

Diversification and Differentiation; The Livelihood Experience of Men and Women in Samene

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Abstract

The research for this thesis was conducted in village of Samene, Mali from 2006-2008 where I served as a Peace Corps volunteer. In Samene I became interested in understanding the livelihood experience of men and women and the critical factors that led to positive livelihood outcomes for individuals. The formal research question addressed in this thesis is how assets and access (social rules and norms) influence livelihood diversification options for men and women.

The research is based on a mixed method design consisting of extensive individual and household surveying, focus groups, interviews, and participant observation. The Livelihood Approach is utilized to describe the assets, access restrictions and diversification strategies that comprise the livelihoods for men and women in Samene. The findings show that while diversification activities are important to both men and women, women are unable to access the more attractive high return activities that are dominated by men. Differences in the livelihood experiences between and within gendered groups are explained by looking at an individual's relationship to the critical assets, which are identified as the keys to accessing activities that lead to greater livelihood security.

Based on the research findings a new livelihood framework is advanced to show the different pathways men and women take to sustain and improve their livelihoods. This framework incorporates the concepts and processes of social differentiation, social exclusion, historical motion, power and access that were found to be critical in explaining an individual's livelihood experience in Samene.

Acknowledgements and Dedications

Dedicated to my friends in Samene who shared their lives with me.
Allah k'aw demi. Allah ka keneya d'aw ma. Allah k'an to nogon ye.

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Chapter 1: Introduction

There are a wide range of entry points into understanding and tackling the persistent rural poverty in the Global South. In the early 1990's the livelihood approach gained popularity among scholars of poverty, development practitioners, and policy makers. It is an approach to poverty issues that is people centered, holistic and grounded in the multidimensional reality of daily life. The livelihood approach looks at how people make a living under adverse circumstances and how people and communities can be supported in ways that are more meaningful to their daily lives, as opposed to ready-made instruments (Appendini 2001, pp. 3).

The livelihood approach is well suited to capture the multiple activities rural dwellers rely on in composing their livelihoods. Activity diversification is high in the developing world with estimates as high as 40-50% of incomes coming from nonfarm sources. Many studies have also found diversification to be increasing rapidly in some regions of the world. The conventional picture of the small farmer sustaining themselves off of their crops is no longer in accords with reality. Peasants are also traders, craftsmen, entrepreneurs, migrant workers, animal raisers and wage laborers. Some people pursue diversification activities to cope with insecurity and spread risks, while others are motivated by income accumulation.

Imagine you live in a large village in the Sahel belt of Mali called Samene. You live in a mud hut and get water from a nearby well. When the ground starts to crack, Allah satisfies your prayers and the first rains come. Everyone heads to the fields to plant millet and sorghum. The rains are a relief, but it will be at least three more months until the crops are ready to come in and the stores of grain left in your household are only enough for everyone to eat one meager meal a day. The old people in the village say that 30 years ago nobody went hungry, but the hunger season has become a regular part of life here when farming productivity started to decline. Under the large mango tree the men talk about of the lack of rain, the degraded nature of the soils, and the lack of fertile land. Farming alone can no longer support households in Samene.

How would you compose your livelihood under these difficult conditions? If you are a woman what sorts of activities are you likely to be involved in? Do these activities lead to income accumulation and improved security or are they simply necessary for survival? How might you access activities that are more beneficial to your livelihood and what are the restrictions preventing you from doing so? How would your livelihood experience be different if you were a man? Now imagine yourself with different bundles of assets. How do your livelihood options change if you have ten head of cattle, if you are from a large landholding household, if you are literate or if you are leader of a prominent organization?

Research Question and Methodology

Living in Samene, Mali as a Peace Corps volunteer these are the sorts of questions that I asked myself. I was interested in understanding the livelihood experience of men and women in Samene and the critical factors that led to positive livelihood outcomes for individuals. I formulated my research question to get at these answers. My primary research question is:

- How do assets and access (social rules and norms) influence livelihood diversification options for men and women?

This question is based generally on the definition of a livelihood formulated by Ellis (2000) as: the assets (natural, human, financial, physical and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household.”

Activities are the manifestation of an individual’s access and assets and the easiest way of quickly assessing an individual’s livelihood success. Assets are at the center of the livelihoods approach, but the social rules and norms (Ellis uses institutions and social relations) that affect an individual’s access are also considered to be of critical importance.

Secondary research questions include:

- How are men’s and women’s livelihood activity portfolios composed?
- How are assets held differently by men and women?
- What are the major access restrictions that affect livelihood success for men and women?
- What accounts for the intra-gender differences in men’s and women’s livelihood success?

To address these research questions I undertook an extended field study (as part of my two year Peace Corps service) and utilized a mixed methods design. My methods consisted of participant observation, informal conversations, key interviews, a series of focus group discussion sessions, 121 household surveys and 167 individual surveys.

Findings

The data I collected show that men and women have different assets and face unique access constraints that affect their livelihood diversification options. Women have fewer of the assets that enable them to enter high return activities in the nonfarm sector and also face more severe access restrictions. Therefore, women tend to be concentrated in low return, easy entry activities that are mainly in the farm sector. Men’s livelihoods are also constrained by rules and social norms, but overall they are more likely to have the assets that grant access to nonfarm activities than women. All of the high return farm and nonfarm activities in Samene are exclusively controlled by men. However, a wide range of livelihood outcomes were found within gendered groups. The social position of the individual in the household and community and their personal assets were found to account for this variance within gendered groups.

My primary contribution to the research on livelihoods and diversification is the livelihood framework I developed to explain my findings. Samene's livelihood framework incorporates the concepts and processes of social differentiation, social exclusion, power and access into an integrated framework. These are concepts and processes that I found to be critical to my research, which are typically ignored or downplayed in the conventional livelihood frameworks.

My livelihood framework is depicted as a spiral where individuals move outward depending on the power their assets give them to open the access gates into activities, which set one on the pathway to larger orbits of opportunity. The gates are the social rules and norms of society that are guarded by gatekeepers who have the power to restrain the livelihoods of others. Gatekeepers are the powerful groups in the community: the male household heads, the landowners, and the leaders of the village that enforce the social rules and norms of society which grant differential access to decision making, activities, services and resources. Assets and social position are an individual's power or keys to unlocking the access gates.

The livelihood experience of individuals can be understood by their position and trajectory within the framework. The first orbit represents the weak assets, poor access and low return activities that are characteristic of poor and marginalized groups. At this level people are just barely getting by and their livelihoods are likely to be based within their household. Each successive orbit represents an increase in assets, a widening of access and participation in more prolific livelihood activities. In the second orbit livelihoods are based in the village and in the third orbit, livelihoods rely on resources, activities or networks, based outside the village.

This livelihood framework is useful in understanding the opportunities and constraints for improving livelihood options for different social groups. It can be used to identify the critical assets that increase livelihood opportunities for certain groups and the pathways that individuals have taken to achieve livelihood security.

Organization of the Thesis

After this introduction, chapters two and three present an overview of the foundational literature, on livelihoods and diversification that my research is grounded in. Chapter four introduces my research questions and research methodology. Chapter five is an overview of Mali. Chapter six is an introduction to Samene, the site of the research. The livelihood activities in Samene are described in depth in chapter seven and chapter eight provides more quantitative data to describe the livelihood portfolios of men and women in Samene. Chapter nine is a summary of my findings in terms of men's and women's asset holdings in Samene. The social rules and norms that affect access and livelihood opportunities in Samene are discussed in chapter ten. Chapter eleven presents the livelihood framework I designed to summarize and explain my findings and chapter twelve concludes the thesis.

Chapter 2: The Livelihood Approach

Chapter two is a review of the literature on the livelihood approach, which forms the foundation for my thesis. The chapter begins with an overview of the origins and key characteristics of the livelihood approach followed by a discussion of each of the components of the livelihood framework individually. This chapter concludes with a critical analysis of the livelihood framework.

The Origins of the Livelihood Approach

Since the 1970's there has been a broad interest in understanding and combating rural poverty in developing countries. Early research and development interventions focused on increasing agricultural output and incomes thru technology change, agriculture input packages, subsidies, extension services, irrigation, and rural feeder routes (Ellis 2000 pp. 21).

Concurrent with this approach, the Structural Adjustment Programs (SAPs) were brought to the forefront in the early 1980's as the macro level panacea to solve the problems of development and poverty. Contrary to these expectations, SAPs plunged many rural communities into greater uncertainty and insecurity (Bryceson 1999; Havnevik et al. 2006). SAPs were based on the concepts of economic liberalization and government spending cuts. The removal of subsidies for farming inputs, marketing services and cuts to public spending on rural services, hurt small farmers all over the world and increased their needs for spending cash (Bryceson 1999). These dislocations were compounded by a series of agro-climatic shocks in the 1980's and 1990's and the failure of agriculture growth to support poverty reduction in many low-income countries and in Africa in particular (Havnevik et al. 2006).

Two seminal reports (UNICEF's report 'Adjustment With a Human Face' 1987 and WCED's report 'Our Common Future' 1987) came out in the late 1980's in response to the failures of macroeconomic programs, to stress a more people sensitive approach to development. The research advanced from the mid 1980's to early 1990's followed suit by departing from the past macroeconomic theories to focus on how poor rural households adapt to their changing environment (Ellis 2000).

Human geographers, economists, anthropologists, social scientists and other disciplines contributed to the early research on livelihoods by showing that: the top down character of rural development projects didn't address local needs; women experience different opportunities and constraints in their lives; and improving rural welfare isn't as simple as raising agricultural productivity (Havnevik et al. 2006). This research led to the understanding that situations of poverty are diverse in character and that poverty is a multidimensional problem involving not only economic, but political, cultural, social and ecological aspects as well (Kang et al. 2004, pp. 3).

These insights created the foundation for the new development paradigm born in the early 1990's. This paradigm emphasized actor-oriented participatory approaches, and sought particular local solutions to poverty. The changing role of the State in the 1990's also played a role in opening up space for a new type of governance that was based on democracy, decentralization, participation and empowerment (Havnevik et al. 2006). With its focus on influencing and

understanding local development from below, the livelihood approach fit well in this new system.

A discussion paper by Robert Chambers presented at an Institute of Development Studies (University of Sussex) conference in 1992, provided the inspiration and direction for a renewed emphasis on the livelihood approach. In fact, livelihood studies were conducted decades before Chambers historical paper was presented, but in the early 1990's interest in livelihoods from many different disciplines and organizations coalesced and the livelihood approach moved to center stage as the most appropriate development paradigm. The basic concepts of the livelihood framework were soon adapted by major development organizations (DFID, Oxfam International, UNDP, CARE International, World Bank) and incorporated into policy circles and development interventions.

The Livelihood Approach

The livelihood approach focuses on people and the realities poor people face. Under this approach people's strengths rather than their weaknesses and needs are emphasized. The livelihood approach is optimistic- it examines the ways that people have creatively adapted to their circumstances, rather than seeing people as passive victims heading towards a destitute future.

The livelihood approach is less dependent on aggregated economic measures of poverty that have wide application across regions, and focuses more on people's survival strategies in local and specific contexts. According to Appendini, "The central objective of the livelihood approach was to search for more effective methods to support people and communities in ways that are more meaningful to their daily lives and needs, as opposed to ready-made interventionist instruments" (Appendini 2001, pp 3). The livelihood approach seeks to understand changing activity combinations, and the cause and effect processes of livelihoods in a dynamic and historical context. This holistic perspective incorporates the complexity of human struggles and examines poverty from multiple dimensions.

A popular definition of livelihoods advanced by Frank Ellis (2000) and relied on throughout this paper, is included below.

"A livelihood comprises the assets (natural, human, financial and social capital), the activities, and the access to these (mediated by institutions and social relations) that together determine the living gained by the individual or household."

The Livelihood Framework

The livelihood framework attempts to conceptualize the livelihood approach. The frameworks advanced by different researchers and organizations all look different, but they are composed of the same key components: assets, access, activities/livelihood strategies, and outcomes (Carney

1998, CARE; De Haan 2002; DFID, Ellis 2000; Rakodi 2002; Scoones 1998). Notice how closely the framework below matches the definition of a livelihood included in the previous section. Many of the frameworks also feature external conditions like policies, shocks and trends as part of the context that livelihoods are embedded in. The household is generally the primary level of analysis of the livelihood framework.

The livelihood framework is an effective tool for organizing and understanding complex livelihoods. It has been used in the following ways (Ellis 2000; Rakodi 2002):

- To define the main factors affecting livelihoods and the relationships between them.
- To improve our understanding of the livelihoods of poor people and manage their complexity.
- To provide a basis for identifying appropriate objectives and interventions to support livelihoods.

Table 1: The Livelihood Framework

Livelihood Platform	Access Modified By	In the Context of	Resulting In	With Effects On
Assets Human Assets Natural Assets Social/Political Physical Assets Financial Assets	Social Attributes Gender Age Ethnicity Class Institutions Markets Rules and customs Land Tenure Organizations Associations NGO's Local government Community groups	Trends Rainfall Population Migration Relative prices Technological Change Government policies Shocks Drought Floods Pests Conflicts Diseases Pests	Livelihood Strategies Diversification Migration Non Farm Activities Farm intensification	Livelihood Security Poverty reduction Sustainable natural resource base Reduced Seasonality Increased income Reduced Vulnerability/increased security

Source: Ellis (2000)

Critical components of the Livelihood Framework

The following sections break down the main livelihood components (assets, access, activities and outcomes) featured in the framework in Table 1.

Assets

Assets form the foundation of the livelihood framework. They are the tangible (i.e. farming equipment or livestock), or intangible (i.e. social networks or political influence) means that enable participation in certain livelihood activities. Everything from education and job networks to livelihood tools and fruit trees can be considered assets.

Bebbington has adopted a more holistic understanding of assets. He writes, “Assets are not simply resources that people use in building livelihoods: they are assets that give them the capability to be and to act. Assets should not be understood only as things that allow survival, adaptation and poverty eradication: they are also the basis of agents' power to act and to reproduce, challenge or change the rules that govern the control, use and transformation of resources” (1999: 2022).

Assets are constantly changing due to different incentives, external shocks and internal demographic factors. Assets can be stored, accumulated, exchanged, or depleted and put to work to generate a flow of income or other benefits (Rakodi 2002, pp. 10). Because assets can be privately held by individuals, collectively held by a restricted group, or collectively held without access restrictions, it is important to look at access rights and how access affects returns and the distribution of returns.

Some assets, such as financial capital, can be applied to many activities, but others, like blacksmith tools are only useful for particular activities. Asset flexibility and substitutability are critical for livelihood security (Barrett and Reardon 2000). Asset fixity, which refers to less fungible assets, makes livelihoods more vulnerable. Livestock, for example, are quite fungible assets: they can be used for reproduction, or provide manure (for fertilizer), animal traction (for plowing), transportation, and milk. Asset flexibility can also refer to the ability to trade-off between capitals, i.e if a poor woman lacks land, she will try to acquire a plot through her network of social relations (De Haan 2005).

There are many different types of assets and researchers have categorized them in many ways to serve their particular objectives. For example, Reardon and Vosti (1995) divide assets between natural resources, human resources, on farm physical and financial assets and off farm physical and financial resources to draw distinction between farm and nonfarm activities (Cited in Ellis 2000). Swift (1989) uses three broad categories to describe assets: investments, stores, and claims (Cited in Ellis 2000). Generally though, livelihood researchers group assets under five categories: social/political, financial, physical, natural, and human (Bebbington 1999; Conway 1998; De Haan 2001; Ellis 1999, 2000; Scoones 1998). These five types of assets are described in more detail below.

Human Assets: Human assets capture the labor resources available to the households and individuals, in both their qualitative and quantitative dimensions. Household size, health, education and skills are all considered to be aspects of human capital. Individual human assets have prescribed traits like gender, age, and ethnic group, as well as acquired capital like education, skills and experience. Household capital is in constant flux due to internal demographic reasons (births, deaths, marriage, migration, children growing older), and to

deliberate restructuring to meet unexpected events or external pressures (Moser 1998). For example, a drought in the rural areas might motivate urban migration and greater access to urban job markets might encourage a higher investment in education. Human capital can be enhanced through education and skill training and improved health care services.

Social: Social capital can be seen as enhancing the capacity of individuals, households, small groups, or whole societies. At a community level the concept is useful for describing the qualities of a community that make collective action and civil society possible. This thesis is focused on the ways that individuals utilize different forms of social capital to reduce risks, access other types of capital, find jobs, acquire information, and access services. Organizations and networks give individuals access to livelihood activities and opportunities that they wouldn't be able to access on their own. The key point is that social capital has value just like a plow (physical capital) or a high school diploma (human capital).

There are a wide variety of definitions of social capital, but most have the following components in common: social networks, relationships of trust and reciprocity, and organizational membership.

Networks are a set of relations or ties between individuals, households, social groups or communities. The ties may be based on kinship, ethnicity, friendship, village memberships, patron-client relationships, or political party. In rural communities organizations and associations are integral to the social and economic fabric of the community. Organizations can play an important role in facilitating livelihood activities. They might provide money, income generating activities, advice, food, or even business opportunities to their members. An organization in this thesis will be simply defined as a coordinated group of individuals bound together by a common objective. Rural communities are often sites of dense social networks, strongly held norms of generalized reciprocity and social trust, and multiple associations and organizations that are critical for collective action and individual survival.

Social and political capital can be difficult to separate and are often considered synonymous in rural areas. Political capital depends on social capital, and the two forms of capital positively reinforce each other. For example, the chief of a village generally has a high degree of both social and political capital and his authority is based in the shared values, norms and cultural identity of the community.

Natural: Natural assets are the resources found in the land, water and other natural landscapes that are useful for livelihood survival or enhancement. Rural populations are especially dependent on natural assets for their livelihood activities (Benjamin 2004). Natural assets are often held as common pool resources, accessible to all of the population. Land is generally considered the key asset for rural peasants (Cornia 1994). Land tenure must be considered in relationship to natural assets, because a complicated set of access rules and rights often dictate land ownership and usage (Crowley 1991).

