCT (Random Controlled Trial)<sup>5</sup>**

|                    | SEGOU     | BLA        | SAN        | TOMINIAN   | TOTAL      |
|--------------------|-----------|------------|------------|------------|------------|
| Control villages   | 14        | 90         | 69         | 118        | 291        |
| Treatment villages | 10        | 62         | 51         | 86         | 209        |
| <b>Total</b>       | <b>24</b> | <b>152</b> | <b>120</b> | <b>204</b> | <b>500</b> |

Note that the RCT design begins with a greater number of control than treatment villages, since spontaneous spread to nearby villages is likely to occur once the SfC program has been initiated.

As a complement to this large-scale quantitative research, BARA conducted a qualitative baseline study of 8 sites in the Segou expansion region (detailed in Table 4 below). Benchmarks in both treatment and control villages (that is, both villages where SfC is scheduled to begin this year and those where it is not) will provide comparative longitudinal data when the sites are re-evaluated in 2012 to assess the impacts of the program. Key areas in this research include: a) the relation of household and individual economic decisions to the larger socioeconomic context; (b) a comprehensive understanding of current economic strategies, including the use and purpose of existing savings and credit systems; (c) livelihood framework and vulnerability analysis; and (d) perceptions of the success and limitations of current savings and credit systems. These initial findings are described in Section III of this report.

**Table 4. Sample overview for the BARA expansion zone study<sup>6</sup>**

| Village          | Commune  | Cercle   | RCT Type <sup>7</sup>  |
|------------------|----------|----------|------------------------|
| Bancouma Peulh   | Fangasso | Tominian | Organic replication    |
| Bougan           | Katiena  | Segou    | Structured replication |
| Diora            | Diora    | Tominian | Excluded               |
| Dioundiou Kologo | Kaniegue | San      | Control                |
| Kanouala         | Kemeni   | Bla      | Control                |
| Kokuy            | Koula    | Tominian | Structured replication |
| Pona             | Fion     | San      | Organic replication    |
| Zangouna         | Beguene  | Bla      | Organic replication    |

<sup>5</sup> Note (Table 3) that the RCT sample size for Segou is very small (24) compared with the samples from the other circles. In the presentation of data that follows, Segou circle data will therefore be combined with its neighbor Bla into a single category, in order to provide a more accurate representation of variation within the region.

<sup>6</sup> For detailed village profiles of the expansion zone sites, see Appendix C.

<sup>7</sup> Organic replication refers to the original SfC model used in Mali in which replication agents did not receive formal training. Structured replication refers to villages that are now receiving formal training for the replicating agents.

Secondly, qualitative research by BARA in five existing SfC villages (Part 2) was oriented toward a qualitative understanding of how SfC credit systems function in relation to local livelihood strategies, refining and building upon information collected in the four SfC villages in the prior 2008 BARA study, which examined the establishment, replication, and function of SfC groups. The key areas addressed in the current research are: (a) household livelihood systems and vulnerability as they affect SfC activities; (b) the relation of SfC behavior to the larger socioeconomic context of rural Mali; (c) the function of savings and credit organizations, both formal and informal, and their relation to SfC participation; and (d) community perceptions of the impact of SfC on livelihood systems and on women's lives. Particular attention is paid to the ways in which community members are modifying the SfC model to meet local conditions and needs.

## 1.2 BARA QUALITATIVE METHODOLOGY

The methodology adopted by the Bureau of Applied Anthropology (BARA) at the University of Arizona for this study was conducted in several stages. The first stage comprised a literature review focused on ethnographic literature specific to the expansion zone, and including studies of Malian agricultural systems, household dynamics and political economy more generally. The review also incorporates relevant ethnographic and economic literature on *tontines* and other ROSCAs (rotating savings and credit associations). In collaboration with partners at Oxfam, Freedom from Hunger, IPA and the Malian researchers themselves, data collection instruments were designed to capture a maximum level of qualitative data in a short time frame, with the aim of elaborating a more complete understanding of the operational capacity of the Saving for Change program in Mali. Instruments were designed in response to feedback from the initial phase of research. The study methodology is based on the Household Livelihood Systems Approach (HHLS), which analyzes local household dynamics in a holistic socioeconomic framework within the broader community and region, and with an emphasis on community participation in identifying and analyzing household dynamics.

### *Team training*

In May of 2009, the BARA team interviewed and hired twelve Malian personnel to execute the collection, entry and analysis of the data: a coordinator, four supervisors, and seven enumerators. Personnel were selected in collaboration with Oxfam's Technical Unit in Bamako, and the selection process sought to maximize linguistic, ethnic and religious diversity and maintain gender parity within the team while retaining the most qualified researchers. The team was trained in qualitative methods over three days in Bamako, according to a participatory methodology that solicited the team's input into the design and content of the instruments. This collaborative approach assured that personnel understood the instruments and the research questions that motivated them, and made enumerators feel personally invested in implementing the research instruments. Collaboration in instrument design also provided enumerators with time to practice reformulating the questions in local languages.

The personnel were then provisionally divided into four teams, and instruments were tested in Kambila, a village selected with the Oxfam technical unit for its proximity to Bamako and its long relationship with SfC. BARA worked with teams in the field to demonstrate the proper administration of qualitative instruments, which allowed enumerators the freedom to delve more deeply into the dynamics and motivations of village activities while still collecting essential information across villages and households. Feedback from the researchers led to further modification of the research instruments. Observations of teams' working relationships in the field allowed for adjustments in their composition before formal data collection began. After site selection, team composition was also refined to assure that at least one native speaker of Minianka, Fulfulde or Bobo was included in teams traveling to villages where these languages dominated.

### *Site selection*

Site selection of four SfC villages and eight villages in the expansion zone was made after extensive discussions with the technical unit and IPA team. Based on these conversations, information from the first phase of research, and the literature review, the key variables to select across were: village size, rainfall, distance from highways and markets, principal livelihood strategy, geographic diversity across the expansion zone, and ethnic composition. For SfC villages, purposive sampling also sought to maximize diversity of overseeing NGOs, gender of technical agents, time since SfC began in the village, and the village's distance from the nearest technical agent. At Oxfam and FFH's request, SfC village selection also sought to include groups with members holding multiple shares, groups that divide their loan funds at the end of every cycle, and groups that have formed spontaneously without direct oversight from technical or replicating agents. Using cluster analysis of available data, several candidates for each village were selected to maximize diversity within these parameters, and each study village was then selected at random from these candidates.

### *Fieldwork*

Based on the model from the 2008 phase of the evaluation, team research in each village was conducted over the course of three days. With four teams each visiting one SfC village and two villages in the expansion zone, research in 12 villages was completed in an intensive 10-day period. Kambila, the pilot village, was later included in the research data to respond to particular research questions not adequately addressed in the other SfC villages. At each designated site, research teams conducted community interviews with the village chief and elders, 3-4 focus group discussions, 2-3 key informant interviews, and 3 household surveys. In SfC villages, teams also interviewed technical agents and replicating agents. Host communities were very receptive to the teams, particularly in SfC villages, where association with such a well-received program undoubtedly facilitated data collection. Care was taken not to identify the research with SfC, Oxfam, Freedom from Hunger, or other consortium partners or administering NGOs while in the expansion zone. In each village, the team met with the local village chief upon arrival to announce the purpose of the visit and to obtain permission for the study.

During the community meeting, study objectives were presented and the independence nature of the team was emphasized to assure the participants that the researchers were not part of a local NGO or the Malian government.

Community interviews averaged two hours, and captured general information on the village, including its history, current population, ethnic and linguistic variation, basic infrastructure and dominant livelihood systems, and the presence of savings and credit structures in the village. Following the community interview, the team conducted a series of focus group discussions with women in each village. In SfC villages, focus groups were generally selected according to the various SfC groups, although where possible focus groups were also conducted with women who were part of alternate groups, who had not yet joined SfC, or who had chosen to leave an SfC group. In the expansion zone, focus groups targeted members of any savings or credit organizations, including mixed-gender and men's organizations. Each focus group discussion lasted approximately two hours and included 8-10 members, randomly chosen from among those present and willing to participate. Discussion topics included the history of the group, its objectives, criteria for membership, relationships between members, and group activities.

In SfC villages, key informant interviews with technical agents and replicating agents (where available) permitted the research teams to gather information about the zone, and to acquire an understanding of the strategies used to identify and train groups, the process of group replication, and the larger context of SfC work in the area. Discussions with technical agents served as an informative way to triangulate against village impressions of the evolution of the groups. Key informants were also identified over the course of village observation and the administration of previous instruments, and interviews with these individuals served to provide clarification on complex or delicate issues raised elsewhere in the village research. Three household interviews at each site were also conducted in order to obtain a more detailed socioeconomic profile of individuals within the larger household and village livelihood systems. Where economic stratification occurred, households were selected within poor, average and wealthy categories of wealth/vulnerability, developed according to local criteria.<sup>8</sup>

This method of collecting data emphasizes community participation in identifying and analyzing household dynamics. Throughout the research, the methodology was designed to maximize the range of voices captured from local populations by using open-ended focus group discussions and semi-structured interviews that allowed people to raise issues through natural conversation within a pre-determined range of relevant study topics. In progressing from general to specific information, the sequence of instruments in the three-day research cycle also allowed research teams to build on

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<sup>8</sup> The need for local input for these criteria is paramount, since indicators of wealth can differ dramatically from village to village. In Felou, for example, owning a cart for transporting firewood would be an important indicator of relative wealth. In Bancouma Peulh, however, owning a cart would mark a household as belonging to the lower social caste (former slave class) of the Fulani, and in Maninga Danga it would be much more significant to know whether a household had a canoe than a cart.

knowledge from each phase in the village, to orient the questions in the next set of instruments. A BARA member accompanied each team, and contact was maintained between teams nightly with phone conversations between BARA researchers and team supervisors. This system allowed for adjustments in logistics and assured the safety and quality of research for each team.

In addition to formal data collection, each research team toured their villages with a local guide and collected observations to provide a complement to data from the research instruments. Geographic positioning system (GPS) points were systematically recorded at each site for the village coordinates, each household interview, key infrastructures, and the roads leading from village to prefecture center. These points will provide a valuable record for longitudinal studies of households over time, and may later serve as the basis for a geo-referenced monitoring and evaluation database.

### **1.3 IPA QUANTITATIVE SURVEY METHODOLOGY**

#### *Survey Instruments*

The survey instruments were created by Innovations for Poverty Action (IPA) in conjunction with Oxfam America and Freedom from Hunger. Data collection in the field was done with the help of GREAT Mali, a local survey firm. In each of the 500 survey villages, a census was conducted to list all adult women resident in the village and a community questionnaire was administered. From this census list, 12 women were randomly selected in each village and the households in which those 12 women resided constituted the sample. In each household, we use a questionnaire targeted towards women's "subunit", a questionnaire for the extended household if applicable, and the adult questionnaire, which was administered to the sampled women in the household and her husband if she was married or another adult man in the subunit if she was not married.

#### *Fieldwork*

The IPA team undertook multiple pilot studies to finalize the survey instruments, in collaboration with GREAT and Oxfam America. The first field test was conducted in December 2008. The second phase of pilot testing occurred simultaneously with training of the survey team in January 2009. In collaboration with GREAT and Oxfam, the enumerators were trained during an intensive one- week period on the survey instruments and interviewing procedures. At the end of the training period, a field test was undertaken to both finalize the survey instruments and confirm the competency of all enumerators hired for the survey.

Interviewing all the 500 villages took about 3 months of fieldwork divided into 3 phases. Each phase consisted of approximately 25 consecutive days of fieldwork after which teams were given a week break before returning to the field for the next phase. In total there were 50 enumerators, 10 supervisors, and one field coordinator divided into 10 teams of 6 people. One third of the enumerators are female and about 20% were fluent in the Bobo language, as a significant minority of households in the survey area are



native Bobo speakers. Each team was composed of 5 enumerators and one supervisor. The main responsibility of the field coordinator was to dispatch teams between villages, to make sure that they have all the necessary resources, and to supervise the overall quality of the survey.

Since teams are composed of 5 enumerators, and with the productivity of 2-3 households per day per enumerator, each team interviewed one village per day even including the commute time between villages. In each village, while enumerators are interviewing in households, the supervisors administered the village questionnaire with a focus group composed of the chief of village and his advisors. In addition, the supervisors were responsible for quality control on an ongoing basis by correcting questionnaires and assisting interviewers in need.

### *Interviewing Procedures*

Upon arrival into a new village, the supervisor and enumerators visited the chief of the village and his advisors to introduce his team, explain the purpose of the survey, and to discuss the survey program with the village authority. Only with the permission of the village authorities did enumerators approach individual households to undertake the census listing activity and then the household surveys. If a woman who was on the list of 12 sampled women was not available, a replacement woman was drawn from the census list. In practice, a total of 17 women were randomly selected from the list: 12 sampled women with 5 women who would serve as replacements for women not available the day of the survey. Informed, oral consent was also attained from each household and each adult respondent within each of those households prior to an interview beginning. The informed oral consent process, and the survey overall, was approved by Institutional Review Boards of Innovations for Poverty Action and Yale University.

## II. BASELINE FINDINGS FROM THE SEGOU EXPANSION ZONE IN MALI: RANDOMIZED CONTROL TRIAL AND QUALITATIVE ASSESSMENT

### 2.1 INTRODUCTION

This section of the report provides preliminary descriptive statistics from the IPA baseline household survey and data from BARA's qualitative baseline evaluation within the expansion zone. Qualitative data from the eight villages in the expansion zone where BARA conducted focused case studies provide context for quantitative data for the entire zone, and preliminary statistics serve to situate BARA findings within the larger data set. It should be emphasized at the outset that these are preliminary data, and that the real value for both qualitative and quantitative research will develop longitudinally, as comparisons over time indicate impacts of the program. Nevertheless, initial data from both studies yield insight into the general patterns of resource access, economic behavior and coping strategies that serve as the backdrop to the SfC program's expansion into the region. This section also provides some comparative notes between the expansion zone and previous study areas where SfC is already in place, and discusses some implications of those differences for the SfC program's development and success in this area.

### 2.2 BASIC VILLAGE CHARACTERISTICS

#### *Village demographics*

**Table 5. Village population size**

|  | ALL         | BLA/SEGOU   | SAN        | TOMINIAN    |
|--|-------------|-------------|------------|-------------|
| <b>Average population</b>                    | <b>1035</b> | <b>1007</b> | <b>975</b> | <b>1094</b> |
| < 500 (Percent of all villages)              | 25.4        | 29.4        | 25.0       | 33.5        |
| 500 < x < 1000<br>(Percent of all villages)  | 41.3        | 36.7        | 47.5       | 39.9        |
| 1000 < x < 1500<br>(Percent of all villages) | 14.0        | 12.4        | 9.2        | 11.3        |
| > 1500 (Percent of all villages)             | 18.4        | 16.4        | 15.0       | 14.8        |

Village size presents a normal distribution for all circles, with average village population hovering around 1000 for the entire expansion zone. Tominian has a higher percentage of small villages than the other circles, but variation is slight.

### *Infrastructure and structural limitations*

**Table 6. Distance from paved roads and bimonthly markets**

|  | ALL  | BLA/SEGOU | SAN  | TOMINIAN |
|--|------|-----------|------|----------|
| Village is within 15 km of paved road                | 47.0 | 46.0      | 45.8 | 48.7     |
| Village is within 10 km of paved road                | 34.8 | 34.5      | 34.2 | 35.5     |
| Village has at least a bimonthly market within 10 km | 69.4 | 65.1      | 69.2 | 73.4     |
| Village has bimonthly market within 5 km             | 28.2 | 28.2      | 25.2 | 30.2     |
| Village has bimonthly market within 3 km             | 14.1 | 14.1      | 15.9 | 13.0     |

In the overall sample, over a third of villages lie within 10 kilometers of a paved road, and nearly half of them are within 15 kilometers of a paved road, across all circles. Although there may be some potential error in villager reporting of distance, and there is a real possibility that these relatively small distances to paved roads may nevertheless constitute a real burden to communities, especially during the rainy season, these numbers are encouraging. Similarly, over two-thirds of villages have a regular market within 10 kilometers of their village, although only 13-16% have a market within 3 kilometers of the village. Again, although the quality and size of the nearest market may not always fully respond to the economic needs of villagers, these numbers suggest that many Malians in the Segou region are not as dauntingly isolated from markets and roads as might have been supposed.

One of the most interesting findings from this initial data, and one to be discussed further, is that proximity to roads does not necessarily correlate with greater access to or use of financial, educational or other resources. For each of the tables to be presented in this section, selecting the average value of only those villages that lie within 10 kilometers of a paved road does not yield a significantly different result from the overall average. The village of Diora in the BARA study provides a converse example of the same point; although it is the principal village of its commune, it is over 30 kilometers from any paved road, and the poorly maintained roads in and of Diora become impassable during much of the rainy season. Nevertheless, Diora has a large population and has attracted the interest of a great number of NGOs, including Save the Children, World Vision, UNICEF and CRS.

**Table 7. Access to health services**

|  | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|--|------|---------------|------|----------|
| At least one health center in village            | 9.6  | 10.2          | 9.2  | 9.4      |
| At least one health center within 10 km          | 66.8 | 59.3          | 70.8 | 70.9     |
| At least one dispensary in village               | 1.4  | 1.1           | 0.0  | 2.5      |
| At least one dispensary within 10 km             | 9.4  | 9.0           | 9.2  | 9.9      |
| At least one maternity in village                | 3.8  | 1.7           | 2.5  | 6.4      |
| At least one maternity within 10 km              | 9.2  | 9.0           | 6.7  | 10.8     |
| At least one traditional practitioner in village | 8.0  | 8.5           | 7.5  | 7.9      |

As with markets, although few villages have any health facilities themselves, about two-thirds have a health center within 10 kilometers. Villages in Bla/Segou that do not have their own center are significantly more likely to have to travel farther to find one. Throughout the expansion zone, villages in the BARA study identified limitations on access to health care as a major constraint. Although health costs were significant to all BARA participants, women were identified as carrying the greater part of the burden of the costs of health care, both in payments for services and in opportunity costs to the household. Note the particularly limited access to maternity and dispensary care, and the low levels (for West Africa) of traditional practice.

**Table 8. Education level, school attendance, and access to education**

|  | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|--|------|---------------|------|----------|
| <b>Access to education</b>                 |      |               |      |          |
| Any primary or community school in village | 68.2 | 68.4          | 59.7 | 75.1     |
| Village has at least one primary school    | 42.5 | 38.5          | 37.8 | 48.8     |
| Village has at least one community school  | 29.4 | 35.1          | 23.5 | 27.9     |

Most villages have some form of formal education facility (either primary or community schools), although San's percentage is significantly lower and Tominian's significantly higher. As has been true of other infrastructure, proximity to paved roads or urban centers does not necessarily correlate with higher attendance or literacy rates. In Zangouna, which is near a major urban center and is easily accessible, illiteracy is almost total; this is also true for women in Bougan, which is also highly accessible and near an urban center.

In those sites where formal education existed, villagers in the BARA study previously had to raise collective funds to provide for their children's education. The state may subsidize schooling, but villagers are often expected to provide at least part of the salaries for teachers and the costs of construction and maintenance. In this and the previous phase, education infrastructure was therefore often a point of contention that demonstrated the community's capacity (or incapacity) to act and save collectively.

Although it has already been noted in previous reports, the strong perceived value of literacy by those who are illiterate was a recurring theme in qualitative interviews in the expansion zone. In Pona and Bancouma Peulh, villagers felt powerless to self-advocate in holding the state accountable to their needs, feeling that they were not considered for development projects because of their illiteracy. The high value placed on education as a key constraint to village development was consistently phrased as a prerequisite to effective interaction with NGOs or the state. Mothers in Dioundiou Kologo therefore insisted on their children's education as the key factor that will enable them to secure better resources for the village in the next generation.

**Table 9. Access to water**

|  | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|--|------|---------------|------|----------|
| Deep pump is main drinking source        | 32.3 | 34.3          | 33.3 | 29.9     |
| Unprotected well is main drinking source | 55.7 | 55.2          | 56.8 | 55.6     |
| Protected well is main drinking source   | 12.1 | 12.2          | 10.8 | 12.8     |

Water for cultivation and for consumption is the most critical need of rural Malians. In the overall sample and in each circle, the main source of drinking water for most villagers is an unprotected well; only a third of villages have dug *forages*, or deep pumps, to provide a more secure water source likely to last throughout the year. Deep pumps are often provided by international NGOs; the remarkable consistency across circles for these data suggests that there is not much difference between circles in the ability to secure external assistance for infrastructure.

As Table 10 shows below, while there is a broad array of development projects in the area, they reach only a small percentage of the population. Note that San's lower availability of formal education per village (Table 8) is mirrored by conspicuously fewer education projects than enjoyed by the other circles.

**Table 10. Presence of development projects**

|  | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|--|------|---------------|------|----------|
| At least 1 educational infrastructure project        | 28.6 | 30.5          | 34.2 | 23.6     |
| At least 1 health/nutritional infrastructure project | 9.0  | 11.9          | 7.5  | 7.4      |
| At least 1 water infrastructure project              | 27.2 | 26.0          | 30.0 | 26.6     |
| At least 1 agricultural infrastructure project       | 5.2  | 8.5           | 3.3  | 3.4      |
| At least 1 education project                         | 29.2 | 34.5          | 17.5 | 31.5     |
| At least 1 health/nutrition project                  | 21.4 | 15.8          | 21.7 | 26.1     |
| At least 1 agricultural project                      | 13.2 | 18.6          | 11.7 | 9.4      |

Impressions from research in villages such as Kanouala (a village on a major highway, in which every one of the projects listed in Table 9 has had an impact on village livelihoods) and others such as Pona (where the population struggles without external assistance) led BARA to hypothesize earlier about a feast-or-famine pattern of development aid linked to village accessibility. Early data suggests that proximity to a highway is not a strong indicator of a village's ability to secure project assistance. How does the availability of these projects cluster together? 22% of villages in the sample had no projects while around 26% had 3 or more (up to 8). 28% and 24% of villages had 1 and 2 projects respectively. Going forward, we will more extensively analyze the ways in which the availability of various projects do cluster, in order to establish whether there are indicators linked to such a pattern.

To further investigate the “feast-or-famine” hypothesis put forth by BARA, we look at how various projects cluster together. First, we use information on access to microfinance, banks and NGOs too see if the same villages reporting development projects are also those with access to microfinance and NGOs. Of the 61 villages that reported having access to a microfinance institution, 52 had at least one development project in the village. Of the 364 villages that had at least 1 development project of any type and reported information on water sources in the community questionnaire, 200 use unprotected wells as their main drinking water, another 118 have access to a deep well and the remaining 47 use protected wells. One interesting correlation is between shocks and the presence of development projects in the village. Those villages with at least one project are more likely to have reported having experienced at least 1 incident of flooding. This is not consistent with the idea that development projects are only targeted to areas that are most accessible.

As SfC develops in the expansion zone, tracking its mutual reinforcement with projects that provide opportunities for income generation should give some indication of how SfC works in conjunction with other programs, possibly leading to pilot programs of non-finance programmatic add-ons to SfC.

## 2.3 BASIC HOUSEHOLD CHARACTERISTICS

### *Household size and structure*

In Mali, households are often multigenerational, joint families in which junior agnates (men who share a male patrilineal ancestor with the head of household) live and work under the authority of the group's eldest male agnate. Although each of these junior males has semi-autonomous jurisdiction within his smaller part of the household (that is, over his spouse(s), children and other dependents), the larger household will generally share eating, food storage or economic activities together under the ultimate authority of a single individual. In this research, the ensemble of semi-autonomous parts that share such activities is referred to as the "complex household", while each of the semi-autonomous smaller households is designated as a "sub-unit" of that complex household. In those cases in which the household is just what would normally be a sub-unit, and there is no larger, encompassing complex household, then the household is referred to as a "simple household."

**Table 11. Household size**

|   | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|---|------|---------------|------|----------|
| <b>Household size</b>                     |      |               |      |          |
| Average size                              | 21.2 | 25.2          | 22.6 | 16.9     |
| % households with fewer than 7 members    | 9.5  | 5.0           | 6.8  | 14.9     |
| % households with greater than 40 members | 10.5 | 15.3          | 11.4 | 5.8      |
| % Women living in complex households      | 74.4 | 80.4          | 81.5 | 65.2     |
| <b>Household size</b>                     |      |               |      |          |
| Complex household size                    | 25.7 | 29.2          | 25.9 | 22.0     |
| Simple household size                     | 8.0  | 9.0           | 8.1  | 7.5      |
| Subunit size                              | 6.6  | 7.0           | 6.6  | 6.3      |
| <b>Polygamy</b>                           |      |               |      |          |
| % Married men with exactly 2 wives        | 29.8 | 34.6          | 33.1 | 24.0     |
| % Married men with exactly 3 wives        | 3.8  | 4.9           | 2.5  | 3.4      |
| % Married men with more than 3 wives      | 0.3  | 0.2           | 0.4  | 0.2      |

Unsurprisingly, in this sample sub-unit size and simple household size are roughly the same size on average. At 25.7, the average size of the complex household seems small in comparison with the size of household found in Bambara communities in Koulikoro in the last two phases of BARA research, although the sample size was admittedly very small. As data analysis progresses it will also be interesting to note how household size relates to livelihood strategy and economic vulnerability.

Average (complex) household size ranges considerably between circles, with the average in Tominian much lower than in the other circles. Tominian also has a greater

percentage of very small households (less than seven members), and very few large households (40 or more members). This may simply be related to the dominance of Bobo in Tominian; Bobo have much greater numbers of Christians in their communities than does the general population, and this may reduce household size through monogamy. Indeed, rates of polygamy are also slightly lower in Tominian than in the other circles.

Another possible reason for smaller households suggested by the qualitative data in Tominian might be an increasing fragmentation of the sub-units of the complex household, as changes in land tenure and livelihood strategy drive them toward greater autonomy. In Bancouma Peulh, for example, increased migration may be changing the structure of households, as returned migrants are less willing to share their resources with the larger, complex household and prefer to support their particular sub-units. The village has an increasing number of simple households that act independently of complex households, a phenomenon that was all but unheard of 20 years ago.

**Table 12. Characteristics of sampled women**

|   | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|---|------|---------------|------|----------|
| <b>Age (percent)</b>                              |      |               |      |          |
| 16-19   | 7.2  | 8.3           | 6.5  | 7.1      |
| 20-49   | 79.9 | 78.2          | 79.6 | 79.2     |
| 50 and over                                       | 12.9 | 13.5          | 13.9 | 13.7     |
| Married (percent)                                 | 94.2 | 92.4          | 94.5 | 95.7     |
| <b>Number of biological children in household</b> |      |               |      |          |
| Under 6   | 1.2  | 1.1           | 1.1  | 1.2      |
| Between 6 and 16                                  | 1.6  | 1.6           | 1.6  | 1.6      |

Table 12 presents descriptive statistics on the sampled women, i.e. the 6,000 women that were selected from the census lists to be included in the study sample. Mali has high marriage rates for women in general, and nearly all sampled women are married. About 80% of adult women are between the ages of 20 and 49<sup>9</sup>, and take care of on average both a young child and a child old enough to aid in productive activity. These statistics vary very little across circles.

<sup>9</sup> It should be noted that there is an unavoidable margin of error in estimating the ages of research participants.



## Ethnicity

The surprising lack of variation between circles that will be shown throughout this report occurs in the context of considerable ethnic differences between regions. Tominian is predominantly Bobo with a significant Dogon minority, while the rest of the expansion zone is predominantly Bambara with a significant Minianka minority.

**Table 13. Ethnic composition**

|  | ALL | BLA/SEGOU | SAN | TOMINIAN |
|--|-----|-----------|-----|----------|
| <i>Most common ethnicities among heads of household (percent of total)</i> |     |           |     |          |
| Bambara  | 36  | 58        | 52  | 2        |
| Bobo   | 27  | 0         | 9   | 68       |
| Minianka   | 13  | 23        | 14  | 3        |
| Soninke  | 6   | 6         | 10  | 2        |
| Dogon  | 5   | 1         | 1   | 13       |
| Peulh  | 5   | 7         | 7   | 2        |

Qualitative work in the expansion zone also indicates that while there is tremendous variation between the eight study sites in terms of ethnic composition, livelihood strategies, intra-household dynamics, land tenure and access to resources, the issues of primary interest to this research are nevertheless fairly constant; that is, women make similar calculations of risk with regard to investment, saving, borrowing and lending. Ethnic and religious differences may be highly significant in terms of the program's ability to attract adherents when agents are not from the area, but they do not in themselves appear to be a meaningful determinant of program success.

## Migration

The table below presents data on temporary absences and migration. These data should be interpreted in the light of the household definition that was used in the survey. All people that had been living in the household for at least one month in the past 12 months were considered household members. The table shows that temporary migration is not uncommon. Thirteen percent (13%) of household members were away for more than 2 weeks in the past 12 months. The average period of absence is about 4 months. Temporary absent household members are most frequently adult men who migrate for work or business purposes. Most of the migration is either local within the Segou region or to Bamako.

**Table 14. Temporary absences**

|  | ALL   | BLA/SEGOU | SAN   | TOMINIAN |
|--|-------|-----------|-------|----------|
| <i>Migration for more than 2 weeks in last 12 months</i> |       |           |       |          |
| % individuals who migrated, last 12 months               | 0.13  | 0.13      | 0.16  | 0.12     |
| Total weeks spent away, last 12 months                   | 16.74 | 16.15     | 16.45 | 17.62    |
| % households with migrants, last 12 months               | 0.57  | 0.58      | 0.67  | 0.51     |
| Average # migrants in household, last 12 months          | 0.91  | 0.93      | 1.11  | 0.77     |
| <i>Absences in last 7 days</i>                           |       |           |       |          |
| % individuals away for at least 1 day last week          | 0.08  | 0.08      | 0.11  | 0.07     |
| % households with absent members in the last 7 days      | 0.38  | 0.38      | 0.46  | 0.33     |
| Average # members away in the last 7 days                | 0.58  | 0.60      | 0.73  | 0.48     |
| <i>Migrant demographics</i>                              |       |           |       |          |
| Adult men  | 0.80  | 0.79      | 0.79  | 0.80     |
| Male household heads only                                | 0.23  | 0.24      | 0.23  | 0.22     |
| Adult women  | 0.13  | 0.12      | 0.13  | 0.14     |
| Children   | 0.07  | 0.08      | 0.07  | 0.06     |
| <i>Primary reasons for migration</i>                     |       |           |       |          |
| Work, business   | 0.62  | 0.61      | 0.71  | 0.56     |
| Education  | 0.19  | 0.19      | 0.14  | 0.22     |
| Social   | 0.14  | 0.14      | 0.10  | 0.17     |
| Medical  | 0.03  | 0.03      | 0.03  | 0.03     |
| Other  | 0.02  | 0.02      | 0.02  | 0.01     |
| <i>Primary destinations</i>                              |       |           |       |          |
| Bamako   | 0.35  | 0.34      | 0.32  | 0.37     |
| Neighboring village                                      | 0.09  | 0.13      | 0.06  | 0.08     |
| Other location in the same circle                        | 0.13  | 0.14      | 0.12  | 0.12     |
| Other location in the region of Segou                    | 0.18  | 0.18      | 0.21  | 0.14     |
| Other location in Mali                                   | 0.20  | 0.16      | 0.21  | 0.22     |
| Cote d'Ivoire  | 0.04  | 0.04      | 0.05  | 0.04     |

## Health

The table below presents data on the incidence of illnesses and usage of health services. Illness is most frequent among adults and young children. Less than a quarter (22%) of adults reported having been ill in the past month, and the adult respondent to the household questionnaire reported that 23% of young children and only 14% of children aged 5-17 experienced an illness episode during that same period. Illnesses appear to be relatively severe. People who were reported having been ill were unable to perform their usual activities for an average of 4.60 days in the past month. About one third of people who suffered from illnesses visited a health facility, most often a health center or traditional healer. Fever is the most commonly reported symptom.

Average per capita medical expenses in the past month were 524 FCFA. Health expenses are highest in Bla/Segou and lowest in Tominian. Savings are the most common source of financing while sale of property and gifts are important too. Loans are used to finance medical expenses in 5% of cases.