Livelihood activities that utilize natural assets include farming, fishing, hunting, mineral extraction, and collecting fruits, plants and firewood. Most of the natural assets relied on by

rural populations are renewable resources, but in some areas nonrenewable resources, like gold or oil, are critical for livelihoods. Natural assets are not static and can be degraded or enhanced over time, depending on how they are managed.

Physical: Physical assets are generated by production processes to provide the means which enable people to pursue their livelihood activities. For example: tools, machines, roads, communication systems, and land improvements like terraces or irrigation canals are all considered physical assets (Rakodi 2002). Physical assets are investments in a future flow of returns, as opposed to a consumer good purchased for its direct effect on material standards of living. A consumer good, such as a solar panel, can become a physical asset when it is put to a productive use, like recharging car batteries for small fees.

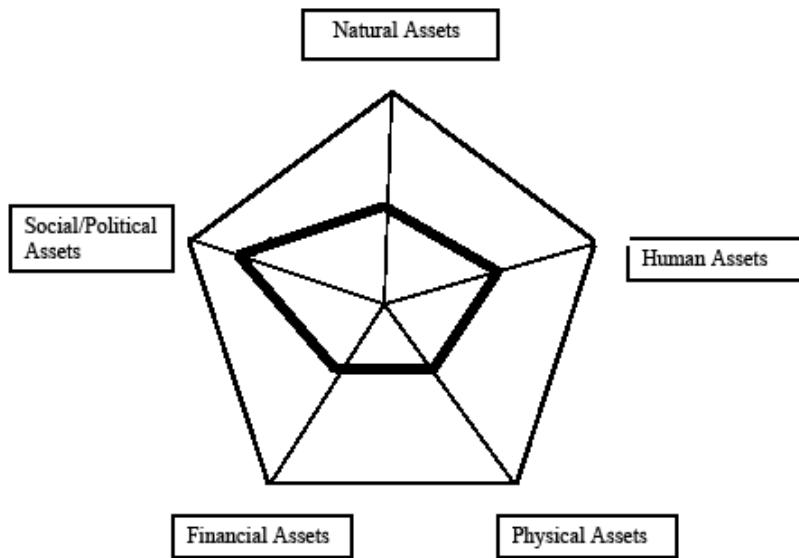
Physical assets may be individually or collectively held. Blacksmithing tools are privately held and critical to the livelihood of a blacksmith, whereas roads, power lines and other infrastructure are community assets that everyone can draw benefits from. Infrastructure is especially important for facilitating livelihood diversification. Roads, for example, have multiple effects: they reduce the spatial cost of transactions in resources and outputs; facilitate the movement of people between places offering different income earning opportunities; create markets; and play an important role in transfer of information (Rakodi 2002).

Financial: Financial assets are savings, income and any other assets that are held as wealth or can easily be converted to cash. Stocks of money are often held in unusual and unpredictable ways, in rural areas where banks are not available. Financial capital could consist of loans, gold, livestock, remittances, or informal credit associations.

Asset Pentagon

The asset pentagon is one way of visually depicting the five assets described above. Assets can be mapped at the level of the individual, household, or social group. Each of the corners of the pentagon represents one of the five major asset categories. Plotting the assets in the pentagon allows you to easily identify the assets that are strong and weak for each case.

Figure 1: Asset Mapping



The example above displays a household that is high in social/political assets, and moderately endowed with human assets. The household is fairly weak in terms of natural assets, financial assets and physical assets.

The further a group lies from the central intersection of the pentagon the greater the power of its assets. In some cases certain types of assets are critical to improving livelihoods, but generally speaking it is the overall area of the pentagon (the shape created when asset status is plotted on each axis) that is important in determining livelihood success (Cited in Rakodi 2002, pp. 12). This system of mapping assets will be important later in my thesis when I use it to plot the assets of different social groups and compare the strength of their different assets (Carney 1998).

Asset Questions to Consider

Scoones (1998, pp.8) suggests considering a number of other factors when analyzing rural livelihood assets. These key questions will be addressed later in this thesis.

- Sequencing: What is the starting point for establishing a successful livelihood strategy? Is one type of asset more relevant than others for subsequently gaining access to other assets and activities?
- Substitution: Can one type of capital be substituted for another? Which forms of capital can be most easily substituted for others?

- Trends: What are the trends in how assets are being depleted and accumulated, and by whom? What are the trends in what new livelihood assets are being created and on access to assets and activities?
- Access: Do different groups have different access to particular assets? What are the rules of access and who dictates them?

Access

Access is a central component of the livelihood framework. While all livelihood researchers agree that access is important, access is not easy to define and it cannot be easily measured or counted like assets. Looking at the different ways that access has been defined by prominent organizations and researchers some consistent themes emerge. The definitions of access all focus on either institutions or social rules and norms (Davies 1997; DFID 2009; Ellis 2001; Scoones 1998).

Institutions are a manifestation of social rules and norms, and can be described as ‘regularized patterns of behavior structured by rules that have widespread use in society’ (Carswell 1997). In his dissertation on institutions and livelihoods in Mali, Charles Benjamin (2004) defines institutions as ‘reoccurring social situations shaped by shared formal and informal rules, norms and strategies’ (pp. 19). Institutions determine how: community resources are governed, land tenure arrangements are conducted, community decisions are made, conflicts are resolved, household resources are distributed, natural resources are managed and social services are accessed.

Institutions are the ‘gateways through which people pass on the route to positive or negative livelihood adaptation’ (Davies 1997: 24). Ian Scoones (1998) defines access by ‘the rules and social norms that determine the differential ability of people in rural areas to own, control, otherwise claim or make use of resources such as land and common property.’

Not everyone has equal access. An individual’s access is determined by their assets and their social relations, or their social positioning within households, communities and society, which comprises such factors as gender, social standing, income, caste, class, age, ethnicity and religion (Ellis 2000). In developing countries the social rules and norms that shape gender and class distinctions are important factors in determining livelihood opportunities (Rakodi 2002; Brujin 1995).

Livelihood Activities and Strategies

Activities are a convenient intermediate measure to link assets and outcomes. They are the most visible sign of an individual’s or household’s success. Livelihood activity options are dependent on an individual’s assets and their ability to convert assets to activities (Ellis 2000; Rakodi 2002). There are distinct patterns in the types of activities pursued by different social groups, patterns that are structured by similar assets and abilities to access different activities (Ellis 2000; Gladwin 2001, Jiggins 1989; Rakodi 2002). The most desirable high return activities generally

also have high entry barriers and individuals without the necessary financial capital, education, or social attributes are excluded from participating.

There are many different ways of classifying activities. Two of the distinctions that are relied on throughout this paper are farm vs. nonfarm activities and high vs. low return activities. These categories are discussed in greater detail in Chapter 3.

Livelihood strategies are defined by the way a household or an individual puts together their activity portfolio. Livelihood strategies may include: agriculture intensification, migration, nonfarm activities, and farm diversification. While a household's activities can be described by one of these strategies, more commonly the diversity of activities a household is involved in does not fall neatly into a single category. One way of distinguishing the different activity strategies is whether they are pursued as part of a coping or an accumulation strategy. For some, diversification is pursued as a survival mechanism, but for others it is a strategy for income and asset accumulation.

Livelihood Outcomes

Livelihood outcomes are shaped by an individual's activity portfolio and their ability to convert activities into desired outcomes. People pursue a wide range of livelihood outcomes, which makes assessing livelihoods difficult. Reducing the vulnerability of rural households and increasing the overall security of livelihoods, however, is generally the priority of livelihood interventions (Barrett and Reardon 2000; Haggblade et al. 2007).

This thesis focuses on the outcomes of asset enhancement and activity diversification as the primary indicators of livelihood success. An individual or household that is able to enhance their assets (e.g. build a more secure house, increase livestock herds, or improve their social networks) and diversify their income portfolios will be more secure and less at risk for livelihood failure than those with weak assets and single income sources.

Weaknesses in the conventional livelihood framework

The livelihood framework has greatly improved our understanding of the livelihoods of the poor, but it is not a perfect approach. Below I discuss three critiques found in the literature and found to be of relevance to my own findings.

Power, access, and social exclusion

The livelihood approach is often criticized for downplaying the role power, social rules and norms and structural constraints play in shaping livelihoods (De Haan 2005; Havnevik et al. 2007; Kang et al. 2004, Murray 2001; Rakodi 2002; Scoones 1998). These issues are best addressed by paying more attention to access in the livelihood framework (De Haan 2005; Kang et al. 2004; Scoones 1998).

Everyone does not have an equal ability to access opportunities. Remember how Scoones describes access as the '*differential ability* of people in rural areas to own, control, or otherwise 'claim,' or make use of resources' (Scoones 1998). The institutional access factors that are often considered only in passing or are assumed to be neutral are very important for explaining (differences in) resource endowments and activity strategies for different social groups (Van Dijk 2002 cited in Kang et al. 5; Scoones 1998).

Institutional factors are the social rules and norms *based in power dynamics and structures* that shape livelihood options for different social groups. Within the household, power dynamics, gender roles, social norms, and cultural traditions differentially constrain the actions and opportunities of different family members. Outside the household the macro structures such as markets, institutions, and policies can inhibit individuals from freely pursuing activities that bring them the greatest benefits. As Scoones writes, 'Understanding institutional processes allows the identification of restrictions/barriers and opportunities (or 'gateways') to sustainable livelihoods' (Scoones 1998 pp. 12).

Inequalities of power must be acknowledged to explain the persistence or the worsening of poverty (Brujin 1995; Murray 2001). Different social groups are faced with unequal power relations and differential access to resources (Brujin 1995; Kang et al. 2004). The powerful groups have the ability to manipulate rules and norms pertaining to access to resources, decision-making and the institutions of society that may lessen poverty (Brujin 1995). In regards to the livelihoods of the Fulani in Mali, Brujin writes, 'access to productive natural resources, labor, the appropriation of products, but also access to social resources, help networks, and command over redistributional networks is a privilege of the powerful' (1995, pp. 9).

Bebbington describes assets as the basis of agents' *power* to act and to reproduce, challenge and change the rules that govern the control, use and transformation of resources (1999, pp. 2022). Here land, membership in certain organizations, animal ownership, and leadership positions are examples of assets that give individuals power. Power is also shaped by an individual's position in society and the household and by other factors such as gender, income, and ethnicity.

One way of examining unequal power dynamics in relation to livelihoods is through the lens of social exclusion, which encompasses both the material and social aspects of deprivation. Social exclusion has rarely been considered in relation to livelihoods (Kang et al 2004). Kang et al. (2004) describes poverty as the result of a historical process of the exclusion of certain social groups from natural resources, decision making, land rights, income control, information, trade opportunities, knowledges, livelihood opportunities and social services.

The process of social exclusion involves one group claiming a specific opportunity for their own members based on material, social or physical characteristics such as race, gender, property ownership, caste, education, social status, or ethnicity. These characteristics can become accepted barriers that fence in opportunities for the eligibles and exclude the ineligibles (Ellis 2000, pp.11). Social exclusion is a process in which groups try to monopolize specific opportunities to their own advantage.

Gender based exclusions are particularly acute in developing countries and are central to my research question. A patriarchal society can set up rigid barriers that prevent women from accessing opportunities. In many countries a high gender division of labor concentrates women in lower return activities, and inhibits women's ability to acquire and make use of valuable assets. Within the household women may be forced to obey strict gender norms, and have little power to engage in supplementary activities and hold their own assets. The powerful groups in society have the ability to manipulate social relations, norms, rules and values to their own advantage (Brujin 1995). Gender studies therefore started analyzing power as the foundation upon which livelihoods depend and empowerment as the key to development or well being (De Haan 2005 pp.13).

Social group livelihood patterns

The conventional livelihood framework does not adequately address the differences in how specific social groups, especially men and women, compose their livelihoods. It is well documented that men and women have different assets and access barriers that lead to different activities and outcomes, but this knowledge hasn't been adequately incorporated into the livelihood framework (Ellis 2000; Gladwin 2001; Jiggins 1989; Kang et al. 2004; Scoones 1998). Generally livelihood frameworks tend to examine each of the livelihood components separately, losing the cohesion of a shared livelihood experience within social groups.

Each social group operates within a distinct pattern of achieving social security and will have similar life opportunities (Arce and Hebinick 2002). The internal logic of the livelihood experience therefore consists of the specific cultural repertoire of shared experiences, knowledge, insights, prospects, interpretations of the context, and an integrated set of assets and shared challenges (Arce and Hebinick 2002).

Social Differentiation

It follows from the previous two sections that the process of social differentiation is important in the understanding of livelihoods (Brujin 1995; Kang et al. 2004; Rakodi 2002; Scoones 1998). The livelihood approach however, has not thus far been able to incorporate the process of social differentiation into its framework. Scoones advocates moving towards a livelihood framework that pays more attention to the structures and processes that mediate the complex and *highly differentiated process* of achieving a sustainable livelihood (1998).

In the Sahel the differential effects of insecurities for various social groups and individuals based on gender, age, status and wealth have led to growing inequalities (Brujin 1995 pp. 9). Inequality applies not only to material wealth and access to productive assets, but also to differential access to the institutions of society that may lessen poverty (Brujin 1995, pp. 28). Due to the lack of a material base, poor access to social security mechanisms, and the enforcement of power relations, social security deteriorates for the poor (Brujin 1995, pp. 28). The poor are stuck in what Barrett et al. (2001) refers to as an asset poverty trap; while the powerful groups in society have the ability to manipulate rules, norms, institutions, and the symbolic and material capital to accumulate advantages over time (Brujin 1995).

In Central Mali Toulmin (1992) found the process of differentiation to be relevant between small and large households. Large households were found to be better equipped to diversify their incomes and more capable of acquiring and maintaining productive assets, than smaller households. Large households had more of the three critical assets considered (wells, oxen plough team and cattle) than smaller households. Toulmin writes, ‘household size plays a crucial role in this process of accumulation’ (1992). Small households were found to be constrained by a lack of assets and an inability to generate sufficient surplus to invest in raising farm productivity (Toulmin 1992).

Livelihood studies generally focus on the household, and there has been a reluctance to differentiate between the livelihoods of the different members of the household. However, as many researchers have pointed out the household is not a homogenous unit of corresponding interests (see Quisumbing 2003 and De Haan, 2005). The internal power dynamics, social norms and often incongruous objectives of the different members work to differentiate the livelihood experience for individuals within the household as well.

De Haan’s concept of ‘trajectories’ is useful for illustrating how differentiation occurs at an individual level within the livelihood framework. De Haan describes trajectories as individual strategic behavior embedded both in a historical repertoire and in social differentiation, including power relations, and institutional processes, which pre-structure subsequent decision-making (De Haan 2005). He writes, ‘A livelihood trajectory can be described as unraveling a historical route through a labyrinth of rooms, with each room having several doors giving access to new livelihood opportunities, but the doors can be opened and the room of opportunities successfully accessed only with the right key qualifications. As a result, some doors remain unopened and rooms of opportunities unaccessed; sometimes new rooms of opportunities are successfully exploited, but perhaps more often a person ends up in a room that very much resembles the room from which they tried to escape from a while ago’ (De Haan 2005, pp. 17).

A dynamic standpoint on livelihoods, that incorporates the sense of historical movement and attention to access evident in the above quotation by De Haan, is better suited to help make sense of how social differentiation occurs over time. The standard livelihood framework presents livelihoods as a static snapshot and fails to devote adequate attention to the differences in the access capabilities of different social groups. Furthermore, in many cases considerable intra-group differences exist, and the livelihood framework should take into account successes and failures, as well as social mobility, instead of making rigid and static assumptions about class, gender, etc. (De Haan 2005, pp. 17; Kang et al. 2004). Understanding this process of social differentiation and incorporating it into the livelihood framework is critical in understanding why different social groups structure their livelihoods as they do and how positive livelihood outcomes can be accessed.

Chapter 3: Livelihood Diversification

This chapter is intended to present an overview of the literature on livelihood diversification in developing countries. It begins with an introduction to the significance of diversification in developing countries and a brief historical review of diversification research. After this point I make explicit the connection between livelihoods and diversification and focus on livelihood diversification in Africa. The chapter then moves to the weighty and contested issues concerning the causes and effects of diversification.

Diversification in Developing Countries

Livelihood diversification is the norm in developing countries. Very few people or households derive all their income from a single source. Diversification has increasingly turned towards nonfarm activities as a source of income and employment. Nonfarm activities have been found to account for between 35 to 50 percent of rural incomes (Hagblade 2007).

These findings run contrary to our conventional views of rural communities populated strictly by small farmers. Research conducted around the world has revealed that livelihood diversification is widespread and found in all locations, as well as across farm sizes and ranges of income and wealth (Ellis 2000).

Livelihood diversity is a static measurement of different activities and income sources at a single point in time, but livelihood diversification is a process of creation, by which people engage multiple assets in a plurality of activities to achieve greater livelihood security. Frank Ellis defines diversification as, “the process by which rural households construct an increasingly diverse portfolio of activities and assets in order to survive and improve their standard of living” (Ellis 2000).

Diversification is often understood as a form of self-insurance through which people seek activities and income streams with different degrees of risk, expected returns, liquidity, and seasonality. For example, urban migration into nonfarm activities is not threatened by droughts, sudden price fluctuations or insect invasions that can be disastrous for many farming activities. Rural dwellers generally engage in more than one, sometimes several different activities simultaneously or at different points throughout the year.

This section begins with an outline of the evolution of diversification research, followed by a description of the livelihood categories that are used to define diversification and give it meaning. In the third section the trends and characteristics of diversification in Africa are discussed. This chapter concludes by examining the causes of diversification, the conditions that facilitate diversification, and the effects of diversification in terms of poverty alleviation, inequality, gender, agricultural productivity and environmental sustainability.

This chapter is intended to provide an overview of the major issues within livelihood diversification research. The topics that are most directly applicable to my research concern the gender and equality effects of diversification.