**Table 15. Health**

|  | ALL    | BLA/<br>SEGOU | SAN    | TOMINIAN |
|--|--------|---------------|--------|----------|
| <i>Incidence Of Injury, Past 1 Month</i>             |        |               |        |          |
| Incidence of injury in past month                    | 0.01   | 0.02          | 0.01   | 0.01     |
| % visiting a health facility, conditional on injury  | 0.41   | 0.44          | 0.40   | 0.37     |
| <i>Incidence Of Illness, Past 1 Month</i>            |        |               |        |          |
| Adults   | 0.22   | 0.26          | 0.24   | 0.17     |
| Youth, ages 5-17                                     | 0.14   | 0.16          | 0.14   | 0.11     |
| Children under 5                                     | 0.23   | 0.26          | 0.24   | 0.20     |
| % visiting a health facility, conditional on illness | 0.35   | 0.39          | 0.31   | 0.33     |
| # days too ill to engage in usual activities, if ill | 4.60   | 4.70          | 4.53   | 4.51     |
| <i>Most Common Ailments</i>                          |        |               |        |          |
| Fever  | 0.42   | 0.41          | 0.40   | 0.45     |
| Cold/cough   | 0.20   | 0.21          | 0.22   | 0.18     |
| Diarrhea   | 0.06   | 0.06          | 0.06   | 0.05     |
| <i>Health Providers Most Commonly Visited</i>        |        |               |        |          |
| Health center  | 0.69   | 0.67          | 0.69   | 0.71     |
| Traditional healer                                   | 0.14   | 0.16          | 0.14   | 0.12     |
| Dispensary   | 0.06   | 0.06          | 0.03   | 0.08     |
| <i>Health Costs, Past 1 Month</i>                    |        |               |        |          |
| Medical expenses per person, last month (FCFA)       | 524.76 | 698.09        | 506.27 | 376.81   |
| <i>Primary Means Of Financing Health Costs</i>       |        |               |        |          |
| Savings  | 0.70   | 0.68          | 0.71   | 0.70     |
| Sale of property                                     | 0.13   | 0.16          | 0.13   | 0.08     |
| Gift   | 0.11   | 0.10          | 0.10   | 0.12     |
| Loan (any source)                                    | 0.05   | 0.04          | 0.04   | 0.06     |

As the incidence of fever suggests, malaria is a major public health burden in the study area. Do women have knowledge of how malaria is spread? And what do they do to try to protect themselves? The table below provides some information on these questions

based on a module in the quantitative household survey about malaria knowledge designed by Freedom from Hunger.

**Table 16. Knowledge of Malaria**

|   | ALL   | BLA/<br>SEGOU | SAN   | TOMINIAN |
|---|-------|---------------|-------|----------|
| % of women who mention as a cause of malaria:                               |       |               |       |          |
| Mosquitoes  | 43.5% | 56.3%         | 44.7% | 32.0%    |
| Mosquitoes only   | 19.6% | 20.6%         | 19.9% | 18.5%    |
| % of women who mention each of the following as precaution against malaria: |       |               |       |          |
| Prenatal care   | 22.5% | 23.0%         | 24.2% | 21.1%    |
| Bednet  | 42.2% | 51.9%         | 45.0% | 32.6%    |
| Anti-malarial   | 12.3% | 13.4%         | 13.2% | 11.0%    |
| Improved nutrition  | 10.9% | 15.0%         | 11.6% | 7.1%     |
| De-worming  | 0.5%  | 0.9%          | 0.3%  | 0.4%     |
| Clean environment   | 4.5%  | 1.2%          | 6.9%  | 5.7%     |

Almost half of women interviewed correctly identified mosquitoes as a cause of malaria. However, a bit less than 20% of women reported only mosquitoes as the cause. Table 16 also describes how women attempt to protect themselves from malaria: bednet use was the most frequently reported method. Table 17 looks specifically at bednet usage.

**Table 17. Bednet usage**

|   | ALL  | BLA /<br>SEGOU | SAN  | TOMINIAN |
|---|------|----------------|------|----------|
| <i>Mosquito Net Usage, Previous Night</i>       |      |                |      |          |
| Adult males                                     | 0.36 | 0.49           | 0.38 | 0.22     |
| Adult females                                   | 0.48 | 0.58           | 0.55 | 0.34     |
| Youth, ages 5-17                                | 0.37 | 0.48           | 0.44 | 0.24     |
| Children under 5                                | 0.51 | 0.62           | 0.59 | 0.36     |
| <i>Primary Reasons Given For Not Using Nets</i> |      |                |      |          |
| Too hot for sleeping                            | 0.75 | 0.69           | 0.79 | 0.77     |
| Do not have a net                               | 0.15 | 0.16           | 0.14 | 0.14     |
| Only use during cold season                     | 0.07 | 0.08           | 0.05 | 0.07     |
| Other   | 0.03 | 0.06           | 0.02 | 0.02     |

About half of the adult women and young children report having slept under a mosquito net the previous night. Bednet usage is lower for adult males and older children. Bednet usage is remarkably less frequent in Tominian. Interestingly, the primary reason indicated for non-usage of bednets is that it makes sleeping more difficult. This suggests that attempts to increase bednet usage through the distribution of bednets or information campaigns may be challenging.

### **Education**

Table 18 below bears out several aspects of Malian education observed in all phases of qualitative research. Firstly, school attendance is generally very low. Only about half of children aged 7-11 attend school and less than 45% of children aged 12-16. Secondly, there is a strong gender disparity in education. School attendance is about 10% points lower for girls than for boys. Similarly, women are much less likely to be literate than men. As the primary reason why children were not attending school, respondents indicated that the children's labor contribution to household was indispensable.

**Table 18. Education**

|  | ALL  | BLA /<br>SEGOU | SAN  | TOMINIAN |
|--|------|----------------|------|----------|
| <i>Literacy Rates</i>                                      |      |                |      |          |
| All adults (ages 17+)                                      | 0.39 | 0.40           | 0.39 | 0.38     |
| Adult males  | 0.50 | 0.53           | 0.50 | 0.48     |
| Adult females  | 0.28 | 0.28           | 0.28 | 0.29     |
| <i>Current School Attendance</i>                           |      |                |      |          |
| Males, ages 17-20  | 0.23 | 0.19           | 0.22 | 0.27     |
| Females, ages 17-20  | 0.12 | 0.15           | 0.09 | 0.12     |
| Males, ages 12-16  | 0.50 | 0.44           | 0.50 | 0.55     |
| Females, ages 12-16  | 0.37 | 0.33           | 0.36 | 0.43     |
| Males, ages 7-11   | 0.54 | 0.51           | 0.50 | 0.59     |
| Females, ages 7-11   | 0.45 | 0.38           | 0.42 | 0.52     |
| <i>Primary Reasons For Not Attending School, ages 7-16</i> |      |                |      |          |
| Needed for labor   | 0.30 | 0.31           | 0.26 | 0.31     |
| Father refused   | 0.18 | 0.23           | 0.18 | 0.13     |
| Not interested in school                                   | 0.15 | 0.15           | 0.14 | 0.16     |
| No money for fees or other costs                           | 0.14 | 0.10           | 0.15 | 0.19     |
| No school nearby   | 0.11 | 0.12           | 0.09 | 0.11     |
| Too old  | 0.07 | 0.08           | 0.08 | 0.06     |

## 2.4 LIVELIHOOD SYSTEMS

In all parts of the expansion zone, millet and sorghum dominate the agricultural production of survey participants (Table 19). At the village level, practically every village has members who produce millet, sorghum and groundnuts, with market staples such as corn, fonio and beans of secondary importance. Within complex households, the same hierarchy is maintained, although there is considerable variation between circles in the importance of these secondary crops. In Tominian, fonio has replaced corn as a major crop; the reverse is true in Bla and Segou. Following these two groups of staples are rice and cotton, which are cultivated in less than half of the sample villages. Presumably, this is because the ecological and hydrological requirements for rice cultivation are not met in all villages, and because of a general movement away from cotton production over the last decade. As noted in BARA's previous evaluation reports,

recent increases in costs of inputs and decreased market price, as well as late payments from CMDT<sup>10</sup> for harvest, have led to a mass transition to other staples.

**Table 19. Crops cultivated (percent of villages and of complex households)**

|            | At village level | Within complex households |           |      |          |
|------------|------------------|---------------------------|-----------|------|----------|
|            | ALL              | ALL                       | BLA/SEGOU | SAN  | TOMINIAN |
| Millet     | 100.0            | 96.1                      | 96.0      | 94.3 | 97.5     |
| Sorghum    | 98.6             | 83.2                      | 81.0      | 84.2 | 84.8     |
| Groundnuts | 98.6             | 70.5                      | 65.0      | 69.3 | 77.3     |
| Corn       | 73.2             | 47.4                      | 74.3      | 44.7 | 20.8     |
| Fonio      | 75.6             | 38.1                      | 10.8      | 35.9 | 68.8     |
| Beans      | 78.2             | 33.8                      | 34.1      | 36.3 | 31.7     |
| Rice       | 46.6             | 30.0                      | 31.1      | 39.6 | 21.7     |
| Cotton     | 31.4             | 20.9                      | 43.6      | 13.1 | 2.3      |

Within household production, a large percentage of women have their own fields for production, or at least some rights to use land belonging to the household (Table 20). Within the overall sample, 38.9% of married women undertake their own agricultural activities for production of staple cereals (beyond the preparation of sauce ingredients)<sup>11</sup> and help with collective household production. The variation between circles is significant: more than half of women in Bla and Segou conduct their own agricultural activities, while just over a quarter of married women in Tominian do. Evidence from both BARA research and the larger ethnographic literature (cf. Turritin 1987, Wooten 1997) suggests that women in the Segou circle may have been earlier and more fully incorporated into the cash economy, so that traditional constraints on women's economic activity may have had more time to erode. In Bougan (Segou), for example, women have been involved in market gardening and shea butter production for the last two decades. In Zangouna (Bla) women also note that the traditional bans on their participation in agriculture have been lifted, and they are heavily involved in market gardening.

<sup>10</sup> The Compagnie Malienne du Développement des Textiles (the national Malian Textile Development Company)

<sup>11</sup> In much of Malian society, women's agricultural production is geared toward their expected roles in cooking and preparing food, so that even when women acquire or are allotted their own small plots or kitchen gardens, they will often use them exclusively for traditional sauce ingredients such as okra and peanuts, and not for commercial activity (Becker 1996:284).



**Table 20. Women's agricultural activities**

|  | ALL  | BLA/<br>SEGOU | SAN  | TOMINIA<br>N |
|--|------|---------------|------|--------------|
| <b>% of Married women with their own agricultural activities</b> | 38.9 | 52.0          | 40.0 | 26.1         |
| <b>% of women who cultivate:</b>                                 |      |               |      |              |
| Groundnuts   | 21.2 | 32.6          | 14.8 | 14.5         |
| Okra   | 10.3 | 13.7          | 15.9 | 3.8          |
| Millet   | 7.2  | 10.3          | 2.9  | 6.9          |
| Onions   | 5.8  | 3.7           | 8.8  | 6.0          |
| Sorghum  | 3.6  | 7.2           | 2.3  | 1.0          |

Okra and peanuts are typically women's crops, and constitute the most important agricultural products of women's independent activities. Millet and sorghum require short periods of highly intensive labor and are more often grown by men, but they are such essential staples (cf. Table 19) that women also grow them to a lesser degree.

## 2.5 SHOCKS AND COPING STRATEGIES

**Table 21. Village-level crises in the last five years**

|   | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN | Among those<br>within 10 km<br>of a paved<br>road |
|---|------|---------------|------|----------|---|
| <b>% villages that have experienced:</b>                  |      |               |      |          |   |
| At least 1 incidence of flooding                          | 51.9 | 53.5          | 60.7 | 45.1     | 57.1  |
| At least 1 incidence of drought                           | 59.5 | 62.6          | 61.7 | 55.4     | 66.9  |
| At least 1 incidence of locusts<br>or other crop disaster | 12.6 | 6.5           | 16.8 | 15.4     | 9.7   |
| At least 1 incidence of food crisis                       | 27.7 | 25.2          | 15.0 | 37.7     | 32.5  |
| At least 1 incidence of cattle disease<br>outbreak        | 41.6 | 41.9          | 39.3 | 42.9     | 43.5  |

The BARA interview data indicates extreme vulnerability to natural disaster for much of the population; Table 21 confirms similar vulnerabilities in the larger sample. In the last five years, more than half of the villages in the expansion zone have experienced flooding, with over 60 percent of the sample villages in San reporting floods. There is considerable overlap in these categories, since it is a common occurrence in Mali for the same village to suffer from flooding and from drought in different years. One might therefore expect that food crisis rates be linked to natural disasters, but curiously Tominian reports far more villages experiencing food crises in the last five years than

the other circles, while the rates of experiencing most disasters are slightly lower for the circle. As data analysis progresses, this anomaly may be explained by studying the pre-existing food insecurity and vulnerability of populations when natural disasters strike. Along the same lines, it is interesting to note that villages near to paved roads are actually more likely to have experienced most forms of natural disaster than the average village; again, the key question is whether they were better able to weather such unforeseen setbacks.

Note also the remarkably high rates of livestock disease outbreak across the region; households that raise animals in the expansion zone reported disease as a major factor in livelihood and food insecurity in the BARA interviews.

**Table 22. Shocks at the household level in the last year**

|   | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|---|------|---------------|------|----------|
| % of households that experienced at least one shock in the past 12 months that affected their economic situation: | 60.1 | 63.1          | 58.5 | 58.4     |
| <b>Type of shock:</b>   |      |               |      |          |
| Poor harvest due to drought   | 23.1 | 28.2          | 17.9 | 21.8     |
| Illness or injury to a member of the (restricted) household   | 19.5 | 22.4          | 18.6 | 17.5     |
| Illness or theft of animals   | 19.1 | 21.1          | 21.6 | 15.9     |
| Poor harvest due to flooding  | 10.1 | 9.2           | 12.4 | 9.5      |

Table 22 begins to address the question of burden as well as shock, considering not only the experience of crisis but the degree to which it impacts household economies. The majority of households (60.1%) experienced at least one shock in the last year that had adverse economic consequences for the household. The most onerous shocks that households experienced related to reduction in harvest (due to natural disaster) or to illness of either animals or nuclear family. Variation across circles for all forms of shock does not appear significant.

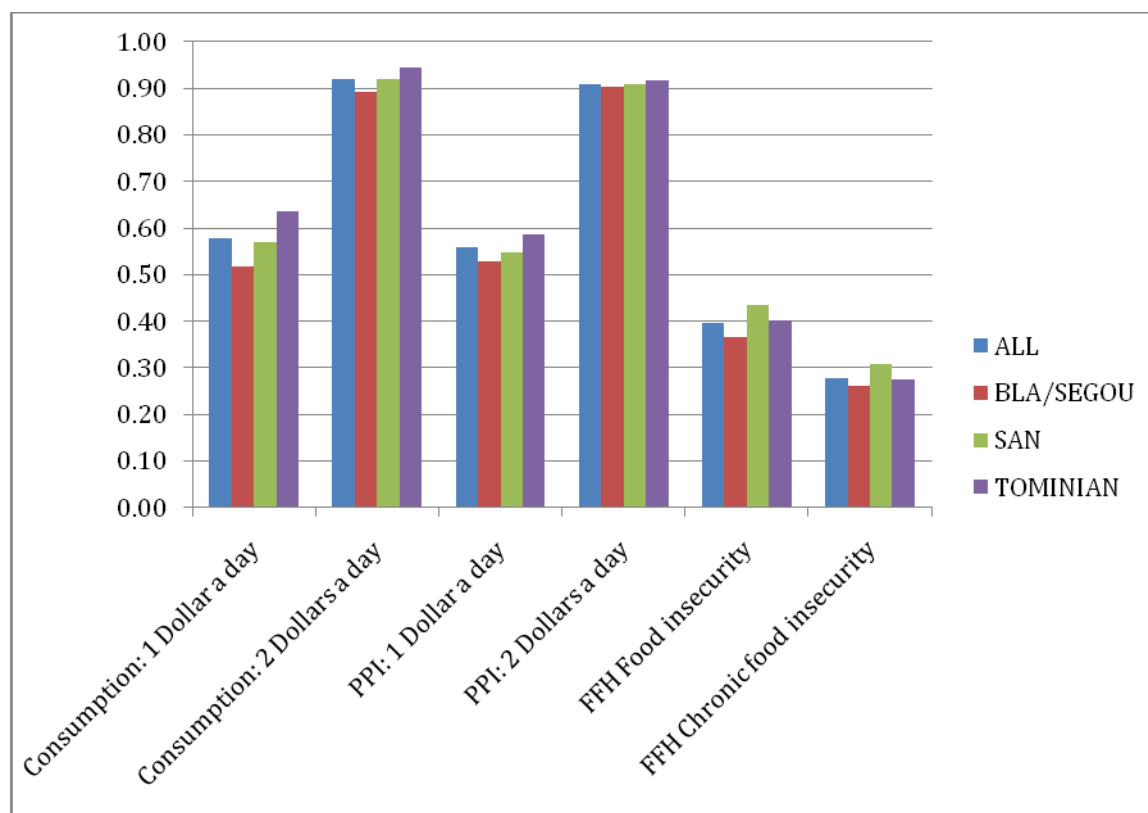
**Table 23. Household coping strategies**

|  | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|--|------|---------------|------|----------|
| <b>% of households that resorted to the following coping strategies:</b> |      |               |      |          |
| Sale of animals  | 40.6 | 42.4          | 40.2 | 39.3     |
| Sale of grain reserves   | 11.2 | 14.3          | 10.7 | 8.8      |
| Sale of tools, or reduction of business inventory                        | 12.0 | 10.4          | 11.8 | 13.6     |
| Sale of other property   | 5.9  | 8.8           | 4.8  | 4.0      |
| Sending children to stay with others                                     | 6.7  | 8.6           | 6.2  | 5.4      |

Findings in Table 23 correspond well with the hierarchy of coping strategies identified through the BARA interviews. In all villages in the BARA study where animal husbandry is a significant livelihood strategy, the sale of animals is the preferred method of coping with shock. Success in implementing this optimal strategy over others appears to correlate with the relative wealth of the household, most likely due to the ability to sell animals in times of need. This mechanism corresponds well to the near-total absence of formal banking found in the RCT sample (to be discussed in later sections); as one man in Dioundiou Kologo explained, “Of course we save money, but we don’t use banks. The animals are our savings accounts”. All of the other strategies listed here were also cited by participants in the BARA study, but as less common strategies than informal borrowing in cash or in kind. While some considered the sale of grain reserves to be a strategy to cope with shocks, as listed above, others cited the decision not to sell grain reserves as a strategy to deal with shock, since the household would be obliged to consume the reserves in times of crop failure.

## 2.6 POVERTY AND FOOD SECURITY

*Figure 2. Consumption poverty, PPI and FFH Food Security Indices<sup>12</sup>*



Not only are households in the expansion zone likely to experience severe and economically harmful shocks regularly, they are unlikely to be well equipped to handle these shocks. As Figure 2 and Table 24 dramatically show, households in the expansion zone are extremely poor and have high rates of food insecurity, even for Mali. In all circles, most households not only fall below the \$2 poverty line, but even below the dollar per day mark of serious poverty. Over 90% of households in all circles make less

<sup>12</sup> The Freedom from Hunger Food Security Scale (FSS) is a short survey instrument based on a US Department of Agriculture (USDA) food security scale, but adapted for a developing world context. The FSS is used to measure an individual's food security, or the access to food, availability of food and utilization of food. The 17-question survey instrument measures household "access" to food through available resources to purchase or barter for food. Nine of the 17 survey questions serve as a scale, and each subsequent question measures a higher degree of food insecurity. The Progress out of Poverty Index™ (PPI™) for Mali (The Progress out of Poverty Index™: A Simple Poverty Scorecard for Mali, Mark Schreiner. Jan 2010. <http://progressoutofpoverty.org/mali>) is a client poverty assessment tool that uses 10 indicators to estimate the likelihood that a participant has income below the National Poverty Line, National Food Line, USAID "Extreme" Poverty Line, \$1.25/Day/2005 PPP line, and \$2.50/Day/2005 PPP line. Indicators in the PPI are based on data from the 2001 Enquête Malienne sur L'Evaluation de la Pauvreté (EMEP, Mali Poverty Evaluation Survey) conducted by Mali's Direction Nationale de la Statistique et de l'Information (DNSI).

than two dollars. Figure 2 also shows Freedom from Hunger's indicators of food security and chronic food security. The scale is designed to capture various levels of severity on food insecurity. The most food insecure households regularly have to miss regular meals and go hungry due to food shortage and an inability to purchase food. These indicators show that over a third (39.7% overall) of households in the expansion zone in all circles are food insecure and over a quarter (27.8% overall) are chronically food insecure. One striking finding is that the PPI \$1 a day measure – which is based on only a few questions and easily administered by survey firms in developing countries – provides a very similar estimate of the percentage of households that are poor to the measure based on the detailed food consumption module. The IPA team finds this surprising but comforting that such a basic tool which can be implemented at low cost may do a good job of estimating poverty. The IPA team will continue to compare the PPI measure to other poverty measures both during the high frequency surveys and the follow up survey.

**Table 24. Poverty and food security measures**

|  | ALL    | BLA/<br>SEGOU | SAN    | TOMINIAN |
|--|--------|---------------|--------|----------|
| <i>Consumption (per day per equivalent adult - FCFA):<sup>13</sup></i> |        |               |        |          |
| Food consumption   | 263.40 | 287.12        | 268.11 | 240.17   |
| Total consumption  | 326.90 | 356.28        | 330.40 | 299.48   |
| <i>% of households with consumption below \$1:</i>                     |        |               |        |          |
| All households   | 57.89  | 51.84         | 56.88  | 63.73    |
| Complex households   | 50.87  | 45.47         | 48.95  | 58.06    |
| Simple households  | 59.83  | 54.17         | 54.74  | 64.35    |
| <i>% of households with consumption below \$2:</i>                     |        |               |        |          |
| All households   | 91.99  | 89.20         | 92.08  | 94.36    |
| Complex households   | 92.37  | 89.11         | 92.87  | 95.60    |
| Simple households  | 95.31  | 93.23         | 93.80  | 96.84    |
| <i>PPI poverty estimates:</i>  |        |               |        |          |
| Percent of HHs estimated below \$1                                     | 55.76  | 52.96         | 54.79  | 58.74    |
| Percent of HHs estimated below \$2                                     | 90.97  | 90.25         | 90.95  | 91.61    |
| <i>FFH food insecurity:</i>  |        |               |        |          |
| Food insecurity  | 39.72  | 36.67         | 43.35  | 40.19    |
| Chronic food insecurity  | 27.82  | 26.07         | 30.82  | 27.55    |
| <i>Households having run out of main grains:</i>                       |        |               |        |          |
| Complex households   | 53.1   | 49.6          | 53.5   | 56.4     |
| Simple households  | 64.0   | 61.9          | 63.2   | 65.2     |

One would expect that simple households (social units composed of a single head of household and dependents that do not share meals, work, economic activities or food storage with others) would be more vulnerable to shocks, and indeed they are uniformly about 10% more likely to run out of the most important staples (millet, rice and sorghum) than households that have integrated into the larger, complex households defined in the discussion of household structures above. The consumption poverty figures indicate that simple households are also more likely to fall below the poverty line than complex households. This is especially true if the \$1 poverty line is used.

<sup>13</sup> This includes the food and goods that families produce themselves. The exchange rate is approximately 1 USD = 475 FCFA.

**Table 25. Correlation across Poverty Measures**

|                           | Consumption | Asset index | PPI poverty score |
|---------------------------|-------------|-------------|-------------------|
| <i>All households:</i>    |             |             |                   |
| Asset index               | 0.35        | .           | .                 |
| PPI poverty score         | 0.15        | 0.38        | .                 |
| Food security score       | 0.08        | 0.20        | 0.12              |
| <i>Simple households:</i> |             |             |                   |
| Asset index               | 0.49        | .           | .                 |
| PPI poverty score         | 0.22        | 0.33        | .                 |
| Food security score       | 0.14        | 0.24        | 0.04              |

The quantitative data offer a number of options to measure poverty, and it is of interest to see how well the wealth orderings underlying them line up. The table above presents correlation coefficients between the rank a household occupies in the distribution of consumption, assets, the PPI score and the food security score.

The asset index<sup>14</sup> was constructed using a principal components analysis. First, the key domestic, durable, and agricultural assets that varied most across the data (i.e., explained most of the variation in the data) were identified using the principal components mathematical technique. Then, information on the number per capita of each type of the household's assets was used to make an index that ranks households according to their ownership of these key assets (those assets that explain the most variation in the data). A household's value for the asset ordering index is therefore a weighted average of what they own among those most essential assets. A household who has a large number of the key assets will have a higher value than a household with fewer of those key assets.

Table 25 shows the correlations among these four measures of poverty. If two measures ranked all households in exactly the same order, the correlation coefficient would be 1. If two rankings were completely independent, the correlation coefficient would be zero. Considering the correlations, per capita consumption is relatively highly correlated with the asset index. The correlation of food consumption with the PPI score and the FFH food security score is lower. Not surprisingly, the asset index is relatively highly correlated with the PPI index, which relies heavily on asset holdings to capture poverty. However, the correlation between the PPI poverty score and the food security score is relatively low (0.12). For simple households, the correlation coefficients between the rankings are often higher: the correlation between the asset index and consumption goes up to 0.49 and the correlation between the consumption measure and the PPI scores goes up from 0.15 to 0.22. However, the correlation between the PPI poverty

<sup>14</sup> This index includes large and small assets and food storage.

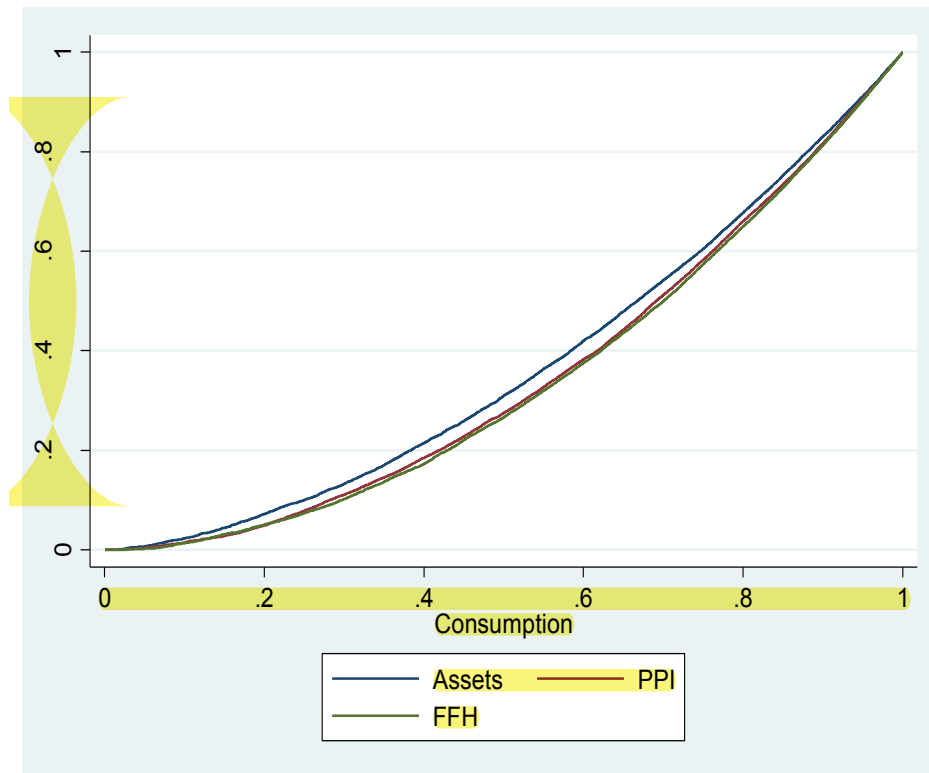
score and the FFH food security score goes down dramatically from 0.12 for all households to 0.04 in simple households.

Figure 3 below illustrates graphically to what extent the different rankings line up. The curves in the graph indicate how many of the households that fall within the group of  $p$  poorest households in terms of consumption also fall within the group of  $p$  poorest household in terms of one of the other measures. If the two measures ranked all households in the same way, the curve would be the 45° diagonal. The closer the curve is to the diagonal, the better the ordering corresponds to the benchmark ordering - consumption in our case.

This figure presents a more general way of depicting how well the poor/non-poor classification in terms of consumption, assets, and food security match up, instead of looking at a particular cutoff such as the one dollar a day line. Figure 3 therefore illustrates that the asset index ranking corresponds more closely to the consumption ranking than the PPI or food security score rankings do. There is not much difference between how well the PPI and food security score line up with consumption – the lines are quite close to one another. Another way to see how similar the rankings are is to give a concrete example of how to read the figure. We have seen above that 58% of households have per capita consumption of less than \$1. The figure below tells us about two thirds of these very poor households (40% of the 58%) are ranked in the bottom 58% of the asset distribution. For the PPI and the food security score, the percentage is somewhat lower (35% of 58%). The final observation for this figure is that the correlations across measures are rather low, as we saw in Table 25.



**Figure 3. Correspondence between wealth rankings**



In the BARA sample, at least two villages, Bougan and Kokuy, appear to suffer almost uniformly from regular food insecurity: anecdotal information attests that a large majority of both village's residents run out of food and/or experience hunger each year. As discussed in BARA's previous reports, there is reason to believe that the degree of *homogeneity* of poverty or vulnerability may prove to be an important indicator of a village's potential success with SfC, perhaps even more so than the relative poverty or vulnerability of a given community as compared to other communities. More heterogeneous communities tend to be more successful because the early participants in SfC are relatively less poor and more willing to take the risk in trying the program. This suggests that the variance in poverty within a village may be an important predictor to how SfC will affect these villages and households.

Finally, households can be categorized according to their expenditure level, using the consumption measure. In Table 26, households are divided into three categories: low, middle and high consumption. Households are then further broken down into small households (those with less than 13 members), medium sized households and large households (those with more than 22 members). This creates nine categories of households. The table then provides a description of each type of household as captured by literacy rates, the percentage of women in these households with at least one business, the percentage of women who participate in at least one tontine, consumption per equivalent household and the percentage of women in food insecure

households, as captured by the Freedom from Hunger measure of food insecurity described above.

The percentage of women owning a business does not appear to vary significantly across types of households – small, medium or large – or across poverty levels. The lowest percent of women owning a business is 43 and the maximum is 55 percent of women across all categories. While in each type of household, the fraction of women who are entrepreneurs does increase slightly as the total household expenditures increases, the overall pattern is consistent with the idea that a large fraction of women in all types of households and in all levels of poverty currently own businesses. This suggests that Saving for Change may be able to provide opportunities for many women. A similar pattern is observed for tontine participation.

**Table 26. Descriptions of Households at Different Poverty Levels**

|   | Total  | Lowest consumption<br>tercile | Middle consumption<br>tercile | Highest consumption<br>tercile |
|---|--------|-------------------------------|-------------------------------|--------------------------------|
| <i>% of women in complex households:</i>        |        |                               |                               |                                |
| Small households (<=12):                        | 0.3    | 0.26                          | 0.28                          | 0.34                           |
| Medium sized households:                        | 0.9    | 0.83                          | 0.91                          | 0.95                           |
| Large households (> 22):                        | 1      | 1                             | 1                             | 1                              |
| <i>Literacy rate among adults:</i>              |        |                               |                               |                                |
| Small   | 0.25   | 0.21                          | 0.23                          | 0.31                           |
| Medium  | 0.26   | 0.24                          | 0.26                          | 0.28                           |
| Large   | 0.27   | 0.23                          | 0.28                          | 0.31                           |
| <i>School attendance, children aged 7-11:</i>   |        |                               |                               |                                |
| Small   | 0.5    | 0.48                          | 0.52                          | 0.5                            |
| Medium  | 0.52   | 0.51                          | 0.48                          | 0.57                           |
| Large   | 0.5    | 0.5                           | 0.5                           | 0.51                           |
| <i>% of women with at least one business:</i>   |        |                               |                               |                                |
| Small   | 0.48   | 0.43                          | 0.49                          | 0.52                           |
| Medium  | 0.5    | 0.44                          | 0.53                          | 0.55                           |
| Large   | 0.48   | 0.43                          | 0.47                          | 0.54                           |
| <i>% of women who are members of a tontine:</i> |        |                               |                               |                                |
| Small   | 0.22   | 0.19                          | 0.22                          | 0.25                           |
| Medium  | 0.22   | 0.2                           | 0.22                          | 0.25                           |
| Large   | 0.22   | 0.19                          | 0.22                          | 0.25                           |
| <i>Consumption per equivalent adult (FCFA):</i> |        |                               |                               |                                |
| Small   | 326.69 | 174.52                        | 288.63                        | 508.59                         |
| Medium  | 316.68 | 169.75                        | 290.58                        | 519.02                         |
| Large   | 336.58 | 167.86                        | 289.92                        | 534.35                         |
| <i>% of women in food insecure households:</i>  |        |                               |                               |                                |
| Small   | 0.46   | 0.5                           | 0.47                          | 0.42                           |
| Medium  | 0.38   | 0.42                          | 0.36                          | 0.34                           |
| Large   | 0.34   | 0.34                          | 0.35                          | 0.33                           |

## 2.7 CURRENT ECONOMIC BEHAVIOR: CREDIT AND SAVINGS SYSTEMS

### *Tontines and other groups*

**Table 27. Tontines**

|  | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|--|------|---------------|------|----------|
| % of villages with no tontines           | 33.5 | 27.8          | 35.0 | 37.4     |
| % of villages with exactly 1 tontine     | 40.8 | 38.7          | 45.8 | 39.9     |
| % of villages with more than one tontine | 25.7 | 33.5          | 19.2 | 22.7     |
| Average number of members per tontine    | 29.3 | 35.8          | 20.0 | 28.7     |
| Average number of women in a tontine     | 25.7 | 32.6          | 19.5 | 23.0     |

The prevalence of tontines is far lower in the overall sample than in the eight villages selected for the BARA study<sup>15</sup>, as is the prevalence of villages with multiple tontines. In the larger dataset, a third of villages have no tontines at all, and only a quarter of the villages have multiple tontines. Tontines tend to be larger than SfC groups; while most SfC groups have between 20 and 25 members, the average tontine size in the sample is 29.3 members<sup>16</sup>. Note that the Bla/Segou circle has more multiple tontine villages and larger groups, while San has fewer villages with multiple tontines and a smaller average tontine size.

<sup>15</sup> As the earlier brief descriptions of BARA villages show, if one allows the definition of tontine to include savings through collective labor as well as through weekly contributions, only 25% of BARA villages have no tontines, and a full 63% have multiple tontines (remember, however, that this is from a sample of only eight villages).

<sup>16</sup> There is a curious disparity in reports of tontine size, however; in Table 27, the size of tontines in which respondents actually participate is smaller than the size of tontines reported to exist in the village. It may be that when reporting the size of their own tontines, respondents only include those who make regular attendance.

**Table 28. Tontine Participation**

|  | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|--|------|---------------|------|----------|
| % of participants who have ever participated in a tontine            | 42.0 | 42.6          | 41.0 | 42.0     |
| % of participants who are currently participating in a tontine       | 18.6 | 20.5          | 16.8 | 18.1     |
| % of participants who are currently in multiple tontines             | 2.9  | 3.2           | 3.5  | 2.3      |
| <b>% of participants whose tontines have weekly contributions:</b>   |      |               |      |          |
| Of 250 CFA or less   | 71.0 | 63.7          | 70.1 | 79.1     |
| Of between 250 and 500 CFA   | 49.0 | 48.9          | 39.2 | 54.4     |
| Of between 500 and 1000 CFA  | 34.8 | 35.6          | 40.9 | 30.8     |
| Of between 500 and 1000 CFA  | 10.0 | 8.1           | 12.7 | 10.0     |
| Of more than 1000 CFA  | 5.4  | 6.1           | 5.9  | 4.4      |
| <b>Size of tontines in which participants currently participate:</b> |      |               |      |          |
| 10 members or fewer  | 38.1 | 35.3          | 28.2 | 47.1     |
| Between 10 and 20 members  | 39.2 | 39.4          | 40.1 | 38.4     |
| Between 20 and 30 members  | 12.1 | 13.9          | 16.6 | 7.4      |
| Over 30 members  | 9.0  | 10.1          | 12.8 | 5.5      |

Tontine data is remarkably uniform across the circles. Current participation rates in tontines are much lower than was found in the eight BARA villages; only 18.6% of respondents were currently participating in a tontine, and only 42% had ever done so in the past. Participation in multiple tontines simultaneously was also very low, at 2.9%. Most tontines have a system of weekly contributions, and these tend to be higher than the range normally found in SfC groups; only half of the groups require that members contribute a sum less than 250 CFA each week.

**Table 29. Other savings mechanisms (besides tontines) available to women**

|   | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|---|------|---------------|------|----------|
| % of women with savings outside of tontines | 43.8 | 41.4          | 42.3 | 46.8     |
| % of women with savings kept at:            |      |               |      |          |
| At home                                     | 39.0 | 36.5          | 38.1 | 41.7     |
| Bank  | 0.2  | 0.2           | 0.2  | 0.2      |
| Cooperative                                 | 0.1  | 0.3           | 0.0  | 0.0      |
| Credit union                                | 0.1  | 0.0           | 0.2  | 0.0      |
| NGO   | 0.1  | 0.1           | 0.0  | 0.1      |
| Savings and loan                            | 0.8  | 0.8           | 0.8  | 0.8      |
| Savings group or labor association          | 0.2  | 0.3           | 0.1  | 0.2      |
| With someone outside of the household       | 3.4  | 3.1           | 2.9  | 4.0      |
| Other                                       | 0.1  | 0.1           | 0.0  | 0.1      |

Table 29 indicates the remarkable degree to which women are excluded from formal savings mechanisms. With little variation across circles, the large percentage of women who save up money outside of tontine structures do so by keeping their savings at home. Whether alternatives are available or not, they are barely used. Possible reasons for this near-total abstention from formal systems have been discussed at length in the BARA evaluation report. Data from the expansion zone suggests that women are less mobile than men, so that institutions outside of the village exclude them *de facto*; that they are strongly risk-averse and unclear on the process of using savings systems outside of the home; and that economic behavior is always tied to social behavior and social networks.

**Table 30. Village participation in other groups**

|   | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|---|------|---------------|------|----------|
| Average number of youth associations per village          | 1.2  | 1.2           | 1.4  | 1.1      |
| Average number of agricultural cooperatives per village   | 1.2  | 1.3           | 1.0  | 1.2      |
| Average number of members in agricultural groups          | 69.3 | 75.5          | 58.0 | 67.8     |
| Average number of women in agricultural groups            | 30.1 | 36.9          | 21.0 | 26.3     |
| Average number of mutual assistance groups per village    | 0.7  | 0.7           | 0.9  | 0.6      |
| Average number of baptism and marriage groups per village | 1.0  | 1.1           | 1.3  | 0.8      |
| Average number of work associations per village           | 1.7  | 1.6           | 2.1  | 1.6      |
| Average number of members in work associations            | 60.9 | 64.9          | 76.1 | 45.7     |
| Average number of women in work associations              | 31.8 | 32.8          | 41.2 | 23.6     |

Technical agents often reference membership in previous social organizations as an important catalyst in the successful development of SfC groups. As shown in Table 30, the expansion zone has the usual array of social organizations found in Mali, and strong women's membership in both agricultural groups and in work associations.

#### *Women's access to credit*

**Table 31. Availability and accessibility of credit**

|  | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|--|------|---------------|------|----------|
| % villages with Kafo Jiginew, Nyèsigiso or Kondo Jigima in the village | 0.7  | 0.6           | 1.0  | 0.6      |
| % villages with at least 1 MFI available                               | 23.4 | 28.2          | 22.5 | 19.7     |
| % villages with at least 1 NGO lender available                        | 18.0 | 16.4          | 20.8 | 17.7     |
| % villages with at least 1 bank available                              | 25.0 | 23.7          | 23.3 | 27.1     |
| % villages where Kafo Jiginew is available                             | 4.1  | 7.6           | 2.9  | 1.7      |
| % villages where Nyèsigiso is available                                | 8.8  | 10.1          | 9.5  | 7.2      |
| % villages where Kondo Jigima is available                             | 2.3  | 3.2           | 1.9  | 1.7      |
| % villages where CANEF is available                                    | 1.4  | 3.2           | 0.0  | 0.6      |
| % villages where WorldVision is available                              | 7.7  | 6.3           | 9.5  | 7.7      |
| % villages where BNDA is available                                     | 15.5 | 14.6          | 12.4 | 18.2     |

Tables 31 and 32 present a picture of women's use of credit institutions that complements the tables on savings on the previous pages; although formal credit

institutions are available<sup>17</sup> to some women, they are seldom used. Very few villages (in fact, only one per circle) have a major microfinance organization (Kafo Jiginew, Nyèsigiso or Kondo Jigima) in the village itself, and as with savings systems, nominal accessibility often translates to the *de facto* exclusion of women when travel is required. Thus, although a quarter of villages have a bank “available”, and the same figure roughly holds for microfinance institutions, women's actual loan behavior (Table 31) follows the same pattern as actual saving behavior, largely limited to networks of friends and relatives.

**Table 32. Women’s loan sources**

|   | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|---|------|---------------|------|----------|
| % of women who took out at least one loan in the last 12 months | 34.8 | 33.3          | 40.4 | 32.7     |
| <b>% of women with got a loan from a:</b>                       |      |               |      |          |
| Relative  | 11.7 | 10.2          | 15.2 | 10.9     |
| Neighbor  | 11.1 | 10.6          | 14.0 | 9.9      |
| Friend  | 4.5  | 4.9           | 3.8  | 4.6      |
| Supplier or wholesaler  | 3.0  | 2.3           | 3.8  | 3.1      |
| Savings or credit association                                   | 3.0  | 2.9           | 3.1  | 2.9      |
| Microfinance institution  | 1.9  | 1.5           | 2.0  | 2.1      |
| Bank  | 0.3  | 0.5           | 0.2  | 0.3      |
| Moneylender   | 0.6  | 0.9           | 0.5  | 0.5      |
| NGO   | 0.6  | 0.3           | 0.9  | 0.6      |
| Cooperative   | 0.2  | 0.1           | 0.2  | 0.3      |
| Employer  | 0.1  | 0.0           | 0.1  | 0.1      |
| Other   | 0.7  | 0.7           | 0.9  | 0.5      |

Note that although women do not tend to use formal institutions, their need for credit is strongly felt. Over a third of the women interviewed had taken out at least one loan in the last twelve months, a significant percentage which is probably much higher, since questions about loan activity in Mali (both loans taken and made to others) are likely to lead to underreporting due to cultural prohibitions on their discussion. Women’s limited use of credit should not be too hastily interpreted as disinterest; even where demand is limited, it may well be lack of real access that is driving women’s limited involvement. In qualitative interviews, women in the expansion zone cite their intimidation by guarantees, interest rates and the threat of debt collection as disincentives from using formal credit. Small wonder, then, that these women conclude that the formal credit systems currently available are not “for them.”

<sup>17</sup> The survey merely identifies whether a given form of credit exists and could be used by someone living in the village; there may actually be tremendous variation in what constitutes real availability.



### *Women's enterprises*

Women are not limited to agricultural production for the generation of income. Impressively, approximately half of married women in the survey operate at least one business (Table 33). By far the most significant of these economic activities is petty commerce, comprising 71% of women's businesses. The transformation and sale of agricultural products is less developed in San than in the other circles, perhaps because of the higher prevalence of shea butter collectives in the other parts of the region. In the next phase of the study, it will be interesting to know how many businesses most women operate over the course of a year; BARA's interviews with women throughout the expansion zone suggest that women seek to maximize the diversification of their economic activities, but hesitate to deviate too far from strategies that are already familiar to them.

**Table 33. Women's business activities**

|  | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|--|------|---------------|------|----------|
| Married women with at least one business:        | 50.4 | 48.8          | 49.2 | 52.3     |
| <b>Types of business:</b>                        |      |               |      |          |
| Petty commerce                                   | 71.0 | 65.9          | 77.5 | 71.3     |
| Transformation and sale of agricultural products | 14.7 | 18.3          | 9.3  | 14.9     |
| Sale of meals or snacks                          | 7.4  | 8.6           | 5.0  | 7.8      |
| Artisanal work                                   | 3.0  | 2.8           | 4.3  | 2.5      |
| Other  | 3.0  | 3.7           | 3.4  | 2.2      |

Table 34 reinforces the finding that there is limited access and/or limited demand for women's formal credit. Women in the sample finance their businesses through individual savings or through the help of those close to them: friends or relatives inside or outside of their home. Other resources are used so little as to be almost negligible. This could be due to a strong preference for social networks over formal institutions to finance women's entrepreneurial activities. BARA interviews suggest that, even in areas where formal institutions are available, women prefer to use informal systems.

**Table 34. Women's resources for financing their businesses**

|                                 | ALL  | BLA/<br>SEGOU | SAN  | TOMINIAN |
|---------------------------------|------|---------------|------|----------|
| Individual savings or resources | 61.6 | 53.1          | 60.5 | 69.1     |
| Relatives or friends            | 10.8 | 9.6           | 1.4  | 9.8      |
| Household savings or resources  | 7.2  | 8.8           | 7.2  | 5.7      |
| Credit agency                   | 2.1  | 2.7           | 2.5  | 1.4      |
| Bank or MFI                     | 1.3  | 1.3           | 1.0  | 1.6      |
| Moneylender                     | 0.9  | 1.3           | 1.2  | 0.5      |
| Tontines                        | 1.3  | 2.0           | 0.3  | 1.3      |
| Other                           | 0.7  | 1.1           | 0.5  | 0.8      |

Although they may be avoiding formal credit systems, women are not necessarily unaware of their advantages. In interviews with BARA, women were asked what currently prevents them from fully developing their own businesses. Responses presented an impressive degree of self-awareness: women often recognized that their current credit resources were inadequate to meet their demand. But women also spoke about their limited professional qualifications, lack of experience or knowledge of the market, and weak powers of negotiation with both providers of raw materials and with their clients. Given these constraints with more formalized sectors, it is perhaps unsurprising that an informal credit system that emphasizes social relationships in the local community is more appealing for many of these women.

#### *Women's ability to make decisions within the household*

Women's ability to make decisions within the household and about their own business activities is essential for women to be able to take advantage of a new project like Saving for Change (SfC). It is also anticipated that SfC may increase women's bargaining power within the household. As such, Table 35 provides a description from the baseline survey about how women respond to questions about their ability to make decisions in a variety of aspects of their lives.

**Table 35. Women's decision-making ability**

|  | ALL  | BLA /<br>SEGOU | SAN  | TOMINIAN |
|--|------|----------------|------|----------|
| <i>Degree of decision-making ability concerning:</i> |      |                |      |          |
| <i>Food for the household</i>                        |      |                |      |          |
| High   | 0.35 | 0.34           | 0.34 | 0.36     |
| Low  | 0.41 | 0.35           | 0.40 | 0.45     |
| None   | 0.25 | 0.31           | 0.26 | 0.18     |
| <i>School expenses for the children</i>              |      |                |      |          |
| High   | 0.22 | 0.20           | 0.20 | 0.24     |
| Low  | 0.37 | 0.34           | 0.37 | 0.41     |
| None   | 0.41 | 0.46           | 0.43 | 0.34     |
| <i>Health expenses for the children</i>              |      |                |      |          |
| High   | 0.31 | 0.29           | 0.30 | 0.34     |
| Low  | 0.41 | 0.40           | 0.40 | 0.43     |
| None   | 0.28 | 0.32           | 0.30 | 0.23     |
| <i>Personal health</i>                               |      |                |      |          |
| High   | 0.46 | 0.44           | 0.44 | 0.48     |
| Low  | 0.37 | 0.36           | 0.37 | 0.38     |
| None   | 0.17 | 0.19           | 0.19 | 0.14     |
| <i>Visit a friend in the village</i>                 |      |                |      |          |
| High   | 0.27 | 0.25           | 0.27 | 0.30     |
| Low  | 0.35 | 0.33           | 0.33 | 0.38     |
| None   | 0.38 | 0.42           | 0.40 | 0.32     |
| <i>Business activities</i>                           |      |                |      |          |
| High   | 0.58 | 0.54           | 0.56 | 0.63     |
| Low  | 0.21 | 0.21           | 0.23 | 0.20     |
| None   | 0.21 | 0.25           | 0.21 | 0.17     |

The table shows that there is a lot of variation in how women are able to make decisions for the household, but the pattern is fairly consistent across topics. For example, 35% of women report having a high level of independent decision making about food consumption for the household, 41% report a moderate level and 25% report having no ability to make such decisions. These are similar numbers to reports on decisions about personal health. In terms of children's schooling expenses, fewer women report being

able to fully make independent decisions (22%) and 41% report having no degree of sole decision-making. Business activities are of course of direct interest here, and 58% of women report being able to make independent choices, while only 21% report no ability. All three circles again look fairly similar, with the exception that a slightly higher fraction of women in Tominian report having full discretion over business activity decisions.

## 2.8 SOCIAL CAPITAL

As it is anticipated that SfC may affect women's social capital, we report here the baseline measures of a variety of aspects of social capital, as measured by the quantitative survey.

**Table 36. Villagers' Confidence in institutions and neighbors**

|                                  | ALL  | BLA /<br>SEGOU | SAN  | TOMINIAN |
|----------------------------------|------|----------------|------|----------|
| Degree of confidence in:         |      |                |      |          |
| <i>Microfinance institutions</i> |      |                |      |          |
| Complete                         | 0.32 | 0.31           | 0.35 | 0.33     |
| High                             | 0.33 | 0.32           | 0.33 | 0.34     |
| Low                              | 0.20 | 0.23           | 0.20 | 0.18     |
| None                             | 0.14 | 0.14           | 0.13 | 0.15     |
| <i>NGOs</i>                      |      |                |      |          |
| Complete                         | 0.35 | 0.33           | 0.39 | 0.33     |
| High                             | 0.37 | 0.37           | 0.36 | 0.37     |
| Low                              | 0.18 | 0.20           | 0.16 | 0.17     |
| None                             | 0.11 | 0.10           | 0.08 | 0.13     |
| <i>Neighbors</i>                 |      |                |      |          |
| Complete                         | 0.49 | 0.48           | 0.51 | 0.48     |
| High                             | 0.31 | 0.32           | 0.29 | 0.33     |
| Low                              | 0.16 | 0.17           | 0.16 | 0.14     |
| None                             | 0.04 | 0.03           | 0.03 | 0.06     |

Table 36 describes women's reports on how much they trust microfinance institutions (MFIs), NGOs, and their neighbors. Women have an overall higher level of trust in their neighbors (49% report complete confidence and only 4% report no confidence) than in NGOs and MFIs, where only about 30-35% of women report complete trust in these institutions. As we have seen throughout this report, the patterns are similar across all the circles.

**Table 37. Women's Subjective Self-Reports on Ability to Change Village**

|   | ALL  | BLA /<br>SEGOU | SAN  | TOMINIAN |
|---|------|----------------|------|----------|
| <i>Opinions (Agree Or Disagree):</i>                          |      |                |      |          |
| <i>There is always someone in the village to help me.</i>     |      |                |      |          |
| Strongly agree  | 0.58 | 0.59           | 0.59 | 0.58     |
| Agree   | 0.33 | 0.32           | 0.32 | 0.34     |
| Disagree  | 0.08 | 0.09           | 0.08 | 0.08     |
| Strongly disagree   | 0.00 | 0.00           | 0.01 | 0.00     |
| <i>If I don't agree with my neighbor, I stay quiet.</i>       |      |                |      |          |
| Strongly agree  | 0.15 | 0.13           | 0.18 | 0.14     |
| Agree   | 0.27 | 0.29           | 0.27 | 0.26     |
| Disagree  | 0.54 | 0.52           | 0.52 | 0.56     |
| Strongly disagree   | 0.05 | 0.06           | 0.04 | 0.04     |
| <i>If I don't agree with the village chief, I stay quiet.</i> |      |                |      |          |
| Strongly agree  | 0.33 | 0.33           | 0.35 | 0.33     |
| Agree   | 0.34 | 0.36           | 0.33 | 0.33     |
| Disagree  | 0.29 | 0.27           | 0.28 | 0.31     |
| Strongly disagree   | 0.04 | 0.05           | 0.04 | 0.03     |
| <i>People like me can change things in the village.</i>       |      |                |      |          |
| Strongly agree  | 0.23 | 0.17           | 0.21 | 0.29     |
| Agree   | 0.32 | 0.34           | 0.33 | 0.30     |
| Disagree  | 0.39 | 0.43           | 0.39 | 0.36     |
| Strongly disagree   | 0.06 | 0.06           | 0.07 | 0.05     |

Overwhelmingly, women feel there are people available to help them in the village (92% either strongly agree or agree with the statement). They also report feeling free to voice disagreement with neighbors. However, there is a clear hierarchy between neighbors and the village chief. Only 29% of women report that they would disagree with the village chief if they did not agree with him. While this is a lower number than for neighbors, it reflects that some women feel they are able to challenge village authority figures. Over 55% of women also felt that people like them could in fact change things in their village.

**Table 38. Women's Social Capital: Frequency of Conversations with Key Villagers**

|  | ALL  | BLA /<br>SEGOU | SAN  | TOMINIAN |
|--|------|----------------|------|----------|
| <i>Frequency Of Conversations With:</i>                          |      |                |      |          |
| <i>Anyone outside the household, regarding village problems.</i> |      |                |      |          |
| Never  | 0.38 | 0.40           | 0.33 | 0.39     |
| Few times a year   | 0.23 | 0.24           | 0.23 | 0.21     |
| Few times a month  | 0.24 | 0.23           | 0.23 | 0.25     |
| More than once a week  | 0.15 | 0.12           | 0.20 | 0.15     |
| <i>Village chief</i>   |      |                |      |          |
| Never  | 0.55 | 0.56           | 0.54 | 0.56     |
| Few times a year   | 0.12 | 0.14           | 0.11 | 0.11     |
| Few times a month  | 0.13 | 0.13           | 0.13 | 0.13     |
| More than once a week  | 0.20 | 0.18           | 0.22 | 0.20     |
| <i>Village elder</i>   |      |                |      |          |
| Never  | 0.52 | 0.54           | 0.53 | 0.50     |
| Few times a year   | 0.11 | 0.12           | 0.11 | 0.10     |
| Few times a month  | 0.13 | 0.13           | 0.12 | 0.14     |
| More than once a week  | 0.24 | 0.21           | 0.24 | 0.26     |
| <i>President of women's association</i>                          |      |                |      |          |
| Never  | 0.41 | 0.37           | 0.39 | 0.46     |
| Few times a year   | 0.11 | 0.13           | 0.11 | 0.10     |
| Few times a month  | 0.19 | 0.21           | 0.18 | 0.19     |
| More than once a week  | 0.28 | 0.29           | 0.32 | 0.25     |
| <i>Community Participation</i>                                   |      |                |      |          |
| % women who have attended a village meeting                      | 0.31 | 0.28           | 0.33 | 0.33     |
| % women who have spoken in a village meeting                     | 0.12 | 0.10           | 0.11 | 0.13     |
| % women who have voted in the elections of 2007                  | 0.58 | 0.60           | 0.54 | 0.59     |

Table 38 investigates similar topics: how often women have conversations with various community members. As shown, 38% of women report not speaking to anyone outside the household about village problems and 55% of women report never speaking to the village chief (about any topic). However, 20% speak to the village chief more than once a week. It is not possible with this data to disentangle whether women are not speaking to others about village problems because they do not find it appropriate, whether they

themselves do not want to talk about village problems or if the potential discussion partners are not interested in speaking to them. Fewer women report never speaking to the president of the women's association than to the village chief or a village elder. In terms of community participation, 58% report having voted, 31% have attended a village meeting in the last 12 months, and 12% have spoken at a village meeting in the last 12 months.

## 2.9 RANDOMIZATION CHECK

An essential reason for a baseline study in a randomized control trial evaluation of a project like Saving for Change is to confirm that the randomization process generated the same types of people across treatment and control villages. Table 39 shows average characteristics, from both the village and household data, in control and treatment villages. None of the differences in the table are statistically significant, as we expect given random assignment.

**Table 39. Observable characteristics in Treatment and Control Villages**

|  | Control | Treatment |
|--|---------|-----------|
| % of villages within 10 km of road             | 0.38    | 0.31      |
| % of boys between 7 and 11 attending school    | 0.54    | 0.55      |
| % of girls between 7 and 11 attending school   | 0.46    | 0.43      |
| Consumption per capita (FCFA)                  | 325.14  | 328.56    |
| Rank in asset distribution                     | 0.50    | 0.50      |
| % of HHs with consumption per capita below \$1 | 0.58    | 0.58      |
| % of Households below PPI \$1 poverty line     | 0.55    | 0.56      |
| FFH food insecurity: % of HHs insecure         | 0.40    | 0.39      |

## 2.10 SUMMARY OF KEY FINDINGS IN EXPANSION ZONE

The most significant findings from this preliminary study of the baseline data may be summarized in four main points:

1. The initial data provides a clear sense that these populations are living in situations of chronic vulnerability to shock, with limited access to basic infrastructure for drinking water, health services, education and transportation. Some basic statistics: just under half of the sample villages are within 15 kilometers of a paved road, and about two-thirds of them have a market within three kilometers. Most villagers (55.7%) depend on unprotected wells as their main source for drinking water, and only about 2/3 of villages have a health center within 10 kilometers. Less than a quarter of adult men have any formal education (24.7%), and adult women far less (11.3%). Most of the villages in the

sample have experienced flooding (51.9%) in the past five years; 59.5% have experienced drought; and over a quarter of them (27.7%) have experienced food crises. At the household level, a full 60.1% of households have experienced a shock in the last year that adversely impacted them economically. Most households of any type will run out of the most important staples (millet, sorghum and rice) at some point during the year. Over a third of expansion zone households are food insecure, and over a quarter chronically so (FFH index). Over 90% of expansion zone households live below the two dollar a day (PPI) line, and most (55.9%) also live below the one dollar a day (PPI) line.

**2.** In the overall RCT sample, women make very little use of formal systems for savings, taking out loans, or helping to finance their businesses. Although there are significant percentages of active, married women who are engaged in entrepreneurial activity (50.4%) or are controlling their own agricultural activities (38.9%), the use of formal institutions to support income-generating activities is so small as to be negligible. Instead, women prefer to save their money at home and rely on friends, neighbors and relatives for credit even where formal institutions are available.

**3.** The use and prevalence of tontines is far more limited in the overall sample than in the eight villages selected for the BARA study. 33.5% of villages in the overall sample have no tontines at all (as opposed to 25% of the BARA villages), and only 18.6% of women are currently participating in a tontine. Most participants in the survey (58%) have never participated in a tontine at all.

It is unlikely that disparity this great between the two research teams' findings is due merely to the random selection of anomalous cases for the BARA sites, although this may give a partial explanation. The causes of the difference are more likely to be methodological and definitional. Methodological, because BARA teams went into the field specifically seeking to find groups engaged in collective economic activities, and based their focus groups and subsequent household interviews around these groups. Thus, even if a relatively small number of individuals participated in tontines, they would be represented in the data. Definitional, because the in-depth investigation of collective activities BARA was able to pursue occasionally revealed that work associations or agricultural groups (both of which have significant female membership in the sample, as shown in Table 22) were also effectively functioning as tontines even though people may not have considered them as such in responding to the IPA survey. The wide variety of other informal financial institutions that BARA observed in villages is described in Appendix A.

This should not be considered as a methodological flaw; the two teams entered the field with different objectives, and the insights BARA has been able to draw from in-depth discussions about informal credit systems provide valuable context to understanding how SfC fits into a larger spectrum of credit. It is nevertheless essential to recognize the limited role of both tontines and formal MFIs in the larger dataset, and the implications this has for the likely role of SfC once introduced.

**4.** Patterns in the data are surprising in the distinctions they do *not* make. For nearly every parameter discussed in this report, there is very little difference observed



between the circles of Bla/Segou, San, and Tominian, although there are significant ecological and ethnic differences between them. There is also little evidence that distance from a paved road, as a basic indicator of accessibility, correlates with any of the variables one might expect (i.e. food security, presence of development projects, or health and education infrastructure).

Such remarkable consistency across circles suggests both relative homogeneity and reliable data. It may be that ecological differences (and their associated impacts on livelihood and other parameters) are more detectable along a north-south gradient than by the east-west division by circles. The few significant differences between circles are summarized below.

#### *TOMINIAN*

- On average, Tominian had smaller households and less polygamy than the other circles. This may relate to religion, as many Bobo are Christian and may have lower rates of polygamy.
- Among Tominian's married women, a lower percentage conducted their own agricultural activities separate from the demands of the complex household.
- Tominian experienced higher degrees of food crisis than other circles, even though the others experienced more natural disasters.

#### *SAN*

- Formal education is less available in San than elsewhere, and there are fewer education projects.
- San experienced significantly more flooding than other areas.
- Fewer women who have businesses in San are involved in transforming agricultural products than are women in other parts of the region.
- On average, San's tontines have fewer members.

#### *BLA/SEGOU*

- Bla/Segou cultivates more corn than other areas; Tominian grows more fonio instead of corn. Women in Bla/Segou grow more peanuts than do women in other areas
- Bla/Segou has a higher percentage of villages with multiple tontines

The initial data, albeit preliminary, suggest a region that is encouragingly compatible with the kinds of resources SfC can bring. Although both formal microfinance organizations and informal tontines are available to the population, women have embraced neither, preferring to rely on very local resources (where possible, within the home) for credit and savings. Market access is not an insurmountable obstacle for much

of the population, and there are sizeable percentages of women throughout the expansion zone who are already involved in entrepreneurial activity, either agricultural or commercial.

In many ways, then, this would appear to be an ideal environment for SfC's expansion. Firstly, because formal microfinance has not gained much traction in the region, longitudinal research provides the opportunity to study whether SfC serves as a stepping-stone to the larger scales of access to credit only formal microfinance can provide. If women are only comfortable seeking financial assistance from peers in forms that reinforce social relationships as well as meeting their needs, SfC may well be able to serve as that intermediary. Secondly, initial data suggests that women in the expansion zone are in need of savings and credit institutions but are unwilling or unable to use available services; SfC will thus be filling a void not adequately addressed by existing forms of savings and credit. Finally, infrastructural issues, while severe, do not seem so daunting that women will be unable to find ways to generate income with their SfC loans. The fact that many women are already engaged in income-generating activities in the absence of meaningful support from microfinance suggests their capacity to benefit from the program.

In all of the data provided from the expansion zone thus far from the BARA and IPA results and in conversations with SfC staff in existing program areas, there is nothing to suggest that this area is markedly different from areas where the program is already in place, nor that the SfC approach should be modified to respond to particular anomalies of the region. We look forward to following the changes in the expansion zone as the program's impacts begin to be felt.

### III. BASELINE FINDINGS FROM EXISTING *SAVING FOR CHANGE* SITES

#### 3.1 INTRODUCTION

This section of this report presents BARA's key findings from a qualitative evaluation of existing Saving for Change programs in five villages in Mali. Research in these villages is oriented toward understanding of how savings and credit systems function in the context of local livelihood strategies. These results build upon information collected by BARA during a prior study of 4 villages in 2008 that examined the establishment, replication, and function of SfC groups. The key areas addressed in this current research are: (a) household livelihood systems and vulnerability as they affect SfC activities; (b) the relation of SfC to the larger socioeconomic context of rural Mali; (c) the role of savings and credit organizations, both formal and informal, and their relation to SfC participation; and (d) community perceptions of the impact of SfC on livelihood systems and on women's lives. Particular attention is paid to the ways in which community members are modifying the SfC model to meet local conditions and needs. Several recommendations are offered to strengthen the existing model.

#### 3.2 Overview of SfC Villages Studied

The 5 SfC villages<sup>18</sup> included in this phase of the evaluation are individually described in greater detail in Appendix B. They were selected to cover a broad range of the environments in which SfC currently operates, from small and isolated tight-knit communities with few entrepreneurial outlets to relatively large peri-urban villages where SfC exists alongside multiple credit and savings alternatives. This section reviews the essential characteristics of the SfC villages selected across key parameters, and provides context for understanding the savings strategies these communities adopt.

##### *Village size, accessibility and markets*

Of the 5 SfC villages in this part of the study, 3 are very small communities estimated by their members as having fewer than 500 inhabitants. All three of these villages are characterized by a marked lack of infrastructure and suffer from isolation and (at least seasonal) inaccessibility. Felou was originally a hamlet for seasonal agricultural work, but developed into an autonomous community, a common pattern in the founding of new villages. As a former hamlet, it is very far from the main paved highway and is accessible only by roads of poor quality. Its population is estimated at 300, divided among 33 households. Similarly, Maninga Danga is little more than a fishing camp along the river, and is essentially a single family unit with dispersed hamlets. In the rainy season, the village is completely isolated and markets are limited and accessible only by canoe; at any time in the year, Maninga Danga is generally neglected by both

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<sup>18</sup> A fifth village (Kambila) that was originally the site of the pilot testing of the data collection instruments was added to the sample of four villages for a total of five sites.

government structures and NGOs. Lebosso is estimated as the largest of the three with a population around 500, and is also accessible only by bad roads. Lebosso and Maninga Danga are over 20 kilometers from any important markets, while Felou's villagers are able to travel by cart to three nearby markets each week.

In contrast to these villages, the other 2 SfC villages studied in this phase, Kambila and Werekela, are bisected by major highways and have much larger populations. Werekela, estimated at 1200 inhabitants, is on the main highway between Bamako and Segou, and is just 3 kilometers on the highway from a very important market town. Werekela has several hamlets, separated by considerable distance from the rest of the village on both sides of the road. Kambila is also divided by a paved highway of good quality, which links it to the major city of Kati just 4 kilometers away; Bamako itself is only 20 kilometers from the village. Women in peri-urban communities depend heavily on their proximity to major markets for economic and social capital by having a larger venue in which to meet and trade with people from surrounding areas.