History of Diversification Research

Rural nonfarm activity was largely invisible to policymakers and practitioners investigating rural poverty throughout the 1950's and 1960's. A strong dichotomy was set up between the rural and urban environments. The rural was seen as backwards and strictly agricultural, while the urban was considered modern and industrial. Small rural enterprises were dismissed as primitive and inefficient.

When the first real research efforts to investigate the rural nonfarm economy began in the early 1970's, researchers for the first time acknowledged the scale and importance of the sector. Nearly a decade later when livelihoods research began in earnest, livelihood diversification quickly became a constant theme.

Researchers were surprised to find rural dwellers engaged in incredibly diverse, complex and dynamic livelihoods. Although diversification has only recently gained attention, it is, in fact, an age-old phenomenon that reflects peasant ingenuity when faced with adversity and opportunities (Yaro 2006).

Livelihood and diversification research took off along many different branches. The multi-disciplinary research variants include: the factors that cause households to adopt more diverse livelihood strategies; the asset bases that permit diversification; the effects of different forms of diversification; and the link between diversification, farm output and labor productivity (Barrett et al. 2001; Bryceson 1999; Ellis 2000; Haggblade 2007; Havnevik et al 2006).

Linking Diversification and Livelihoods

In order to begin the discussion of livelihood diversification we must first agree on what is meant by livelihood diversification and farm and nonfarm activities.

Farm Activities

Farm activities are the primary production or gathering of unprocessed crops, livestock, forest or fish products from natural resources (Barrett et al. 2001). Livestock raising, gathering forest products, gardening, fishing, and farming are all considered farming activities. While diversification usually refers to diversification outside of the farming sector, on-farm diversification can play an important role in increasing livelihood security as well. In fact, some classification systems divide the farm sector further, creating separate categories for livestock raising or collecting forest products, to draw attention to the plurality of activities that fall under this broad sector. Livestock rearing, for example, makes an important contribution to diversity and sustainable livelihoods, as each livestock type has specific uses, with multiple livelihood security implications (Yaro 2006).

Nonfarm Activities

Non-farm activities therefore consist of all other economic activities that do not directly involve plant or animal husbandry or collection (Bryceson 1999). Rural nonfarm activities represent a highly heterogeneous sector of the economy. Agricultural processing, transportation, petty trading, migration, beer making, handicrafts, and off-farm wage labor are some common

examples of rural nonfarm activities. The types of nonfarm activities pursued differ for each context depending on: “differences in location, agricultural structure, natural resource endowments, placement of government administrative services, and a rich array of path-dependent historical idiosyncrasies” (Haggblade 2007 pp. 5).

Generally though, services and commerce account for the bulk of rural nonfarm activities (Haggblade 2007). Rural manufacturing, on average, also contributes 20-25% to the rural nonfarm economy (Haggblade 2007). The commerce and service enterprises are mostly of a smaller scale and are run from the home by household members, often on a part-time or seasonal basis (Pedersen 1997). Larger, full-time enterprises are also found in some rural economies.

Migration is an important type of diversification, and often a natural compliment to farming activities. During the slack agricultural seasons farmers might seek work in the cities, and return home during the peak periods of labor input, mainly land preparation and harvesting. This is an example of seasonal migration. Generally four main types of migration are identified: seasonal, circular, permanent and international.

Categorizing Livelihood Activities

Aside from the fairly standard breakdown between farm and nonfarm activities, there is little agreement concerning the more elaborate systems for classifying livelihood activities.

Furthermore, activities are often assigned to sectors in arbitrary ways, making comparisons difficult.

This thesis will rely on a system of classification advocated by Barrett and Reardon, which is generally consistent with national classification systems. This method is based on sectoral classification and further clarified with a locational dimension. Off-farm is a locational indicator and non-farm is a sectoral indicator. Under the sectoral classification: place, scale, technology and income/profit do not matter. “Off-farm” means off the owner’s farm and includes wage employment in agriculture earned on other people’s farms along with all other nonfarm earnings (Barrett and Reardon 2000). “Rural nonfarm income is thus smaller than total “off-farm income” by the amount of wage earnings in agriculture” (Haggblade, 2007). Generally migration is considered a non-farm activity, except when the migrant is engaged in farm activities. In this case, migration will be classified according to its sector as a “farm” activity, and secondarily according to its location as “off-farm.”

Activities can be more elaborately categorized depending on the needs of the researcher. For this paper it will be important to separate high return activities from low return activities. In other research, activities have also been classified as seasonal vs. permanent; resource based vs. non-resource based; formal vs. informal; and wage employment vs. self-employment in order to investigate different characteristics of the nonfarm sector (Barrett et al. 2001).

High vs. Low Return Activities

Disaggregating nonfarm activities by their returns is necessary to understand the effects of diversification. Rural nonfarm activities have an incredible range of returns. Most researchers evaluate diversification by counting the number of livelihood activities a person or household is

engaged in or by calculating the percentage of income nonfarm activities contribute to total household income (Benjamin 2004; Bryceson 1999; Ellis 2000; Haggblade 2007). These are measures of the degree of involvement in diversification activities. They are satisfactory methods if the research is not concerned with how diversification benefits social groups outside the household differently or how diversification it is actually undertaken (Foeken 1992; Hart 1994; Lanjouw 2007; Gladwin 2001).

This paper however, aims to describe the different benefits of diversification for men and women, so income returns cannot be ignored. It is imperative to look at the income returns from nonfarm activities and compare income levels from nonfarm activities to understand the effects of diversification for different social groups (Foeken 1992; Hart 1994; Lanjouw 2007).

The categories of high and low return activities fail to capture the diversity of nonfarm activities, but they do set up a useful dichotomy that allows the salient characteristics of different activities to be compared.

Low return activities generally have low entry barriers. Examples of low return activities include spinning cotton by hand, selling small amounts of forest products, or weaving mats. To participate in these activities one usually does not require special tools, a lot of financial capital, or high education levels. Often these activities are labor intensive, monotonous, and dependant on natural resources. High return activities, on the other hand, are more likely to have high entry barriers. To enter high return commercial or service enterprises for example, one must generally have money, special equipment, a good education or well developed skills. Low return activities are often coping strategies, while high return activities are more likely to lead to income accumulation.

Livelihood Diversification in Africa

In Africa, estimates converge on 40% of rural incomes coming from non-farming sources (Bryceson 1999; Barrett and Reardon 2000). However, most of the surveys this estimate relies on were conducted in the 1980's or early 1990's, and it is quite possible that participation in non-agricultural activities is proceeding apace (Bryceson 1999).

The overall sectoral change in Africa has meant a decreasing proportion of the population in agriculture both in terms of labor force participation and rural residence. In many places where farming is no longer able to sustain households due to poor soils, population pressure, climatic factors, and a lack of farmland, diversification has become a necessity. In these cases, engagement in other activities is critical to provide the cash to purchase food, medicines, agricultural inputs, and pay for taxes. Generally speaking, income from agriculture in many poor households is on the decline, while general expenditure is on the rise.

The trends and continental averages obscure the great variation of involvement in the nonfarm economy between regions, countries, and within countries due to their unique set of opportunities and constraints. Table 2 summarizes the results of twenty Sub Saharan case studies. The percentage of income coming from nonfarm sources ranges between 12 and 63 percent in these case studies.

Table 2: Income sources for 28 samples of farming households across Sub Saharan Africa

(in percentage of total household income)

Share of Farm Income	Nonfarm Income	Farm Income
Maximum ¹	12	86
Mean ²	37	63
Median ³	37	63
Minimum ⁴	63	37

1 Gambia, Uplands Area, 1985/86 (Puetz and von Braun 1991).

2 Mean for each income source separately, across the sample

3 Zimbabwe, natural region IV, 1998/89 (Mudimu et al.)

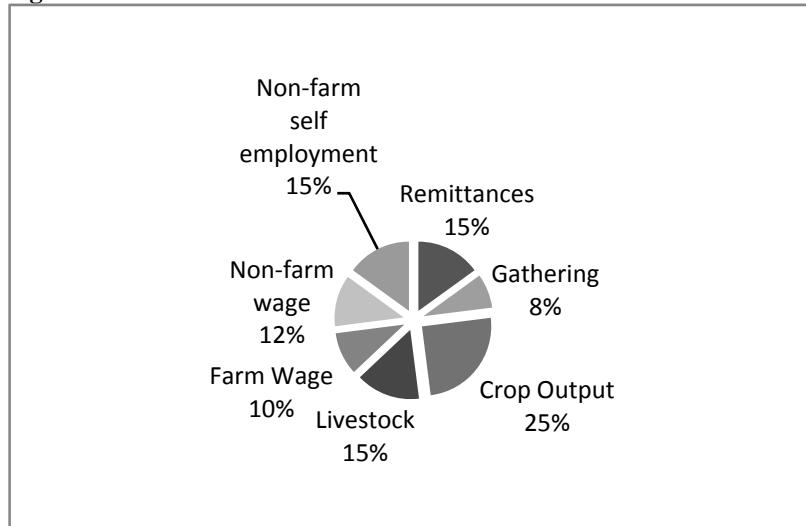
4 Senegal Sahelian zone, 1988/90 (Reardon et al.)

Source: Delgado and Siamwalla 1997

Remittances from migration activities or nonfarm self employment are two of the most important nonfarm activity categories in sub-Saharan Africa. In terms of farming activities, gathering and livestock are of primary importance behind crop output.

Figure 1 provides a basic illustration of the livelihood activities households in Africa are involved in. It displays the percentages of household income that come from the major livelihood activities. Although there is no “average household,” the compiled averages from comparative data show that 42% of the income generated by rural livelihood activities in sub-Saharan Africa comes from non-farm activities. Here “Non-farm self employment,” “Non-farm wage,” and “Remittances” are all considered part of non-farm income.

Figure 2: An “Average” Livelihood Portfolio for a Rural Household in Sub Saharan Africa



Source: Ellis, 2000

Causes of the Diversification Trend

Many studies point to moderate to fast growth in the share of rural income derived from nonfarm sources over the last two decades (Bryceson 1999; Haggblade 2007; Yaro 2005). Diversification research has consistently remarked on the dynamism, scale, and rapidity of structural changes currently under way in the rural nonfarm economy (Haggblade 2007). In the rural areas of many countries there has been a major shift from farming activities to services and commercial activities (Bryceson 1997).

Economic, political, environmental, social and institutional forces have driven this diversification process. De Haan elaborates, “the poor adjust, cope, create, and re-create their livelihoods under the impact of macro-economic circumstances, climatic variability and institutional change” (2005, pp. 8). The changing asset portfolios of households and changes in the agrarian economy related to agriculture policy and structural adjustment have also played a role in the shaping livelihood portfolios of rural dwellers (Kumar 2002).

Diversification unfolds differently in every context depending on how all these factors come into play. The following example from Andhra Pradesh, India illustrates some of the drivers of diversification in a specific context.

In Andhra Pradesh, the Department for International Development (DFID) funded a series of longitudinal livelihood studies that began in 1975 and continued until 2001. The studies showed that over this 25 year span income derived from farm activities declined and households diversified into nonfarm activities, and especially labor migration (Kumar 2002). The breadth of factors that were identified as contributing to this trend is impressive. The list includes: changes in relative agricultural crop prices, declining agricultural yields (resulting from drought and the failure of irrigation systems); smaller land holdings and households, and higher education levels (Kumar 2002).

In Sub-Saharan Africa the impact of Structural Adjustment Policies (SAP) and economic liberalization have triggered a rapid expansion of nonfarm income diversification (Bryceson 1999). The SAP programs of the mid-1980's and 1990's undermined peasant livelihoods by removing subsidies on improved inputs like fertilizers, seeds and pesticides (Bryceson 1999). Bryceson also notes that government policies have undermined traditional export crop production and access to essential means of production. The increasing cash needs sparked by the removal of subsidies and the decline of African agricultural exports has played a major role in moving households towards nonfarm diversification.

Land scarcity, soil degeneration, declining and erratic rainfall and frequent natural disasters have led to falling agriculture productivity in many countries, and in Africa in particular (Cornia 1994; Elias 2000). Increasing food insecurity has resulted from agricultural growth failing to keep up with population growth (Cornia 1994; Davies, Elias 2000). In many countries diversification is driven by the need to earn cash income to fill the food production gaps.

Conditions that Facilitate Diversification

In every region of the world there are certain assets that are especially critical in facilitating diversification and enabling individuals to enter high return nonfarm activities. For example, in Africa household size and livestock holdings are often found to enable diversification (Toulmin 1992). Looking at livelihood diversification across three different agro-climatic zones in Burkina Faso, Reardon et. al. found that in all zones greater livestock holdings meant greater diversification, although the same correlation was not found with land holding (1992).

In addition to individual and household assets, community level assets are also important in shaping diversification opportunities. Households in prosperous agricultural regions, with good access to services, and markets have more opportunities for nonfarm diversification (Haggblade 2007). Rural dwellers' physical mobility and access to urban areas beyond the village is strongly related to the economic dynamism of the region (Bryceson 1999).

In Northern Ghana Yaro found diversification to be dependent on a number of different community and household assets including: land quality and availability, opportunities for non-farm activities, educational facilities, irrigation access, natural resource endowments, and social relations (2006).

Newman and Canagarajah (2001) constructed a base model to predict participation in the nonfarm economy in Uganda and Ghana. They found that higher education, proximity to markets and urban centers and regional characteristics all had a positive effect on participation in nonfarm activities. The effects of primary schooling are mixed, but higher education levels were associated not only with increased participation in nonfarm activities, but decreased participation in agriculture, in both rural and urban areas (Newman and Canagarajah (2001)).

Why is diversification pursued?

The previous sections described some of the macro level causes that triggered diversification, as well as the conditions that facilitate diversification. At this point, this section will address the variety of individual or household motivations for pursuing diversification. Some households are pushed to diversify their activities simply to cope and survive, while other households are pulled

into the nonfarm economy by the opportunity for income accumulation. There are some cases where people achieve financial success in their non-agricultural activities, but evidence suggests that the vast majority are involved in non-agricultural enterprises which are just barely viable and provide only their day-to-day expenditure (Bryceson 1999). It is important to examine the reason that diversification is pursued, because they are often closely linked to certain activities and outcomes.

Risk reduction vs. Coping

Significant distinctions exist between risk reduction and coping diversification, voluntary and involuntary diversification, and ex ante and ex post diversification. While there are important differences between these categories, households may be simultaneously engaging in both coping and accumulation activities or they might move back and forth between these motivations over the years (Ellis 2000; Yaro 2006).

Many researchers consider risk reduction to be the fundamental motive for livelihood diversification (Bryceson 1996; Ellis 2000). Ellis describes rational risk management as voluntary decisions that prevent income failure by varying income sources. This type of diversification can also be called ex ante diversification because it refers to deliberate household strategies to anticipate failure in income streams by maintaining a spread of activities (Ellis 2000).

Coping strategies, on the other hand are ex post, involuntary responses to disaster or unanticipated failure in major sources of survival (Bryceson 2006; Yaro 2006). Droughts, civil unrest, or disease outbreaks that disrupt primary livelihood activities can force households to find other sources of income. The result of chronic insufficiency of farming income is often distress diversification into low-return activities.

Seasonality

Diversification is also pursued to reduce seasonality. In rural areas income flows are often uneven and unstable, while household consumption needs are continuous. Farming households generally gain the majority of their income at one point of the year. Diversification occurs in these instances to reduce seasonal income variability.

Seasonality also pertains to labor. Returns to labor time vary throughout the year. Farming households are often extended during planting and harvesting, but have few productive activities after the farming season is over. Migration and participation in other nonfarming activities is a common response to labor seasonality.

Income accumulation

Individuals are also motivated by the possibility of income accumulation in nonfarm activities. The assets owned by an individual might induce them to enter the nonfarm sector. Individuals with a comparative advantage accorded by superior technologies, skills, networks or resources, might be able to excel in certain nonfarm activities and earn a great deal of income.

Missing Markets (labor, credit, land and insurance)

Lastly, the prevalence of nonfarm activities are finally related to access to labor, credit, insurance and markets. These markets are poorly developed or nonexistent for billions of rural dwellers. Missing markets can induce and reduce diversification. An example of missing markets inducing diversification, would be the case of households in a remote village with poor access to markets diversifying simply to satisfy their consumption demands.

Labor markets are highly differentiated by education, skills, social norms, and gender. The social rules for access in the family, community and larger society may result in occupational exclusion. The market for agricultural wage labor is also poorly developed or non-existent in Africa, especially compared to Asia where rural wage labor is often ubiquitous (Ellis 2000). The contraction of the urban job markets for would be rural emigrants over the last couple decades has driven them to creatively diversify their income sources in other ways (Bryceson 1997).

Credit markets are very important assets for rural dwellers. A lack of credit is often the only thing preventing rural dwellers from improving their livelihood activities or starting new ventures. The lack of rural credit could also be said to motivate diversification because people are forced to look for cash to purchase agricultural inputs and other large capital investments in alternative activities.

Households in the developing world are forced to self insure because insurance markets operate so poorly and insurance is not provided for them by any other means. Transfers provided by the government, non-profit agencies and the community or family members are generally insufficient. Diversification can be thought of as a form of self insurance that seeks to reduce risks and protect the family against catastrophic shocks.

Under both private and communal property systems, unequal access to the land has been identified as a major factor underlying poverty for smallholders and the landless (Cornia 1994). In situations where low return diversification is pursued to cope with poverty, diversification will be highest among the landless (Ellis 2000; Reardon 1992). However, if we are speaking of higher return diversification, diversification is more likely to be high among the land rich who have sufficient agricultural assets to enter supplementary activities (Toulmin 1992).