### *Ethnicity, language, religion and caste*

Islam dominates in all of the SfC villages, although all but one have a significant presence of other religions, including animism and Christianity. The villages in the study are predominantly Bambara with the exception of Maninga Danga, which is entirely (Bambara-speaking) Somono and Lebosso, which is entirely Minianka (Bambara is also spoken by many of the men and considerably fewer of the women). Other ethnicities in the sample included Fulani, Bobo and Sarakole/Soninke families found in Felou, Werekela and Kambila.

### *Infrastructure and structural limitations*

Infrastructure support correlates strongly with the accessibility of villages in the sample. Access to water, health and education are consistently identified as critically lacking by women in all SfC villages. Water is consistently identified as the greatest limiting factor in the improvement of the quality of life for SfC villages, since it has direct effects on agricultural production, health and sanitation. For the fishing community of Maninga Danga, river water is easily accessible but becomes stagnant in the dry season, requiring women to dig holes in the riverbed sand for drinking water. Although Lebosso's resourceful villagers have installed three pumps and several wells in the village, the pumps break often enough that many people depend on public wells for much of the year. In Felou, rainfall is insufficient and wells dry up during the worst of the dry season. Even in more affluent SfC villages, drinking water can be a problem. In Kambila, political factions may be responsible for limiting access to water; the wells on the chief's side of the village dry up for part of the year, but the other faction has water throughout the year from wells. Only Werekela has year-round access to drinking water from pumps and wells.

Water is also the major limiting factor for the expansion of agricultural activities and animal husbandry. Lack of water makes off-season gardening impracticable for Felou's

villagers, and is seen as the primary reason why they are driven to charcoal production rather than gardening as their principal activity in the cash economy. All the SfC villages in the study have suffered from periodic drought, most recently in 2006, and droughts in the late 70s and early 80s were severe enough that many villagers, vividly recalling the failed crops and massive livestock losses from this period, remain wary of overdependence on a single livelihood strategy today. Maninga Danga is also periodically flooded by a neighboring river, with catastrophic consequences.

Remote villages have no health services to speak of, apart from periodic visits from health agents for vaccination campaigns. Peri-urban SfC villages also lack adequate health care, but NGOs are available to fill the gap: although both Werekela and Kambila lack health centers, NGOs have provided them with maternity facilities or dispensaries, and their proximity to urban centers grants them better access to needed medication and care than is available to remote villages. General sanitation, including the number and quality of latrines, also corresponds to the remoteness of villages.

It would be difficult to overstate the importance of NGO assistance to the SfC villages studied in this phase, particularly in providing economic opportunities for women. In villages where NGOs (other than SfC organizations) are totally absent, women have been limited in their ability to capitalize on the savings opportunities SfC provides, and tend to identify its benefits in terms of social cohesion and income smoothing opportunities rather than economic growth. In contrast, the long-standing presence of TONUS in Kambila has provided not only SfC to the village, but soap and dyeing projects for women that take advantage of the village's easy access to markets for petty commerce.

The same pattern of government neglect and NGO presence only in accessible regions is also found in education infrastructure. The remote fishing village of Maninga Danga has just three students from the village attending school, since no accessible structures from state or other organizations exist, and these students are obliged to cross the river and travel four kilometers to the nearest school. The peri-urban villages both have primary schools. The dropout rate (and thus the illiteracy rate) in Werekela remain high, since women often have difficulty paying the community fees for their children's education and are forced to withdraw them from the school. Felou also benefits from the support of an NGO (AMAPROS), which has built three primary school classrooms and helps pay the trimestrial fees for their instructors. State neglect of Lebosso is nearly as total as that found in Maninga Danga; the sole evidence of state assistance is the education center (CED), which teaches literacy to children that are already past the age of beginning primary school. Nevertheless, literacy rates in Lebosso remain very low.

### *Environmental conservation techniques*

All villages have perceived serious environmental degradation in the past few decades, particularly as fields become less productive in the absence of ever-increasing fertilizer inputs. Soil erosion and deforestation are also universally identified as concerns. Maninga Danga residents also note increasing problems in fishing yield from overfishing and river siltation from upstream dams. Rural villages receive very little conservation assistance, although Maninga Danga has gotten some training and materials on fishing practices from the state. Nevertheless, rural traditional practices have worked relatively well in reducing environmental degradation. The region around Lebosso, rich in soils and forest resources, is also a primary producer of organic fertilizers, made from burying millet and cotton stalks in pits. They have also succeeded in reducing soil erosion and retaining rainfall water through lines of stones and perimeter plantings; this strategy has been less effective in Felou, where serious overuse of soils has exhausted them to the point that no amount of fertilizer can be added to achieve previous yields.

As with other forms of assistance, the peri-urban villages in this study are the only ones to receive meaningful assistance in conservation techniques. Werekela has benefited strongly from an NGO (PGRN) that provides agricultural materials and provides training on soil management. But peri-urban zones also face forms of environmental degradation not experienced in more remote areas; in Kambila, the population growth of nearby Kati has led to deforestation throughout the surrounding area to meet urban demands for firewood.

### *Relative wealth*

As might be expected, the two peri-urban SfC villages in the study have some clear signs of above-average wealth and access to resources. In Kambila and Werekela, several houses have antennae or satellite dishes, and the houses are well spaced apart and are larger than those found in the region in general. Werekela is also relatively prosperous, and villagers have access to banks and credit unions to get agricultural loans. But Lebosso is also a remarkably wealthy village, and by many measures is the wealthiest village in the study thus far, despite its near-total neglect from government and NGOs. Absolute wealth may be less important as an indicator of the long-term potential of SfC than the degree of stratification of wealth within a community. Communities where ethnic and religious homogeneity among the few clans in the village reduce the gap in wealth between richest and poorest to an almost negligible distinction also had thriving SfC programs without loan defaults or internal disputes. Kambila and Werekela, although they have the highest standard of living overall, also had desperately poor households with very little social or economic capital to draw upon.

### *Larger economic trends*

It was strikingly evident, in both SfC villages and in the expansion zone villages studied in this phase, that these are economies undergoing major transitions. This section summarizes three of the most significant shifts SfC villagers are experiencing and their implications for village economies: changes in land tenure, the effects of international price fluctuations and the debt crisis, and emerging patterns of seasonal migration and remittances.

#### **Land tenure**

In traditional Bamana society, land is allocated at the behest of the village chief and cannot be bought or sold. The relationship of chief to village household heads is thus precisely analogous to the role of household heads to their sub-units of production. This is the general system found in the SfC villages, and is a system that has its equilibrium where land is plentiful relative to demand. Because of Mali's rapid urbanization and population growth, however, land resources are no longer sufficient for many village populations; population pressures further compound the problem as villagers produce more than what soils can sustainably give, leading to a continuous decrease in soil quality in the absence of expensive inputs. The apparent equilibrium of the aforementioned villages may also be the result of the population's own self-maintenance below carrying capacity through migration strategies.

Although it was established as a farming hamlet, Felou is now approaching the point at which not all villagers have access to the quality and quantity of land they need. A small handful of villagers now work in other people's fields for daily cash payments. Werekela is also hesitantly moving towards land transactions for cash; land can technically be bought or sold, but the traditional system of presenting symbolic gifts to the chief remains the norm. In Kambila, land is traditionally owned by the village chief. However, pressures from nearby wealthier urban populations and internal disputes between the chief's clan and that of the mayor are pushing the chief toward land sales. An increasing number of villagers are obliged to rent at least some of their field plots from wealthier landowners. This transition creates terrible land insecurity for the poorer villagers, who lack the requisite social capital to prevent the abrupt reclaiming of their fields. These land seizures often come in the wake of other shocks (particularly for widows who can no longer lay claim to their lands after the death of their husbands) and create an economic climate of tremendous vulnerability. The example of Kambila underscores the critical importance of understanding land tenure security in determining the kinds of economic risks women are likely to find acceptable. The generally virilocal pattern of land tenure (women are allotted the use of parcels of the household land, but without claims to ownership) may be partially responsible for driving women toward petty commerce rather than agriculture as SfC provides them with opportunities for economic expansion.

### Insecurities within the agricultural economy

In all SfC communities studied in this phase, villagers have noted significant price increases and fluctuations in recent years, a trend most strongly felt in production sectors tied to export to international markets, and undoubtedly exacerbated across the board by the global debt crisis. Price increases in inputs are major factors in farmers' shifts in production strategies. This is most dramatically evident for cotton farmers; the increased costs of inputs and the decreased value of cotton, as well as late payments from CMDT for their harvests, have led to a mass transition away from cotton and toward peanuts and millet. Farmers tend to diversify their production and optimally seek to assure production to meet household consumption needs, rather than investing entirely in monocultures for export. Staple commodities have risen steadily in price over the last two years, although more moderately than inputs; this has had important consequences for households that cannot assure sufficient harvests to last through the *soudure* each year. Price fluctuations are also strongly felt in communities that produce goods for sale in major urban markets, both within the year and from year to year. In one village that exports to city markets, for example, potatoes sold very well in 2008, but hardly made a profit this year. Those unable to fill gaps in bad years through the preferred strategies of the wealthy (the sale of livestock, and secondarily, supplements from off-season gardening) are obliged to abandon such crops even in instances where profits in lucrative years make them attractive investments over the long term.

### Migration strategies

In the last twenty years, migration of able-bodied males has become a significant livelihood strategy throughout Mali, and in many areas adds an essential contribution to household economies. Where agricultural production and, in some cases, fishing yields are declining, migration simultaneously reduces the number of mouths to feed and provides cash inputs to buffer against increasing agricultural uncertainty.

Although migration is a strategy for nearly all households, the kind of activities undertaken and the remittances provided by migrants appear to be different for wealthier households than for poorer households, although the question bears further study. The very wealthiest and very poorest households are less likely to have members that migrate: the poorest because they lack the means or cannot spare the field labor, and the richest because they have sufficient land and food resources or access to other, more lucrative strategies to supplement their income. For wealthy households, sons may migrate to generate personal wealth in preparation for marriage, or to supplement income for household sub-units. In general, it is the poorest that depend most heavily on migration because agriculture is so uncertain and they alone have limited access to productive lands. The work they find while outside the village, often as day laborers, is generally much less lucrative than that of the sons of wealthy households, who work in commerce. In Maninga Danga, where migration is most marked, migrants continue to fish even while abroad. There is also considerable variation in the way remittances are sent to households. In less isolated communities, contributions from migrants arrive periodically, or in response to particular needs; in more remote areas, migrants prefer to present their earnings to the household in lump sum upon their seasonal return.



In most villages, migration is officially a strategy for men alone. In practice, however, many women also migrate for at least part of the year. This was particularly evident in villages where women habitually return to their parents' villages during the *soudure*. Because Maninga Danga is so isolated, and production is so uncertain from year to year, migration of men alone is not enough to sustain the village economy. Discussions with women from who migrate indicate that although they are well informed about SfC activities and see the benefits of membership, they feel themselves to be neither fully members of the village nor eligible for programs that require their stability. Just as tellingly, one of the factors that men appreciate about SfC is that it prevents women from leaving home during the *soudure* out of fear of being late in their SfC group contributions, which men say has led to greater cohesion and cooperation in the household.

Women's seasonal migration may not be a generalized phenomenon. Coordinators of the SfC program in the expansion zone indicate that the degree of women's mobility found in Koulikoro is not typical of San or Tominian. Nevertheless, it might be worth re-evaluating saturation data for SfC villages to include seasonally migrating women for a more complete picture of SfC's capacity to provide credit to all who need it.

### *Leadership*

As is typical of Bambara society, the SfC villages studied in this phase of the evaluation function through a male gerontocracy in internal as well as inter-village administration. Village chiefs are often very elderly, and so considerable powers of decision-making have been ceded to the younger generations. Politically, households are generally represented within the village council by their heads, and important decisions require the support of all household heads in the village. Disputes are resolved by a council of elders that also serve as the chief's advisors and act as the intermediary between state bureaucracy and the general populace. In Kambila, political competition between the mayor and chief has complicated the administration of the village, but elsewhere in SfC villages the process of government appears remarkably transparent and democratic.

In most villages, the largest administrative unit is called the *gwa*, and individual, nuclear sub-units of the households are called *du*; the terminology reverses in some villages, but the relationship of smaller unit to larger remains the same. Many of these larger units contain multiple nuclear households. Heads of the larger households have final say on the allocation of household resources. In Maninga Danga, the distinction is not made between *du* and *gwa*, perhaps because the roles overlap in what is effectively a single family system.

### *Gender relationships*

New technologies have been particularly transformative for the gendered economy. The presence of mills for grinding grain relieves women of the enormously time-consuming task of pounding grain in mortars. Where mills are present, they are identified as the major reason for a decrease in women's work; where they are not,

pounding grain is identified as a major part of women's daily work, and thus an impediment to developing other economic activities. The advent of carts for transporting firewood has been similarly transformative in the daily time allocations of women. In Kambila, SfC itself is identified as the transformative element that has facilitated women's shift away from (highly labor-intensive) charcoal production and towards other forms of petty commerce.

Women have been undergoing a fairly recent transition into the cash economy, one that is continuing into the present day. As women in the SfC villages increasingly turn to income-generating activities, their workload is increasing overall in spite of the aforementioned technological advances. Many women have added petty commerce and animal fattening for resale to their economic activities. In Felou, women's work has increased since they added charcoal production and other activities formerly reserved for men to their domestic duties. In Maninga Danga, women now fish alongside men, and off-season gardening and *babi* cultivation keep them without seasonal breaks in their agricultural duties. Women in Werekela no longer work in men's cotton fields as before, but instead tend to their own parcels for market crops.

Development literature suggests that women's increased contributions to household economy correspond to an increase in their decision-making power. In the SfC villages studied in this phase of the research, traditional gender relations in terms of property, divorce and inheritance have not shifted significantly along with women's economic activities. Changes in women's roles in the village and in their households may be more a result of the increasing dominance of migration strategies as they are a product of women's own activities. SfC villages perceive their adult gender ratios to fall between 60 and 80 percent women. Although local explanations tend to ascribe this asymmetry to a combination of polygamy and biology (as is true throughout much of West Africa, Malians believe many more girls are born than boys), male migration is undoubtedly the principal reason for the preponderance of women. Some women stated that this demographic dominance has led them to be more assertive in the political life of the village.

Women's ownership of goods and animals is a somewhat nebulous concept. Women's possessions, which generally derive either from their wedding inheritance or as purchases from their personal commercial profits, are not exactly their own; looseness in the definition of ownership allows for situational interpretations. Nevertheless, although heads of enlarged or nuclear households claim titular oversight of women's goods, women really do appear to have control over the use, purchase and sale of their goods in most contexts. This is also true for land allotments; once heads of household have apportioned land for women's use, the male heads of household seldom retain authority over the use of that land. SfC members indicate that this is also true at the village level; in other areas of Koulikoro where lowland perimeters have been set up for women's truck gardening activities, village chiefs do not limit women's autonomy even though they have the nominal right to do so.

Dowry materials are usually in the form of cloth, cooking utensils and/or jewelry. In all of the SfC villages studied in this phase, women cannot sell their goods without consulting their husbands. For the Minianka village of Lebosso, smaller animals (sheep, goats and chickens) are women's exclusive property, while agricultural implements and cattle belong exclusively to men. Women in Felou generally have animals, as well as carts and plows in wealthier households. In Werekela, husbands do not have the right to sell the goods of women in their households, especially not for the purpose of taking another wife. In Kambila, women and particularly female-headed households appear to suffer disproportionately from theft of animals, and have little recourse to protect themselves.

In traditional Bambara society, children are the property of their father, and in case of divorce the husband decides the fate of his children. Generally, the consequences of divorce are severe for women, particularly if they are the ones who seek to leave, and women may even lose the goods they've inherited or acquired during the course of the marriage. Because of these practices, divorce rates are very low in all the SfC villages studied in this phase. Inheritance also provides little security for women. Widows in these villages are regularly obliged to marry another brother of the family through the levirate system, and the goods of the household pass to her sons upon her husband's death.

### *Livelihood systems and survival strategies*

Agriculture, and particularly the production of staple grains, dominates household livelihood strategies in all villages studied in this phase save Maninga Danga, where fishing is culturally and economically most important to the Somono. Animal husbandry is also a major strategy in most villages, but is declining in the peri-urban zone. All communities strive to supplement production in the rainy season for consumption needs with off-season gardening for sale, but the viability of this strategy is highly contingent upon the availability of water and the accessibility of markets. Firewood collection and charcoal production provide important complements to dominant strategies.

Economic activities are highly segregated by gender throughout Mali, although even in separate economies women are often expected to help men of the household during the periods of peak labor demand (clearing, planting and harvesting). The lives of women in SfC groups are dominated by domestic responsibilities, although younger women also spend a tremendous amount of time working in their fields and those of their household.

Women's activities are shifting toward petty commerce in all of the SfC villages visited in this phase. Women are becoming increasingly involved in shea butter production, and their activities in peri-urban communities are shifting away from agriculture (for consumption) entirely; in Werekela, village elders claim that women have entirely ceased to work in the fields, even when their husbands are migrating, although this transition is in fact not yet total.

### Strategies of the relatively wealthy

Households benefiting from relative wealth have access to a variety of strategies to assure that food resources last through the *soudure*. In Maninga Danga, where economic stratification is negligible, the choice to remain in hamlets (which are in fact simply enlarged households) and prioritize agricultural production over the sale of fish for millet is one way to mitigate against less reliable markets. Elsewhere, wealthier families are better able to secure the quantity and quality of land from village chiefs necessary to guarantee food throughout the year. They tend to have greater diversity of crops, and to simultaneously produce for sale and for consumption needs. The relatively wealthy do not generally receive remittance assistance from migrated household members, but those that do tend to receive much larger and more reliable sums.

The most striking difference between the livelihoods of relatively wealthy households and their neighbors lies in strategies of animal husbandry. Raising animals is generally considered to be the optimal strategy for savings, and for several wealthy households is even preferred to savings and credit systems such as SfC. This is particularly true in villages where isolation has kept most wealth outside of the cash economy; as one wealthy landowner in Lebosso put it, "Here we don't save up money, but put our profits directly into our animals". Even in a peri-urban community, the wealthiest say that they have no need for credit because they can use animals as savings banks, since their livestock represent significant capital that can be easily converted into money or food in times of need.

Wealthy households use animal sales (often through fattening and resale) as a supplement to their agricultural production, a strategy that is of most critical importance in difficult periods and in case of sudden expenditures for illness, weddings, deaths and other ceremonies. For this reason, several poorer households identify the loss of their animal holdings as the point of their transition away from food security. Less wealthy households adopt the same strategy on a smaller scale, and nearly all households strive to keep animals as a way to protect against food shortages. Animal husbandry can be a risky strategy for those that cannot afford or access veterinary services, lack adequate land for pasturing and animal enclosures, or lack the means to diversify their livestock holdings. A surprising number of households suffered significant losses to epidemics, particularly among poultry kept in cramped conditions. Many others identify illness of household members as the reason for emergency sales of livestock in the past year to afford medical treatment.

In this phase of the study, the size of SfC households correlates roughly with their relative wealth, a phenomenon not found in our earlier phase. All households seek to diversify their activities between multiple strategies, but smaller households are often unable to find the necessary labor to expand into lucrative but intensive sectors such as irrigated agriculture, either because they are unable to draw upon sufficient labor resources within the household or lack the social capital to participate in collectivized labor groups. Village associations often provide labor to those in need during critical

periods, but their price excludes the poorest households from taking advantage of the service. Those households that do well with limited labor resources are able to diversify and find supplementary labor as needed; a widow in Maninga Danga, for example, has only one son old enough to help with fieldwork, but finds relative food security through a combination of fishing, agriculture, raising sheep, and operating a small store out of her home. She is able to bring in paternal uncles for fieldwork assistance when labor is critical.

### **Economic strategies available to the poor**

The strategies of the poorest households are of critical importance in assessing the capacity of SfC to effect real change over the long term. The most vulnerable households in SfC villages, unsurprisingly, are often female-headed households, those whose occupations are marginal (motorcycle repair, mango cultivation, begging) or artisanal (i.e., blacksmiths, potters, cobblers), or families that do not have a historic presence in the community. Poorer SfC households that cannot assure self-sufficiency throughout a normal year rely heavily on migration and remittances to survive the *soudure*, but their migrants generally make less and contribute less dependably than those of wealthier households. Several poorer households receive as much external assistance from migrant relatives in the form of food as they do in cash. They often lack their own agricultural implements, have inadequate or unstable land holdings, and are unable to diversify their livelihood strategies.

Survival strategies for the poor, as for the wealthy, depend on the sale of animals, but poor households are more likely to be obliged to sell at disadvantageous prices. Although they have the least social capital, they are most likely to rely on social networks for assistance during the *soudure*. This may in part explain why so many of the poorest households are enthusiastic members of SfC groups, even when finding funds for the weekly contributions is difficult for their women.

It should be noted that the very concept of wealthy or more vulnerable households may present a misleading view of homogeneous distribution of assets within enlarged households. Malian households are often large and complex, and members of different sub-units of the same household may have differential access to social and material capital, so that a relatively wealthy household may nevertheless include vulnerable or food insecure members. Individuals of this type that were commonly encountered were second wives of poorer men, young couples, elderly widows whose children were not in the household, or grandchildren whose parents were absent or deceased.

### 3.3 FINDINGS FROM COMMUNITY RESEARCH ON SfC

#### *SfC group formation*

The mobility of populations is a key factor in the spread of SfC. Many women in SfC villages had already heard of the program prior to its formal introduction to the village through social networks, particularly through visits to markets and to their parents' households. However, while awareness of the program through word-of-mouth was identified as a catalyst to its acceptance once formally introduced, in no case was contact with SfC outside of the village sufficient to lead women to form groups spontaneously. In Werekela, for example, the early adopters of SfC had already become familiar with the program after a migrant worker (male) had spent an extended period of time in an SfC village and returned to describe it to them. Although word passes throughout the village, information is crucially linked to social networks, and early adopters are likely to have close connections with those who already have been convinced of the program's value through exposure elsewhere.

As we found in the villages during the first phase of research, the first women to join SfC are often those best positioned to undertake an uncertain economic activity. As several technical agents pointed out, the ability to absorb such risk does not always correspond with greater wealth, and may have as much to do with (1) available support networks, (2) previous experience with credit and savings systems, and (3) access to information about markets. (It is worth noting that technical agents tend to describe women's success or failure in SfC in terms of personality traits and not structural limitations: women who succeed are "dynamic" and "aware" (*dynamique et éveillée*) rather than wealthy or well-connected; those that abandon the program are seen to do so out of an inability to understand how to save money, rather than their poverty). The general pattern across all SfC areas, regardless of the administering NGO, follows the same basic narrative: a small group of women join in the first year, while many women hold back and wait to observe. After the first division of funds, many more women join, and with each successive division more and more women are convinced, and the work of the technical agent becomes easier. Experienced technical agents therefore recognize that the program will sell itself over time, and are not overly anxious about convincing the entire eligible population to participate in the earliest stages. As one agent explained, some women will only believe through observation, so why disrespect them by forcing them into the program prematurely?

Once formed, groups tend to remain remarkably stable; most groups had had only very slight changes to their composition even when they had been functioning for several years. Although a few villages reported groups that have collapsed because of disputes or continued non-reimbursement, they tend to be spontaneous groups that have received the least amount of training and are exceptional cases. Women tend to wait until the redistribution at the end of the cycle before leaving a group, so that the structure continues even as membership shifts.

### Reasons for refusal to join SfC

Women who have not yet joined SfC, or who have left their SfC groups, base their decisions upon roughly six different criteria: their poverty; their advanced age; their mobility; previous negative experiences with microfinance; a sense of social exclusion or shame; and the presence of other formal or informal savings and credit institutions that meet their needs. Technical agents add to this list those that haven't yet understood the value of SfC, particularly those who have never seen the benefits of credit systems firsthand. Poverty is the most common explanation for not joining the groups, although it is rarely described in this way: women often say that they are unable to save up money for each week reliably and would not want to let down other members by defaulting. Other women, some of whom participate in tontines, believe that participation in SfC groups would be too time-consuming and are wary of the degree of structure and commitment.

Due to the participation obligations, SfC tends to attract active, married women who must necessarily be stable enough to commit to meeting attendance and regular contribution. While unmarried women are not excluded, they tend not to participate. In the first phase of our evaluation, we considered the implications of informally excluding unmarried or inactive women, but did not consider the exclusion of women who seasonally migrate. Interviews with some of these women reveal that seasonal migration is not only an important livelihood strategy for some women, but that it may be one of the few strategies available to them in case of domestic disputes, and important in maintaining ties with their parents and their families. They are aware of SfC and would like to participate, but are excluded. It should be emphasized that no women suggested that their membership in SfC constrains their movement, but one of the reasons that men appreciate SfC is its stabilizing effect on the women in their compounds, creating a disincentive for them to travel away from the home for extended periods of time. In Werekela, the main reason women give for not joining SfC is their frequent displacement.

In Lebosso, where the program is only five months old, only five percent of the village has joined. The other women are hesitant to join because a previous organization had sent an agent who had collected their money and fled. This narrative, passionately retold in nearly every other village of both phases of the study so far, may or may not recall an actual event, but it certainly speaks to the uncertainty and distrust that SfC must overcome after their initial contact. In Kambila, some women who initially hesitated said that they did not know the early adopters well and wanted to wait to join with women with whom they had a closer relationship. Elsewhere, one household interview revealed that no members of the household were willing to join SfC because they feared bringing shame to the family in taking loans publicly - this was an anomalous response, but telling nonetheless.

As we found in the 2008 phase of operational research, social caste is a delicate subject even in areas where caste populations (generally the descendants of former slave families or families involved in artisanal production of metal, leather, or earthenware or



musical performance genres) are well integrated into village social, economic and political life. In Werekela, some villagers denied the existence of casted groups even though a forge and potter communities were later found in the village. Felou has blacksmiths (but no griots<sup>19</sup>), and the casted populations fully participate in SfC groups and are full participants in their decisions. Although we found no direct evidence that casted populations are excluded from or marginalized within SfC groups in any way, informants suggested that in any mixed group of nobles and casted people, the casted members will have virtually no say in the group's actions, and that their position in mixed groups mirrors that of casted people in larger society. Thus, their role in SfC groups may appear to the casual observer to be prominent and vocal, but may in fact be the mere embellishment of the ideas of the noble members, who retain real decision-making power.

Technical agents are accustomed to a range of explanations for not joining. More experienced agents recognize that these are likely pretexts to justify women's continued uncertainties and are not worth addressing individually, but rather are best overcome by allowing the program's positive effects to become manifest. Among these common pretexts for not joining are arguments that husbands would not accept that women do petty commerce or that the village is already saturated with credit and savings systems. None of these claims are borne out by the data; we found universal support for the program among men, and no villages where SfC was not welcomed as a complement to pre-existing savings and credit structures. Technical agents say that large-scale refusals to participate are often politically motivated, where one faction, clan or ethnic group within the village is feuding with the group that has invited SfC into the village or is already participating in its savings groups. Such situations, however, appear to be rare.

### **Formation of formal, informal and spontaneous groups**

The initial division of formal and informal groups is generally established by the conscious design of technical agents, particularly Tonus agents. In Lebosso, where the program is administered by GRAADECOR, a single group of early adopters is still in training. The agent's criteria for success are largely based on understanding the training information and achieving a minimum percentage of women taking loans within the group. In most Tonus areas, when the technical agent finds enough interested women in the first cycle, she will suggest that they divide into age groups. She will then make the older women part of a formal group, and the younger women part of an informal one. Technical agents find the separation leads to better agreement within the groups and therefore facilitates their work. Often, the older women are the mothers-in-law of the members of the younger group, who prefer to separate so that they can make independent decisions and can impose their own internal rules. As they explain, to contradict one's mother-in-law demonstrates that a young bride has been poorly brought up. Moreover, both technical agents and older women explain that older women have greater economic security in their compounds and fewer time constraints,

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<sup>19</sup> Griots are a social group throughout West Africa that traditionally based their livelihood on performing for noble families through music, singing, storytelling and keeping of oral family genealogies.



so that their differential access to scales of activities creates different needs for loans between the groups. In comparing activities undertaken with loans between these formal and informal groups, however, only the scale of the borrowing activities, and not the kinds of activities, differ significantly. As was noted in BARA's previous evaluation in the first phase of this research, this nominal division of early adopters blurs the line between formal and informal groups, since both receive the same effective support from the technical agent.

As we saw in the previous phase, women form groups based on affinity and kinship, which often results in women from common neighborhoods joining the same groups. In Kambila, the previous existence of tontines led women to form groups with the same composition, since they had already developed trust and solidarity within the groups. Groups formed from previous tontines feel that their previous experience saving together has been an important factor in the current success of their SfC groups, and technical agents agree that women with savings group experience are most quickly able to understand and see the benefits of the SfC system.

More information is needed on the formation and structure of spontaneous groups, but the few that were included in this study are quite diverse. Technical agents suggest that most spontaneous groups model themselves closely upon the first, most mature groups in the village, and differ only slightly from replicated groups because they do not get direct training from an agent. Spontaneous groups also tend to form with specific objectives in mind. In one village, a group of unmarried young women formed a savings group in imitation of SfC to obtain funds in preparation for their weddings. The funds will be divided equally before the wedding season to help cover the costs of the ceremonies. These groups do well, but those without direct contact with SfC villages or members struggle to incorporate their modifications to traditional tontine structures. The hamlets and villages around Maninga Danga are so small and scattered that it is logistically impossible for the technical agent to form their women into groups. Although she has seen them form savings groups, they are unable to grow their pooled funds through interest on loans.

### *Leadership in SfC groups*

In the standard model, the titled positions in SfC groups are: president, secretary, treasurer, the guardian of the safe-box, and the guardian of the keys to the safe-box. Groups are given the freedom to deviate from this structure, but none of the groups observed did so, not even those that had been in existence for several years. In Lebosso, however, the group did elect two older women to help to resolve potential conflicts. As was found in the villages from the first phase, titled positions are generally granted to older women whose advice is culturally given great respect; in some cases, these positions become figureheads as signs of respect, and real leadership roles are given to younger, more dynamic women. Literate or educated members, where available, tend to become group secretaries, although this is not necessary to the position, and fully illiterate and uneducated groups do not state any difficulties with accounting.

The groups observed in this phase do not grant tremendous power to their titled officers, and decisions are made very democratically among all members even when different castes are involved. Most conflicts are resolved without ever having to resort to the group's system of fines. Officers are not compensated for their work, although they undoubtedly enjoy some increase in social status. Technical agents suggest women who are respected and stable as officers, and leave the question of term limits and elections to the groups. Unlike the groups studied in the previous phase, most groups studied in this phase have annual elections after the division of funds, when the group decides on its future existence, composition and objectives.

### *SfC group objectives*

SfC plays two important roles for women simultaneously: increased economic opportunities on one hand and greater social solidarity among women on the other, both of which lead to greater overall household financial security. The stated objectives of SfC groups can reveal much about the relative priority to women of each of these roles. Groups in wealthier communities tend to emphasize income generation in their formal objectives; poorer communities tend to place greater emphasis on the strengths of the bonds between members and greater empowerment for women. Stated objectives often focus on the acquisition of materials that will potentially allow for transformation in women's current economies. In Kambila, several groups identified the purchase of a pair of oxen and a plow as their main objective. The younger group in Maninga Danga had the most ambitious objectives, including the development of gardens, wells, soap fabrication, and the purchase of a mill for grinding millet.

### *Division of funds*

Such ambitious goals remain unrealized in both Maninga Danga and Kambila, however, largely because the annual division of funds undercuts the stated group objectives to grow their funds sufficiently to purchase materials for collective projects. This appears paradoxical. Why do groups adhere to a practice that prevents them from achieving their collectively agreed-upon objectives? The contradiction illustrates the competing impulses of women toward long-term and short-term goals. Women often list among the benefits of SfC a transformation in their ability to save and their very conception of savings. Stating ambitious long-term goals may be a way of trying to speak their ideal savings strategies into reality. At present, however, the reassurance of periodic returns and the real needs of women for annual festivals, ceremonies or emergencies outweigh impulses toward large-scale collective purchases. It may also be that women recognize the possibility that a collective purchase could fall victim to theft, destruction or abuse by one of its owners. If this is the case, then the capacity of groups to eventually institute shifts in the period of fund division as the program evolves will index both the potential of SfC and the strength of the bonds of trust between group members. It should be noted that members of the technical unit emphasize that some groups are indeed spontaneously extending their period of fund division beyond one year, but this appears to be an exception to the rule; no villages observed in either phase deviate

from the annual division, and technical agents indicate that such practices are extremely rare. Thus a key question is how to encourage participants to start thinking in a longer time perspective and undertake more ambitious long-term economic activities.

There are some very good reasons why an annual division makes sense in the early stages of SfC, both in response to women's needs and as part of SfC's own model for replication. As has been found in both phases of the evaluation, the first group's division of funds provides demonstrable proof to themselves and the entire village of the program's benefits, and is thus a substantial catalyst in recruiting more hesitant women to the program. Technical agents allow women to determine the period of fund division themselves, in accordance with the group's objectives, but have them divide after the first year "so that they know this money is really theirs". For mature groups, annual divisions may be necessary to combat "savings fatigue", so that women are reminded of the benefits of keeping money in a savings system. Maintaining an annual system is also a practical response to the reality of women's lives; women are often mobile, and their needs shift from year to year. It is therefore important to many groups to step back each year to assess whether they want to continue the group and under what objectives, and to allow members to leave or new members to join in. If women already feel that they are at the limit of what they can borrow from the pooled funds for their interest-bearing loans, then allowing large sums of money to stay in the cash-box would also make theft an increasingly risky possibility, unless the money is largely in loan circulation.

### *Multiple Shares*

In some villages, women in SfC groups may contribute some multiple of the weekly contribution as their financial capacity allows, thereby allowing them to receive correspondingly larger allotments when funds are divided. In many instances, this allowance for multiple shares adds needed flexibility to the system; all members of the group benefit from a pool that grows faster, without having to introduce new members who could compromise the cohesiveness of the group. The modification is also easily incorporated into oral accounting systems, since a woman with multiple shares can simply be considered as multiple people. Clearly, multiple shares make sense only when members of the same group have differential access to funds for weekly contribution; if not, the group would simply agree to raise its weekly contribution for all members. Multiple shares may therefore serve as an important measure against stratification of economic growth between wealthier and poorer groups, since it allows women with greater means to remain within groups where they feel greatest affinity, without feeling that doing so constrains their economic benefits. There is some evidence, however, that women with multiple shares are economically limited by their groups. One technical agent in an area where multiple shares are common explained that she frequently encounters women with multiple shares who are frustrated because "they can't get all their shares at once." By participating in a group where others don't contribute at the same level, these women find themselves unable to take out sufficiently large loans.

Because the practice of multiple shares has evolved relatively recently, groups that have been in existence since the beginning of SfC have not incorporated it into their groups, even after encouragement from the technical agents. They explain that they have become habituated to the system as it currently exists and are satisfied with how it functions. Nevertheless, members of the Oxfam/FFH technical unit have noted that the idea of multiple shares is spreading quickly throughout the country, both because of the spread of information through associations and because women who are part of different SfC groups take notes on what others are doing. The dynamics of this information spread are worthy of more detailed future research.

In Maninga Danga, where several women have developed large-scale commerce while others operate profitable boutiques from their homes, the system of multiple shares has worked well. No favoritism in decision-making results from the asymmetrical pattern of contribution, and accounting has not been complicated by the presence of multiple shares. Interestingly, multiple shares may also be an inducement to greater participation, in much the same way that seeing the division of funds to early adopters incites many hesitant women to join SfC. In one group, women doubled their weekly contribution in the second year after seeing how much money women with multiple shares received after the first year.

### *Internal group regulations*

Each SfC group agrees upon its internal regulations, and these rules are repeated at the beginning of each meeting. Weekly meetings are mandatory for all members, and groups determine what constitutes an excusable absence and the fee structure for tardiness, disruptiveness or absenteeism. Other fines may be imposed for late payments or non-payments of loans. Groups also determine loan duration, frequency of loans, the weekly contribution, and the percentage of the pooled funds that can be loaned out. However, as was found in the previous phase of this research, there is very little variation in these terms from group to group, at least in the early years of the program. This is presumably because risk-averse women are strongly influenced by the suggestions of technical and replicating agents (who are generally from higher or more educated social classes) in determining the internal regulations of their groups.

Indirect evidence of initial conservatism based on agent recommendations can be found in the weekly contributions of SfC groups. All of the Tonus-administered villages (Felou, Maninga Danga, Werekela, and Kambila) began with a weekly contribution of 100F CFA, but women with means quickly increase their weekly contributions in subsequent years. In the wealthier village of Lebosso, administered by GRAADECOM, the newly formed SfC group began at 250F CFA each week; agents indicate that this is really the upper limit that they see in SfC groups. The changes seen in weekly contribution rates over time are a strong sign of the program's long-term sustainability and adaptability, since they indicate that women rapidly familiarize themselves with the system, and feel comfortable modifying it in order to maximize profits.

For most groups, the presence of fines within the structure is such sufficient disincentive

that actual infractions are rare, although younger women may struggle with regular and timely attendance even when fines are enforced. In Werekela, unexcused absences have been eliminated since fines were imposed. Women in close-knit Maninga Danga are more forgiving, allowing women to miss meetings if they are truly overburdened with work and give the other members sufficient notice. In all women's groups in both phases of the study, loan defaults are such a serious breach of solidarity that they are practically unattested. Failure to repay a loan on time is uncomfortable for the entire group, and as a result seldom extends more than a few weeks beyond the scheduled repayment date. As women in a focus group explained, "When a woman in our group does not pay back her loan on time it is very hard for all of us. But we tolerate it, and wait for the next meeting for the payment to be resolved". All groups in this phase keep their interest rates on loans at 10% per month. Virtually all late payment problems are generally resolved by the end of a loan cycle.

Some groups impose small fines upon women who fail to remember the total debt and unpaid fines of each member of the group during each week's oral recounting. As was noted in previous research, Tonus agents and groups place particular emphasis on women's self-esteem as members of SfC groups, and may incorporate fines to reflect this. In Kambila, for example, women are required to come to their meetings well washed and without torn clothing, and are expected to braid their hair every 15 days. In some villages, members of the same SfC group wear outfits of identical fabric on their meeting days; all members of the group took out SfC loans to pay for the fabric. Women in SfC groups, their husbands, and Tonus technical agents all point to such transformations in hygiene and self-respect as among SfC's most important contributions to the community. Repayment schedules are in practice negotiable, but are generally assigned at somewhere between one and three months.

#### Internal regulations concerning loans

In many of the groups studied in this phase, women are deeply and even competitively invested in maximizing their collective profits. As a result, many groups, particularly more mature groups, formally or informally require their members to take out loans. In Werekela's *Tieciri* group, taking out loans is seen as a civic duty, helping others by more rapidly increasing collective savings through the interest. This tendency has potentially negative consequences in that it may force members to take loans they do not need or want and may have trouble paying back. Groups in Felou and Maninga Danga do not require loans from members, but after seeing the potential for increased earnings for all after their previous division of funds, the social expectation that all women will take out loans is high. Although all groups describe a democratic process whereby all members vote on loan approval, in practice many groups have never refused a loan. It is tacitly understood that loans are often not used for precisely their stated purpose, particularly during the *soudure* when consumption loans become more frequent and women do not want to reveal their household needs publicly. In Werekela, loans are prioritized according to their urgency, meaning that consumption loans are actually given out before loans for income generation when pooled funds are limited.

### Loan use

Most SfC loans are used for income-generating activities, but in all villages the ability to also receive loans for household consumption is an essential benefit of the program. The most valued of these consumption-based loans are those used to cover medical costs, especially for common illnesses such as malaria, respiratory infections and diarrheal diseases, and those used to provide food during the *soudure*. Groups in Kambila do not repay interest on emergency loans for illnesses, although not all groups are so trusting; as one group in Maninga Danga pointed out, if they adopted such a policy, everyone would claim their loans were always for emergency consumption in order to avoid paying interest on their loans for income-generating activities. As noted in the 2008 phase of research, SfC consumption loans provide a crucial buffer against shocks for those on the threshold of destitution. One telling example came from a crippled woman had taken all of her SfC loans for consumption, either to cover the costs of her husband's chronic illness or to provide food. Her group allowed her to pay back the interest first, and then the loan well after its due date, so that she had adequate time to make up the total by begging in Bamako. This example illustrates well the extent to which SfC groups demonstrate flexibility in comparison with typical MFIs.

For many women, the pattern of consumption and IGA loans is seasonal: loans during the difficult months when food resources have run out are often for agricultural inputs and food needs. Some women combine consumption and growth in each loan; a woman in the chief's compound in Maninga Danga uses part of each loan for clothing, food and children's needs, but reserves at least half for petty commerce. Although women in groups freely admit that loans are not always used exclusively for the purposes stated during their request, they tend to use the majority of loans for petty commerce rather than consumption needs. However, as noted in the discussion of men's use of SfC, cultural norms may result in strong under-reporting of loans taken out on behalf of others, particularly when they are consumption loans. One woman freely explained that she took out large loans (100,000 F CFA) for her sister, who was not part of SfC, but quickly added that these loans were for market activities.

Women in wealthier households, who use SfC as a supplement to a strong income source for the larger household, often take out loans exclusively for income-generating purposes. The ability to sustain SfC-funded enterprises is closely related to the stability of household livelihoods; households or sub-units that are relatively better off are therefore more likely to take these risks and be successful. The range of income-generating activities observed using SfC loans is relatively narrow and restricted to low-risk ventures: petty commerce dominates in all villages, and many women also practice *embouche* (fattening animals for resale), seed and labor purchases for either regular or off-season agriculture, and the purchase of food commodities for resale when prices rise. No collective loans were observed in any of the groups in this phase of research.

### *Loan strategies and informal credit systems*

All women in the SfC villages studied in this phase experience extreme seasonal variation in their need for credit. For villages where agriculture dominates, women most need loans from the onset of the rainy season until harvests come in (between June and August, approximately). In Werekela, the most critical need for credit comes with the rainy season, when women need cash to borrow plow oxen to work their fields. For the fishing community of Maninga Danga, this is also the period when fishing becomes difficult and the village becomes most isolated by flooding, forcing many of those who stay in the village to become entirely dependent on credit.

### *Non-SfC forms of credit and savings*

Access to formal savings and credit institutions is very different for men and women. Where institutions are only available outside of the village, women in SfC villages are unlikely to use them. Women also tend to avoid those institutions such as Nyèsigiso, Denmusow, Miselini and Kafo Jiginew that require initial fees for membership and guarantees for their loans. Women interviewed in this phase were particularly intimidated by the threat of debt collectors seizing their goods in case of non-reimbursement. Other formal institutions used by men were seen as beyond women's economic scale, loaning larger amounts and requiring larger minimum savings than women could afford. As a result, men generally have access to a larger range of credit instruments, able to take out large loans for longer or very-short terms. Although women were not heavily using the services of these formal institutions before, most women interviewed said that since SfC's arrival, they no longer use savings or credit systems outside the village at all.

In Kambila, for example, women are less likely to use the village savings bank since SfC's arrival, because it requires livestock as collateral and women need to ask their husbands or other men to guarantee the loan. In Werekela, women who use SfC are no longer interested in Kafo Jiginew because they do not feel that it allows them control over their own money. This important finding underscores the fact that SfC is reaching a market that other MFIs do not.

Although its relative simplicity may edge out some pre-existing credit systems, there is also evidence that SfC has positive impacts on other microfinance institutions. In Maninga Danga, women's clear success with SfC has led men to revive their own savings group, and the idea of growing pooled money through interest in loans is soon to be adopted by a mixed-gender group saving in order to provide the village with a mill.

Women do continue to use savings systems within their villages after joining SfC. Most of these systems are highly informal, and are based on pooling the profits from collective labor for disbursement during festivals or times when women require extra assistance. Young members of SfC groups in Maninga Danga, for example, are part of an informal labor group that gives fabric and soap to members after childbirth. In Kambila, collective labor provides money for the two major Muslim festivals of the year, at Tabaski and the end of Ramadan. In Werekela, similar organizations exist to help



husbands by contributing savings to the weddings of members' sons. *Tontines* also exist in most villages, and have had a longstanding presence for both men and women. *Tontine* composition is generally determined by family name, by occupation, or by neighborhood. The group size and weekly contributions for *tontines* tend to be roughly the same as those in the parallel SfC structures. In Kambila, a *tontine* disburses its collected funds by rotation in the form of soap bars in the equivalent value, purchased wholesale by the group and resold at profit by each recipient in turn.

Traditionally, *tontines* do not offer loans with interest from pooled funds; this is the critical difference that villagers themselves identify between *tontines* and SfC. However, SfC women also have access to a broad range of credit instruments, from informal loans between neighbors to village credit banks. Loans made between villagers are generally made on the basis of social relationships, do not accrue interest, and may be in kind or in cash. Sons who travel seasonally are likely to take out loans in urban areas for costs of migration and rent, but their economies are generally separate from the larger household. In Maninga Danga, the growing class of women who sell goods out of boutiques in their homes depend on credit from wholesalers who are reimbursed after their sales. Lebosso and Kambila have village credit groups that operate much in the same way that SfC does. Men take out loans from these village-level groups much more often than women, largely to buy up grain and store it for resale at more favorable prices.

In Kambila, where village-level credit has existed alongside SfC for several years, women tend to use SfC for smaller loans (under 20,000 F CFA), and the village credit system for major loans (up to 250,000 F CFA) for large-scale purchases of seed or motor-pumps for off-season agriculture. The SfC-like structures in Lebosso are perceived as being less rigidly structured than SfC, although like SfC they also operate with 10% interest and 200F CFA weekly contributions. SfC members use both systems simultaneously for credit needs larger than the loan size possible in either group. In Werekela, women may get bank loans from Sorojiriwaso at the beginning of the rainy season to be repaid at the end of the growing season. Another association uses the profits from collective labor to provide loans, with the ultimate goal of purchasing a mill for the community's use. A question that emerges from this finding is whether the SfC methodology could be expanded to more flexibly meet these larger-scale needs.

#### Other exchanges: in-kind loans, gifts and charity

Loans both in cash and in kind are common during the *soudure* in all SfC villages. The pattern of loans in cash and in kind are seasonally differentiated; loans in kind are most frequent during the period before harvest, when women borrow food from each other to cover household consumption needs. In these difficult months, women demonstrate a high degree of solidarity, and even women in very poor households are likely to loan as well as borrow. Women are also likely to make loans to one another for the cost of specific ceremonies; in Lebosso, this is particularly true for the cost of daughters' trousseaux. Gifts are also frequent between family members and close neighbors during the *soudure*, since women are well aware that it may be their household that is without food the next year. In the dry season, when women are more focused on the



cash economy, loans in cash are preferred. There is remarkable variation in attitudes toward loans in kind, however; one widow in Maninga Danga stated that she would be ashamed to take loans in kind, because she doesn't want to be perceived as a charity case. Elsewhere, villagers are more pragmatic, affirming that any assistance is welcome when households are in need. In Lebosso, where resources allow for general self-sufficiency, loans in kind are generally preferred over cash.

The Muslim religious obligation of *zakat*, or almsgiving, is also practiced in all SfC villages, in cash or in kind, although its presence appears largely symbolic in some areas. Although the wealthy give significant amounts, a surprising number of poorer households also donate a percentage of their yield, suggesting that the importance of the practice of *zakat* is less about the redistribution of wealth than about social ties to the village and to its Muslim community. In Kambila, for example, some of the poorest women in the village (and almost definitely in the entire study), including elderly widows and crippled beggars, nevertheless give alms. To varying degrees, the administrators of villages may also impose redistribution of wealth according to cultural norms. In Werekela, for example, the *dugutigi* (village chief) will ask each head of household to contribute either millet or money in order to properly welcome a visiting stranger.

### *Use of profits from income-generating activities*

The use of profits from SfC loan-funded activities is a key indicator of the capacity of the program to effect real economic transformation for rural women. Although specific motivations for use should be studied in further detail, most women interviewed in this phase of research use profits from their market activities (the money made after paying back the loan and its interest) on household consumption: improving their diets and those of their children, buying roofing, cooking utensils, bridal trousseaux for daughters, and decorations for their homes. Plan Mali, a consortium member whose main objectives are concerned with the wellbeing of children, finds strong anecdotal and visible evidence that SfC profits are used to increase children's food security and nutrition and to provide them with needed school materials and fees. While many women take loans for petty enterprises and commerce, they tend to co-mingle the profits. These enterprises are thus frequently decapitalized as funds are diverted to meet immediate household needs. While this leads to a pattern of repeated loans to sustain the same activity, such activities rarely grow under these conditions. Even in areas where SfC has had a longstanding presence, women are by and large taking out loans for the same activities as when they began the program. The few women we observed who have been able to realize transformative economic growth through SfC enjoyed relative wealth and stability before the program arrived.

This is not to suggest that SfC does not provide women with essential tools to alleviate poverty and improve the health and wealth of their families. SfC loans and the enterprises they fund make livelihoods marginally more stable. By enhancing livelihood stability, these economic activities smooth crises, and provide a more stable platform

for consumption, long-term investments in education and health, and longer-term conditions for modest accumulation.

### *Modifications to SfC structure*

Information on changes in SfC groups over time provides crucial insights into the needs of women, and the ability or inability of SfC to adapt to meet those needs. Future work (in our third phase or in other targeted study) of the economic activity of spontaneous groups and groups that have existed long enough to evolve and mature will provide much more information about the program's potential and flexibility. Data from this phase on group changes reveals that while certain changes in groups over time are often supported by technical agents, agents may also be quick to label adaptations as "deformations", thereby inhibiting women from re-purposing the original structure of SfC to their particular needs. Technical agents and even NGO coordinators are often frustrated by their inability to assure continued quality of groups over time in the face of such structural entropy, and do not feel that their perceptions of the need to focus on quality as well as quantity are being heard by the consortium (the management structure of SfC).

### *Technical agents' perceptions of group modifications*

In interviews with technical agents, they conveyed a general tension between the emphasis on replication and expansion passed down from the consortium partners on the one hand, and their perceived need for greater follow-up with groups that already exist on the other. They feel that their feedback, expressed in reports and regular meetings, is well understood by coordinators and even the members of the technical unit, but that none of these actors within Mali have any real power in influencing SfC's priorities. Under their current work schedules, agents may be expected to oversee 100 groups in a single month, which they feel forces them to sacrifice the quality of their attention and support to the groups. Agents are highly motivated and take pride in their work, and several choose to increase their follow-up visits with graduated groups beyond the frequency required. These agents say that even within a few months of graduation, groups show signs of "deformation" that need to be addressed with follow-up oversight. When agents do adhere to the recommended schedule of visits every three months to graduated groups, they find that, as one agent put it, "All my hard work has been for nothing. It's as if we have to start over completely". This finding raises two questions: (1) Is the assumption that SfC groups should operate on their own within one year reasonable? and 2) Are agents quick to make assumptions that any variations on the model are signs that it is not working rather than allowing for or encouraging local variations to occur?

As has been noted in previous research, technical agents are very tolerant of certain kinds of adaptation to the SfC guidelines. In both phases of research, for example, agents were aware that loans during the *soudure* are often destined for consumption rather than the stated commercial purpose, and that loans at any time may be taken for husbands' activities. Some changes in the groups that increase the rate of growth of pooled funds are also well tolerated; women's groups seem to feel free to increase their

weekly contributions and to decrease the waiting period for individuals between their loans after their first year. Common changes that agents identify as signs of "deformation," however, are of three types: reduction in social cohesion (e.g. women no longer physically attend and send a child, or women give money to other participating women), relaxation of rules (e.g. fines are no longer enforced, loans are reimbursed in installments, or women are allowed to take out new loans while still indebted), and reduction in transparency (e.g. groups no longer sit in a circle, elections aren't held, decisions become less democratic). Some agents also find that accounting becomes confused when women are not given enough institutional support, or that they are unable to resolve conflicts within the groups without a neutral, external party.

### Social funds and other adaptations

Although we saw no direct evidence of such changes in this phase, the example of Kalifabougou from the first phase suggests that in the absence of oversight, groups may indeed become less democratic or transparent over time. On the other hand, many of the changes that agents interpret as categorically negative deviations may be important clues about what aspects of SfC's current structure women find constraining. In Felou, for example, our research team observed a debate within a group when a woman asked to pay back her loan that week, and the interest in the next. Although she understood and respected the rule that capital and interest be repaid at the same time, she affirmed that she preferred to pay the capital first or she would be tempted to spend it on household expenses during the week. The group nevertheless insisted that she keep her savings at home until she had paid in full, and she acquiesced. The exchange indicates the strength of the group's authority and solidarity, but also demonstrates SfC's inflexibility toward an important commitment savings strategy. Similarly, the aforementioned "deformations" that no longer require weekly attendance may weaken the bonds between members, but this tradeoff may be necessary to allow busy women to remain within the groups.

One of the most important modifications to SfC structure has been the widespread incorporation of social funds. The structure and ideology of SfC presses women to value and aspire toward economic growth, whereas most *tontines* focus on providing security to women against unforeseen shocks. A large number of groups have created a social fund in parallel with their regular SfC contributions, specifically as a way to incorporate the buffering function that *tontines* traditionally provide. These programs function in parallel with SfC structures, and are permitted, but not introduced or promoted, by technical agents.

In Felou, for example, women in a 20-member SfC group add an additional 50F CFA to their weekly contribution, and this 1000F CFA is given to each woman in turn just as a *tontine* would. More often, women in SfC groups create "solidarity funds"; like Felou's fund, they operate independently of SfC's savings activities, but are used for emergency purposes and are either given to women in need or loaned to them without interest. The set of criteria that constitute an emergency are clearly delineated by the group, and generally include: medical emergencies, help in case of the collapse of a major livelihood strategy (e.g. poultry disease), or a major ceremony such as a funeral or wedding. The

spontaneous spread of social funds throughout SfC despite any formal encouragement (from the technical agent or SfC associations) may simply be a response to a common need in independent incidences, but agents consider it more likely to be spreading through word of mouth.

### *Men's role in SfC*

SfC programs depend on male approval for their existence and success. Technical agents must first convince elders and husbands of the value of SfC before their work with women can begin, and the strength of support from the village chief is a key determinant of the program's success and the speed of its acceptance throughout the village. Husbands of members regularly assist them with loan reimbursement in case of unforeseen difficulties, such as illness or the failure of an economic enterprise. As was found in the first phase, other men, particularly brothers and paternal uncles, are often willing to provide assistance if an SfC member is in danger of defaulting on her loan.

In all villages in this study, men are enthusiastic supporters of the program; one SfC group joked that their husbands were more excited about SfC than they were, since they remind their wives each week not to be late for the meetings. The technical agent in Maninga Danga reports that it is common for the men of a community to invite her to their village to train their wives in savings techniques, explaining that even though there are already women's groups in their village, they are not functioning as well as the men would like. Men also influence the size and use of loans.

In Felou, this is seen as only natural, since the positive effects on hygiene, children's welfare and economic security are in the interest of the entire household and fall under the domain of male responsibilities as well. In Maninga Danga, men regularly have their wives take out loans for their activities as well; a woman will simply add the sum he requests to the loan amount she would have required for her own activities. As they explained quite candidly in the group, women invent a reason for the loan instead of saying it's for the group, but this is not an effort to deceive the group or circumvent its rules, but rather in compliance with a basic social norm: as discussed elsewhere in this report [give page reference in final], one doesn't discuss the financial needs or loans of others. SfC members who borrow in place of their husbands have never had a problem receiving repayment from them on time. However, Maninga Danga may be an exceptional case, since it is a particularly tight-knit community in which men are likely to be bound to their wives through much denser and multiple social networks than the bond of marriage.

Men are not formally excluded from SfC, although some agents may discourage their participation. In Felou, for example, men are in need of a local savings system since their own collapsed after too many members defaulted on their interest-accruing loans from the collective fund. Elders report that they did not join SfC because the technical agent told them that it was a project for women alone. In contrast, the agent in Maninga Danga encourages men to participate. Although very few do, there have been

men who have been formal members of the SfC group, and recently a man took out a loan for an emergency health issue that was paid back on time.

### *SfC associations*

At this point in the development of the program, it may be too soon to say how successful SfC associations will be. Associations aspire to establish a horizontal flow of information without dependence on NGO structures, to build a sense of community and civic purpose larger than the group or village level, and to help to secure long-term sustainability of the SfC program. Werekela, Maninga Danga, Lebosso and Felou do not yet have associations, although groups in Felou and Maninga Danga welcome the idea as a way to access larger collective funds.

Eight of the groups in Kambila are part of an association that spans three villages, but which has struggled to develop common objectives. The group has attempted to undertake a series of enterprises, but each has been aborted after intractable debates between groups from different villages. A project for fattening and reselling sheep was scrapped after groups worried about their theft; a plan to rent out oxen was abandoned because the association could not agree on where to keep them; tree-planting proved untenable given the instability of land tenure in Kambila. A current proposal to rent out chairs for ceremonies is likely to also fail, since not all groups are convinced of the market demand. The technical agent for the region asserts that such difficulties in consensus are the norm rather than the exception, since there will always be a significant and vocal minority opposition in associations of this size. Agents are pressed to bring between 15 and 25 SfC groups together to form an association, but they find that agreement among so many members is practically impossible and prefer to bring fewer groups together.

BARA's previous study in 2008 considered the relative merits of associating groups within and between villages. In the experience of women in Kambila, there are considerable advantages to creating village-level associations because of issues of distrust and competition among strangers, as their difficulties in developing collective strategies attest. The logistics of associating groups from different villages are not trivial, since transportation and food incur considerable costs for poor women, and association meetings require an entire day that women may not have available and men may not be inclined to cede to them.

The larger objectives of associating groups across villages have not yet been realized, although they may require more time: women are primarily motivated to build associations with other villages not by a desire to build larger solidarity or to create opportunities for information exchange, but as a chance to make more money through access to larger pooled funds. In the Kambila associations, each group puts in 5000F, and the pot is then loaned out to a single group for three months at 10% interest. Trans-village associations also stimulate healthy competition between groups, pushing each to outdo the others in their ability to save and make profits at the end of their cycles. If associations were intended to impede the deviance of individual groups, and

to consolidate or supplement what they learn in formal training, this function does not appear to be well developed in current associations.

### *Relation of SfC groups to technical and replicating agents*

All groups interviewed in this research phase had extremely positive experiences with their technical agents, and agents' respect for the communities in which they work is manifest. Groups that have graduated appreciate the continued support from their agents, but feel comfortable functioning independently of any institutional surveillance. For truly remote communities, the technical agent visits provide access to more than just credit and savings; women in Maninga Danga describe the agent's periodic arrival as a window into the larger world and ideas from afar. Rural communities also highly value the information they receive about malaria during SfC trainings and express profound gratitude to agents for providing medical advice.

As was found in earlier research, no real difference exists in the quality of replicated and formal groups, but some groups have a perception that their replicating peers do not command as much respect as the technical agents. Technical agents propose replicating agents from among the most competent and enthusiastic group members. Some replicating agents in Kambila received formal training in the past year, and have been passing on the tools learned in this training to the other women. Their extra training has not incited any noticeable jealousies and has resulted in greater confidence and more respect for replicators' input. In future research, it would be advisable to gather more data on the role, motivation, and remuneration of the replicating agent.

### *Local perceptions of SfC*

As found in the previous phase of research, all SfC villages in this study were highly appreciative of SfC's contribution to their lives, finding significant positive impacts on household economies. Women describe their membership in SfC as an empowering experience that has allowed them to develop confidence and leadership skills that translate to greater decision-making roles in their households and larger communities.

In describing the impacts of SfC on their ability to save, women tend to describe a shift in their savings mentality rather than their access to economic opportunities. Women credit SfC with providing them with entrepreneurial skills, and also impelling them toward greater economic activities than they would normally undertake, through competition and the fear of public shame in case of non-reimbursement. This response is interesting, since women do not receive formal training in market analysis or small enterprise development as SfC members. Rather, women feel that because it is their own money that is being loaned out, they feel much more invested in working together by providing one another advice, encouragement and other help or by undertaking joint commerce activities to assure the success of their economic activities, and are thus learning entrepreneurial skills that were not possible under previously available credit systems.

Women also emphasize the greater social cohesion that results from membership, describing how they are motivated and emboldened as a group in ways that would not have been possible individually. Associated with this sense of increased solidarity is a sense of greater pride and sense of self-worth, which is in turn repeatedly linked to awareness of sanitation and health. Membership in SfC demonstrates to both fellow members and non-members that a woman is worthy of respect and consideration. Women find that increased economic power translates to a more important role in assuring the wellbeing of their households. Their increased ability to manage family emergencies and their general household responsibilities independently has led to fewer conflicts with men, and is appreciated by both genders.

Some women also express the importance of increased economic independence from their husbands, and a distrust of sharing their benefits with men who may squander them. Nevertheless, men themselves are highly supportive of the program. Men consider SfC as a means for women to meet their share of the household's economic burden without requiring assistance from their husbands, and appreciate their ability to manage their finances and protect children from malaria. As in previous research, husbands did not view women's increased economic contributions as a potential threat to their own roles as primary earners of their households.

### *Impacts of SfC*

The economic impacts of women's participation in SfC depend upon how resources are allocated within households, and the degree of control women retain over their earnings. As Mali undergoes larger economic shifts toward increased male migration and greater autonomy of household subunits, it seems likely that women are experiencing increasing economic empowerment, and in several villages women's perceptions reflect this transition. Women are very appreciative of the positive effects they see from SfC, even though the economic impact of such small-scale savings activity is very small relative to the overall household economy.

The economic benefits that women themselves perceive primarily address consumption needs for the household, particularly the availability of funds for women to seek health care and purchase medicine for family members in case of illness or emergency. In keeping with their traditional economic responsibilities within the household, women tend to cite SfC's advantages in terms of the education of their children, their ability to contribute sauce ingredients throughout the year, and their access to the material goods necessary to properly celebrate annual festivals and other ceremonies important to the household. With the access to credit SfC provides, some women have also been able to shift their livelihoods toward petty commerce, and many SfC women point to their ability to acquire livestock or increase livestock holdings as evidence of the economic impact of SfC on their lives.

In describing the impacts of SfC on their ability to save, women tend to describe a shift in their savings mentality rather than their access to economic opportunities. Women credit SfC with providing them with entrepreneurial skills, and also impelling them



toward greater economic activities than they would normally undertake, due to the fear of public shame in case of non-reimbursement. For many women, the mere presence of a program that validates their economic struggles, and establishes a buffer against risk through formal supervision, is enough in itself to motivate them toward savings and credit where previous systems did not. Fears of defaulting on loans or losing savings had previously discouraged women from taking part in other MFI activities.

Membership in SfC demonstrates to both fellow members and non-members that a woman is responsible, reliable, and worthy of respect and consideration. Women tend to emphasize the social cohesion of group membership, and the strength and motivation that they find in collective activity. SfC members were universally appreciative of the malaria prevention program, and associate greater awareness of sanitation and health with a general sense of pride and self-worth after the program. Men in SfC households also appreciate women's ability to manage their finances and care for their children, and do not view women's increased economic contributions as a potential threat to their own roles as primary earners within the household.

#### *SfC in the overall context of credit*

Appendix A reviews the range of available savings and credit systems ***found in the expansion zone before the arrival of SfC***, and considers the relative advantages and disadvantages of each strategy. This analysis suggests that one of the key strengths of SfC is its flexibility, allowing women to modify its basic structure in order to tailor the program to their needs. Villagers' own perceptions of the limitations of available systems indicate that SfC will be a welcome addition in the expansion zone. Where microfinance institutions are available, villagers feel that their own financial control is limited. Formal institutions tend to intimidate all villagers and women in particular, especially when they require personal guarantees or collateral, threaten repossession in case of non-reimbursement, or require travel to access. Villagers and MFI administrators themselves acknowledge a frequent lack of correspondence between the requirements of formal organizations and the capacities of many rural Malians, and institutions operating on a large scale are seen as unresponsive to feedback from their beneficiaries and staff.

Perceptions of less formal institutions in the expansion zone also demonstrate that SfC will be addressing a critical gap in the spectrum of available credit. In several villages, members of *tontines* recognize the inherent limitations to the evolution of a system without interest-based loans yet feel incapable of modifying their current structures to incorporate interest without external assistance and supervision. Other groups, although they feel capable of incorporating interest into their systems, have devised contribution structures that prevent the pooled funds from accumulating to significant enough levels to make loans worthwhile. Informal savings groups also recognize that increased structure, such as requiring attendance and increasing meeting frequency, would benefit their groups, but individual members lack the authority to impose such commitments.



As is true of SfC, primary emphasis is placed on social cohesion and solidarity within informal expansion zone groups, but limited commitment reduces the strength of these social bonds. In areas in the expansion zone that have received attention from development projects, these organizations often adapted previously existing *tontines* to form cereal banks or other collectives, suggesting that current informal groups would also be adaptable into SfC groups. In general, communities in the expansion zone are eager for a program that drives them to greater commitment and savings without obliging them to cede control of their financial decisions.

### 3.4 CONCLUSIONS AND RECOMMENDATIONS

#### *Strengths of the SfC Program*

SfC provides a highly valued option within the spectrum of savings and credit systems available to rural women in Mali. For many women, it provides an essential buffer against crises and stabilizes short-term fluctuations in income. Women find the program highly accessible, and its inherent flexibility and transparency set it apart from alternative strategies. In the areas where SfC has been introduced, women have been able to expand their economic activities, and in some cases have even transitioned away from less profitable livelihood strategies toward petty commerce. We found strong indications that these economic shifts translate to greater empowerment for SfC women in their household sub-units, their larger households, and in their communities. SfC group members are powerfully bonded to each other by their common objectives, and they are successfully maintaining a democratic and mutually beneficial system of managing their economic behavior after graduation. Oral accounting has been a successful mechanism to assure transparency for all members, and allows for financial management by the group even when more complex systems such as multiple shares are introduced.