It is important to keep in mind that speaking of land ownership obscures the myriad of different tenure arrangements based in the rights people have to the land (i.e right of use, transfer, alienation, allocation, exclusion from use, etc.) that shape their ability to do use the land as they wish (Crowley 1991). In many countries traditional tenure systems prevail and there is no market for private property. Women are especially vulnerable under traditional tenure systems, because they often have the weakest tenure and their rights to the land are mediated by men (Whitehead and Kabeer 2001; Lastarria-Cornhiel 2009).

Effects of Diversification

Just as diversification does not have a single cause, it also does not have a single outcome. There are many different local and macro level variables that shape the effects diversification will have

on the local population. It is however possible to draw generalizations about the effects of diversification when the local conditions are taken into account.

The effects of diversification can also be analyzed from many different perspectives. Below, the effects of diversification are discussed as they relate to: poverty reduction, inequality, gender, agricultural productivity, and environmental sustainability.

Poverty Reduction

Simple conclusions cannot be drawn between diversification and rural poverty reduction. Conclusions about the impact of diversification on poverty are often directly related to the particular method employed to measure poverty. Poverty can be measured by looking at assets, income, vulnerability, security, health, or food security. However, in terms of security and vulnerability, which are the often used indicators of livelihood sustainability, research has consistently found that more diverse livelihoods are more secure and less vulnerable than undiversified livelihoods (Ellis 1999). There is also little argument of the short-term benefits of diversification on food security. During droughts or other harvest shortfalls, working in nonfarm activities for cash to fill the food deficit is critical for household survival.

Reardon found that during the severe droughts in Burkina Faso in the mid-1980s households that were able to maintain food security had the most diverse incomes. The zone in Reardon's study that was most prone to food security risk at the onset of drought, was, in fact, the one typically regarded as the most successful at agriculture in which households exhibited the least diversified incomes (Reardon et al. 1992).

Income is generally the most consistent way to measure poverty, although this method may also be the most problematic due to seasonality, multi-activity, unreliable reporting, and the subsistence basis of so many consumption activities. Some of the more straightforward effects of diversification on incomes are the reduction of the risk of income failure overall and the reduction of both intra and inter year income variability (Ellis 1998). Otherwise neither theory nor empirical evidence provides a consistent hypothesis concerning the relation of either landholdings or wealth to income source diversification; the findings are locally contingent (Reardon et al. 1992).

A review of the empirical evidence of the income effects of diversification in terms of income shares and levels, shows inconsistent results that are highly dependent on the specific country or region. There are however, three primary conclusions that have been advanced. The first case observed is that higher incomes are correlated with a higher share of non-farm income. This experience is characteristic of rural Africa (Ellis 2000). This relationship is consistent with what Reardon found in semi-arid and savanna West Africa, where income distribution and diversification out of agriculture appears to be monotonically increasing as well (Reardon et al., 1992, 1994).

In rural Asia and Latin America, the inverse of this relationship is more common. In these regions rising income levels are associated with less livelihood diversity (Ellis 2000, Reardon et al. 1992). In these regions, the wealthy are more likely to rely on a single prolific source of income than the poor, who must string together many activities just to make ends meet. The

third pattern observed is where the very poor and the comparatively well off have the most diverse livelihoods, while the middle ranges of income display less diversity. In this case, the poor small landholders are driven into low return, labor intensive activities just to survive, while wealthier households have the skills and initial capital to pursue high return activities for accumulation.

Yaro's findings from Ghana challenge these three conclusions and point to a case where multi-activity is higher among middle income earners than among the ultra-poor and rich, for whom lack of resources in the one case, or sufficiency in the other, inhibits income diversification (2006 pp. 134).

Comparing the rates of change over time between agriculture and nonfarm activities in Uganda and Ghana, Newman and Canagarajah (2001) found that poverty levels for the people in nonfarm activities declined more rapidly than for those in agriculture. In Uganda the differences in poverty reduction for those working in nonfarm activities were the most pronounced. For those citing agriculture as their main occupation, poverty fell by 20%, and for those in nonfarm activities, it fell by 31%; for those working exclusively in the nonfarm sector, poverty fell by the largest amount, 42%. For those working exclusively in agriculture, poverty fell by only 17% (Newman and Canagarajah 2001 pp. 11).

While it is not clear that involvement in the nonfarm sector consistently drives down poverty, it is quite possible that poverty would have risen markedly had the nonfarm economy not have acted as a safety net for rural dwellers (Hagblade 2007). In many cases diversification is the strategy that keeps households from desperation and just above the margins of survival. Peter Lanjouw (2007) writes, "Population growth, leading to declining per capita landholdings and to environmental degradation, could be a powerful force raising poverty if offsetting factors such as an expanding nonfarm sector or growing agricultural productivity were not present" (pp 56). In Northern Ghana, Yaro (2006) found that, incomes received from most non-farm activities were small, but constant and vital for household survival during periods of food deficit and stress (Yaro 2006).

In many case studies, the cause and effect relationship between income accumulation and diversification activities is unclear. Did wealthy households accumulate their incomes through nonfarm activities or are wealthy households more likely to participate in nonfarm activities? The answers to these questions have profound implications in regards to the following section.

Income Inequality

The effect of diversification on inequality is often neglected or poorly analyzed by researchers. The evidence presented in this section is closely related to the above section, which outlines how diversification is related to income and poverty reduction.

There are two perspectives on the effects of diversification on income inequality. The first contends that diversification has an equalizing effect on rural incomes. According to this view the poor can fully deploy their assets and have the same opportunities to increase their income through diversification as the rich (Ellis 2000). The second perspective asserts that

diversification has a disequalizing effect on rural incomes. This occurs because the higher assets of the wealthy allow them to diversify into more advantageous labor markets than the poor.

It is also possible that some activities have an equalizing effect of rural incomes, while others have a disequalising effect. In Pakistan, for example, livestock, non-farm wages, and domestic remittances were found to have a equalizing impact, while international remittances, agriculture, and rental income were found to increase inequality (Ellis 2000).

Most authors have concluded that nonfarm activities can be seen as a route out of poverty, and that the impacts of nonfarm growth on inequality depend on the type of nonfarm activity, land tenure patterns, and physical and human capital requirements in question (Newman and Canagarajah 2000).

The benefits accrued in the rural nonfarm economy depend highly on the nature of the activities the individuals are involved in. The rich and poor might be involved in the same number of nonfarm activities, but the character and returns from these activities are likely to vary significantly. An example from Malaysia illustrates the different quality of activities the rich and poor are able to access.

When mechanization began to displace farm laborers in Malaysia, members of poorer households found work in low wage nonfarm jobs such as construction labor, quarry work and rice mill labor (Hart 1994). The better off found more remunerative nonfarm work in pursuits such as trade enterprises, government jobs and contracting services. Hart (1994) discovered that the wealthier group was earning incomes triple those of the poorer group.

Quite often, it is the case that wealthier individuals are involved in more secure, high return activities that require high levels of capital to enter, while poorer individuals are stuck in insecure, low entry, and low return activities. The wealthy have greater opportunity to access high return activities than the poor. There are few profitable non-farm opportunities available for the rural poor and the scale of investment needed for profitability in most non-farm activities precludes many poor people from engaging in them (Yaro 2006). Studies carried out in a number of developing countries on the basis of probability or logit models consistently find that an “important segment of the population in poverty are significantly less likely than others to participate in the nonfarm sector, particularly in those activities that would appear to be able to lift them out of poverty” (Lanjouw 2007, pp. 71).

One way to bring these income disparities to light is to compare the income *levels* of the nonfarm activities rather than just the income shares. Using this method, it is generally the case that the wealthier households are making many times more income from nonfarm activities than the poorer households. This relationship was found by Foeken in Kenya’s Coastal Province. In his study area households in the high income category were earning 71% of their incomes from nonfarm activities, compared to just 30% for the low income group. The most staggering difference between the two groups emerges when the income levels are compared. The low income households earn just 152 (KSh/cu) in the nonfarm economy, while the high income households earn 3,372 (KSh/cu) (Foeken 1992).

Looking at Africa more broadly, Barrett and Reardon (2000) found that nonfarm earnings are poorly distributed in rural areas, and the rich always seem to draw a higher share of income from nonfarm sources than the poor (Barrett and Reardon 2000). In other low and middle income regions, such a relationship is far less common, suggesting ‘there are features of rural markets in Africa that especially impede entry of the poor and cause nonfarm income diversification to be largely distributionally regressive’ (Barrett et al. 2001 pp. 324).

In two rural communities in Zimbabwe, where Piesse and Thirtle (1999) conducted their research, the differences in the impact of nonfarm income resulted from the differences in degree of production for the market and in physical remoteness. “In more remote areas with traditional subsistence agriculture, the agrarian power structures result in a situation where those who have better farm incomes are also in a better position to exploit non-farm opportunities. Conversely, where there is a more developed infrastructure and urban proximity, the commercialization of agriculture may result in less equal farm incomes, but gives greater opportunities for non-farm employment and thus more equalizing non farm income” (pp. 13). These types of findings demonstrate that the effects of diversification depend on the extent and nature of opportunities available in the nonfarm economy.

Thus, in some cases, diversification may serve to exacerbate rather than alleviate income inter-household economic differentiation (Bryceson 1999; Ellis 1999; Haggblade 2007). This is especially true in more remote rural areas with few opportunities and poorly functioning markets. In much of rural Africa a cruel and self reinforcing cycle prevents those with little financial capital from climbing the ladder into the attractive upper reaches of nonfarm economy that allow them to escape poverty, rather than just survive.

Gender

This section discusses the influence and implication of gender in terms of diversification and is the section that is most directly applicable to my research in Mali. In developing countries, gender remains the fundamental principal for organizing labor within the family and the wider society, yet this topic has received little attention from researchers in relation to diversification (Jiggins 1989; Newman and Canagarajah 2000; Sardier 2003). Men and women participate in very different types of activities due to the particular access constraints they face and their different asset bases (Newman and Canagarajah 2001; Jiggins 1989; Gladwin 2001; Sardier 2003).

Data that compares the livelihood diversification strategies for men and women in rural areas is rare. One good source of data, is the Ghana Living Standards Surveys 1991/92. Newman and Canagarajah (2001) collected primary and secondary activity data from the surveys and put together a number of key summary tables like the one shown below. While around 80% of men and women are involved in agriculture/livestock as their primary livelihood activity, both actively participate in nonfarm secondary activities. The traditional role of women as market traders is marked by their high participation in wholesale/retail trade. Beer brewing and snack food preparation are also major activities for Ghanaian women. More men than women listed farming as their secondary activity. Outside of farming activities men are distributed in a wide

range of secondary activities, but found in the greatest numbers in manufacturing (food, beverages, tobacco) and wholesale/retail trade.

Table 3: Percentage of Men's and Women's Participation by Industry Grouping: Ghana 1991/92

	Men Primary Activity	Men Secondary Activity	Women Primary	Women Secondary
Agriculture/Livestock	83%	53%	79%	29%
Fish/Forest/Mining	3	3	0	0
Manufacturing: food, beverages, tobacco	1	11	4	20
Manufacturing: textiles, wood, leather, handicrafts	2	8	1	1
Manufacturing: paper, chemicals, metal and nonmetal	1	4	0	6
Utilities, construction, transportation and communications	2	4	0	0
Wholesale, retail trade	2	10	12	41
Restaurant, repair, or other services	1	3	1	1
Public Administration, education	4	1	1	0
Professional and Financial Services	2	3	0	0

Source: Newman, Constance and Sudharshan Canagarajah. 2000. Pg 41

In the Ghanaian example the gender divisions between activities are not as acute as the data collected by Charles Benjamin (2004) in Mali. Benjamin examined the differences between the livelihood activities of men and women in four villages in the region of Mopti (see Table 4). He found that men earned a much greater percentage of their incomes from agriculture and remittances than women. Wage/industry activities were found to be more than twice more important to women's incomes than men's. In the exchange, animal and non-timber forest product (NTFP) sectors, the relative contributions towards men's and women's incomes were similar.

Looking at total income levels for men and women, Benjamin found that female adults (age 20-40) earn slightly more than a third of what males of the same age make (37,304 FCFA compared to 104,523 FCFA).

Table 4: The Income Portfolios of Men and Women in Mali (% of Income)

	N	Agric.	Exch.	Fishing	Animal	Remit.	Wage/Industry	NTFP
Male	118	14.9	6.3	2.6	23.3	13.2	20.5	19.3
Female	122	2.6	5.7	0	20.2	2.3	45.5	23.7
P-value*		<.001**	.901	<.001**	.636	<.001**	<.001**	<.001**

*Mann-Whitney Test

**Mean Values are significantly different at 99% level

Source: Benjamin 2004 pp. 251.

Other researchers have found that women are less likely to participate in diversification strategies than men and less likely to be found in higher return activities (Ellis 2000 and Haggblade 2007). Generally men have fewer access constraints and also more of the assets that enable them to diversify into more remunerative activities than women (Gladwin 2001, Haggblade 2007; Sardier 2003). The high return nonfarm activities are dominated by men (Gladwin 2001). Women are more likely to diversify into farming activities that are closely related to their customary roles in the domestic sphere. Because women are less likely to be involved in high return activities they depend on many low return, easy entry income sources to sustain them. In her research in the Inner Delta region of Mali, Suzanna Davies (1996) found that in all livelihood systems, women spend more of their time involved in coping/adaptive activities than men.

Despite women's contribution to household food security and economic viability, patriarchal family and social structures deny women real property rights in land, limit women's access to and control over the proceeds of their own labor, and constrain their decision-making roles (Jiggins 1989). Inequalities in the ability to access better paid nonfarm opportunities are likely to exacerbate gender inequalities in rural incomes (Whitehead 2001). In places where there are more developed and differentiated labor markets women may have greater opportunities to enter viable nonfarm activities Newman and Canagarajah (2001).

Women and Agriculture

Women in sub-Saharan Africa play a primary role in food security. However they are disadvantaged in the farming sector due to restricted land rights, insecure tenure, exclusion from many cash crops, and their limited access to agricultural inputs, technology and extension services (Whitehead and Kabeer 2001, Kumar 1994, Sutherland 1988).

In rural communities land is a family's greatest asset and men control the vast majority of this valuable asset. Most societies observe patrilineal inheritance practices. Land rights act as a form of economic access to key markets, as well as a form of social access to nonmarket institutions, such as the household relations and community-level governance structures (Lastarria-Cornhiel 2009). Rights to land might also confer rights to other natural resources and increase a woman's bargaining power within the household (Lastarria-Cornhiel 2009).

Women's fields are generally smaller and more insecure than men's fields as well. Poor tenure security discourages women from investing in their fields. In general, cash crops are seen as part of the male domain, while subsistence food crops consumed by the household are considered to be the female domain. This creates a situation where women are the primary food producers for the household, but they do not have access to the cash from the sale of cash crops to purchase the critical agricultural inputs (Gladwin 2001).

Women typically do not have the necessary financial resources or social capital to obtain agricultural inputs like fertilizers, paid labor and pesticides that are fundamental to improving productivity. In Burkina Faso, ICRASAT data revealed that yields on women's plots were lower than on men's, for the same crops in the same year, for all plot sizes (Udry 1995). This finding is not explained by the assumed lower productivity of women's labor, but by differences in labor

and other inputs used on women's fields (Udry 1995). Research by Russ in two villages in the Koulikoro region of Mali, confirms that men almost exclusively control all agricultural inputs (manure, hired labor, chemical fertilizer and pesticides) (Russ 1997). In one of the research villages called Sirakorola 1,300 kg of manure were used in men's fields, and none was used in women's fields (Whitehead and Kabeer 2001).

Women in nonfarm activities

Women have a long history of participation in diversification strategies to cope with hunger and food insecurity (Gladwin 2001). In sub-Saharan Africa, women are actively involved in petty trading, sale of snack foods, vegetable production, processing and selling, handicrafts, beer brewing, and informal labor markets.

In some cases, women have been able to take advantage of new diversification opportunities and start small enterprises. For example, Newman and Canagarajah (2001) found that nonfarm activities are extremely important to women's welfare in Uganda and Ghana, despite the gender divisions of labor. In both countries women were found to be increasingly active in the nonfarm economies and this participation was linked to greater reductions in poverty for women than for men (pp.2). Over the five year period of research in the 1990's women were discovered to have increased their nonfarm activities more so than men (Newman and Canagarajah 2001).

However, women are not as highly involved in nonfarm income diversification as men (Ellis 2000; Haggblade 2007). A broad picture that emerges from diversification studies, but that is not necessarily repeated with statistical significance in all studies, is that the involvement of women in the nonfarm sector is generally low and that, where women are involved in the nonfarm sector, they are generally concentrated in the less remunerative activities (Haggblade 2007 pp. 71). A multiplicity of access constraints prevent women from diversifying in high return activities, and especially high return nonfarm activities.

First, social norms and labor market stratification based on rigid gender roles generally confine women to the sorts of activities that are considered to be a "natural" extension of their reproductive and domestic duties. The cultural categories of gender are embedded in powerful ideologies that limit women's economic opportunities (Gladwin 2001). Many of the high return activities, especially those involving travel, machinery and complicated tools are not thought to be suitable activities for women.

Second, women enter the labor market in contractually inferior terms to men (Whitehead 2001). In rural labor markets women typically command about one third to one half the male rate for a day's work (Whitehead 2001). Third, women face intense labor time constraints due to heavy domestic workloads that generally occupy the better part of their days. Any supplementary activities that women undertake must be performed after their domestic and reproductive responsibilities are fulfilled.

Fourth, access to credit is poor in many rural areas, but there are distinctive obstacles that women face in obtaining credit including, a higher incidence of illiteracy, lack of sufficient capital, and

travel restrictions (Luery, 1989 pp. 22). Women have a more difficult time accessing outside finances and obtaining the credit needed to start their own small enterprises.

Fifth, men have greater freedom and mobility to search for work outside the community (Whitehead 2001). After marriage, women generally do not leave the rural community to find work and their movements are curtailed by their husbands. Women lack the networks and connections outside the village necessary to access higher return activities (Gladwin 2001). Sixth, women often lack the independence to pursue the activities they choose and spend their money as they wish. Men generally control the household assets and make the household decisions. Access to productive resources, for women, occurs through the mediation of men and their decision-making capabilities concerning resource use and output choices are severely restricted (Ellis 2000).

Lastly, women are less likely to be educated and literate than men. Girls are underrepresented in schools due to many social/cultural and economic factors. Not all studies demonstrate a clear cut relationship between education and income or diversification into high return activities for rural women, but many research studies have shown that higher education is positively associated with nonfarm activities (Newman and Canagarajah 2001, Adams 1991). Female entrepreneurs in Ethiopia, Tanzania and Zambia were found to have an above average level of education having completed secondary school (Farnworth 2009).

Education may also have the indirect effect of lessening the access restrictions women face in entering nonfarm activities. For example, a literate woman would be in a better position to take advantage of a leadership position in a NGO project or obtain credit from a financial institution. Nevertheless, in relation to their peers in well developed urban markets, rural women are more likely to be concentrated in activities where education related differentials in earning are likely to be of little relevance (Whitehead and Kabeer 2001). In conclusion, it is clear that there are multiple ways women are disadvantaged, relative to men, in their ability to diversify into high return nonfarm markets.

Agricultural Productivity

The relationship between agricultural productivity and diversification is debatable. In the 1970's it was generally assumed that backward and forward linkages from agriculture would result in the formation and growth of rural non-farm enterprises. During the Asian Green Revolution investments in agriculture did prove to stimulate rural services, commerce and industry (Bryceson 1999). Outcomes from other parts of the world, however, called the Green Revolution into question.

In Africa, the technical synergy of forward and backward linkages between agriculture and the rural non farm economy has not been replicated to anywhere near the same degree (Bryceson 1999, pp. 38). Much of the household level diversification is not just nonfarm but also non-rural in character (Ellis 1999). It has also been observed that a poorly performing agriculture market, where excess labor cannot secure agriculture jobs, may in fact stimulate the nonfarm economy (Ellis 2000). Thus, in some cases, areas with low agricultural productivity will tend to be more involved in nonfarm activities as a risk reduction/security strategy.

Some types of diversification may result in stagnation on the home farm. For example this could occur if there is a buoyant distant labor markets for male labor. In this case, the household might be depleted of the labor required to undertake peak production demands such as planting and harvesting. Another consequence of longer term male migration is increasing numbers of female headed households, which are more likely to be food insecure and land scarce (Gladwin 2001).

Some researchers argue that there are benefits of diversification strategies to agriculture including the alleviation of credit constraints and a reduction in the risk of innovation (Ellis 1999). Off farm diversification could also reduce the pressure on land and degraded soils (Elias 2000). Many studies have found that agricultural and non agricultural activities are mutually reinforcing with respect to lubricating investment, purchasing power, and cross investment (Bryceson 1999). Startup capital from agriculture is often used to enter nonfarm activities (Bryceson 1999). There are also possible indirect benefits for the agriculture sector when the non farm sector expands, due to linkages in output markets, input markets, and capital flows (Haggblade 2007).

Is Diversification Worth Pursuing?

When rapid growth in the rural nonfarm sector occurred during the Asian green revolution, this was a sign of good news: broad based agricultural income gains propelled growth in increasingly high-return nonfarm processing, trading, commercial, and service activities (Haggblade 2007). In stagnant rural economies, however, a growing nonfarm sector is the harbinger of the bad news that landlessness and rising populations are pushing households with few assets and opportunities, by default, into low-paying nonfarm activities” (Haggblade 2007, pp.15).

It has also been shown that diversification generally doesn’t benefit all social groups equally. Considering this information, should diversification still be considered a worthy policy objective?

Frank Ellis, one of the leading livelihood researchers, answers yes (1999). The benefits of diversification, even for the most vulnerable groups of society, outweigh its possible negative effects. Diversification is known to be important survival strategy for the poor, and without diversified livelihoods many households might not be able to cope through hard times. Diversification has also proven its worth as a risk reduction strategy that improves livelihood security and protects against adverse shocks. In regards to security, diverse livelihood portfolios are less vulnerable than undiversified ones, and also more likely to be sustainable over time because they allow for positive adaptation to changing circumstance (Ellis 1999). These positive effects have wide applicability (Ellis 1999).

Although the motivations for pursuing a diversified livelihood and its outcomes differ significantly between different social groups, Ellis argues that removing the constraints to and expanding opportunities for diversification are a desirable policy objective (1999). The permutations of diversification are as varied as local landscapes and there is hope that by better understanding the factors that lead to beneficial diversification we can craft policy and interventions to help mitigate the possible adverse effects of diversification and promote positive, equity enhancing diversification.

In the face of the continuing trends of rapidly increasing populations, declining farm productivity and landlessness in many developing regions, farmers will be forced to turn towards nonfarm activities to survive. Rather than fighting or ignoring the inevitable, we should do all that we can to better understand diversification and how to integrate it into a comprehensive poverty reduction program. My research aims at improving our understanding of diversification activities at an individual level and identifying the pathways that men and women have taken to successfully diversify their livelihoods.

Chapter 4: Methodology and Research Questions

My Role in Samene

I conducted the research for this thesis over the two years that I served as Peace Corps volunteer in Samene, Mali. During this time I lived as a member of the community and gained tremendous insight into how rural dwellers in Mali see the world. I completed several projects over the two years in water/sanitation, education and gardening, and I also became intimately acquainted with the development challenges faced in Samene.

I participated in many of the major livelihood activities along with the community and was involved in community meetings, NGO sponsored initiatives, women's organizations, health care services and education in Samene. My Peace Corps training in cross cultural skills and language helped me integrate into the community, gain the community's trust and acquire "insider" access in the village.

Although I did make great strides towards integrating into the community, as the Bambara proverb goes, "*Hali ni kala be men ji la, a te se ka ke bama ye.*" Even if a stick spends a long time in the water it cannot become a crocodile. I am a white, unmarried, childless, woman from America, and our lived experiences are amazingly different. Throughout the time I spent in Samene, I practiced reflexivity and couldn't help but be aware of how my personal history and characteristics affected how people responded to me and the way I saw life unfold around me.

I played a wide range of roles in Samene, and developed many different kinds of relationships with community members. To some I was a teacher, an aid worker, a source of money or a source of amusement while others regarded me a student or a friend. My complex relationship with the community undoubtedly affected my research results as well.

Objectivity in research such as this is impossible and 'validity' can only be improved through long-term engagement. I do believe that my duration in the village and the positive opinion people had of me, along with my command of *Bamanakan* enabled me to gain a holistic, unique, and more 'authentic' view of community life. My research draws its strength from the relationships I established with community members and their willingness to confide in me and trust me with their stories.

Research Questions

I did not go to Samene or Mali with a research topic in mind. My research topic grew from questions I frequently found myself asking in Samene. When I arrived I was surprised by many things, but I became especially curious about the supplementary (nonfarm) activities that nearly everyone in the village was involved in. I had thought that all rural dwellers were strictly small farmers. I became interested specifically in what factors accounted for the types of activities undertaken by different individuals and households. The nonfarm activities I saw different members of the village engaged in were incredibly complex and diverse, and it became apparent that the income returns from these activities were very different as well. I wondered why particular social groups were clustered in certain activities. What factors enabled an individual

to be successful in diversifying their livelihood activities and what factors kept individuals confined to activities that offered little hope of income accumulation?

After making these initial observations and pondering these questions I read all the literature on livelihoods and diversification that I could get my hands on. Armed with a theoretical framework and the language to express what I was seeing in Samene I sat down to write my research questions.

My research design and methodology was formulated to answer my initial research question, which was: How do assets and access influence livelihood diversification strategies at an individual and household level? The research data I collected could more than adequately address this topic; however, this thesis is based on a specific piece of this broader research question due to my time constraints and the limitations of a Masters thesis project.

Comparing different social groups, the most obvious distinctions emerge between the livelihoods of men and women. My revised research question addresses a single level (individuals) and focuses specifically on the differences between men's and women's livelihoods.

The primary research question addressed in this thesis then is:

- How do assets and access (social rules and norms) influence livelihood diversification options for men and women?

Secondary research questions include:

- What is the composition of men's and women's livelihood portfolios?
- How are assets held differently by men and women?
- What are the major access restrictions that affect livelihood success for men and women?
- What accounts for the intra-gender differences in men's and women's livelihood success?

My hypothesis is that men and women have very different assets and face gender based access constraints that affect their livelihood diversification options. Women have fewer of the assets that enable them to enter high return activities in the nonfarm sector and also face more severe access restrictions. Therefore, women tend to be concentrated in low return, easy entry activities that are mainly in the farm sector. Men are more likely to have access to nonfarm activities, and exclusively control the high return nonfarm activities in Samene.

Methodology Overview

A large part of this research is drawn from my participation in the community life in Samene. Every day I took notes of potentially significant issues, events, quotes, and concerns collected from informal discussions I had with community members. Participant observation, casual conversations and informal opportunistic interviews took place nearly every day and provided me with the necessary background to prepare my research and the formal data collection methods. I also gained a great deal of understanding about the community and how to approach

data collection by speaking with visiting NGO's, (such as ICRAF, FODESA, and PACT) and attending their meetings in Samene.

The formal part of my research consists of a mixed method design combining qualitative and quantitative approaches. Between January 2008 and July 2008 I conducted three surveys, a series of focus group discussions, and dozens of key informant interviews in Samene. Throughout the process multiple data collection methods and analysis were employed as a way to triangulate or cross check data. All interviews and surveys were conducted in the local language of *Bamanankan*. All names have been changed to protect the confidentiality of my informants.

I was particularly interested in contributing to the research on access and its role in the livelihood framework. Although, access is gaining recognition as one of the keys in the livelihood framework, it is hard to capture and has received little attention by researchers. My methodology is diverse and oriented at understanding the different experiences of social groups to help explain how access and assets influence livelihood options for men and women.

Table 5: Overview of Research Methods

Research Methods	Frequency and Dates Conducted	Quantity
Participant Observation	Daily, Oct.. 2006-July 08	> 1000 experiences
Informal Conversation	Daily, Oct. 2006-July 08	> 1000 conversations
Informal, Opportunistic Interviews	Weekly, July 2007-July 08	≈ 50 interviews
Household Surveys	Daily, January-July 2008	121 surveys
Extended Household Surveys	Daily June-July 2008	5 surveys
Individual Surveys	Daily, January-July 2008	168 surveys
Discussion Groups	6 days in June 2008	6 days
Key Interviews	Weekly Jan-July 2008	≈ 25 interviews

Participant Observation

Every day presented opportunities to participate in community life and learn by doing and observing. I participated to some extent in all the livelihood activities in Samene and also attended community meetings, taught in the schools, worked at the health clinic, and attended dozens of naming ceremonies, funerals, weddings, and religious celebrations. I carried a notebook with me wherever I went. I recorded descriptions of people, events and activities as well as my thoughts, observations, reactions, quotes and conversations that seemed important. Every night before dinner I spent time reflecting on my day and catching up with my notes. Towards the end of the research my notes were focused on emerging themes and the data from my surveys and experiences that seemed to confirm or refute my initial findings.

Informal Conversations

These were the conversations of daily life that oscillated between the mundane and the pivotal. These were conversations that I pursued without any objective in mind, in contrast to the more structured interviews where I sought specific information. These conversations occurred in the fields, gardens, shops, schools, kitchens, doctor's offices, kitchens or cramped trucks where we found ourselves having a moment to chat. Often the conversations began by talking about the

weather or work and then, when I was lucky, they would weave their way into the relevance of my research. As with the informal opportunistic interviews, these conversations became more sophisticated as my language skills progressed during my second year in Samene.

Informal Opportunistic Interviews

The informal opportunistic interviews were generally triggered by my curiosity when participating in community events and activities. For example, when gardening with the women, we would talk about why they grow certain crops or when an NGO visited I would attend their meeting and then informally interview them about their work in Samene. Sometimes these interviews were based on previously designed questions, but just as often my questions originated spontaneously during my participation in the activities.

Key Informant Interviews: Key informant interviews were used to get more information about a specific topic from the person who knows the most about that topic. For example the Doctor of the communal health clinic was interviewed about the general health of the community. Other key informant interviews were conducted with the teachers, NGO workers, the mayor, the chief, major landowners, leaders from major organizations, representatives of occupational based castes and individuals that represented a unique characteristic or were involved in a unique activity. These were more structured interview that I carried out in the last six months of my field research when my language skills had progressed to a high level of fluency.

Household Survey

The purpose of the household survey was to collect information about household livelihood portfolios and household assets. 121 Household Surveys were conducted in Samene. Abduliah Coulibably, a mayor from Nara, Mali and a Peace Corps trainer, helped me develop and pretest my surveys.

Sections of the household survey:

- Household composition: number of household members, number of children, number of migrants, education level of household members
- Assets: household physical, social/political, human, natural and financial assets
- Organization membership: number, type and strength of tie to organizations household heads belong to
- Livelihood Activities: list household livelihood activities, rank them according to their importance and assign them a monetary value

In each household the male and female household heads were surveyed whenever possible. Both household heads were asked about the livelihood activities of the household, but the other questions were assigned to either the male or the female based on who was generally more knowledgeable about the area in question. For example, women are more likely to know about the health of the children in the household, while men are more knowledgeable about the size of the household fields.

The households surveyed were systematically selected from the tax documents obtained from the Mayor's office. This tax document listed 242 households in Samene by the name of the legal head of the household. Since a sample size of 120 households was considered optimal, it was

decided that all the households would be numbered according to the order under which they were listed on the tax document and every even numbered household would be selected to participate in the surveys.

Generally, I was able to meet with the even numbered households, but in some cases the household structure had changed since the tax rolls were last taken. In these instances, or when I was not able to locate either the male or female head of the household after repeated attempts the next household (odd numbered) on the list was surveyed in its place. I estimate that I surveyed 50% of the households in Samene.

Before the surveys began, I met with the leaders of the districts in Samene and explained the surveying process and the general purpose of the research. The district representatives were supportive of the idea when the researcher promised that the mayor would not be able to look at the information about their assets (because they are taxed according to physical property assets like motorcycles and guns). These representatives then called separate meetings in their districts to explain to their constituencies what I had told them about the surveys.

I was accompanied by a member of each district when conducting the interviews, primarily to help locate the households. My assistants in the five districts were varied: the chief of the village, the son of one of the elders, a ten year old girl, two young boys, and a 9th grade school boy.

The respondents were often assisted by nearby family members or friends when they struggled to answer questions. This help was encouraged for the household surveys, but generally discouraged during the individual surveys, because of the personal nature of some of the questions and an individual's tendency to downplay their assets in front of others.

Although the surveys were set up to gather quantitative data, my questions often led to in depth discussions about certain topics. The survey was flexible and my notes constantly overwhelmed the neat check mark boxes. I followed up on any unusual responses and allowed the respondents to tell their stories when they felt inclined to.

The majority of the surveys took place during the non-farming season (January to June) when people generally have less work to do than during other times of the year. Care was taken to come at different times of the day, so as not to exclude people that left for the fields or other activities during certain times of the day.

Individual Surveys

The purpose of the individual surveys was to capture individual diversification strategies and asset bases and gather data to represent the different positions in the households. At least four individuals were interviewed from 33 (one-quarter) of the households selected for the household surveys. A total of 168 individuals (81 women and 87 men) were surveyed. The households where the individual members resided were chosen systematically from the even numbered households. Every fourth household, out of the households where the household surveys were conducted, participated in the additional individual surveys. The respondents for the individual surveys included the male and female heads of the household in all cases, and at least one more male and female member of the household. The two additional household members were chosen

to capture a diversity of ages, positions in the household and livelihood activities. Respondents ranged from 15 to 85 years.

Sections of Individual Surveys:

- Personal Attributes: age, gender, marital status, number of children, number of wives (for men only), number of brothers and sisters, health.
- Assets: individual physical, social/political, human, natural and financial assets.
- Organization membership: number, type and strength of tie to organizations individuals belong to.
- Livelihood Activities: list individual livelihood activities, rank them according to their importance and assign them a return value based on the scale developed.

Extended Household Surveys: In each of the five districts in Samene one household was selected for an extended survey. The purpose of the extended surveys was to record a complete picture of a household's livelihood portfolio and the livelihood roles undertaken by each member of the household. In these households many additional individual surveys were conducted and a family tree with each person's age and livelihood activities was also drawn up. The households selected for the extended surveys were chosen to represent critical cases.

Table 6: The Five Households Selected for Extended Surveying, By District

District	Household Name	Description of household
Nyena	Coulibably ka so	This is the household of the largest landholder in Samene.
Sokoro	Kane ka so	This is an example of a household involved in many diverse nonfarm activities.
Boukoura	Djarra ka so	This is an example of a small, poor household.
Bougoni	Dumbelle ka so	This is an example of a medium sized household, also described as <i>cemanc</i> or middle class.
Sokoura	Sisikoro	The most educated household in Samene

Small Group Discussions and Participatory Activities

The discussion groups were separated by gender and included between six to twenty members of the community chosen according to the particular topic of discussion. In May, on two separate weekends, the men and women met for three days. The individuals participating were generally some sort of community leader chosen by myself and the mayor to represent different age and wealth groups and primary livelihood activities.

Outline of Three Day Discussion Group Schedule

Day 1

AM: Participatory Activity: Seasonal Calendar.

- Activities, health, finances and food available for each of the four seasons.

PM: Group Discussion: Livelihood Activities.

- Ask in depth questions about each livelihood activity.

Day 2

AM: Group Discussion: Assets.

- List, discuss, and try to rank the assets that are important to individuals and households.

- Participatory Activity: Activity sorting.

Place each of the 30 activity card drawings under a heading indicating its importance. For each activity discuss its importance; who can do the activity and what access issues prevent anyone from participating in the activity.

P.M: Group Discussion: “Big picture” questions

- Example of leading questions: What is a good livelihood strategy for a household? What makes a household strong over many generations? How do households build up wealth?