The administrative structure of SfC has been effective in preparing women for such autonomous control. The NGOs and technical unit do an excellent job of facilitating vertical communication both from above and below: technical agents we spoke with are universally appreciated by their communities, and the groups and replicators they train find them supportive without imposing limits on community ownership of the program. In turn, these agents report that Oxfam's technical unit and their respective coordinators provide them with strong support. The structure of SfC allows feedback from agents and groups to be communicated well to supervisors, and allows innovations in one group to easily spread laterally. Institutional measures to support and evaluate performance appear effective in assuring that agents are well trained and of excellent caliber.

Where it has already been introduced, SfC is universally appreciated for the particular niche it occupies within the spectrum of previously available formal and informal mechanisms for savings and credit. In comparison with traditional *tontines*, SfC's low

weekly contributions and training modules make it accessible even to women who feel incapable of the commitment required for *tontine* membership (only 21% of current SfC members participate in tontines, according to IPA data). Its value over formal credit systems is evidenced by the regular pattern of women's transition away from other formal options toward SfC once introduced. This transition may be temporary; as women gain knowledge, confidence and recognition within their households, they may be better positioned to return to credit systems that depend upon external sources. In the expansion zone, there is a clear role for SfC even in contexts where multiple systems are already available; SfC's demonstrated flexibility (through innovations such as multiple shares and social funds), and its use as a complementary, or parallel strategy alongside *tontines* and other systems, suggest that there are few economic contexts where it would not be a welcome addition.

We have noted in our previous evaluation that without larger-scale responses to the structural limitations women face, the capacity of SfC (or any microfinance program) to effect transformative change in women's economic lives is highly restricted. Evidence in this and previous phases of research overwhelmingly indicates that for all but the most financially secure women, SfC's potential to create economic growth is undercut by consumption needs: even where loans are not explicitly used for consumption purposes, the profits from the income-generating activities to which they are applied are generally used for consumption rather than reinvestment or expansion of productive activities. Without improvements in access to water, health care, markets, and education for themselves and for their children, women are unlikely to be able to avoid these limitations in the short term. In the face of such pervasive structural constraints, the economic impacts of SfC are not sufficient in themselves to bring rural Malians out of poverty.

The capacity SfC provides in allowing women to smooth income in the face of recurrent consumption demands may nevertheless have long-term effects on their economic growth. The reasons for this are twofold: firstly, expenditures for consumption are almost always investments toward production when viewed in the long term. Emergency costs for children's illnesses and school fees are investments in their future capacity to generate income for the household, and even consumption expenditures for clothing for annual festivals provide the household with the kind of social capital that may be essential in procuring loans or arranging desirable marriages in the future.

Secondly, if SfC allows women to gradually make economic decisions from a position of greater stability, this is not a negligible effect. Households in rural Mali operate in a climate of extreme and chronic vulnerability; data from this research phase on the costs of malaria treatment and livestock epidemics alone give some indication of how unforeseen disasters regularly undermine planning for the long term. In mitigating the effects of such setbacks, SfC creates a more stable platform upon which livelihoods can be built. Over time, women in SfC may gradually transition toward economic behavior that allows them to absorb greater risk and reinvest more and more of their earnings into further income generation.

### *Potential challenges to SfC*

#### **Limitations to expansion and entrepreneurship**

The spread and long-term sustainability of SfC depend on intergroup communication, which allows the program to expand spontaneously without continued inputs, and facilitates the lateral transmission of innovations between groups. Inter-village SfC associations have been established in some areas with the partial objective of establishing a horizontal network of information flow without dependence on NGO structure. However, SfC associations do not appear to be well developed as instruments for idea exchange between groups, and other data indicates that there are real limits to the kinds of information that can be incorporated into women's behavior without the reinforcement of formal supervision. Throughout the expansion zone, women who have been exposed to the idea of incorporating interest-bearing loans into their savings systems understand the principle, but feel incapable of taking on such a risky experiment unassisted. Although there is some evidence of spontaneous diffusion of the program through exogamy as women marry and move into new areas, technical agents suggest that such spread is limited, and that spontaneous groups do not often form in villages where SfC is not already present.

The communities in our sample evidence stark variation in access to markets, assistance from NGOs and government structures, and general infrastructure. These forms of access exist in correlation, establishing a feast-or-famine pattern of economic opportunity. Women's economic development also appears strongly quantized by their ability to acquire basic technologies, such as mills or plow oxen, which radically expand their capacity to engage in entrepreneurship. For women in highly underserved areas, the impact of SfC may therefore be very limited unless opportunities to obtain larger sources of credit are linked with the program in the future.

In addition, the high-interest, short-term structure of SfC loans may severely restrict variation in the kinds of economic activities women are likely to take with an SfC loan, particularly in areas with limited economic opportunity. We find some evidence that in areas where women are particularly risk-averse and entrepreneurial possibilities are highly limited, the income-generating activities they undertake with SfC loans are so uniform that they may be oversaturating local markets and limiting their profitability. One of SfC's great strengths is the collective control women exercise over all decisions within the groups, and we continue to argue strongly against imposing additional trainings upon women unless they are actively solicited. Nevertheless, it may be necessary to organize marketing cooperatives, provide marketing trainings, or link SfC to profitable enterprise development in neglected areas for the program to move beyond the level of a savings collective.

The SfC model is primarily designed to help women to meet their basic needs, and as such places an emphasis on security over rapid economic growth. The annual division of funds that most groups undertake, for example, prevents women from taking out large

loans, but provides the reassurance of periodic returns and addresses women's consumption demands during annual festivals and their potential need for mobility. Women are also limited in the size of their entrepreneurial activities by the lack of collective loans made by fellow members of SfC groups, which would also be logistically simpler for the consortium members to oversee and support. Why collective loans are so infrequent in SfC groups is not evident, and is worthy of more focused study in the future, particularly since collective loans are a common strategy for women throughout West Africa.

The most significant factor limiting women's economic development is their tendency to use profits from income-generating activities for consumption demands rather than reinvesting in their expansion. It may be that profits do not reach some minimum threshold to allow women to meaningfully expand their enterprises, or that women are unable to keep their profits in a sufficiently inaccessible form to protect them from consumption demands. These are almost certainly part of the explanation. But it may also be that the idea of reinvestment of capital does not come naturally to women who are not accustomed to having savings, and may be another example where financial training could provide real benefits.

### Defining program success

Program evaluations of the success of SfC programs are overwhelmingly measured in numbers: the number of groups, the number of loans, the percent of women reached, the amount of capital mobilized, and so forth. Technical agents, on the other hand, tend to measure success in terms of adherence to the original model for the program, with any deviations from the format presented during trainings interpreted as negative mutations that endanger the long-term success of the program. Once success is defined in this way, the measures to evaluate it naturally focus on the factors that drive deformation, and the training and continued support required to curtail deviations from the model.

Both of these definitions of success are problematic. Our analysis argues that women's modifications from the original guidelines set out by SfC are highly instructive, and may also be positive adaptations of the program to respond to their needs. As the discussion in Appendix A makes clear, modifications are generally conscious tradeoffs between the priorities of the program (i.e. transparency, high loan activity, and democratic process) and women's daily experience (i.e. considerable time constraints, limited entrepreneurial opportunities and the real need for economic safety nets in the context of vulnerability). Since SfC group members highly value the program's ideals, understanding women's decisions to shift away from them may yield tremendous insight into the economic realities they face.

Whether or not their interpretation of quality decrease is accurate, it is troubling that technical agents and even NGO coordinators feel that the consortium of partners is not heeding their input in their push for expansion. A focus on saturation leaves many important questions unanswered, and we would recommend greater attention to technical agent satisfaction and monitoring of quality through qualitative as well as

measures. In our observations, members of the consortium paid little attention in their evaluation of success to whether SfC is improving the quality of women's lives (as a separate question from their economic development), to the evolution of their loan strategies and how profits are spent, or to the existence of other NGOs in SfC villages and the possibilities for collaboration. Examples of indicators of quality that could be incorporated into a more comprehensive monitoring approach for all SfC groups or a smaller subset of groups designated for more elaborate monitoring might include:

- Frequency of conflicts within the groups, or problems they feel unable to resolve. Information on types of problems experienced, and whether the group is unanimous in defining them as such
- Detailed information on the use of loans. What percentage of loans are for production or consumption, how often do women have to take out loans elsewhere or sell assets to assure reimbursement to the group, and what percent of their profits are reinvested in their economic activities?
- Success of small enterprises, as measured by their growth over time
- Frequency of repeated loans for the same enterprise or activity
- Why do women who use the program for savings alone prefer not to take out loans?
- Measures of transparency in public accounting and discussions for loan approval. Do all members understand the internal rules and procedures?
- Modifications to the program over time. What motivates such changes, and are they driven by a lack of understanding of the model, or by attempts to meet particular needs, to create particular incentives, or to privatize benefits?

#### **Institutional pressures on group performance**

As noted in our previous evaluation, because women generally begin SfC with limited prior experience with microfinance, they tend to avoid any behavior that might endanger their savings. Thus, although technical agents follow a model that is emphatically democratic, their suggestions toward best practices are often interpreted as dogma, so much so that groups in their first few years exhibit very little variation from village to village. In this phase of research, attention to more mature groups indicates that women are increasingly willing to modify their initial terms as they become comfortable with the program and gain confidence in their abilities to invest well and commit to saving. As members of the consortium, technical unit and women themselves suggest, it is likely that many of the limitations on group structure and entrepreneurial innovation will therefore diminish over time. Nevertheless, it is worth noting here some of the influences that may be driving women toward risks they would not otherwise find acceptable.

Pressure from SfC operates in both directions, orienting women toward economic conservatism in some aspects (the annual division of funds, for example) and toward

risk in others. Women appreciate SfC as a commitment strategy, driving them through peer pressure toward economic risks they would not normally have the courage to undertake. Once groups recognize that pooled money grows faster with increasing loan size and frequency, they goad each other into even greater risk. In this phase of research, evidence that some groups make loans mandatory for all members, whether formally or *de facto*, raises concerns over whether such commitment strategies through solidarity networks are pushing some women beyond a threshold of risk they can reasonably absorb.

### Challenges identified by coordinators

During a coordinator meeting in Bamako, coordinators from all NGO partners were asked to identify the greatest challenges in program administration. Their most common responses, in order of frequency, are summarized in the following categories:

#### *1. Seasonal fluctuations in the program's efficacy*

Work slows considerably for agents during the rainy season, when women become generally unavailable and households cobble together their weekly contributions with increasing difficulty.

#### *2. Working conditions for agents*

In many areas, villages also become inaccessible during the rainy season, and general lack of infrastructure makes the job of technical agent a difficult one. Coordinators cite inappropriate equipment, particularly motorcycles for agents working in rough terrain. At the same time, pay rates for agents are not competitive; turnover is high and they are difficult to replace. This may be a particular problem in retaining female agents, who are more easily drawn away from such physically demanding and psychologically isolating work. Another drawback is that the three month maternity leave policy is not sufficient for female agents expected to ride motorcycles on difficult roads and cannot do so in the later phases of pregnancy.

#### *3. Women's acceptance and understanding of the program*

Coordinators cite frequent resistance to the program, either because of previous negative experiences with microfinance or the disapproval of women's husbands. Women who have not had education or previous experience with microfinance are slow to accept the program, and often face tremendous limitations on their leisure time and their options for income generation even when credit becomes available.

#### *4. Associations*

Agents and coordinators are uncertain of the purpose and value of SfC group associations, and lack the pedagogic tools to establish them. For overtaxed agents, setting up associations while simultaneously continuing to train and oversee groups can be frustrating when the purpose of such additional work is unclear.

### *5. Replication*

Coordinators are concerned that replicating agents may not be motivated to continue their work over time if they do not receive some form of encouragement, financial or otherwise. They feel that the current number of replicating agents and the quality of their training are both insufficient.

### *Recommendations*

BARA has identified 4 principal areas for development of the SfC program:

#### **1. Market cooperatives**

Many of the sites within our research sample experience such inadequate access to markets that any microfinance activity there is extremely limited in impact. SfC would do well to link its access to credit with market cooperatives that can provide women with economic opportunities for growth where few currently exist. The still underdeveloped idea of inter-village associations might be productively harnessed to such cooperatives.

#### **2. Integration of other modules**

Through locally identified assessments of community need, SfC could identify partner organizations to address the most critical factors that limit group members' economic potential. Many of these partnerships would focus on water harvesting techniques, better maintenance for boreholes and pumps, and the development of cisterns. In other areas, modules might be designed to partner SfC with improved seed, animal vaccinations, health care services, literacy programs or social protection systems. Such measures would link SfC's potential to the institutions and organizations already operating within the country, and develop sustainable partnerships tailored to local needs.

#### **3. The empowerment of local actors to lead SfC and expand marketing skills**

SfC should continue its transition to a decentralized system of capable actors (replicating agents and local leaders) from within the villages themselves and move away from the technical agent model. Rather than expending costs on an administrative system that may be unnecessarily large for the program, investment may be put to better use in helping women to develop greater entrepreneurial skills. Women in SfC groups have highly developed skills in managing their livelihoods, but these skills are not necessarily the same as those needed to run successful small businesses. Where solicited, training in marketing skills and financial strategies will allow women to use credit to their full advantage.

#### **4. Revisions to program evaluation**

Evaluation of program success should seek to go beyond the numbers to the dynamics that serve as true indicators of the program's sustainability, as discussed above. In addition, SfC should establish a monitoring body separate from the technical unit for evaluation of graduated groups and agent performance to avoid conflicts of interest in reporting. Limits on available data currently lead to nebulous definitions of basic elements of the program, such as saturation rates. These should be addressed through

a baseline census of a portion of the villages, with an adequate sampling frame for extrapolation.



## APPENDIX A: COMPARISON OF SfC TO OTHER SAVINGS AND CREDIT SYSTEMS

In many ways, the SfC system introduced to rural Malians is closely based upon the traditional *tontine* structure that has long existed in the country. Such close resemblance begs the question: in all the villages studied in this evaluation, SfC's particular form of microfinance is universally appreciated and considered transformative in ways that traditional systems are not. If SfC confers clear advantages over traditional systems despite their similarity, why has demand not already produced it? The fact that traditional tontines continue alongside SfC in most villages (with 21% of village women taking part in them, according to IPA data) suggests that the two systems address complementary aspects of a complex set of competing economic and social demands for rural women. In this appendix, we provide some preliminary analysis of this dynamic through an extensive comparison of observed SfC systems with the range of savings and credit systems already existing in the expansion zone.

Women in SfC villages must protect themselves against risk and assure the wellbeing of themselves and their children even as they seek to expand their social and economic capital through potentially dangerous entrepreneurship. With limited time resources, uncertainties in global and local markets, and pressures toward savings consumption from extended social networks, they select strategies that mitigate dangerous fluctuations in their income. Seen in this light, contradictory components of savings and credit may be simultaneously desirable. In a telling interview, one particularly perceptive technical agent explained how each of the attributes that differentiate SfC and traditional *tontines* may be simultaneously advantageous and disadvantageous.

**Table 40. Relative advantages of SfC and *tontines***

| Characteristics of Tontines                          | Advantages  | Disadvantages   |
|--|---|---|
| <b>No interest (usually)</b>                         | Easier to reimburse   | Imposes limit to available credit                                       |
| <b>Rotation does not provide loans at any moment</b> | May prevent savings from being diffused to extended social networks | May be unable to access funds when needed                               |
| <b>Often, physical attendance is optional</b>        | More compatible with women's limited time availability              | Does not establish sense of solidarity and social networks found in SfC |
| <b>No training with agent or replicator</b>          | More compatible with women's limited time availability              | Skills not learned, solidarity less well established                    |

This table provides the framework for the discussion that follows in this section, since it encapsulates the essential tension between women's strategies for economic growth

and the real demands of life in a context of considerable vulnerability. Structured finance systems build a sense of community and identity that may be essential for the long-term success of groups, but require a time commitment that may not be worth these benefits. Women need money at the moment disaster strikes, but for some women it may be equally important to *only* have their savings available at the moments of true need, lest they be diverted into other social obligations. The most crucial difference between SfC and most tontines, interest-generating loans, can only be taken up by those where access to markets and market information make the benefits outweigh the risks. In the following discussion, creative solutions are presented that try to balance between such contradictory impulses, both within and outside of SfC.

## SAVINGS AND CREDIT TYPOLOGIES

The traditional picture of credit in the developing world suggests a general lack of access that microfinance is rushing to fill. Research in the expansion zone, however, revealed a remarkable diversity of savings and credit systems already existing before SfC's arrival. Given the richness and variability of credit systems observed, it is necessary to study this variation to understand what role SfC might most usefully provide within this existing network. In this section, we will consider exemplars across a spectrum of savings and credit systems, selected as representative or particularly instructive. Savings and credit instruments are then compared in terms of four emphases: regulation, liquidity, growth versus risk aversion, and solidarity. These exemplars are briefly described below, in increasing order of all four of these emphases.

### 1. Social funds (Dioundiou Kologo)

Designed purely to accrue communal funds to help those within the community in sudden need, social funds provide no direct mechanism for income generation or growth. In Dioundiou Kologo, social funds are collected at the village level through the administration of the chief and his council of elders. The fund has historically derived from three principal sources. At the moment of cotton sale, a tiny measure (15F CFA) is removed from the profit gained on each sack of cotton. Use of the perimeter zone created by the village for off-season gardening also requires a contribution of 100F CFA to the common fund. As migration has become increasingly important to the village economy (and cotton's presence wanes), migrants are now expected to add 5000F CFA to the social fund when they return to the village. A close relative of *zakat* and other redistribution systems, social funds are also the most common mechanism for the maintenance of commonly shared goods in the village, such as pumps, mosques, and the salaries of schoolteachers.

### 2. Labor cooperatives (Kanouala)

Kanouala has benefited from the presence of several NGOs, one of which has recently converted a longstanding *tontine* into a collective for shea butter production. The project provides training for skilled labor at all levels of *karité* transformation, as well as other skills in producing commercial crafts. The project has also provided the

collectives' members with a mill to facilitate production. Members of the collective have their profits from production held in savings accounts, and are required to pay a single annual contribution of 6000 F. Members would like to begin providing interest-bearing loans from the pooled funds, but feel that the cooperative's balance is never large enough to initiate credit activity. This is in large part because many of the women have difficulty in paying the sizeable annual fee.

### 3. Collective field labor (Bancouma Peulh)

Divided strongly along traditional caste lines, the savings groups in Bancouma Peulh are designed to simultaneously address two critical needs: to assure the availability of labor when it's crucially needed, and to protect vulnerable households from unforeseen shocks. Fulani women from low status caste groups (descendants of formerly 'enslaved' families) work together to pick karité nuts and transform them into shea butter, pooling their profits. When a significant amount of money has been collected, funds can be removed for a member's emergency if the group agrees, although at least half of the funds must be left for needs in future weeks. The group operates with very little regulation; there is no time limit on repayment, meetings are open discussion without strong leadership, and loans do not accrue interest. Loans for serious emergencies are often left unpaid, although members are expected to attempt to reimburse their loans in good faith. Women from outside the village are allowed to join in theory, but would be asked to pay 2500 F CFA since the group cannot be certain of their solvency.

### 4. Cereal banks (Pona)

Cereal banks are designed to protect households that risk depleting their reserves of staple grains during the critical months of the *soudure*, when the harvests of the previous year have been exhausted and the current harvest has not yet come in. In Pona, villagers can borrow grain reserves from a communal store, then reimburse them with interest after their harvests. Payment of both capital and interest are in kind, not in cash. These are high-interest (20 kilograms for every 100 borrowed), short-term loans entirely designed to protect households from strategies that are more damaging in the long term, such as the sale of livestock or other assets, in order to meet consumption needs throughout the year. In Pona, in kind payment is particularly appreciated because grain can be accessed and transferred to the family granary in secret, without public declaration of one's assets (especially visible household assets, such as livestock).

### 5. Tontines with interest (Kokuy)

Kokuy is a tightly bonded village of only a few large family names, and the village women's group *an ka gnogosé* (mutual assistance) is formed from members with multiple bonds through different forms of blood (genetic) kinship and other traditional family ties between last name groups (the "joking cousins" relationship), children who have breastfed from the same woman (milk kinship). Each contributes 100F CFA per week, and when the pooled funds reach 5000F CFA each member receives the sum in

turn. This *tontine* differs from most in that it has incorporated a system of loans with interest; the recipient must then pay back 5500F CFA at the end of the month. Once each member has received the kitty, the accumulated funds are divided equally. Loans are generally used to purchase sorghum to brew *dolo*, the local alcoholic beverage, or to engage in petty commerce. Profits are expended in household consumption, and provide a valued supplement to women's economies. Along with the usual officers, *anka gnogosé* has an appointed peacekeeper to mediate conflicts within the group. All members must be from the village by order of the fetish chief, who seeks to avoid conflict with neighboring villages.

#### 6. Work groups with variable interest (Bougan)

The Bougan *tontine*, *Benkady* (mutual assistance) serves the principal objective of providing women with the savings to purchase large cooking pots and outfits for celebrations. Members work in people's fields for cash, which is directly deposited into a collective fund. There is no system of weekly contribution, and in normal years the profits are simply divided between members. In difficult years, however, when the pooled money seems insufficient to meet the needs of the group, money is divided up among members in the form of loans with interest in order to grow the pooled fund. Any villager, including men, may borrow from the fund, but those outside the village are prohibited. The group meets only three times a year: at the beginning of the year to plan the objectives for the next cycle, at the beginning of the planting season, and at the end of the harvest. Loans vary in size, ranging up to 15,000 F CFA, but are generally 2,500 F CFA.

#### 7. Catholic Relief Services (Diora)

The program is essentially the same as SfC, but groups are much larger. It also appears to target Catholic women over others. In Diora, World Vision and Save the Children also have microfinance programs for women; it is unlikely that Oxfam will be able to separate the impact of SfC from those of other NGOs in Diora. Women contribute 200F CFA per week, and distribute their funds annually after the harvest. Although the program has not yet developed large enough funds for women to realize their larger entrepreneurial objectives (soap-making, soubala production, and tree nursery projects), they find real advantages and security in saving collectively rather than individually.

#### 8. Men's commune-level cooperatives (Bancouma Peulh)

Wealthy Fulani in Bancouma Peulh tend to eschew microfinance altogether, preferring to keep their assets in the form of livestock. Many members of the next economic stratum, however, prefer to join commune-level cooperatives that allow them access to large amounts of credit. Because these associations are at the level of the commune, local government is invested in providing evidence of the power of decentralization through heavily subsidized loans. Like the CMDT before them, the commune also seeks to provide incentives toward such large-scale ventures between multiple villages, since

administration of such loans is simpler than overseeing multiple individual loans. Associations are a less risky prospect since successful members cover the losses of defaulters to meet the terms of the credit agreement, and are thus less likely to default than individuals. Members are paid in feed pellets for livestock; individuals then sell the pellets at a profit and repay the collective in cash. Membership requires a 7,500 CFA entrance fee; this and mistrust of collaboration with strangers effectively exclude all but the wealthier members of the village.

### 9. Kafo Jiginew (Pona)

Kafo Jiginew has extension programs in several of the villages studied in this phase. Their loans may be very large (greater than 150,000 CFA), but require a 10% guarantee and are set at cumulative interest rates. Members must provide 10,000F CFA, photos, and a copy of their identity cards to participate. Although reimbursement rates are high, the threat of collection agents seizing property of equivalent value is very intimidating to prospective creditors. As in other savings banks observed in this study, Kafo Jiginew offers a range of available instruments, from very short-term (1-5 month) consumption loans to agricultural loans reimbursable from 6 to 12 months after the loan. Married women generally are obliged to rely on their husbands as guarantors of their loans. Collateral is set very high, perhaps even in excess of the value of the loan itself. Despite these considerable impediments, the agent in Pona says that women take out most of the loans in the village, although they seldom exceed 50,000F CFA. Kafo Jiginew is nominally available to all within the village, but tends to suffer from institutional biases. In Pona, for example, loans are only available to members of the same neighborhood as the agent; in Dioundiou Kologo, Kafo Jiginew prioritizes the interests of civil servants over those of farmers.

## STRUCTURE AND FLEXIBILITY

**Table 41. Structure and flexibility in savings and credit systems**

|     | Expansion zone           | Village   | Attendance mandatory, regular? | Repayment in kind allowed? | Collection of goods in case of default? | Can new loans be taken out while you're in debt? | Fines enforced? | Verification or market assessment of loan viability? | Screens to access ? | Are there elections for officers? |
|-----|--------------------------|-----------|--------------------------------|----------------------------|---|--|-----------------|--|---------------------|-----------------------------------|
| 1   | Village social fund      | Dioundiou |                                |                            |   |  |                 |  |                     | No                                |
| 2   | Shea butter cooperative  | Kologo    | N/A                            | N/A                        | N/A                                     | N/A  | N/A             | N/A  | N/A                 | No                                |
| 3   | Women's work group       | Kanouala  | Yes                            | N/A                        | N/A                                     | N/A  | No              | N/A  | N/A                 | Yes                               |
| 4   | Cereal bank              | Bancouma  |                                |                            |   |  |                 |  |                     |                                   |
| 5   | Tontine with interest    | Peulh     | No                             | No                         | No                                      | Yes  | No              | No   | No                  | Yes                               |
| 6   | Work group               | Pona      | N/A                            | Yes                        | No                                      | Yes  | No              | No   | No                  | Yes                               |
|     |                          | Kokuy     | Yes                            | No                         | No                                      | No   | No              | No   | No                  | Yes                               |
|     |                          | Bougan    | No                             | Yes                        | No                                      | No   | No              | No   | No                  | Yes                               |
| SfC | New SfC group            | Lebosso   | In theory                      |                            |   |  |                 | No   | No                  | Yes                               |
| 7   | Catholic Relief Services | Diora     | Yes                            | No                         | theory                                  | No   | Yes             | No   | No                  | Yes                               |
| 8   | Men's cooperative        | Bancouma  |                                |                            |   |  |                 |  |                     |                                   |
| 9   | Kafo Jiginew             | Peulh     | N/A                            | No                         | Yes                                     | No   | Yes             | Yes  | Yes                 | Yes                               |
|     |                          | Pona      | N/A                            | No                         | Yes                                     | No   | Yes             | Yes  | Yes                 | No                                |

\*Shaded areas indicate increasingly formal structures and limited flexibility

Although SfC is a remarkably versatile program, most informal forms of credit and savings are far more adaptable to women's shifting needs. The above table suggests that many of the so-called "deformations" decried by frustrated technical agents are in fact natural shifts toward the kind of flexibility normally experienced in women's finance instruments. This kind of flexibility may still be sustainable in villages where strong social bonds between members can stand in for formally imposed laws or higher levels of structure in the groups; Bancouma Peulh's work groups, which have operated without real change for generations despite a nearly unregulated system, are instructive in this regard. Systems that have incorporated the capacity to pay in kind as well as cash address a preference of many women to avoid the possession and transaction of currency, as discussed in the text.

Structures in the most formal instruments seek to exclude less viable loan candidates by imposing guarantees, collateral, membership fees and other impediments. SfC, in the model presented by technical agents, seeks to impose as much structure as it can without impinging on women's sense of control over their own funds. In the table, forced debt collection is nominally attributed to SfC and CRS; although some groups have mentioned that potential eventuality, it was never observed.

## LIQUIDITY AND COMMITMENT

**Table 42. Liquidity and Commitment in savings and credit systems**

|     | Expansion zone      | Village   | Public or private exchange (liquid) | Money pooled from collective labor? (liquidity) | reimbursed in installments? | Savings: rotating pot (v money available at any moment?) | Contribution frequency (liquid) | Contribution size |
|-----|---------------------|-----------|-------------------------------------|---|-----------------------------|--|---------------------------------|-------------------|
| 1   | Village social fund | Dioundiou |                                     |   |                             |  |                                 |                   |
|     | Shea butter         | Kologo    | Public                              | Yes   | N/A                         | N/A  | Infrequent                      | Small             |
| 2   | cooperative         | Kanouala  | Public                              | Yes   | N/A                         | Available  | Year                            | 6000              |
|     | Women's work        | Bancouma  |                                     |   |                             |  |                                 |                   |
| 3   | group               | Peulh     | Public                              | Yes   | Yes                         | Available  | Week                            | 50                |
| 4   | Cereal bank         | Pona      | Private                             | N/A   | Yes                         | N/A  | N/A                             | N/A               |
|     | Tontine with        |           |                                     |   |                             |  |                                 |                   |
| 5   | interest            | Kokuy     | Public                              | No  | Yes                         | Unavailable  | Week                            | 100               |
|     |                     |           |                                     |   |                             |  |                                 | From              |
| 6   | Work group          | Bougan    | Public                              | Yes   | Yes                         | Unavailable  | Seasonal                        | labor             |
|     |                     |           |                                     |   |                             | Semi-  |                                 |                   |
| SfC | New SfC group       | Lebosso   | Public                              | No  | No                          | available  | Week                            | 250               |
|     | Catholic Relief     |           |                                     |   |                             | Semi-  |                                 |                   |
| 7   | Services            | Diora     | Public                              | No  | No                          | available  | Week                            | 200               |
|     |                     | Bancouma  |                                     |   |                             |  |                                 |                   |
| 8   | Men's cooperative   | Peulh     | Public                              | No  | No                          | Available  | N/A                             | N/A               |
|     |                     |           | Semi-                               |   |                             |  |                                 |                   |
| 9   | Kafo Jiginew        | Pona      | private                             | No  | No                          | Available  | N/A                             | N/A               |

\*Shaded areas indicate increasing liquidity and limits on commitment strategies

All savings instruments operate as a sort of commitment strategy, helping women to set aside resources for the long term in the face of continual pressures to spend today. As Table 42 above illustrates, women must make an impossible choice in their selection of savings group: is it better to have easy access to money in case of emergency, or to limit access to money which can limit the social demands often made on families, to spend scarce resources that might be better to save? The need to respond simultaneously to

both of these financial demands, high liquidity and low liquidity, may be the primary motivator for women who remain in *tontines* after joining SfC. *Tontines* present a variety of mechanisms for reducing availability, liquidity or fungibility of assets.

Bougan's *Benkady* association, which can be considered a type of tontine, presents several classic strategies. Firstly, the objective of the group is to convert savings into material assets that are traditionally considered some of the few exclusive possessions of women: cooking pots and clothing. At every stage of their collective activity, the organization allows women to participate in the cash economy without ever incurring the risk of diffusing their savings in the form of individual cash. Collective labor is paid in cash or in kind, but immediately converted into an inaccessible form of cash. The group chooses only to take loans when absolutely necessary to grow the fund; the preferable strategy does not release their cash until the end of the year, when it is immediately converted into non-transferable goods.

Like *Benkady* in years of poverty, SfC itself adopts an intermediate form of liquidity: savings can be removed at any time, but in most groups to do so invokes the penalty of interest. Unlike many traditional systems, SfC may force women to hold on to more money than they wish by requiring that they pay capital and interest in a single installment. In fact, we observed one group in which a woman, after being refused permission to pay only a part of her outstanding loan, complained that she would be unable to keep the amount she had saved if she could not give it over for collective safekeeping. Losing the capacity to pay in kind may similarly reduce women's ability to retain their individual savings long enough to make payment.

Women recognize that they can save much more together than individually because they hold each other to the savings commitment and benefit from the interest on loans. However, the risk in participating in a highly public group like SfC is that people in the community are aware of members' ability to get loans and this can be a disadvantage. Socially, women may not be able to refuse requests for money from friends and relatives, which deplete their savings and loan money. Private loans are, in principle, one of the best ways to prevent this problem because they are protected by considerable social censure on the discussion of others' debts.

For the wealthiest, however, credit systems such as truly private loans are optimal. This may be one part of the reason why the preferred strategy of the most affluent is consistently to put their wealth into cattle rather than microfinance. Herds are often kept far from the village and their real value is difficult to estimate, cattle are very lumpy goods, and there appear to be cultural limits to requesting loans in the form of cattle rather than cash. In a volatile economy, savings in the form of commodities are also an important strategy to protect against currency depreciation.

## **RISK AVERSION AND GROWTH**

Measures to assure the security of members in times of distress with no-interest loans have the downside of possibly reducing the long-term sustainability and economic growth of women's groups by reducing the fund available for income-generating



activities. Although SfC and similar programs take measures to safeguard their sustainability, their focus on short-term, relatively high-interest loans limits the economic activities women are likely to be willing to undertake. By generating savings from women's own resources, most systems available to women must by necessity limit the danger of appropriation or embezzlement of savings, and therefore most of these groups appear to have relatively democratic control.