Day 3

A.M: Group Discussion with elders: Changes in livelihood activities, households and the community over the last 40 years.

- Example of leading questions: How have women’s activities changed in your lifetime? How has women’s role in the household changed in your lifetime? How has poverty and wealth changed in your lifetime?

P.M: Group Discussions: Community Assets.

- Identify, discuss and map important community assets. Create historical village timeline.

Survey Challenges

Data collection was challenging in terms of numerating assets and assigning monetary values to livelihood activities. Residents of Samene are not comfortable or familiar with counting and measuring things they own. Fields are not measured, livestock are not counted, incomes are not accounted, and even the number of children one has is not known off hand. Generally though, armed with patience and persistence, I could find a way to answer these questions. Often it was a matter of finding the right person in the household to ask or physically counting or measuring specific assets.

There are a number of questions that were particularly difficult. Most people have never metrically measured their fields. When asked about their field size they will either estimate in hectares or respond in the local measure of a “*citige*.” *Citigis* are the number of distinct plowed areas in ones field. A *citige* can be either larger or smaller than a hectare, but for the purpose of data aggregation, one *citige* was assumed to equal one hectare.

Community members are often uncomfortable discussing things they own and will tend to

underestimate indicators of wealth like cows. A local proverb states: “*Sa min be dogo, be bonyo.*” The snake that hides gets bigger. Outward displays of wealth are not common in Samene and even the wealthiest people wear the same worn clothing and live in the same mud houses as everyone else. One young man said, “If you show off your wealth people will start asking you for money and since it is difficult to refuse family, you will lose everything you worked for.” Another reason that physical assets are not openly discussed or displayed is because they form the basis of the household tax.

To mitigate these potential inaccuracies figures were corroborated as much as possible through multiple questions, different data collection techniques, and multiple sources. Answers about animal ownership were crosschecked with other members of the community and by observation. Field sizes were relatively compared between neighbors and during all questions care was taken to ensure the participants that their answers were confidential.

Chapter 5: Overview of Mali

Mali is a large West African country with 13.9 million people, nestled in the Sahel region of Africa between Algeria in the north, Senegal in the west, Guinea in the south and Niger in the east (UNICEF, 2008). The Senegal river runs through the southeast of Mali, and the Niger river arcs through the middle of the country providing critical water resources and fertile flood plains for the otherwise arid country. More than 80% of Malians are rural dwellers who depend on farming, fishing and/or animal husbandry for their daily subsistence needs and livelihoods. Mali's population base is scattered along the southern flood plains of the Niger river, in the Savanna climatic zone. North of the savanna, in the drier Sahel belt, there are fewer people, and a greater percentage of nomadic or semi nomadic herders. The northern half of the country is consumed by the vast and sparsely populated Saharan desert.

Map 1: Map of Mali



Source: CIA World Factbook

History

The oldest human remains in Mali were found in the north and dated to 4,400 B.C (Imperato 1989). Mali was the site of three great African Empires. The first of the great kingdoms was the Ghana Empire, which ruled from the 8th century to the 11th century when it gave way to the Malian Empire. At the peak of its power in the 14th century the Malian Empire controlled much of West Africa as well as the trans Saharan gold and salt trade. The Songhai Empire, supplanted the Mali Empire and ruled until the Berber invasion in 1591. Mali is known for its rich cultural heritage and cultural influences that are still found throughout West Africa.

In the colonial era, the French gained control of present day Mali in the late 1800's and renamed the region French Sudan. During the period of colonial rule the native people endured taxation, forced public works labor projects, harsh reprisals for intransigence, and military conscription (Imperato 1989). Infrastructure provision was pursued to further colonial interests, rather than to develop the region for the benefit of the indigenous people. In 1959 Mali and Senegal formed a federation and gained independence from France. Less than a year later, Mali split from Senegal and was declared an independent nation in 1960.

The reign of the first President, Moridibo Keita was marked by economic decline. Keita proclaimed a policy of state socialism, adopted a one party state and nationalized the nation's economic resources. His reign was largely marked by economic decline. In 1968 Moussa Traore led a bloodless military coup and established himself as the absolute ruler of Mali. The Traore dictatorship lasted 23 years and was marked by corruption and brutal suppression of dissent.

In 1991 a coup d'etat, orchestrated by Amadou Toumani Toure, led to the establishment of a democratic system based on a national constitution. Alpha Oumar Konare became Mali's first democratically elected President. In 2002, another peaceful election brought Amadou Toumani Toure to the Presidency, where he currently serves after a successful reelection in 2007. Today Mali is one of the most politically and socially stable countries in Africa.

Social/Cultural Characteristics

Mali is an ethnically diverse country. It is populated by the Bambara (the largest single ethnic group), the Maninka, Soninke, Songhai, Peul, Dogon, and Tuaregs, among others. Each ethnic group has its own language, traditions, livelihood activities, and customs. The great majority of Mali's people are Muslim, and the official language is French. *Bamanankan*, however, is the country's true lingua franca.

Households are related by patrilineal kinship and are headed by the oldest male member. Polygamy is prevalent and households, especially in the rural areas are large, complex structures involving several generations.

There is a high degree of social differentiation within and among communities in rural Mali (Benjamin 2004, pp. 322). Social identity is based on ethnicity, gender, age and kinship or lineage. Lineage, which is marked by last name, is a very important inter-group security system,

and also an important system for ensuring peace between different ethnic groups. Last names, *jamu*, are a reflection of older caste distinctions and ethnic affiliations. A strong tradition in Mali called ‘joking cousins’ dissolves historical tension between ethnic groups and castes, through a series of jokes, teasing and greetings. The President himself, draws on this tradition to mitigate conflict and is known to start off a radio broadcast by playfully accusing the Coulibalys of eating beans. These jokes never fail to get a laugh and are credited, in part, to the relative stability and peace between the ethnic groups in Mali.

Geography and Climate

Mali is a large landlocked country located centrally in the semi arid Sahelian zone, which extends across Africa from West to East just below the Sahara desert. More than half of the country is swallowed by the Saharan desert and only 2-4% percent is suitable for farming. Except for a few areas of hills and mountains, Mali is a flat country consisting largely of plains and plateaus.

The Sahelian zone is characterized by a single short rainy season. The rainy season typically begins in June, reaches its peak in August and tapers down in September. Over the last 30 years, rainfall has decreased and become more erratic and unpredictable. The severe drought of 1968-73 appears to have signaled the beginning of a trend toward drier conditions in the Sahel (Benjamin 2004, Toulmin 1992). There is little doubt that the Sahel is becoming drier, but research suggests that land use practices are less to blame than are long-term climate cycles. (Benjamin 2004 pp. 72)

The northern regions in Mali are much drier than the southern regions, where much of the population is located. Southern regions are characterized by higher density and greater diversity of vegetation than northern regions. (Benjamin 2004)

Mali is endowed with neither the great biological diversity nor the great economic potential that is found in the humid tropical forests of coastal West Africa and Central Africa. Nonetheless, Malians are highly dependent on natural resources and the woodlands offer a great variety of livelihood opportunities for rural people (Benjamin 2004).

Development Indicators

According to the Human Development Index, which ranks countries according to measures of living a long and healthy life, having access to education, and a decent standard of living, Mali ranked 168th out of 179 countries (UNDP 2008). In the Human Poverty index, which focuses on the proportion of people below a threshold level in the same dimensions of human development as the human development index, Mali was ranked as one the two poorest countries in the world, for which the index was calculated (UNDP 2008).

Income poverty is acute and more than a third of Malians live on less than \$1/day (UNDP 2008). GDP per capita is less than US\$400. Only about one quarter of adults in Mali are literate and school attendance for children is poor (UNDP 2008). Infrastructural development in terms of roads, transportation, markets, and technology is scarce and largely absent from rural areas.

Life expectancy in Mali is low (53.7 years), and fertility rates and population growth rates are high (UN Human Development Reports). Health care coverage in rural areas is largely insufficient and almost half of the households in Mali lack access to improved water supplies and sanitation. Malnutrition and a high prevalence of several debilitating infectious diseases including malaria, typhoid and diarrhea also lead to a high infant mortality rate.

As a landlocked country with few natural resources, Mali is further hampered by large international debts, low economic development and a difficult farming climate.

Livelihoods and Diversification

The structure of rural livelihoods in Mali must be understood against the variability and uncertainty of the Malian environment. Because of the need to manage environmental and socioeconomic risk, it is rare to find a household with a single source of revenue, even among the elite and salaried people (Toulmin 1992). Even though agriculture, fishing, and livestock rearing constitute more than 80% of the country's total employment, diversification is at the root of food and livelihood security strategies in the Sahel (Davies 1996, pp. 24; UNDP 2008).

Livelihood patterns in the Sahel are characterized by diversity, seasonality, mobility and social differentiation. (Benjamin 2004). There is a strong ethnic dimension associated with livelihoods in Mali. For example, the Fulani are known as transhumant pastoralists and the Bozo are primarily fishermen. Additionally, there are specialized, occupation based castes within ethnic groups, such as leatherworkers, *griots* (traditional storytellers and historians) and blacksmiths.

In the Inner Niger Delta Davies (1996) identifies five different livelihood systems: cultivators, transhumant pastoralists, agro-fishers, transhumant fishers, transhumant pastoralists. These livelihood systems not only dictate activities, but also food security, patterns of settlement, income sources and expenditures. In his work in the Mopti region Charles Benjamin created a system of classification of livelihood activities that consisted of seven sectors: Agriculture, Exchange, Fishing, Livestock, Remittances, Wages/Home Industry, and Non-timber forest products.

Although there has not been a lot of research on livelihoods in Mali, a number of studies and their key findings provide important insights into livelihoods and diversification in Mali.

Characteristics of livelihood diversification

Charles Benjamin conducted livelihood research in four villages in the Mopti region of Mali during 2001-2003. His research yielded a number of relevant findings. First Benjamin found that most households practice a number of secondary activities, either as a regular part of their livelihood portfolios or as more temporary coping strategies. Most households were involved in four or five different activity sectors (Benjamin 2004).

Second, Benjamin found that a household's livelihood portfolio is significantly related to village and ethnic group. The types of activities practiced and the extent of diversification were found to vary depending on the ethnicity of the household and the resources available in the village.

The Fulani primarily focus on livestock and have the least diversified livelihoods, while the Bella and Bambara were more likely to be generalists engaged in many different activities.

Third, Benjamin discovered that the number of livelihood sectors a household is engaged in is not significantly related to the household size or income rank. He found no significant differences in relative contribution of different sectors among income quartiles. However, he did find that there is a positive relationship between the number of livelihood sectors practiced and the mean total value of livelihood activities (241). In spite of the positive correlation between diversification and income, Benjamin's data suggest that poor and wealthy households structure diversity in a similar manner. Diversification, in Benjamin's research, was found to be important for both poor and wealthy households. A critical analysis of Benjamin's conclusions, reveals that he does not differentiate between the specific types of activities poor and wealthy households are involved in, nor does he compare the income levels derived from nonfarm activities between the different income brackets.

Income source diversification

A study from central Mali provides insight into the sources of cash income for households. In the Kelka Forest, Traore (1997) found that between 1992 and 1996 the breakdown of cash income consisted of the following activities: forest resources (48%), livestock (33%), agriculture (10%), migration (6%), and miscellaneous (3%) (cited in Kerkhof (2000)).

In the late 1980's Toulmin (1992) found a very different income breakdown in the Mopti region of the country. The wide variations of income source diversification are related to different regional resources and livelihood systems. Toulmin (1992) found that the cultivators, agro-pastoralists, and agro-fishers together derived 9% of their incomes from cereals sold, 33% from animals and milk, 23% from fish, 19% from wage labor and only 5% from gathered forest products (pp. 190). Toulmin also breaks down the income sources between the three livelihood systems to show how the distribution of income varies significantly depending on the livelihood system in question. For example, cultivators sell more cereals, agro-pastoralists derive more income from animals and milk and agro-fishers earn the majority of their income from selling fish.

The third example of how households diversify their income sources comes from the village of Douma in the Mopti region (Benjamin 2004). Benjamin found that 46% of the income earned in Douma comes from agriculture. 25% of incomes are derived from animal raising and remittances and wages/industry account for 9% and 15% of incomes respectively. Exchange and nontimber forest products both contribute around 3% to household incomes in Douma.

Gender and Personal Livelihood Activities

Gender is an important personal attribute that structures livelihood portfolios. Unfortunately, there has been little research, apart from the work of Charles Benjamin (2004) that looks at the differences between the livelihood activities that men and women in Mali are engaged in. (See Table 7). In the four villages where Benjamin conducted his research in Mopti, men earned a much greater percentage of their incomes from agriculture and remittances than women. Wage/industry activities were found to be more than twice as important to women's incomes

than men's. In the exchange, animal and non-timber forest product (NTFP) sectors, the relative contributions towards men's and women's incomes were similar.

Looking at total income levels for men and women, Benjamin found that female adults (age 20-40) earn slightly more than a third of what males of the same age make (37,304 FCFA compared to 104,523 FCFA).

Table 7: The Income Portfolios of Men and Women in Mali (% of Income)

	N	Agric.	Exch.	Fishing	Animal	Remit.	Wage/Industry	NTFP
Male	118	14.9	6.3	2.6	23.3	13.2	20.5	19.3
Female	122	2.6	5.7	0	20.2	2.3	45.5	23.7
P-value*		<.001**	.901	<.001**	.636	<.001**	<.001**	<.001**

*Mann-Whitney Test

**Mean Values are significantly different at 99% level

Source: Benjamin 2004 pp. 251.

Understanding Livelihood Changes

Susanna Davies' (1996) book, 'Adaptable Livelihoods; Coping with Food Insecurity in the Malian Sahel,' presents an interesting perspective about how livelihoods are changing in Mali's Inner Niger Delta. Davies central argument is that livelihoods are becoming less resilient and more sensitive over time. The primary characteristic of a vulnerable livelihood system is a 'structural cereal gap, or the inability to meet annual food requirements through primary production entitlements' (pp.195). The causes of the increased vulnerability of livelihood systems, identified by Davies, include: a series of successive droughts that eroded security, a changing natural resource base, lower rainfall and flood levels and inimical government policies.

Before the droughts of the 1970's Davies posits that livelihoods were highly resilient and insensitive. Primary livelihood activities provided for subsistence and accumulation needs and had built in safety nets for bad years. Secondary activities were only utilized during difficult times, and they enabled households to cope, withstand shocks and bounce back.

In more recent times, Davies contends, the principal difference is that livelihood systems can no longer guarantee food security in most years. The coping strategies of the past are now part of the normal calendar of activities; coping activities have become adaptive activities. "Whereas in the past, diversification beyond primary activities was used to accumulate and act as a safety net, it is now the basis of subsistence" (pp. 169). Interestingly, Davies found no evidence of the introduction of new activities, and believes that adaptation is a process of exploiting existing activities more intensely.

The cultivators in the research area have become dependent on long-term migration, animal husbandry, forest resources and the market (for food, credit and work) to meet their food needs. Whereas, in the past, farming traditional crops provided for a family's food needs, in current

times, farmers have been forced to diversify their activities and rely on supplementary activities to feed themselves (Davies 1996).

Overview of Major Livelihood Activities in Mali

Agriculture

Farming is the dominant livelihood activity in Mali. Dryland cereal farming for subsistence use is the principle form of agriculture in most of Mali. Agriculture is based on cultivation by hoe or simple animal traction, using primarily organic fertilizers, and few pesticides. The dominant cereal crops are coarse grains – millet, maize and sorghum. Other secondary crops include: okra, sesame, calabash, watermelon, manioc, beans, peanuts and hibiscus. There are two zones in Mali oriented to greater cash crop production: the cotton zone in Southern Mali and the rice fields irrigated by the *Office du Niger*. These zones often employ mechanization, synthetic fertilizers and pesticides with the support of parastatal organizations (Benjamin 2004).

Farmers in Mali face many difficulties. They have to contend with numerous environmental risks including droughts, onslaughts of locusts, and erratic and decreasing rainfall. Farmers work with poor soils without the aid of improved technologies, irrigation, or synthetic fertilizers. Labor productivity in agriculture is low and farmers generally do not have access to extension services or credit opportunities (Havnevik et al. 2006). In addition, prices for exports, and in particular cotton, are highly volatile.

The severe Sahelian droughts and famines of the early 1970s and mid 1980s attracted international attention to the vulnerability of the country's people and its natural environment. In West Africa, inimical farming conditions have motivated a search for other viable activities to meet the farming production shortfalls.

Migration

Migration, especially for the Bambara, is an integral part of most rural livelihood strategies. Patterns of migration vary and are determined by ethnicity, extended kinship networks, household structure, distance to migration sites, the household's portfolio of activities, and conditions at the migrant's destination. The most common migration pattern in Mali is circular migration, where migrants return home during the farming season, and leave for urban centers after the harvest is complete.

The long history of migration in West Africa, was stimulated during the period of French colonialism when the economic responsibilities of the household increased with the introduction of taxes. Women's urban migration is a relatively recent phenomena that began in the late 1980's.

A comparative study carried out in four Sahel countries, including Mali, examining the effects of male out migration, concludes that: male out-migration contributes to the viability and sustainability of rural livelihoods (Ellis 2000). Remittances ensure food security and the patterns and duration of migration are adapted to changes in seasonal and annual shortfalls in food and basic needs (Ellis 2000, pp.156).

Livestock

Livestock are the livelihood basis for some ethnic groups, notably the Fulani, and are essential to the security of the livelihood portfolios of most farmers as well. In fact behind cotton, beef is Mali's largest export. For the Fulani their personal status and wealth is associated with their herd size. The Fulani are likely to move seasonally in search of pasture and water for their animals. Sedentary farmers also frequently raise livestock to complement agricultural activities and provide security when other production activities fail.