Strategies available to men cede some of that democratic control, but provide access to external sources of credit orders of magnitude greater than most systems available to their wives. With more flexibility in loan repayment schedules and greater loan sizes, men have the option (and its concomitant risk) to try a much greater diversity of income-generating activities with the loans they receive.

**Table 43. Risk and growth potential in savings and credit systems**

|     | Expansion zone          | Village          | Emergency gifts? | Generates income without interest? | Loans used for emergencies or IGA? | Profits used for consumption or IGA? | Interest rate | Short term or long term? | Designed to protect against shocks | Available credit |       |
|-----|-------------------------|------------------|------------------|------------------------------------|------------------------------------|--------------------------------------|---------------|--------------------------|------------------------------------|------------------|-------|
| 1   | Village social fund     | Dioundiou Kologo | Yes              | N/A                                | No                                 | N/A                                  | Consumption   | 0                        | N/A                                | Yes              | N/A   |
| 2   | Shea butter cooperative | Kanouala         | No               | No                                 | Yes                                | N/A                                  | N/A           | N/A                      | N/A                                | Yes              | N/A   |
| 3   | Women's work group      | Bancouma         |                  |                                    |                                    |                                      |               |                          |                                    |                  |       |
| 4   | Cereal bank             | Peulh            | Yes              | Yes                                | No                                 | Emergencies                          | N/A           | 0                        | N/A                                | Yes              | Small |
| 5   | Tontine with interest   | Pona             | No               | No                                 | No                                 | Emergencies                          | N/A           | 20                       | Short                              | Yes              | Small |
| 6   | Work group              | Kokuy            | No               | No                                 | Yes                                | IGA                                  | Consumption   | 10                       | Short                              | Yes              | Small |
| SfC | New SfC group           | Bougan           | No               | Yes                                | Yes                                | Mostly IGA                           | Consumption   | 10                       | Med                                | No               | Small |
| 7   | CRS                     | Lebosso          | No               | No                                 | Yes                                | Mostly IGA                           | Consumption   | 5                        | Short                              | Yes              | Med   |
| 8   | Men's cooperative       | Diora            | No               | No                                 | Yes                                | Mostly IGA                           | Consumption   | 10                       | Short                              | Yes              | Med   |
| 9   | Kafo Jiginew            | Bancouma         |                  |                                    |                                    |                                      |               |                          |                                    |                  |       |
|     |                         | Peulh            | No               | No                                 | Yes                                | IGA                                  | IGA/Consump.  | High                     | s                                  | No               | Large |
|     |                         | Pona             | No               | No                                 | Yes                                | IGA                                  | IGA/Consumpti | Varie                    | s                                  | No               | Large |

\*Shaded areas indicate increasing risk and potential for economic growth

## SOLIDARITY AND INNOVATION

Technical agents, Oxfam's technical unit and SfC group members themselves repeatedly point out that the benefits of the program are as strongly felt in terms of solidarity and a shared sense of purpose as they are in economic terms. In the absence of outside

forces, it is this tremendous cohesion between members that assures women's loan reimbursement, their commitment to participation, and their adherence to internal regulations. The strength of the bond between women is partially derived from the internal regulations themselves, particularly in groups that place emphasis on inspiration to a common vision, cleanliness and self-respect. More importantly, agents encourage the formation of groups based on prior social connections, so that most groups are small, tightly knit and relatively homogeneous. As Table 44 indicates, informal groups also tend to form small groups based on affinity, geographic proximity, and single gender. Where outsiders are allowed for pragmatic reasons, measures are taken to assure their solvency and/or limited role within the groups.

**Table 44. Solidarity and innovation in savings and credit systems**

|     | Type                    | Village   | Civic purpose? | Long-term collective objectives? | Men only/women only/mixed | Group size | Includes non-villagers? |
|-----|-------------------------|-----------|----------------|----------------------------------|---------------------------|------------|-------------------------|
| 1   | Village social fund     | Dioundiou | Yes            | N/A                              | Mixed                     | Village    | No                      |
| 2   | Shea butter cooperative | Kologo    |                |                                  |                           | Over 20    |                         |
| 2   | Women's work group      | Kanouala  | No             | Yes                              | Women                     | 20         | No                      |
| 3   |                         | Bancouma  |                |                                  |                           | Under 20   | With fees               |
| 3   | group                   | Peulh     | No             | No                               | Women                     | 20         |                         |
| 4   | Cereal bank             | Pona      | No             | No                               | Mixed                     | Village    | No                      |
| 5   | Tontine with interest   |           |                |                                  |                           | Under 20   |                         |
| 5   |                         | Kokuy     | No             | No                               | Women                     | 20         | No                      |
| 6   | Work group              | Bougan    | No             | No                               | Mixed loans               | Under 20   | No                      |
| SfC | New SfC group           | Lebosso   | No             | No                               | Women                     | 20         | No                      |
| 7   | CRS                     | Diora     | No             | No                               | Women                     | Over 20    | No                      |
| 8   | Men's cooperative       | Bancouma  |                |                                  |                           | > Village  | Yes                     |
| 8   |                         | Peulh     | No             | No                               | Men                       | > Village  |                         |
| 9   | Kafo Jiginew            | Pona      | No             | No                               | Mixed                     | > Village  | Yes                     |

\*Shaded areas indicate increasingly wide and diffuse social relationships

The gendered division between insular women's groups and inter-village men's groups is particularly striking here, and in fact has a strong cultural basis. *Badenya* and *fadenya*, or "mother-childness" and "father-childness", are often described as the principal complementary principles of Mande life. The former is understood as a centripetal

force, emphasizing stasis and group affiliation; the latter is described as a destabilizing, centrifugal force reaching out to adventure in the larger world (Bird et al. 1995).

### **SfC MODIFICATIONS AND THEIR RELATION TO OTHER SYSTEMS**

In the above discussion, SfC is represented by the newly formed groups in Lebosso, still in training and not yet completed with their annual division into experimentation with the form. As a new group, this example still reflects core SfC characteristics. In fact, however, our research showed several modifications to the structure of other SfC groups, and it is instructive to examine these modifications, in light of the framework outlined above.

Several strategies found in other informal systems in the expansion zone also appear as modifications to SfC groups in the five SfC villages studied. Like the labor collectives in Bougan and Kanouala, groups in Kambila are willing to make concessions in the growth of their pooled funds in order to provide emergency assistance to members, allowing members in need to take loans without interest. Commitment to savings is also reinforced by allowing members to pay their debts in installments, which reduces the temptation that cash presents when it accumulates in individual homes. Although all groups have more loans whose stated purpose is for income-generating activities than they do loans for consumption, Kambila appears to have more consumption loans than elsewhere. In fact, groups in Kambila prioritize loans for consumption over loans for entrepreneurial activity when funds are limited.

In Maninga Danga, the system of multiple shares may serve to maintain the composition of strongly bonded groups even when there is considerable economic disparity within their numbers; these groups also demonstrate their emphasis on solidarity through the expression of multiple long-term objectives that unite the group even as they are undercut by the pragmatic necessity of the annual division of funds.

Felou and Maninga Danga do not formally require that all members take out loans in each cycle, but in practice the collective will to grow their funds as quickly as possible makes this social expectation tantamount to a formal directive. In cases like this, SfC groups exert considerable peer pressure to drive individual members into commitment strategies. Perhaps in response to this focus on income generation over social security, Felou has instituted a social fund in parallel with SfC, which functions identically to those found in informal savings systems.

Finally, it is worth noting that SfC associations depart in significant ways from the groups they comprise. Although they are often presented as a sort of fractal expansion of the SfC unit, with groups standing in as members, the fact that relationships are established between rather than within villages poses serious challenges to women who seek to avoid risk in their investments. The factionalism and indecisiveness of the Kambila association shows how difficult it is for groups from different villages to agree on common objectives. In fact, associations may drive groups to become more insular and internally cohesive rather than feeling part of a larger whole, as friendly competition and one-upmanship reinforce their sense of localized group identity. This may be the

most important function of collective loans within associations at the group level. Group contributions to the rotating fund within associations, like their counterparts in *tontines*, are less liquid than funds within SfC groups themselves.

## APPENDIX B: VILLAGE PROFILES OF EXISTING SfC SITES

**Table 45: Sample overview for the BARA expansion zone study<sup>20</sup>**

| Village          | Commune  | Cercle   | RCT Type <sup>21</sup> |
|------------------|----------|----------|------------------------|
| Bancouma Peulh   | Fangasso | Tominian | Organic replication    |
| Bougan           | Katiena  | Segou    | Structured replication |
| Diora            | Diora    | Tominian | Excluded               |
| Dioundiou Kologo | Kaniegue | San      | Control                |
| Kanouala         | Kemeni   | Bla      | Control                |
| Kokuy            | Koula    | Tominian | Structured replication |
| Pona             | Fion     | San      | Organic replication    |
| Zangouna         | Beguene  | Bla      | Organic replication    |

### 1. Felou



*A food-insecure polygamous household in Felou*

Felou is in Koula, in Koulikoro. In this modest agricultural community, the villagers' fields are right behind the walls of their compounds. This is because Felou was originally a set of fieldhouses for a village twelve kilometers away. In choosing to make this field hamlet their permanent home, its residents have traded access to markets and infrastructure for land availability and

political autonomy. Although Felou continues to be dominated by agriculture in the rainy season (and for many, by off-season gardening in the dry season), the pasturing of cattle and small ruminants is also a common household strategy. Millet, corn and sorghum are dominant crops for men during the rainy season, and women grow okra and peanuts on the parcels allotted to them by the head of household. Tobacco, onion, cucumber and melons are among the principal off-season crops. Charcoal production is a primary strategy in women's cash economy, since lack of water limits the development of gardening. The villagers themselves use firewood from near the village

<sup>20</sup> For detailed village profiles of the expansion zone sites, see Appendix C.

<sup>21</sup> As mentioned in an earlier footnote in Section I, organic replication refers to the original SfC model used in Mali in which replication agents did not receive formal training. Structured replication refers to groups that are now receiving formal training for the replicating agents.

as their fuel source, preferring to sell the charcoal they produce. Migration is also an important component of livelihood, and along with the sale of animals provides a major source of revenue and a crucial emergency strategy in difficult seasons.

Felou is predominantly Muslim, with a small presence of animism and Christianity. All residents speak Bambara (the founding family are Coulibaly), but the village also includes significant numbers of Fulani and Sarakole, and blacksmiths live among the families designated as nobles (according to traditional caste distinctions) without social segregation. The village chief is very elderly, and his son functions as the de facto leader of the village in many regards. As is typical in Bambara society, the chief and his advisors serve as the primary authority for village decisions; secondary authority falls to heads of household, then to young men within the household, and finally to women. Women have relatively few rights even in comparison to other Bambara communities, since the levirate system in which a deceased husband's brother commonly marries his widow is the norm, and the husband has say over the allotment of all possessions in case of divorce.

Of Felou's three borehole wells, only two still function, and wells dry up during the worst of the dry season. Lack of water prevents the full development of off-season gardening to meet market demand. Land is relatively abundant in Felou, and all but a few farmers are able to work their own fields; the few who work in other peoples' fields receive cash payments per day of labor. But farmers have noted a tremendous decrease in yields as overworked fields reduce output, and the price of fertilizer has radically increased since 2005. The sale and purchase of land are not authorized in the village, and it falls to the village chief to allocate fields to inhabitants as they request them.

The buildings in Felou are made of mud brick, with the single exception of the cement warehouse used by the wealthiest household for the storage of its agriculture equipment. There is considerable stratification of wealth in the village, with the wealthy sufficiently buffered by their capacity for livestock sales in difficult years to assure adequate food resources. Poorer households, in contrast, deplete their annual production in as few as four months in years of bad rains, and depend heavily on neighbors and village acquaintances for assistance in kind and in cash. Felou has mills for grinding cereals, and most households have carts to ease transportation of firewood and goods for market sale; these technologies have greatly reduced women's labor even as transitions to the cash economy (mainly through charcoal production) have increased their responsibilities.

Felou has had an SfC presence for three years, and presently has four active groups, organized by the village neighborhoods along networks of kinship and friendship. One group has spontaneously formed, and is composed entirely of young girls that have not yet married, saving for the costs of their weddings. Loans in all groups are principally used for petty commerce and for *embouche*, the strategy of buying young animals and fattening them for profitable resale.

When women in Felou speak of the advantages of SfC, they describe a change in their mentality toward cohesion, motivation, and a willingness to try new economic activities. Moreover, women feel that they now have more control in their households, and have seen significant gains in revenue. Men also appreciate the decreased burden on their own economies as women are increasingly capable of managing their household responsibilities without assistance.

Associations have not yet been introduced to Felou, and women are eager to learn from other groups and improve their own activities through the exchange of ideas. They also expressed a desire for literacy training, not because they have trouble with accounting practices within the groups at present, but because they feel that literacy confers a change in mentality that would help them to become better entrepreneurs. Women in Felou have created a social fund in parallel with their SfC activities, in which members contribute 50F separately from the SfC contribution. The pooled money is distributed to each woman in turn, as within a standard *tontine* system. This is a very popular addition to the SfC system, and is considered as an important way to meet women's household needs. No other sources of credit are available to women in the village, although some people in Felou get loans through a savings bank outside of the Koula Commune. Women are reluctant to try a distant credit system that requires guarantees and a minimum balance in a savings account, especially when SfC currently responds well to their needs.

## 2. Kambila



*Compounds in Kambila are spaced far apart.*

Kambila is the principal village of its commune, and lies in close proximity to the major urban centers of Kati (4 kilometers away) and Bamako (20 kilometers away) on well-paved highways. It is one of the earliest villages to benefit from the SfC program, and now has ten savings groups, the oldest of

which was created in 2006 out of a previous *tontine*. Although SfC has had strong positive effects, and is considered primarily responsible for women's shift away from charcoal production and toward petty commerce, Kambila has not been successful in developing strong associations of SfC groups. Political competition between clans and limited social cohesion in this peri-urban community may also render the poor more vulnerable to shock and limit the effectiveness of group activities. Despite the long-standing presence of SfC, the village still has a significant number of women (perhaps



half of adult married women) who are not yet involved in the program.

The village is predominantly Bambara, and the Fulani families in Kambila have been fully assimilated. The large, well-spaced family compounds extend on both sides of the highway to Kati, and the village has many scattered hamlets, particularly along the plain to its west. Households are part of five larger clan units (*gwa*), four Bambara and one Fulani, although extensive migration from more rural areas means that almost all ethnicities have some representation in the village. Kambila receives considerable attention from NGOs and state programs, with a maternity, dispensary, wells, veterinary services and a primary school all funded by NGO projects. Nevertheless, villagers identify inadequate health services among their greatest difficulties.

Corn, millet and sorghum are the staple crops of the rainy season for men. Women also do agriculture, but domestic work dominates, and women's recent development of petty commerce and off-season gardening is has shifted the traditional gendered division of labor away from the domestic sphere. Women are provided with their own allotment of land in the family fields, which they use for peanuts and okra; part of this harvest is sold, and part is used for sub-unit consumption. Insufficient rains, particularly in the last four years, have constrained the development of off-season gardening to meet the considerable market demand of nearby urban centers. Animal husbandry is generally limited in Kambila, although wealthier households tend to have significant livestock and small ruminant holdings.

There are large differences in wealth and vulnerability between the wealthier and poorer inhabitants of Kambila. Although proximity to urban centers confers obvious advantages to Kambila in terms of entrepreneurial opportunity and market access, it may also create an environment of greater vulnerability for poor villagers. Dependence on urban markets leads to instability in commodity prices over time, and households that rely on commerce must develop strategies to cope with a high degree of fluctuation in household revenue from year to year. Urban residents are increasingly outcompeting villagers for the rights to village fields, which are in turn rented out to villagers. Land is a limited commodity, and during the rainy season no plots are left fallow. The village chief reserves the right to reclaim and reallocate any holdings- those who have lost land have no recourse but to borrow land from elsewhere. Caught between disputing clans of the village chief and the mayor, several poorer households with whom we spoke had had their fields abruptly reclaimed from them. Such instability in land tenure is compounded by limited social sanction on theft for this highly mobile community, and we encountered several poor households that had been forced to abandon poultry production in their homes after repeated theft. Poor households depend strongly on social networks for assistance, getting help from close relatives or members of the same household.

On the other hand, the mobility of the male population may also be establishing an increased role for women in the village; since the majority of men migrate for seasonal labor, villagers estimate the ratio of women in the adult population as high as 80%, and



the technical agent and others in the village hypothesize that this may be partially responsible for the strength and success of Kambila's SfC groups. There is also some evidence that SfC may be limiting women's mobility by requiring their regular participation in savings activities. Before SfC, women tended to return to their parents' homes during the *soudure*; SfC now keeps them in the village, where they help to support their husbands during these most difficult months of the year.

There are 6 formal groups, 3 replicated groups and one spontaneous SfC group in Kambila. Women in SfC groups tend to invest their loans in petty commerce activities, although off-season gardening costs, seed stocks, and school fees and other expenses for children are all significant. SfC is particularly appreciated in providing consumption for children's medical services, which would otherwise be prohibitively expensive. Eight of these groups are part of an association that spans three SfC villages. This association has struggled to find a collective objective, and has proposed several joint activities in succession, each of which have been abandoned after intense debate among members. Traditional tontines and a cereal bank continue alongside the SfC program, as do traditional groups for collectivizing fieldwork in peak periods of labor. Women also collect money together in preparation for the large celebrations for Tabaski and the end of Ramadan. Kambila also has a village bank that once provided women with loans for seed stock, but this system has fallen into disfavor among women with the advent of SfC, since it required livestock as collateral and usually necessitated a husband or other man as guarantor for the loan.

### **3. Lebosso**

Far from the other SfC villages in this phase of the study, Lebosso is a village of approximately 500 Minianka in the Yorosso circle of Sikasso, near the border with Burkina Faso. A large mosque at the entrance to Lebosso signals the dominance of Islam, practiced by over 90% of the inhabitants. The village is strikingly well off in material resources; houses and even granaries for all but the poorest households have aluminum roofing, and each family has their own mill. Wealthier households have solar panels, sewing machines and seeders, and even poorer households have plow oxen, carts and even televisions. This wealth derives from rich and plentiful agricultural plots and forests, and is relatively well distributed across the economic strata of the village. Wood is so plentiful that villagers use it (and not charcoal) to heat water, and land is so abundant that even middle-income families often have over 20 hectares of land, with the wealthiest households exceeding 40 hectares.

But Lebosso is also highly inaccessible, lying 33 kilometers along a poorly maintained road from the main village of the commune, and is all but ignored by state and non-governmental organizations. Despite Lebosso's material wealth, illiteracy rates are very high, and there are no health services at all within the village. The relative isolation and near-total religious, ethnic and linguistic homogeneity of Lebosso contribute to a strong sense of cohesiveness and cooperation between villagers, and institutions such as zakat and informal loans do much to lessen the gap between wealthiest and poorest. Although village decisions are made democratically, land is allotted rather than being

bought or sold, and while poor households generally have large landholdings they may be of considerably poorer quality. Wealthier households prefer to invest their savings in animals and commerce rather than in banking systems; poorer households adopt the same strategy but at an increasingly smaller scale.

Villagers in Lebosso are principally engaged in agriculture, petty commerce, and animal husbandry, although firewood collection is also an important livelihood strategy for many. Cotton was formerly an important part of the local economy, but has largely been abandoned as market prices have dropped and the costs of inputs has risen. In its place, corn, sorghum and millet are the most important crops. Women do not clear fields or do the hardest physical labor in the fields, but do other fieldwork, and transform karité into shea butter. Migration, seasonally or permanently, is an important strategy for all families here, but only men travel.

GRAADECOM started the SfC program in Lebosso in December of 2008, and the program is still in its infancy. Initial mistrust due to negative experiences with previous organizations has led many women to wait and see how the few early adopters fare before they join. At present, a single SfC group exists with 26 members (about 15% of the overall population of active, married women). To quickly grow the fund, the group has decided to require all members to take out loans, although this has not yet been achieved. Loan uses are principally for petty commerce, and for sheep fattening for resale. Women also need credit to purchase trousseaux for their daughters.

The village also has a village savings association, and groups that strongly resemble SfC (weekly contributions and loans with 10 percent interest) but have less rigid structures. Many of the SfC women are members of these groups as well, because operating in both simultaneously enables them to get a second loan if needed before the first is reimbursed.

#### 4. Maninga Danga



*Members of the younger SfC group took out loans to have these outfits made.*

Maninga Danga is a small fishing community of about 400 Somono Muslims in the Tougouni commune of Koulikoro. The main village has between four and six households, depending on local definitions, although in fact all villagers come from a

single family and have extensive ties. In many ways, the village functions as a single

family unit, as do the many surrounding farming hamlets where most of the population resides. In times of flooding after the annual rains, the village is completely cut off, although at all times there is limited interaction between villagers and the state or other organizations. Schools are so inaccessible that only three children are currently able to attend, and the closest health center is 9 kilometers away. Many households have access to neither wells nor latrines, and villagers are obliged to dig holes in the riverbed to find drinking water. The most important market for villagers is 23 kilometers away, and difficult to access.

Farmland around Maninga Danga is formally owned by the village of Tougouni and is located 8 kilometers away on a poorly maintained road that is not usable during the rains. Those who wish to cultivate on new parcels must make a formal request to the chief of Tougouni, and land is allotted without payment, since land cannot be bought or sold. Unlike Kambila, however, this arrangement is considered secure by villagers and borrowers have never had land reclaimed. Livelihoods of both men and women are dominated by fishing, although until recently it was an exclusively male activity. Fish are sold or traded for millet. Men and women cultivate millet and sorghum, and women also collect and sell a sweet-smelling plant called *babi* that's used for a variety of purposes. Many women in the village have also converted parts of their homes into boutiques for general needs, and nearly all women sell dry fish behind the river on the Saturday markets.

A large part of the male population migrates, particularly in bad years, but they tend to also make their living through fishing while abroad. Migration is a major strategy for both men and women, with over half of the village leaving after the harvests, and returning to provide earned cash and extra labor during the early part of the main agricultural season. Animal husbandry is also an important strategy to mitigate fluctuations in the fishing economy. Households strive to ensure that their agricultural production is sufficient to meet all consumption needs for the household, so that other activities are entirely for income generation. There is very little economic stratification in Maninga Danga, where households are probably better considered as sub-units of a single, highly interdependent household.

As is true for the commune in general, SfC has achieved near-total saturation in Maninga Danga, with all sufficiently stable women having joined one of the village's two SfC groups. Both groups formed at the same time, and by the technical agent's design they are divided by age, with the elder group mainly composed of the wives of the village chief and his brothers, and the second group mainly composed of their daughters-in-law. After seeing the high returns received by members with multiple shares after the last annual division of funds, many women became interested, and the multiple share system has operated successfully without friction between those who contribute differing amounts per week. There are no replicating agents, because the hamlets are so small and isolated that there is no practical way to constitute an extra SfC group out of their potential members. Although older women have fewer time commitments and have access to different scales of activities and thus different needs for loans than their daughters-in-law, the two groups tend to undertake the same

activities and retain the same details of their internal rules and system of operation.

Apart from SfC, there is a mixed-gender savings group (of 39 men and 6 women) originally intended to save for a village well. It was moribund for several years, but has been reinvigorated by SfC's evident success, and its members hope to imitate the SfC system of loans from pooled savings in order to realize their objective. Other tontines have long predated SfC and continue in parallel with the program, although it remains the only source for credit for village women.

## 5. Werekela



*Village elders listen during a community interview*

Werekela, with a population of about 1200, is located on the road to Segou about 2 hours from Bamako in the region of Koulikoro, in the circle of Dial, within the Commune of Fana. The road cuts through its center, and divide its several hamlets

to either side. Unlike many villages, Werekela enjoys good communications and access to markets. Fana, which hosts a regional market and has all the amenities of an urban center, is only 3 km away. Weekly markets are also held in Bala, 6 km to the north, in Kerela 11 km to the south, and in Banelo 15 km to the east.

Despite its close proximity to Fana, Werekela is a very traditional small village in many respects. A *dugutigi*, a hereditary chief, and his council of *gwatigi* elders govern the community, and as is traditional its lands belong to the chief. According to oral history, the Traoré family founded Werekela between 250 to 400 years ago--its age being a subject of some debate. The chief's large walled compound faces onto a small plaza near the mosque and stands out from others in the village, being marked by distinctive architecture, with a particularly ornate gateway. The village is ethnically diverse. Although the village is predominately Bambara, there are Fulani and Soninké living there as well. And although the mosque dominates the center of the village, there are also Christians and animists in the village. There is a small Protestant church at the edge of the village, and the community development activities sponsored by the church have included the construction of modern latrines. Despite the diversity of religions and ethnic groups, there is little evidence of any factionalism among them. Aside from missionary activities, an NGO known by the acronym PGRN is dedicated to helping villages obtain agricultural materials and fighting erosion and had a soil

management program in Werekela that lasted for three years. In the dry season the program applied techniques such as placing bands of pebbles that villagers note have reduced erosion. Saving for Change is new in the village, and there are two groups: a formal one composed of older women has existed for around for about 6 months (as of May 2009); and, an informal one of younger women was in the process of formation. Women in the formal group say that SfC has given them increased confidence to use their money for petty commerce, which they say is working well.

Although Werekela lacks electricity, it does have some basic infrastructure. The village has a mechanized mill, a modern well, and a primary school supported by the community. Despite the presence of the school, however, literacy rates are low, partly due to the fact that children are sent home if they cannot pay the fees.

Agriculture forms the economic base of the village. Cotton played a major role in the village economy until this year. Due to rising costs of inputs and a lack of credit and late payments from the state-run Compagnie Malienne du Développement des Textiles (CMDT), which is undergoing privatization, most farmers have switched to other crops, particularly millet and peanuts. However, sorghum, millet, corn, and rice are also cultivated in Werekela. Animal husbandry is also a significant pillar of the village economy and includes cattle, sheep and goats, donkeys, horses, chickens, Guinea fowl, pigeons, and pigs (at least for some Christians). Larger animals in particular constitute a form of savings that may be sold if significant capital is need, or an emergency arises. Many households have mangos and baobab trees, which are important sources of revenue and food consumption, respectively. Migration is also a very important economic strategy in Werekela. Villager elders estimated that out of 10 children, seven leave the village to find work, and remittances provide households with significant revenues. Most go to Bamako, or Mopti, but some have gone to Guinea and the Ivory Coast. In the division of labor, men do the heavy farming tasks and are responsible for animal husbandry. Women's activities are domestic labor, field labor, marketing, cutting wood, growing shea nuts, baobab fruit, peanuts, okra, and *bebi*. Because Werekela enjoys easy access to markets, petty commerce is also an important economic activity, particularly for women.

Werekela is a fairly prosperous community. According to the elders all households have sufficient land, which is by and large of good quality. There are no sharecroppers. Wells have water year round. Werekela's proximity to Fana beyond providing ready access to the market, gives villagers access to banks and credit unions that provide agricultural loans. Nonetheless, livelihoods are vulnerable, particularly to drought or poor rains. In 2006, for example, drove up the price of grains. The present global financial crisis has driven up the costs of agricultural inputs, grains and many other commodities, and has also dried up

agricultural credit. Malaria, endemic in the region, also affects household livelihoods. While medicines and treatments are readily available, both the loss of labor and costs involved drain household resources.

Household structures in Werekela tend to be large and complex. Internally they make a distinction between *gwa* and *du*, the whole household and its subunits. In these complex households, the eldest brother is the *gwatigi*, and has the final word on all decisions affecting the household. Subordinate units (something closer to being a nuclear family) are headed by a *dutigi*. Despite Werekela's apparent prosperity, vast differences in wealth exist within the village, as well as within its households. Although elders denied the existence of castes, we found there were caste artisans: blacksmiths and potters, who often are among the poorest of households. Wealthy *gwa* and *du* are generally food secure, and because they own significant numbers of animals that they can convert to money in times of need, don't need credit. At the other end of the scale are the poor, who by definition, are not food secure, and often look to others for help. For the poor, the hardest time of year is the *soudure*, the period between the time food stores run out and the harvest. In the dry season, February to May, loans tend to be in cash. Right before the harvest, in September, they tend to be in kind. During hard times, as the central granary runs low, increasing responsibilities for their maintenance devolve to the *du*, and distinctions between the "grand plat" and "petit plat" come into increasing play.



## APPENDIX C: VILLAGE PROFILES IN SEGOU EXPANSION ZONE

### 6. Bancouma Peulh

*Large granaries in a wealthy Sarakole household*



Bancouma Peulh, as the name suggests, is dominated by Fulani, although the village of 800 is divided into three roughly equal ethnic neighborhoods of Fulani, their former 'slave' castes, and Sarakole. These three groups have a curiously complementary relationship, in which the Fulani control land tenure for both village compounds and fields, Sarakole have the greatest financial wealth, and the lower status (former slave) group has available labor for hire. Interethnic marriages are very rare, and the three groups compete agriculturally even as they cooperate in the distribution of land, labor and wealth, so that alliances are often uneasy.

Although Bancouma Peulh is just off a major highway and is only 4 kilometers from the principal village of the commune (Fangasso, in northern Tominian), it receives little assistance from the state or NGOs, in part because its leadership under the current *dugutigi* is strongly independent-minded and self-isolating. The village lacks any health structures, although an agent from Fangasso does limited outreach for childcare. Bancouma Peulh has a pump installed through a partnership between Saudi and German NGOs, and has a Koranic school run by Sarakole religious leaders, although they hope that the state will build them a more developed *medersa*. Water is sufficient for the population throughout the year, but maintaining herds becomes difficult once wells and constructed watering holes dry up in the dry months.

Bancouma Peulh is predominantly agropastoralist, with men prioritizing agriculture during the rainy season and animal husbandry during the rest of the year. Women are increasingly involved in petty commerce, and both men and women produce onions and tomatoes during the off-season for sale in Fangasso, although limited land and labor resources constrain the development of this activity. Major crops during the rainy season are millet, sorghum, beans and peanuts; most of production is used for household consumption. For all three groups, animal husbandry is the principal buffer against food insecurity, and all sell off animals in difficult years to assure adequate food resources for the home. Former Fulani slaves, however, have much smaller animal

resources than the other groups, and depend more heavily on their membership in savings groups to protect them from hunger. Wealthier Fulani men buy up animals from November to June to sell them at Fangasso; less wealthy Fulani men act as brokers (*coxeurs*) for cattle sales. Fulani women in the village spend November to February selling milk in local markets, and pound millet into couscous for sale in local markets from February to June.

Fulani control (through the *dugutigi*) of all land resources has become increasingly significant, since Bancouma Peulh has nearly exhausted its available fields. Because all land has been distributed, any increase in population leads to fragmentation of existing family plots, and has forced a large number of youth into seasonal migration. At present, most villagers have land, but landholdings are very small (under 2 hectares). Village wealth thus derives predominantly from cattle (for the Fulani) and commerce (for the Sarakole). Land is rented out in non-cash transactions, in which labor is promised for three full labor days in each of the critical seasons: preparing, planting, and harvesting the fields. At harvest, the renter also gives a portion to the landlord as a sign of gratitude. This is a common form of sharecropping for former Fulani slave castes, and also for the inhabitants of smaller, satellite villages in the area.

Because women's land is apportioned to them by their husbands, women are particularly limited in their landholdings, prohibiting their ability to fully develop off-season gardening. For the Fulani, too, off-season gardening at a large scale becomes prohibitively expensive, because they lack the requisite labor resources. Increased migration may be changing the structure of households, as returned migrants are less willing to share their resources with the enlarged household and prefer to support their particular sub-units. The village has an increasing number of nuclear households that act independently of enlarged households (or, to use Bancouma terminology, an increasing number of *du* which are also *gwa*), a phenomenon that was all but unheard of 20 years ago. Increasing fragmentation of household units will have important implications for the success of SfC, which depends on the cohesive bonds formed by collective economic activities.

Current credit systems in Bancouma Peulh do not have interest on their loans. For both men and women, savings systems are primarily focused on simultaneously providing labor (through the social organization of collective labor groups) when it's crucially needed and on mitigating against unforeseen shocks through consumption loans in cash or in kind. Holding money collectively also keeps it safer than holdings in individual households. Women from former slave castes, for example, help each other to pick karité nuts and transform them into shea butter; the profits from sale can be taken out for emergency loans to members in need, as approved by all members after discussion. Groups are segregated by ethnic group by design for the Fulani and Sarakole, and *de facto* by the former slave groups, since wealthier members of other ethnic groups would not be interested in joining them. Women's groups are remarkably unstructured: one group has no cap on loan size, no interest on loans, and no time limit on repayment. Nevertheless, default rates are very low because all members are strongly bonded



through multiple networks of kinship and friendship, so that betraying the other members through defaulting is almost unthinkable. There are at least three men's groups and five women's groups in the village, and nearly all women are members of some type of savings group in the village.

Men's groups are generally based on work groups that pool their profits and divide them periodically. Male groups of former Fulani slave castes generate income from construction and agricultural work, and buy peanuts with their profits to resell them later in the year, when the price goes up during the *soudure*. Men say that there are far more conflicts in their groups than in women's savings collectives, and they often have severe and embarrassing penalties for disagreements during meetings. Members of the former slave caste are aware of larger microfinance systems in the area, but feel that they require technical assistance before they can present themselves to loan officers as credible and deserving candidates. Wealthier Fulani men, however, are able to access inter-village cooperatives that are strongly subsidized by the state. As with the CMDT, it's in the state's interest to encourage villagers to consolidate and undertake large collective debts, since they are easier to collect and less likely than small individual loans to fail. The wealthiest echelon of Fulani, however, prefer to keep their wealth in the form of cattle, and distrust cooperatives that include strangers from other villages.

Women are aware of other microfinance systems through contacts in local markets, but are anxious about taking credit from systems that have high interest rates and require guarantees. They do not take advantage of loans currently available through a village savings bank because they don't feel that potential income-generating activities are abundant or certain enough to make repayment feasible. Although villagers in Bancouma Peulh understand the transformative potential of interest, they say they are unlikely to attempt such a modification to their existing *tontines* without the support of an outside organization out of fear of failure in an environment where people tend to be risk averse due to persistent threats to livelihood security. Because women's groups do not grow their funds with interest, and redistribute wealth annually in emergency loans and expenses for celebrations, several groups have continued virtually unchanged over several generations, even as their members lament their inability to achieve long-term goals (e.g. acquiring a mill for grinding millet).

## 7. Bougan



*Women's work has decreased because of mills, but they still pound millet together.*

Bougan is a Bambara village with four hamlets situated in the commune of Katiena, within the circle and region of Segou. Bougan and its hamlets had a population of 485 in 2001 according to town hall records, but elders estimate its current population at about 1000. The village is divided into two quarters,

Bambara and Sarakole, and there are 34 household compounds in the village. The dirt roads to the community are passable during the dry season, but degrade during the rainy season and at times are impassable.

Bougan means, "to be at the crest" which refers to the fact that the village is situated to one side of the neighboring village. Its founder, T'ie Blen Bouare, was a Bambara hunter, who came from Guimbala during the reign of Da Monzon in the 18th century. He turned to agriculture upon arrival. A traditional chief and his council of elders govern the village. There is an on-going conflict over lands with a neighboring village situated some 3 km from Bougan, but it is the only land problem they have. Land is generally abundant, and can be obtained by petitioning the village chief and his advisors. Consequently, land is not bought or sold. While not common, land is occasionally lent to others, and sharecropping is practiced.

The community infrastructure is fairly basic. There is a public school with six grades. The government pays for half the cost of teacher salaries, and the village pays the rest. Bougan, however, does not have a health center, maternity clinic, or even a dispensary. The nearest ones are in Katiena. The community does not have its own market, so villagers must also go to Katiena for commerce. The weekly market in Katiena held on Fridays is a very important one, and is attended by people from as far as Sikasso and Bamako. The community does have four large diameter wells, built by an NGO. Two of these are used to meet consumption needs in the village; the other two are used to irrigate gardens.

Although there are three caste households of blacksmiths and potters, agriculture and animal husbandry form the basis of the economy. Men grow millet, sorghum, rice, beans, peanuts, fonio, corn, and sesame. The village chief has granted women a plot of irrigated land, where they plant onions, potatoes, cauliflower, guava, tomatoes, squash and eggplant. Villagers also cultivate mangos and shea nuts, and plant eucalyptus for firewood and roof beams. Herding, while downplayed by the elders, appears to be an important livelihood strategy, and all the households interviewed had significant numbers of animals: cattle, goats, sheep, guinea fowl chickens, and horses. These

animals provide food sources and animal traction, but more importantly constitute a savings mechanism. Migration is another important component of livelihood strategies. Every household has at least one member abroad, generally in Bamako. This is seasonal migration, and most migrants return during the rainy season to work in agriculture. Those that do not return send money back to help out. Part of their remittances goes to the head of the household, and one part goes to meet the needs of their own sub-unit. Finally, there is some petty commerce in soap, salt, smoked fish and condiments.

Household members cultivate their fields collectively, and it is the head of household's duty to provide a wife for each man in the family and help resolve their daily problems. All the members of the household work together doing agriculture and weaving, activities shared by both genders. Women take care of household duties, off-season gardening, and making shea butter and soap. Among the notable changes to the local economy over the past few years is that women's work has decreased because of millet mills. Nonetheless, the economic freedom of women is limited: a wife cannot sell goods without her husband's permission, even if they belong to her.

Historically, this region is subject to periodic droughts and variability in rainfall, which affects both yields and survival of animals. A great drought took place in 1971, causing a food crisis, and great losses of animals. This past year drought occurred again, and households reported significant losses of animals. The most difficult months are those just before harvest--July, August, and September- when food stores remaining from the last year have been used up. During the *soudure* most households run out of food. Because of its vulnerability to food crises the village organized a cereal bank five years ago with the help of the United Nations International Fund for Agricultural Development (IFAD). The village cereal bank lends grain at interest and is repaid in kind. And IFAD has also promised the community a health center. Among other constraints Bougan faces is firewood. Wood is the principal source of energy for cooking, however, sources of wood are distant, from one to two km. Villagers actively patrol their lands, both to attempt to control brush fires, but also to stop people who come into the area and cut too much wood.

Villagers in Bougan have access to credit from several sources. There is a village savings bank set up by IFAD in Bougan that is run like a bank, and requires guarantees for loans- generally 10 percent of amount to be borrowed need to be deposited. The village savings bank offers various types of loans, hivernal loans (for the rainy season), and lines of credit for petty commerce. The hivernal loan is given for seed, fertilizers, and other inputs is the most solicited. Hivernal loans are for six months: due after the harvest and carry a 10 percent interest, but the money put up as a guarantee is returned. Women in the focus groups said that they have also taken hivernal loans for sesame and fonio, as well as individual loans for petty commerce from this bank.

Each of Bougan's neighborhoods has a *tontine* for women, whose objective is to buy big pots and clothing needed for marriages, deaths, etc. *Tontine* women work in people's fields, and the money they earn (10,000CFA) per field goes into the *tontine's* caisse. To grow their funds these *tontines* also lend money at interest (30 percent). Such loans are

available not just to members, but anyone in the village that the group collectively approves for a loan. There is also a men's *tontine* used to organize agricultural work, including men from the ages of 17 to 50. They use their turns to collectivize labor in their fields. When a man's turn comes up, the other members come to work his field for the day, and the beneficiary feeds them. There are formal savings and loans institutions in Katiena, but because they have their own credit systems in the village, no one in Bougan has taken a loan from them.

## 8. Diora



*One of the few houses with an antenna in Diora, a fairly poor county seat*

Diora is a large Bobo village, but one with a significant presence of other ethnic groups: Maninka, Peul, and Bambara, Dafing, Dogon, Songrai that were brought in through intermarriage. The Dafing are installed as marabouts, the

Dogons as traders. The village is in the region of Segou, within the circle of Tominian, in the commune of Diora, of which it is the seat. As of 2004, the village's official population tallied 2020 habitants, but likely is much larger, as the village has a number of outlying hamlets, including a hamlet of casted griots and blacksmiths.

Diora is about 30 km from Kimparana and the paved road, and the rutted dirt road to it is certainly impassible at times during the rainy season. There is another paved road about 30 km from Diora, but the road to it is no better. The village center is densely populated. The town is the seat for the mayor and has a mayor's office and government buildings, such as the buildings of the state-run CMDT. The infrastructure includes a primary school, a secondary training school, a health center, and a well with a hand pump, and even a pharmacy. The village is divided into 4 quarters-- where the different ethnic groups are concentrated. The village also hosts an important weekly market in the center of town. The village has a mix of Christians, animists, and Muslims. Among the Christians are: Catholics, Protestants, and Evangelists. There is a Catholic church in the center of town, and a new mosque donated by Kuwait at the edge of town.

Although the town has a mayor's office, internal matters are largely handled by the *dugutigi*, or traditional chief, and his council of elders. Oral tradition holds that Sibiri Dabou Diedjana founded the village in 1672, so customarily his descendant, the traditional village *dugitigi* administers its lands. Traditionally, the *dugitigi* in exchange

for customary token gifts freely gives use rights to people requesting land. However, there is an emerging conflict over land within the village. People are beginning to sublet their lands, and as the chief complained, by doing so they are turning it into their private property. As land rental has become fairly common, problems of land tenure insecurity arise, when the “owners” demands land back from “renters.” The chief complained, “When there are problems everyone comes to me.”

The foundations of Diora’s economy are agriculture, animal husbandry, and commerce. Until this year, cotton had been the backbone of its agriculture. Continuing problems with the state-run CMDT, and the lack of credit have pushed most farmers into switching to other crops: peanuts, sesame, and fonio. In addition to these farmers grow millet, corn, and sorghum. Not everyone, however, has abandoned cotton—farmers who are sufficiently well off so as not to need credit plan to continue to grow cotton because prices are good, and it brings in cash. Raising animals is also an economically important part of Diora’s economy, and in evidence everywhere with the presence of cows, bulls, donkeys, sheep, goats, and pigs. Women raise poultry-- chickens, guinea fowl, pigeons, and also may own sheep, goats, and pigs. Pigs are particularly important, and run through the streets and forage everywhere. As elsewhere, animals represent important capital assets, and may be sold in case of urgencies, but they are also subject to pestilence and disease. Since veterinary services are limited, a single outbreak can be devastating. Because of the market in town, many villagers are involved in commerce. Women earn money doing petty commerce, fattening pigs, and by working as domestic servants. Men’s primary involvement commerce is in buying and selling goats. Migration does not seem to play an important role in the local economy.

Despite its market and status as the seat of the mayor’s office, Diora is a fairly poor community. There are several reasons for this beyond poor communications. Diora’s large population has led to increasing deforestation. Households are either forced to go far afield to find firewood or must buy it. Over-cutting has compromised soil fertility, and increased erosion. Good quality lands are increasingly scarce, so there isn’t enough land to meet people’s needs. As in many villages, Diora’s economy is subject to the weather, and acts of nature. There was a cricket plague in 1950-1951. There were droughts and famines in 1973 and 1974, and again in 1984-1985. The impacts of these droughts were made considerably worse by political events, as the border conflicts with Burkina Faso in 1974 and 1985 spilled over to affect Diora. Bad rains last year made for a poor harvest, and household revenues were hit hard. Endemic malaria constantly saps households of labor and money. As well, its economy has suffered every time cotton prices turn downwards. Finally, their livelihoods have been squeezed by the current global financial crises as prices they must pay for gasoline, oil, sugar, and rice and grains has risen sharply.

One of the unique features of Diora is the number of international NGOs working there: Save the Children, World Vision, UNICEF, and Catholic Relief Services, and Oxfam. Save the Children does family planning. World Vision’s aid focus is on water, sanitation, and education (helping to construct and furnish classrooms). UNICEF provides medicine to

the Centre de Santé Communautaire (CSCOM) and has started *cantines scolaires* to provide meals to poor children at school. Catholic Relief Services has a credit program for women, which is very similar to Oxfam's program "savings for change" model, except that women's groups it organizes are much larger. Savings for Change is in the process of being established in Diora.

The presence of multiple NGOs is somewhat problematic on two fronts. Because these agencies tend to work with local officials and those elders who speak French, the authority traditional chief has been undermined, and jealousies created as he sees these "intermediaries" as "monopolizing" the resources these agencies bring to the community. As well, because there is some overlap of missions between agencies, the potential exist of factionalizing the community either by competition among agencies for clients by locals.

## 9. Dioundiou Kologo



*Low walls of a Minianka household*

Dioundiou Kologo is a Minianka community located in the region of Segou, the circle of San, and the commune of Kogankan. The village itself has a population of about 410 and is located about 18 km from Kimparana and

the paved road. The road itself is rough, and impassable at times during the rainy season. Dioundiou Kologo has a perimeter of 32 km, covering approximately 56,000 hectares and contains 22 hamlets. While most of these hamlets are small comprise a few families, the population of the community could easily reach a couple thousand.

Oral tradition has it that the Coulibaly family founded the village, but no one remembers when. The original hamlet seems ancient. It stands on an archeological mound, covered by ruins. There is a school and a mosque near the village. Its infrastructure also includes a deep borehole well. Dioundiou Kologo has its traditional village chief, who lives in a compound at the edge of town, and council of elders. According to them, Dioundiou Kologo does not have a great deal of ethnic diversity, though did encounter a few Peul families. The village elders claim are claim there are no castes living there. Religious practice, however, is diverse with Muslims, Christians, and animists living together, and intermarried. Animism is particularly important. There is a prominent animist shrine in the middle of the original hamlet, and a sacred wood nearby. Because there are

numerous sacred sites, the village chief asked that we not wander around without a guide, or take photos of sacred sites.

As elsewhere, a complex dynamic defines the organization of households. In Dioundiou Kologo, the “*du*” is a nuclear family, the *gwa* the larger household, and headed by the *gwatigi*. Members of the household cultivate together, and their goods are managed by the *gwatigi*. The *gwatigi* makes decisions about the management of resources held in common by the household as well as those concerning marriage, baptism, funerals, etc., and his word in such matters is final. In a large household, each *du* may prepare its own meals, or *petit plat*; each *du* also has some degree of independence, so within the household the economic well being of the *du* may vary widely.

The economy of the village is based on agriculture and livestock. Cotton was the major crop until this year. For the richer villagers who have enough capital that they don't need credit from the state cotton company (CMDT), and have enough cushion to wait for payment, price increases from 165 FCFA to 210 FCFA per kg since 2008 are making cotton an attractive cash crop, and they plan to continue to grow it. Aside from cotton, millet, maize, peanuts, sorghum, rice, sesame, and soy are grown. Fruit trees also are part of the local economy: mango, papaya, shea nuts, wild grape, banana, and baobab.

Livestock raised include cattle, goats, sheep, donkeys, horses, pigs, and lots of poultry—chickens, guinea hens, and pigeons. Cattle are particularly important and we observed families that had as many as 60 head. Almost exclusively women raise pigs, sheep, and goats, but they cannot sell them without their husband's permission. Dioundiou Kologo's pattern scattered hamlets separated by considerable distances is very typical of a village where animal husbandry is important. Families live in isolated concessions distant from neighbors because this kind of settlement pattern reduces the pressure of animals on land and more importantly reduces conflicts with neighbors caused by animals invading their fields and eating their crops.

The local economy is constrained by a number of common factors: distance to markets, poor roads, highly variable rainfall, and disease. Malaria is endemic. Dioundiou Kologo experienced a drought and famine in 1973-1974, and flooding this year has decreased this year's production. There were epidemics of meningitis and measles in 1980 and 1983 that killed many children. Deforestation and overgrazing also have left the community with poor soils, and increasing demands for productive lands. While people here own some land, many households lack sufficient land. Great disparities in wealth exist within Dioundiou Kologo. While land is not bought and sold, and renting land is not done, and is considered wrong, sharecropping arrangements are increasingly common, particularly among the young. They are often favored by non-household heads that need grain. Working for cash for others in the community is on the increase, perhaps we were told, a quarter of the community is involved in sharecropping, and maybe a fifth work for cash. Petty commerce also plays a modest role in the community, but Dioundiou Kologo's isolation and distance to market certainly constrain its development. For women commerce is also constrained by limited access to land. While



women engage in petty commerce by gathering shea nuts and transforming them into shea butter, they must ask their husbands for small plots to grow peanuts and okra.

Migration is increasingly important as an economic strategy. Nearly every family has at least one member that has migrated. Villagers go primarily to Segou, Niono or Sarakole, but some have relatives abroad. Women are increasingly migrating to work as domestics during the dry season. Remittances, thus, are an important source of income.

World Vision is active in Dioundiou Kologo. It has a gardening project that fenced about a hectare, and dug a number wells within it, so that villagers had water and grown vegetables—chilies, squash, lettuce, and corn--on tiny plots of a few meters. World Vision has also organized a cereal bank. There is another NGO that is providing technical assistance to a group formed to conduct apiculture. This group was formed in 2008, and the NGO brought in the materials needed for which members each paid 15,000 CFA in the hope of making a profit. The NGO promises it will find them a buyer for their honey.

Credit in Dioundiou Kologo is available from a number of sources. There is some use of Kafo Jiginew, a formal credit union with rural offices. There is also a village social fund that provides funds for emergencies that is funded by a tax on cotton and a tax on migrants, due upon their return. The village also has tontines. Women must be married to join, and about 20 percent of the women in community belong to them. World Vision has also organized two microfinance groups for women who offer both savings and offers interest-bearing loans for petty commerce and other productive activities.

## **10. Pona**

A rural community of Muslim Sarakole near the Bani River, Pona's most striking feature is its enormous mosque, located at the center of the town and at the intersection of its three neighborhoods. The village has experienced rapid population growth over the past decade, and is now estimated at approximately 2,000 individuals, in about 80 *gwa* (their term for enlarged households). Casted groups appear to be well integrated into Pona social life, even though intermarriage between nobles and casted groups is strictly forbidden. Pona is a relatively isolated village, and limited agricultural resources have led to the development of many collective labor groups, who work within and outside the village for payment. Ties with neighboring villages are further reinforced through important networks of intermarriage and migration.

Pona is quickly growing beyond what its current livelihoods, agriculture and fishing, can support. Soils are sandy and poor, and anti-erosion techniques are not working well. In recent years, villagers have noted a steep rise in the costs of commodities they buy in the weekly markets at nearby Krina, even as their own goods (rice, millet, fish and peanuts) are declining in market value. As a result, young men are increasingly turning toward migration to find other sources of income, often traveling internationally and for long periods before returning. The road between Pona and Krina is not well developed, and the village has real accessibility problems for much of the year. This is particularly



difficult for villagers requiring medical care, since pregnant women and the critically ill find no health services until they arrive at Fion, the principal village of the commune. But Pona is not entirely without external assistance; the state has constructed a medersa (although the community wants a secular school as well), and has put in a public well. Private and religious NGOs have assisted with the installation of a pump and the construction of Pona's impressive mosque.

Pona's activities are strongly divided by gender. Men alone go to the river to fish, and also grow millet, sorghum, fonio, rice, and peanuts. Some men participate in cattle trade and fattening, but not on an extensive scale. Women grow the same crops as men during the rainy season, as well as okra and sauce ingredients. They also participate in considerable petty commerce, selling rice, fish and peanuts in regional markets. Even house construction is divided by gender; women bring the mud, and men bring the sand and clay. Pona has a well-developed set of gendered work associations that may serve as an important foundation for SfC groups in the future.

One of the more distinctive features of this village is the household structure. The *gwa*, or the ensemble of people in an enlarged household that do agricultural and other work together and eat food prepared in the same place, is overseen by a single authority, the *gwatigi*, who has direct and sole authority over the women of the larger household. In Pona, the *gwatigi* has the right to collect and redistribute all of the resources accumulated by the household through migration or village labor, and has a more or less direct relationship with the women of the household that limits the power of other men in the household. For example, after harvest, the *gwatigi* will give the share of grain directly to the women who cook for each household sub-unit, and these women may later help out the larger household during the *soudure* by contributing their sub-unit resources to the communal stocks.

Women in Pona are also allotted their parcels of land for cultivation directly by the *gwatigi*. Women therefore have a greater degree of autonomy than is found in many parts of the country, and are not obliged to consult with their husbands before selling their goods. One of the consequences of having the *gwatigi* manage all expenses of the larger household is that young men are not responsible for covering the costs of brideprice and wedding ceremony, which is elsewhere a major impediment to marriage. Marriages are an important mechanism for strategic alliances within and between villages in the area, and engagements are arranged between families when the betrothed girl is very young.

Pona has a highly developed set of institutions for collective labor. There are eleven groups in the village; five for women, three for young men, and three for older men. All but one of these organizations is segregated by neighborhood. Groups for men are divided by age-stages, with an expanding set of civic responsibilities in progressively older groups. Both men and women's groups do collective labor for money in other people's fields, then pool their earnings. Some groups allow emergency consumption loans to be taken from the pooled money, without interest. Women's groups often use

the pooled money for collective annual festivals, weddings, baptisms and circumcision ceremonies. In addition to these organizations, there are groups for overseeing the maintenance of the pump and the mosque. The village has a popular cereal bank that gives loans of grain confidentially, and *Kafo Jiginew* operates in the village as well. This is an important resource for credit since CMDT (which once provided credit for fertilizers) left the area four years ago; unfortunately, *Kafo Jiginew* is strongly limited to the social sphere of the unpaid village agent.

## 11. Kanouala



*A council member of one of the two chieftaincies listens during a community interview*

Kanouala is a village in the Segou region in the commune of Kemeni, in the Circle of Bla. Kanouala, whose name means “the love of place,” had a population of 645 in 2008, but a re-census in 2009 showed it to have 850 inhabitants living in 40 enlarged households. The village has excellent access to markets and resources, since it lies directly on the highway between San and Bla, only three kilometers from Kemeni, the main village of the commune. Islam is the principal religion practiced in the village. Griots live together with nobles without social distinction, although there is no intermarriage between the castes. As is typical of Minianka villages in the region, the household compounds in Kanouala are very large and walled, and continue nearly to the outskirts of Kemeni, leaving little room for livestock herds. This lack of space leads those with large herds to pasture them far from the village, often in Ivory Coast. Each household has a latrine, and there are many large trees throughout the village, particularly karité.

Kanouala is notable for having relocated in 2002 to the highway from the more remote village of Kokosso; this decision was instigated by the younger of the village's two chiefs, who is a descendent of the original village's founder. The administration of the village is balanced between this family and that of the older chief, who is a descendant of the founder's brother. The younger chief oversees daily activities with his advisors, particularly the son of the older chief. Although some villagers remain in Kokosso today, their concessions have been built for them in Kanouala in awaiting their arrival.

Although Kanouala has no health center or school, villagers have access to a health center from the Catholic sisters who live nearby, and all school-aged children attend the nearby school at Kemeni. A borehole well provides the community with good drinking water. The village of Kanouala has been the recent recipient of a great deal of credit access, aid and technical assistance from development projects, particularly a local shea butter cooperative. Shea butter projects are well developed in this region, and women

get a percentage at each level of karité transformation, from the collection of nuts to packaging for export to Bamako and beyond. Women are currently receiving training from various NGOs in soap-making (from henna) and the conservation of *bissap* (roselle plant) that is used in making an infused beverage that is sold in the market. The *Programme d'Appui à la Communauté Rurale* (PACR) grants funds to male and female artisans, herders and farmers. The cotton company (CMDT) also offers agricultural loans for inputs to be repaid after harvest. Men also use larger credit systems in Kemeni that require collateral and guarantees.

Since relocation, all inhabitants have cultivable land. Land resources are limited, however, and all land is formally owned by the younger chief who can reallocate it at his discretion. As a result, as much as 20% of the population works in other people's fields, and may be paid either in cash or in a part of the harvest. Millet, sorghum, corn, and peanuts provide the bulk of men's agriculture. Five years ago, cotton provided strong financial revenues, but increased costs for inputs and lower global prices have made it a less appealing gamble for villagers, and nearly all have transitioned back to edible crops. Herds of cattle belong exclusively to men, although women raise goats, sheep and chickens. Migration is an important strategy, but is generally practiced to provide migrating individuals with supplementary income that is not significantly diffused to the larger household.

Women in Kanouala have highly diversified livelihoods, including firewood collection, peanut farming, petty commerce, fattening animals for resale, and the general demands of domestic labor. A traditional *tontine* has recently been transformed into a women's karité production cooperative that now includes 60 women. This cooperative is a part of a larger network of cooperatives based out of Kemeni, which has provided the women with a mill that they use to increase savings held in the cooperative. Women also participate in a *tontine* that works in men's fields and hold their earnings (in cash or in kind) collectively; women may then take interest-bearing loans from this fund for petty commerce.

## 12. Kokuy



*Diverse elements of women's labor: firewood collection, animal husbandry and dolo production.*

Kokuy is a small, rural village in Koula commune, in Tominian. Christianity and Islam are present in Kokuy, but animist practices dominate. There is a sacred grove in the village, and inter-village relationships are highly controlled by the fetish chief. Blacksmiths and griots

(who are often Bobo) live amongst the nobles, as well as in separate hamlets. Casted groups, the elderly, and the very poor receive annual *zakat* (alms), although in a generally poor community the contributions are not large. Many in this community experience hunger for part of the year; this and generally poor levels of health lead to high infant mortality. Health services are limited to pills purchased from traveling salesmen, and in several households interviewed all members reported suffering from either malaria or yellow fever. Only a few latrines exist in the entire village.

Most households focus their energies on grain production for household consumption, cultivating millet, sorghum, and fonio in the rainy season. Peanuts are grown primarily as a cash crop, and often the only agricultural crop grown for cash. Wealthier households diversify their livelihoods through raising cattle and sheep, although frequent epidemics make this a riskier strategy than elsewhere. Land is generally insufficient and of poor quality, leaving many to borrow fields that can be reclaimed at any time by their owners. In the dry season, men make mats for sale, and women do petty commerce. Migration is an increasingly important component of the cash economy, with most young sons returning at the onset of the rainy season to share what they've earned in urban centers.

Women group together in public spaces around the village to husk millet and fonio in large mortars. Women buy grains to pound and resell, and pigs belong exclusively to women. The arrival of mills and carts has vastly decreased women's labor, since they are responsible for preparing food and retrieving firewood. Divorce rates have been increasing in Kokuy, as have disputes that require mediation. The primary mediator of the village is the traditional chief, who resolves conflicts with the help of fetishes. The head of the enlarged household is responsible for assuring that all members have adequate food, although children's health is the responsibility of their mothers. The household head controls the purchase and sale of agricultural materials, stocks and grains.

Almost all women in the village are members of savings groups, except those that have just married in from other villages. Several of these groups are mixed gender, and tend to include members from the same neighborhood. Women are often members of several groups at once. Groups vary in size from three to ten members, and are mostly devoted to saving up money for large festivals to celebrate the new year. Some women's groups that do fieldwork share their revenue after payment, others share their pooled funds at the end of the year. One group, formed with the objective of acquiring a mill, does collective fieldwork for shea butter extraction. The pooled money gained from the extraction work is used in case of emergencies, primarily children's illnesses, and the remaining pooled funds are used in January for the purchase of pork for the new year's celebration. *Tontine* members in Kokuy tend to contribute very small amounts per week, between 50F CFA and 100 F CFA; once the pooled money reaches 5000 CFA it is given to each member in rotation, who pays it back to the group at 10% interest. Profits are divided once each member has taken a loan, and loans are generally used to purchase sorghum to make *dolo* (the local alcohol) for sale.

These savings and credit systems exist in the absence of other institutions. Women fear the consequences of participating in larger credit systems, and feel that they have so little money that other financial institutions could not be interested in helping them. The money gained from current *tontines* and savings groups does not provide them with the capital to undertake new economic activities, but is a valued means of lessening the impact of economic shocks.

### 13. Zangouna



*The imam of Zangouna uses animal sales to assure food security in difficult times*

Zangouna is a Bambara village with five hamlets in the region of Segou, in the Cercle of Bla Commune of Begunéné. Bla is 29km to the east, and access is easy. Its population of about 660 is divided among 46 ménages. It is an Islamic village, governed by a

traditional village chief, and his council of elders. Zangouna is a very ancient village, established by the Coulibaly family around 1700. Aside from the Coulibaly, there are three other prominent families the Tangara, the Samke, and the Male. Among Zangouna's distinguishing social characteristics is that its population is composed entirely of families considered to be nobles. They deny that caste groups live in the village.

In Zangouna the household is defined as the ensemble of persons who live, cultivate, and eat together. This ensemble as a whole is the *gwa*, and its subunits are *duw*. The *gwatigi* is the head of the ménage and in consultation with subunit heads (*dutigiw*) makes all decisions relevant to it. The *gwatigi*'s word, however, is final. His responsibilities are to nourish the family, and other members' duties are to aid him in this sense. Men's activities include: construction of houses, collection of manure, and cultivating fields; that of women include domestic work, child rearing, gardening. Although a woman may own goats, small animals, and other small things, she is not free to sell them without her husband's permission.

The village infrastructure is basic: aside from the mosque, there is a village school that has been in existence for two years. It has wells with pulleys, and a broken down pump made in India that stopped working after five years. What it doesn't have is a health center, or a weekly market. The Malian state does provide some services: it collects taxes, it provides vaccinations for children, and for the time being the services of the CMDT, the state run cotton company, which is in the midst of privatization.

Zangouna land tenure arrangements are traditional. Land belongs to the village chief, who grants use-rights to petitioners in exchange for token, symbolic gifts. Thus, land is not bought or sold. Land can be loaned, with the understanding that its owner can take it back at any time, but no rent or sharecropping is involved. Many people, however, work for others, generally for cash, although occasionally may take payment in kind. While land is abundant, the quality is good, as long as it rains.

Agriculture and animal husbandry are the mainstays of the economy. Zangouna grows cotton, millet, corn, peanuts, squash, and beans. Scattered through the village and fields, villagers also plant fruit trees: shea nuts, baobab, wild grape, and others. They raise cattle, sheep, goats, donkeys, horse, and chickens and guinea hens. Men and women perform agricultural tasks that begin during the dry seasons and continue through the rainy season. During the dry season, women do gardening, while men repair houses etc. Petit commerce is also an important aspect of the village economy. Men sell millet, sheep, chickens, and so forth; women sell condiments, clothing, chickens etc. Household revenues come principally from animal sales, and millet and cotton production. Cotton was the principal cash crop until recently, but problems with CMDT have caused villagers to pull back, and not plant as much as they used to.

While agricultural production in normal years is sufficient to meet the needs of most of Zangouna's ménages, (a fact attested to by their custom of eating four meals a day), the village is subject to the vagaries of weather, and other plights. They remember an attack of crickets about 1930. An epidemic struck the village in 2006. There was a flood in 2007. In 2008, the rains stopped early, so production was poor, and the drought and disease killed many animals. The hardest times of the year are in May, and during the rainy season, before the crops ripen. Money is scarce, and food stores may be low. The village has always faced such calamities through mutual aid, rather than a change in their economic strategies. During such times, households may sell off animals; turn to



making charcoal, or to migration to Bamako or elsewhere. Migration plays an important role in this regard, especially for the young who in search of any kind of employment to make some money for themselves and to help their households.

Among Zangouna's villagers there is some use of formal credit institutions. Some have taken loans from Nye Sigisow in Bla, but such loans have requirements and are not easy for villagers to obtain. There is a Danish NGO that has a program in the region, Programme d'Appui au Secteur Agricole au Mali (PASAM) that also provides credit. PASAM makes loans to prevent farmers from have to sell their food reserves during the rainy season, that carry no interest charges, and some villagers have taken these loans. The CMDT provides some credit to cotton farmers for seeds, fertilizers, and pesticides. Although there are no "tontines" per se, the village has had a food bank for some ten years, whose revenues come from collective labor activities such as making bricks or picking cotton during the harvest; and all the women in the hamlet are members, and belong to groups that organize labor for hire. Members can borrow money from the group to do petty commerce or for an emergency. Nonetheless, in emergencies, money is very hard to find.

# APPENDIX D: CONTACT INFORMATION FOR RESEARCH TEAM

| Name                  | Role in Study                                 | Affiliation   | Email Address                  |
|-----------------------|---|---|--------------------------------|
| Dr. Mamadou Baro      | Principal Investigator (PI)                   | Bureau of Applied Research in Anthropology (BARA), Univ. of Arizona | baro@email.arizona.edu         |
| Dr. Lori Beaman       | PI  | Innovations for Poverty Action (IPA)                                | l-beaman@northwestern.edu      |
| Micah Boyer           | Graduate Research Associate (GRA)             | BARA  | boyerm@email.arizona.edu       |
| Tara Deubel           | GRA   | BARA  | deubel@email.arizona.edu       |
| Megan Gash            | ??  | Freedom from Hunger   | mgash@freedomfromhunger.org    |
| Dr. James Greenberg   | PI  | BARA  | jgreenbe@email.arizona.edu     |
| Dr. Dean Karlan       | PI  | IPA   | dean.karlan@yale.edu           |
| Dr. Janina Matuszeski | Research Coordinator, Community Finance Dept. | Oxfam America   | jmatuszkeski@oxfamamerica.org  |
| Bram Thuysbaert       | IPA Coordinator                               | IPA   | bthuysbaert@poverty-action.org |



**LITERATURE CITED**

Becker, Laurence C.

1996 Access to Labor in Rural Mali. *Human Organization* 55(3):279-288.

Turritin, Jane Sawyer

1987 Mali Musow: The Women's Sub-Culture in a Bambara Village, University of Toronto.

Wooten, Stephen

1997 "Gardens are for Cash, Grain is for Life": The Social Organization of Parallel Production Processes in a Rural Bamana Village (Mali), University of Illinois at Urbana-Champaign.