Fishing

Fishing is the dominant livelihood activity only for the small Bozo ethnic group, although it is a critical secondary activity in many areas. The large fish markets in the inner Niger delta, provide a means for fishermen to acquire income and barter for cereals. Agro-fishers are sedentary fishers living on the floodplains of the delta who also cultivate substantial quantities of rice (Davies 1996 pp. 143). Transhumant fishers cultivate rice as a secondary activity as well, but during the fishing season, they follow the fish downstream.

Other secondary activities

Handicrafts, collecting forest products, services, and commerce are other important rural livelihood sectors in Mali. Apart from the studies focused on forest products, these other activities have received little attention from researchers and will be discussed in greater detail in the following section on livelihood activities in Samene.

It has long been recognized that a wide range of forest products are critical to rural livelihoods. Forests 'provide rural populations with primary livelihood resources, with means of filling production gaps, and with sources of cash income' (Warner 2000). The majority of agriculture in Mali takes the form of parkland agroforestry systems (Foley 2001 in Benjamin 2004). Agroforestry parks feature the selective retention and maintenance of spontaneously occurring 'useful' trees. Besides providing useful products such as food, fodder, fuel and medicine they can they also serve ecological functions that improve farming productivity (Benjamin 2004). For example, the nitrogen-fixing properties of *Acacia albida* make it a very valuable tree in Sahelian agroforestry (Benjamin 2004).

Becker (2001) identified 43 wild tree species used for purposes other than fuel wood in a Bambara village near Bamako (cited in Benjamin 2004). In another survey of wild plant use in six Malian villages, Gakou et al. (1994) record 108 plant species yielding locally used forest products. They note that of the most frequently mentioned plants all but one are native species in natural forests and two-thirds were sold in local markets.

Determinants of Livelihood Success

What are the determinants of livelihood success in Mali? This is another question that has received little attention from researchers, especially when it is considered using an asset based approach. There are some hints of the types of assets that are key determinants of livelihood success in the work of Karen Brock. She writes, ‘the basic factor enabling accumulation of wealth through diversification is the constant availability of at least three able-bodied adult men amongst who the necessary tasks to household labor could be divided.’ (1999). Brock also found that in Zaradougou, the most sustainable households had at least two sources of income in addition to their farms. In a different paper written with Coulibaly, Brock identifies the most sustainable households as those that have secure access to the entire range of assets needed to maintain their agricultural production, or the potential to exchange the capital they have for the capital they need” (Brock and Coulibaly 1999, pp. 3).

In two regions of Mali, De Haan (2001) posed the questions: what makes a household strong over several generations and what makes a good life? to different focus groups. Three criteria were consistently mentioned. The most important criteria identified was *gestion*, which refers to the way a household is managed. Poor household management by the household head is believed to lead the household towards poverty, while good management is a key feature of a household’s success. *Main d’oeuvre*, the second criteria, refers to the household labor force, and encompasses not only its size but also its age and gender balance (pp. 10). The third criteria agreed on, *betail* refers to livestock holdings, and reflects the importance of animals as assets and as insurance during difficult times (pp. 10).

Camilla Toulmin (1992) found household size to be the central determinant of a household’s asset status. In her work with the Bambara in Central Mali in the early 1980’s, Toulmin found a strong and positive correlation between household size and ownership of different assets. Large households had more of the three critical assets considered (wells, oxen plough team and cattle) than smaller households. Toulmin writes, ‘household size plays a crucial role in this process of accumulation’ (1992). Larger households were found to be better equipped to diversify their incomes and more capable of acquiring and maintaining productive assets. Women in large households were found to have more free time to pursue supplementary activities, while men were more likely to participate in migration. Small households, on the other hand, were constrained by a lack of assets and an inability to generate sufficient surplus to invest in raising farm productivity (Toulmin 1992).

Chapter 6: Description of Samene

This chapter is a description of the village of Samene in terms of its people, geography, history, primary livelihood activities, government and services. There is a particular focus on the community level assets of Samene that influence livelihood options for community members. The chapter concludes with an attempt to situate Samene in comparison to other villages in Mali.

Samene in General

Samene is a large village, of about 4,500 people, located approximately 30 miles southeast of the regional capital Segou. The residential area of the village spans a distance of almost a mile long, and includes several dispersed communities. There is little geographic relief, besides the basins that fill with rainwater during the rainy season, in the flat plains that dominate the area.

Samene is part of Sahel belt that stretches from Senegal to Sudan, and includes some of the poorest countries in the world. Livelihoods in this region face tremendous uncertainty and rainfall is extremely low and highly variable. Samene receives between 500 and 900 mm. of rain per year during the short rainy season from June to September.

Much like most villages in Mali, people in Samene live in mud huts without electricity or running water. Households live together in compounds that are concentrated in a dense maze at the center of the village and surrounded by fields. Small gardens and open meeting places are sprinkled within this domestic area. Most households either have their own wells or share a well with their neighbors. These wells are shallow, uncovered and generally contaminated. In 2006 the Japanese installed a piped water system with 12 community taps to provide potable water to the village, but because the piped water costs money few people choose it over the traditional well water.

The household's fields radiate out from the settled area in a patchy and seemingly unorganized manner due to the highly variable nature of the soils and the flooding potential in many areas. The village controls a large area of land, but in many places the soils are too poor for farming. In an outer ring beyond the fields, and in the land between the fields, lies the forest. The forest provides grazing land for livestock as well as food sources and other useful products for the people of Samene.

A gravel/dirt road connects Samene to Segou, and the village is also connected to neighboring villages by unimproved roads. The Bani river, a branch of the mighty Niger river flows 5 km. to the south of Samene and is important to the livelihoods of many people in Samene.

In Samene households are defined by patrilineal kinship as the group of people that share the same fields and food granaries. The members of a household generally cook and eat together, and reside in the same compounds as well. Households in Samene are large, multi-generational and complexly organized around distinct power relations based on age, gender and relation to the household head. The *dutigi*, or the male household head, controls the household's resources and makes the important household decisions. Polygamy is a common practice in Samene and

households are often very large. The average household size is 31 people (median is 23), but the largest household in Samene has 203 members.

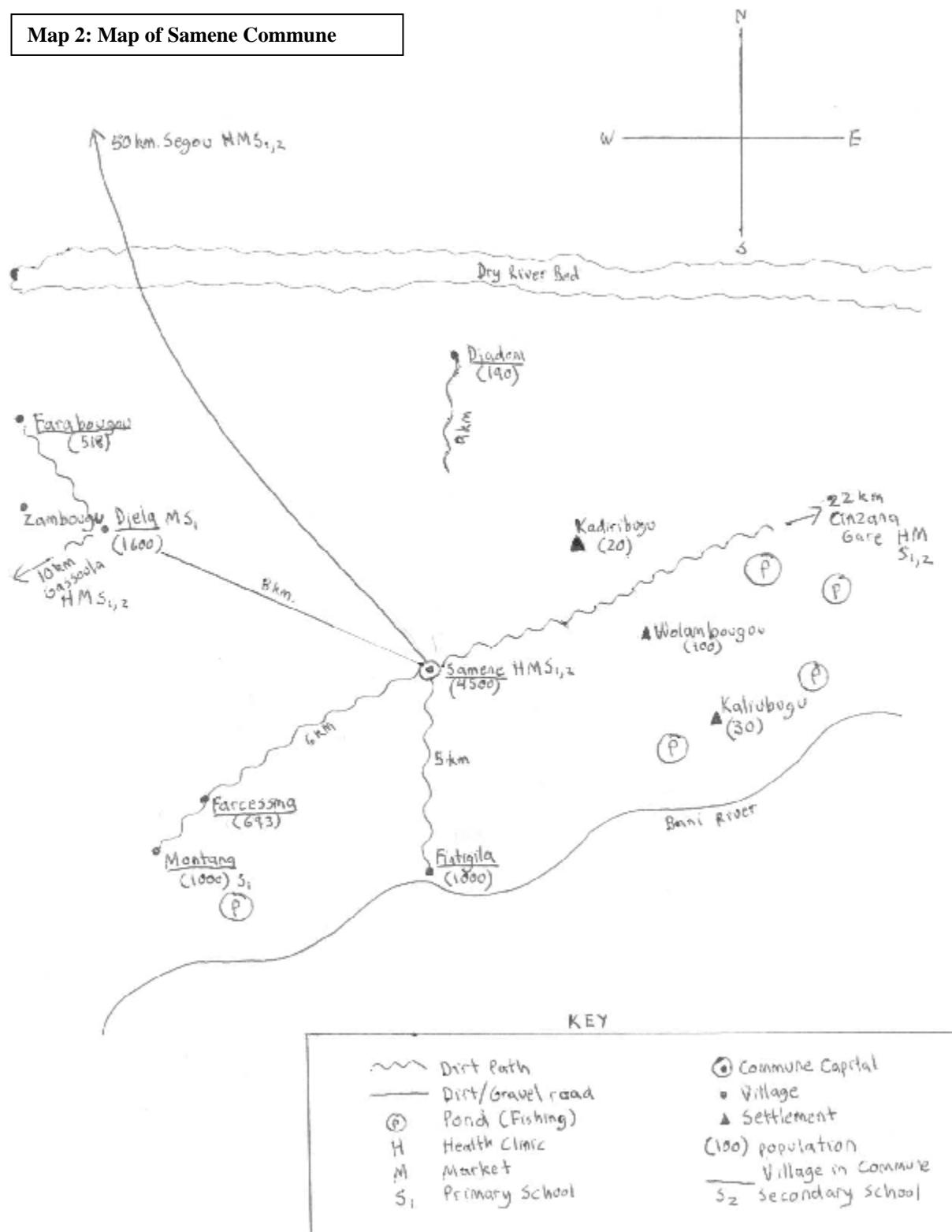
The Bambara are the primary ethnic group in Samene, although there are a significant number of Fulani and a couple Dogon families residing in Samene as well. All of the Fulani have integrated into the Bambara society and adopted the Bambara language, traditions, and livelihood activities, except for a few isolated households living outside the village proper.

Bamanankan is the first communication language in Samene. French is spoken only on occasion by the few educated men in the village, but many of the men who have engaged in long term migration also have a rudimentary understanding of French.

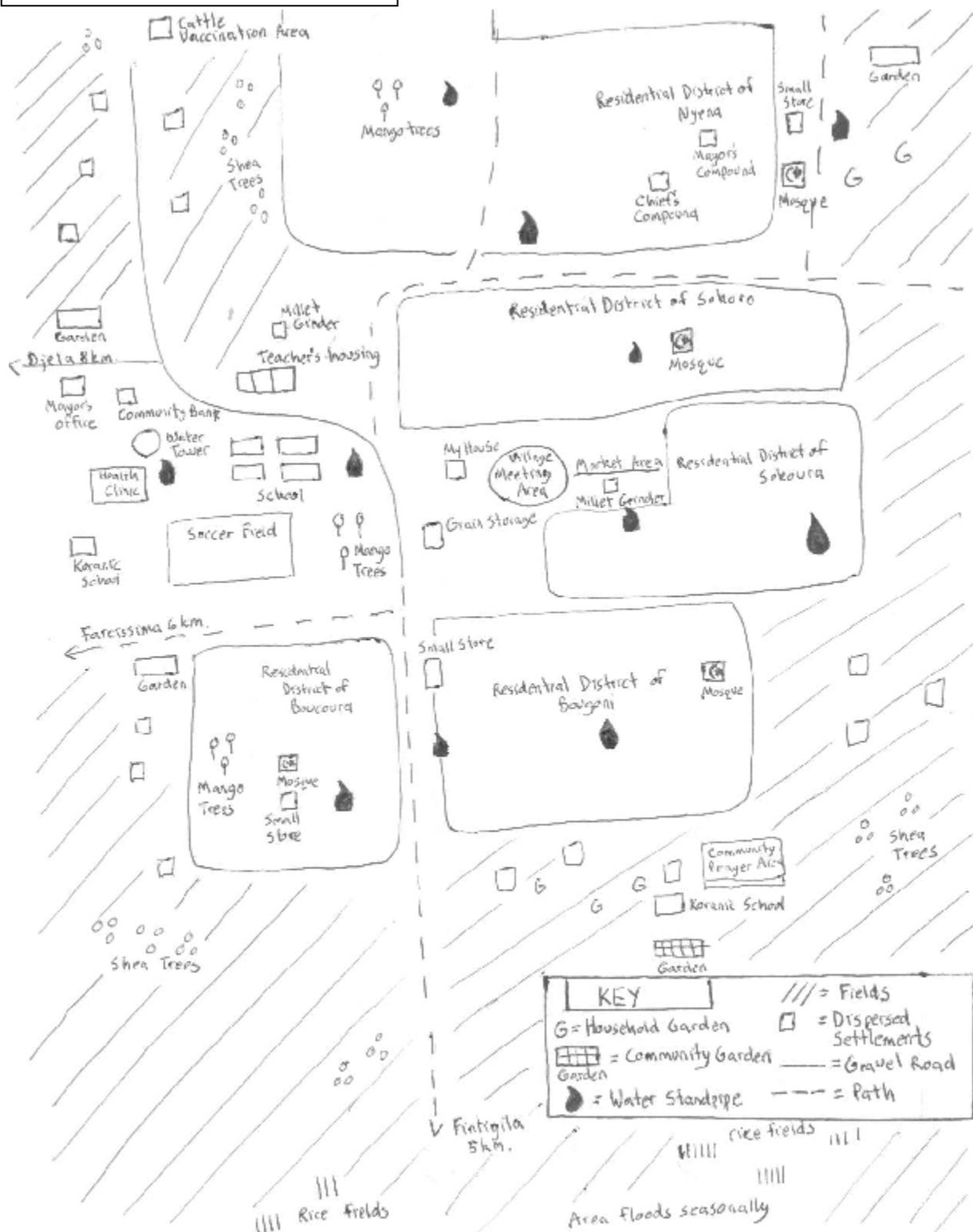
Samene is primarily a Muslim village and most adults pray five times a day. Even though the Islamic practices are observed, Islam is often nothing more than a veneer applied over traditional belief systems. There are also half a dozen Christian households in Samene.

Farming is the principle livelihood activity for nearly every household. The dominant crops are millet and sorghum. Secondary crops include beans, peanuts, manioc, sesame, watermelon, gourds, rice and cotton. Animal raising and migration are the two economic activities that most often supplement farming. Other livelihood activities include: gardening, commerce, handicrafts, various services, collecting forest products and fishing.

Map 2: Map of Samene Commune



Map 3: Map of Samene



KEY	/// = Fields
G = Household Garden	□ = Dispersed Settlements
■ = Community Garden	— = Gravel Road
Garden	- - - = Path
● = Water Standpipe	

Founding History

Samene was founded between 200 to 300 years ago. Today Samene consists of five community districts; Nyena, Sokoro, Sokura, Bougoni and Boucoura. Each district has its own unique history. Nyena was at first its own village called Samene and then around 100 years ago it incorporated the newer nearby villages of Sokoro and Sokura, and became one of three districts in Samene. The people of Bougoni and Boucoura moved to Samene much later. In the 1940's fighting with the colonial French armies caused many regional villages to uproot and take sanctuary in Samene. In Samene the districts are individually well governed and organized. The district leadership is generally more respected than the village leadership, due to the strong identities and nuclearization of the districts.

This founding history of Samene is important for a number of reasons. The founding members of Samene control land distribution and land rights. As the first district established in Samene, landowners in Nyena control the vast majority of the village's land. When a new district was added to Samene, land was granted to the *chief d'cartier*, the district chief, but as the village grew there was less arable land to be dealt out. Therefore, the majority of the land is controlled by the founders of the village and the newcomers have only a very small share of land they personally control.

There are no major landowners in Boucoura, the last district to be formed in Samene, and only a few landowners in Soukoura and Bougoni. That being said, everyone in the village is granted land according to their needs by the chief of the village, who resides in Nyena, regardless of which district the land seeker resides in. The farmers do not own their own land, but their tenure is generally secure so long as they cultivate their entire field every year.

Local politics are also dominated by those who can trace their lineage back to the first households settled in Samene. Landownership and power go hand in hand in Samene. Currently the mayor, the chief and the most influential councilors all come from Nyena. The landowners and political figures that are from Nyena, and a lesser extent Sokoro, have determined the development of Samene and will undoubtedly be the ones to determine its future as well.

Samene Commune

As the most populated village in the area, Samene was named the commune capital in 1993, in accordance with Mali's new decentralized government program. The decentralization campaign grouped villages into autonomous communes to give them greater control over their own development. The Samene Commune includes five other, smaller, villages located within 15 miles of Samene. According to the background information prepared for the commune's long range plan, the total area of the Samene Commune is 300 square kilometers and 20,000 ha are suitable for cultivation (Plan de Development 2006). In 2007, the population total for the commune was 9,890 people (Plan de Development 2006).

Government, Governance and Civil Society

The modern leadership ushered in 1999 a mayor, and his elected cabinet members and representatives from each village and district. Power is shared, or rather divided, between the

modern and traditional leadership. Each is responsible for different realms of society. The traditional leadership is headed by the village chief, who typically originates from one of the founding families. A council of elders actively advises the chief. The village chief controls land, mediates inter-marital issues and land conflicts, settles interpersonal disputes, and dispenses advice and wisdom. The mayor, on the other hand, handles the legal documents for marriages and births, manages the budget, implements projects and collects taxes,

More than 100 associations, informal groups and organizations exist in Samene as well. These groups serve a variety of functions including providing: loans and credit, work, community services, education, business opportunities, emergency help and social networks for their members or the larger community. Strong networks based on age, gender, district and village ties are also vital to the health of the village.

Education and Health

As the commune seat, Samene hosts the school and health clinic for the commune. Samene has a primary school (grades 1-6) that was built in 1982 and a secondary school (grades 7-9) that was completed in 2002. Despite the relatively early presence of schools in the village, the community is poorly educated and generally places a low value on education, especially for girls.

Koranic schools and madrasas are an important part of the education system in Samene. The Koranic schools typically focus their efforts on the Koran, while the more mainstream Madrasas use a government curriculum similar to what is taught in the formal schools. Informal recitation of the Koran is also organized within the districts for the children at night. Many children attend the government schools during the week and the faith based schools for a few hours over the weekend.

The second cycle school director, Baba Berthé estimates that around 20% of boys and 5% of girls in the village are in school. In 2008 in the 7th grade there were 130 students (31 were girls). Thirty, ninth grade students passed the final exam and only one was a girl (Pers. Comm. Berthé, Baba). In the first cycle in 2008 there were 474 children, of which 136 were girls (Pers. Comm.. Kamaté, Jean). The adult literacy rate is also very low. It is estimated that the adult literacy rate is around 2%. Fewer than 100 people in Samene have more than a 9th grade education (Pers. Comm. Berthé, Baba).

Although overall education levels are low and girls are underrepresented in the schools, these indicators have been positively changing in the last 25 years. When Jean Kamaté first moved to Samene to become the director of the first cycle school in 1995, only about 250 children were enrolled in the first cycle. The number of school children has almost doubled in 12 years, although Jean warns that these numbers may be misleading because the attendance for many children is so poor. Not a single girl had passed the 9th grade exam until 2005 and since then seven more girls have joined her ranks (Pers. Comm. Berthé, Baba). In the first five years of the secondary schools opening, boys also performed poorly and only 8 passed during this period, but after 2005 an average of 30 boys have passed every year (Pers. Comm. Berthé, Baba).

The Centre de Santé Communautaire (CSCOM) in Samene is staffed by one doctor, one nurse and two midwives. The facility has a refrigerator for vaccines, a hot water heater and a solar

panel to provide light at night. The three major health problems in the community are malaria, diarrhea diseases, and malnutrition. In Mali the under five mortality rate is between 25-30% and this rate is higher in rural areas (World Bank, WHO, UNICEF). Basic health and sanitation knowledge is very low in the community. Due, to their limited financial means or their preference for traditional medicine, many households do not choose modern medical services.

Community Assets

The strengths and weaknesses of the community assets are listed below under the different asset categories. These assets were listed by the villages in group discussions, or during the participatory mapping activity.

Physical Assets

Strengths

- Gravel road to Segou (regional capital), Djeala and Montana (both nearby villages).
- Potable water system with 12 water taps in the village
- Community health care clinic and maternity clinic
- Primary school (Grades 1-6); 6 classrooms
- Secondary school (Grades 7-9); 3 classrooms
- 2 Koranic schools, 1 Madrasa
- Mayor's office
- Community market
- FODESA¹ grain storage warehouse
- FODESA cattle vaccination area
- FODESA grain grinding machine
- FODESA savings and lending center
- 2 Satellite Phone booths
- 4 Community gardens
- Water aquifer for wells rarely goes dry

Weaknesses

- Poor roads that are impassable during rainy season
- Poor access to markets: bad roads, long distance, and poor transportation options
- Infrequent, expensive and crowded public transportation system
- Poor local markets, little variety of goods
- Schools are poorly equipped, not fully staffed, and crowded
- Shallow, open and contaminated wells
- Lack of community sanitation infrastructure

Natural

Strengths

- Many fishing ponds
- Abundant land

¹ A regional NGO: Fond de Développement en Zone Sahélienne

- Located 5 km. from the Bani river
- A wide variety of useful forest products (especially shea nuts, baobab frutis, mangos, and gum arabic)

Weaknesses

- Unpredictable and declining rainfall
- Degraded soils and declining soil fertility
- Lack of fertile farm land
- Flooding occurs in many fields-ruining crops
- Reduced vegetative cover; lack of forage material for animals
- Poorly managed natural resources
- Decline in forested land

Social/Political Assets

Strengths

- More than 100 local credit, service and work organizations and associations-including many important women's organizations
- Strong familial bonds and social norms of trust and reciprocity
- Common village identity and shared social norms and rules
- Strong traditional leadership
- Fully staffed mayors office
- A large number of different organizations that can lobby the government
- Well attended community meetings
- Strong, well respected district leadership
- Districts are well organized and easily mobilized
- Strong migration networks in Segou, Bamako and Dubabugu

Weaknesses

- Conflicts and tension between districts
- Conflict about who is the true chief of the village
- Conflict over the legitimacy of the mayor
- Conflict between farmers and herders
- Women are not represented in the traditional or modern systems of governance

Human

Strengths

- A few well educated men
- Well developed skills including: bike, motorcycle and truck repair, blacksmithing, midwifery, soap making, fishing, gardening hunting, animal raising and sewing.
- Most people have experience with migration.
- Large, multigenerational households

Weaknesses

- Poorly educated population.
- Gender inequalities in the school system.

- Many major health problems including malaria, diarrhea diseases and malnutrition.
- Lost productivity due to hunger, malnutrition and disease

Financial

Strengths

- Dozens of rotating credit associations formed by groups of men and women
- FODESA credit and savings center: 140 members (Aug. 2008), 45 are women
- Many small money making activities available in Samene (gardening, collecting forest products, selling food in the market, animal raising)
- The majority of households raise animals that can be quickly converted into cash if necessary

Weaknesses

- Few opportunities to earn a viable cash income in the village.
- Income poverty is prevalent
- Increasing income cash needs to buy food for the family and pay taxes, health expenses, and school costs
- Women can only access a narrow range of low return money making activities
- Households have very few financial resources and often do not have enough money to provide food to adequately feed the family.

Is Samene a ‘typical’ village in Mali?

No there is not a ‘typical’ Malian village, but it is helpful to consider how Samene compares to other villages according to certain characteristics. First, Samene stands apart from other villages due to its large size. Samene is one of the largest villages in Mali. However, Samene is also fairly isolated, due to bad roads, a poor transportation system, and the distance to the nearest city. Access to larger markets is difficult. While, there are many villages much more isolated than Samene, I would be surprised if there were any near Samene’s size.

The village is ‘typical’ in terms of its religious and ethnic makeup, but it is perhaps a more traditional village than most, in terms of the rigidity of social rules and norms and the cohesion and large size of the households.

Livelihoods in Samene, like all villages in Mali, are based in farming activities. Samene is not located in one of the prime agricultural regions of the country, nor is it part of the unique Inner Niger Delta region or irrigated systems near Niono. The farming system and types of crops farmed in Samene are consistent with other villages in the same region. Livestock ownership in Samene appears to be greater than in other villages of Bambara farmers. In addition, few other villages can boast the same quantity of shea trees that are so important to the livelihoods of women in Samene. The river and many ponds around Samene are also rare.

It is hard to determine how the nonfarm sector in Samene compares to other villages in Mali because so little nonfarm livelihood data exists, but I would speculate that Samene falls somewhere in the middle range of income derived from nonfarm activities. On one hand, the nonfarm activities, like services and commerce, are facilitated by the relatively high population of the village, but, on the other hand, poor access to markets undoubtedly restricts the capacity of nonfarm enterprises. Seasonal migration in Samene is more prolific than in many villages, but nearly all migrants return to Samene to help with farming, which is seen to be less common in other villages.

Samene has better services (health, water, education, credit, etc.) than most villages and also hosts the commune's local government. A major development difficulty that faces many other villages, but not Samene, is access to water. There are always wells with water in them during the dry season and with the new piped water system, there should never be a lack of water in the village.

When women were asked what things in Samene that they were proud and made the village a good place to live they mentioned: abundant shea trees and livestock, the fishing ponds, the health clinic, FODESA's savings and credit center, the schools, and the water supply system.

Women were also asked what amenities they thought that Samene was lacking. They responded with a wish list including: better roads connecting to nearby markets, a literacy center, a larger market, electricity, greater availability of fertilizer, more food for animals, more millet grinders and a larger health clinic.

Men responded with many of the same answers to the first question posed. They did not mention the shea trees however, and added the FODESA cereal bank and animal vaccines to their list of things that made the village 'a good place to live.' Time constraints prevented discussing the second question with the men's group.

Chapter 7: Description of Livelihood Activities in Samene

This chapter provides a detailed description of the different livelihood categories in Samene. Each sector is individually discussed as it relates to the livelihoods of both men and women. (The quantitative data is included in the next chapter.) The chapter concludes with a section about the livelihood changes that have occurred in Samene over the last 30 years.

Livelihood Categories

This chapter begins with a table that outlines the livelihood categories referred to in the rest of the thesis. When the surveys were conducted the specific activities households and individuals were engaged in were recorded. To simplify this list of over 75 activities reported, twelve livelihood categories were constructed.

Table 8: Livelihood Activity Categories in Samene

Livelihood Category	Activities included in the livelihood category
Farming	Farming: millet, corn, sesame, sorghum, beans, peanuts, watermelon, calabash
Livestock Raising	Raising: Cattle, donkeys, sheep, goats, poultry
Migration Non Farm Work	Loading vehicles, moving goods, building repair, street cleaning, well digging, housework/cooking/childcare, construction, government service
Migration Farm Work	Harvesting, planting, weeding, plowing and field preparation-often in rice or sugar fields near Niono
Forest Products	Wild fruits, shea nuts, grasses (for fodder), fire wood, traditional medicines, materials for handicrafts and house building, bee keeping
Gardening	Okra, peppers, hibiscus, tomatoes, onions, lettuce, cassava, carrots, green beans, papaya, egg plants
Commerce	Selling animals, farm products, garden products, forest products, medicines, prepared foods, pots, sandals, clothing, jewelry, gourds. Operating a store.
Service Sector	Carpentry, fortune telling, transportation, sandal repair, calabash repair, bicycle, motorcycle and vehicle repair, tailoring, traditional and modern health care, house building, well-digging, midwifery, grain grinding, phone booth services, electronic repair, blacksmithing, singing, photography, veterinary services, traditional magic
Farm Wage	Harvesting, planting, weeding, plowing and field preparation wage work in Samene.
Non Farm Wage	House building, transportation helper, government worker, store clerk, well digging in Samene
Handicrafts	Beading, embroidery, weaving, mat making, net making, rope making, soap making, charcoal making, cotton spinning, pottery, leather working
Fishing	Cat fish, El Capitan...
Community Service	Educational, religious, or leadership service in the community

Farming

Subsistence farming is the principal livelihood activity for nearly everyone in Samene. The staple crops grown in Samene are millet (*Pennisetum spp.*) and sorghum (*Sorghum vulgare*). Two thirds or more of a household's fields are generally devoted to these two crops. Beans, manioc, and peanuts are the primary secondary crops. Households generally have fields in different areas of the village to help spread risks (i.e. flooding) and take advantage of different soil characteristics. Most households grow at least four crops; most commonly millet, sorghum, beans and peanuts. Sesame was introduced into the village in 1995 and is a cash crop for a few households. Cotton was grown in Samene for a long time, but due to the recent delayed rains, cotton isn't grown nearly as much as it used to be.

Men perform the majority of the work in the household fields, although each member of the household is expected to contribute their labor to this collective activity. Men prepare and plow the fields and count on women's help during the planting, weeding, and storing phases of the process. Young children may be enlisted to chase the animals from the fields, guide the plow, or plant and weed the crops.

A low level of mechanization and heavy reliance on household labor characterizes farming in Samene. Cultivation is generally by simple animal traction or in some cases by hoe. Organic fertilizer (manure) is used when it is available, and the use of chemical fertilizers is rare. The minimal equipment that is necessary for farming includes a traction plow, two cattle, and a few hand hoes. To be a successful a household needs at least two traction plows, one wooden cart and yoke, three cattle, and five hand hoes (From Men's discussion group on livelihood activities).

When girls are married their husbands usually give them a small field to farm on their own. Peanuts and millet are the two crops that women grow in abundance. In some cases, women are able to sell quite a bit of their harvests, while other families depend on the women's crops to feed the children during the lean periods. Women perform all the farming tasks in their own fields, except for plowing which is usually done by a male member of the women's family. The practice of women farming their own fields is relatively recent, estimated to have begun in the last 25 years. Before this time, women worked side by side their husbands during every part of the farming cycle. Today most women just help their husbands during certain farming stages and then they are free to tend to their own fields. Women's personal fields are called '*suro foro*' or night fields, in reference to the fact that they don't get to work in their personal fields until all their other work is complete.

In Samene there are ten traditional landowners and three of these landowners own three quarters of the land. The rest of the households are given land from the landowners, based on their ability to farm it. The fields are only loaned to people and not considered to be their personal property. One of the problems with this arrangement is that if a farmer wants to let part of his field fallow, the landowner will take it back. *Ni y'a bila, c'est fini.* If you do not farm your fields, it is over for you.

Until around 50 years ago much of the farming was done collectively at a village level and the yields were split between households depending on their need. A large party was thrown at the end of the harvest and everyone ate meat. When this system started to break down, farming organizations were formed for each district to assist each other with harvests and planting. Many of the men's farming groups help each other during periods of peak labor demand without pay. Women's work groups are more likely to collectively work on someone else's farm for a wage. Local farm wage labor is more common for women, because they have fewer options to migrate outside the village to find work.

Presently, farmer's field crops are no longer able to sustain their households like they could in the past. The factors commonly cited to explain the poor field yields are: a lack of fertile farm land, degraded soils, a lack of fertilizer, reduced fallow periods, and declining and unpredictable rainfall patterns.

The types of crops grown have also changed over the last few decades due to different rainfall patterns and increased damage to crops from livestock. In the past, more peanuts, manioc, Bambara groundnuts, cassava, potatoes and cotton were grown. The new crops that have been introduced-sesame and rice-have been adopted only by a few households.

Animal Raising

Animal raising is often the second most important livelihood activity for a household or individual. The size of an individual's or household's livestock holdings may be the single greatest indicator of their wealth in Samene. Rather than invest their money or save it in a bank, people buy animals to hold their savings. Cattle are the most prized possession for any family because they have so many uses. They provide animal traction (for plowing), milk, transportation, manure, and are seen as an investment, insurance and bank in one. Besides cattle, goats, sheep, donkeys, chickens, and guinea fowl are the most common domestic animals raised in Samene.

Most people do not continuously buy and sell animals to generate income. Livestock are generally saved for important occasions like *Tabaski* and marriages, or they are sold during difficult times when cash is desperately needed by the household. That being said, many families sell a few animals during the year for sorely needed cash and some of the wealthier families do great business buying, "fattening" and selling animals to distant cities.

All but a few families in Samene have at least the two cows that are the key farming assets. Although the average household doesn't have more than four cattle, a few households have as many as seventy five that they sell all over West Africa. The Fulani ethnic group, traditionally center their livelihoods on animal husbandry and usually either semi-transhumance or transhumance. In Samene, however, the Fulani are sedentary and although they commonly have more livestock than the Bambara, they still consider farming to be their principal livelihood activity.

About the same time women started farming their own fields, they also started buying their own animals. It is not uncommon for women to own a couple of goats, a sheep or a dozen chickens

and some women even own cattle, sparking some men to alarmingly declare that women are richer than men today.

The elders in Samene claim that it is more difficult to raise animals than it used to be because good foraging land and vegetative cover is becoming increasingly sparse. As the population has grown and fertile farm land is becoming scarcer, farmers have turned once used grazing lands into fields. Now, livestock must be driven far away to find food.

Gardening

Gardening is a coveted and important livelihood activity for the people of Samene, especially the women. Gardens provide more nutritious foods for families and can also become a small income generating activity. The main gardening season begins in December after the harvest and a secondary gardening season occurs when the rains start in June. During the rainy season many of the gardens are planted with rice and do not need to be hand watered.

Some women have their own small gardens fenced in with webs of sticks, while other gardens are owned by the household or by a community association. In 2008 four community gardens were built in Samene, allowing every woman who wanted a small garden plot to participate in gardening.

Gardening is primarily a women's activity, although the three largest and most well equipped gardens in Samene are owned by men. Children and old women can tend to the gardens when the women are busy farming. In all the gardens, except for one of the men's gardens, watering is done by hand with buckets drawn from nearby wells. When the garden crops are harvested lettuce, tomatoes, green beans, carrots, onions, okra, hibiscus, eggplant and peppers can be found in the market. Some of the larger gardens produce enough produce to sell in larger regional markets as well.

Women didn't participate in gardening in such large numbers due largely to superstitious beliefs about what crops and land women could garden. The women who had gardens didn't grow a great diversity of crops; they mostly stuck to onions, and sometimes papayas. When these beliefs disappeared, more land was opened up for women to start gardening and new garden crops slowly became popular.

Collecting Forest Products

Forest products are abundant in Samene and they are an important survival and income generating activity for the people in the community. Shea nuts (*Vitellaria Paradoxa*) are the most valuable forest products in Samene. The fruit around the shea nuts can be eaten, and the nuts can be locally made into soap, oil, or lotion or sold whole to buyers for a nice profit. Collecting shea nuts is principally a women's activity and the soap, oil and lotion that can be made from shea nuts is most beneficial to the women. All women learn to make cook the shea nuts down into cooking oil, but there are only a few older women that know how to make the shea soap. The majorities of women sell some of their nuts and use the rest for cooking oil.

Other forest products collected in Samene include: fuel wood, *saba senegalensis*, wild grapes, baobab leaves, baobab fruits, fruit from the *balantes aegyptiaca*, mangos,, *gomme arabic*, and tamarin. The fruits and leaves supplied by trees provide critical food supplies for families during the lean seasons. Many of the edible forest products like the mangos, wild grapes, shea nuts, and *saba senegalensis* come to fruit in June and July, during the peak of the hunger season. The forest products have an amazing number of uses besides consumption. They provide medicine, soap, fuel, and the basis for many sauces and handicraft activities. Some women sell forest products other than shea in local and regional markets, especially mangos, *saba senegalensis*, and *gomme arabic*. The few men who do collect forest products gather products that provide medicines, animal food, or the basis for handicraft activities.

More intensive human exploitation, declining rains, shrinking forests and overgrazing have reduced the quantity of forest resources available. The old people speak of a time in their youth where they could find whole meals in the forest and survive through the hungry seasons by making use of forest resources. In the past forest products were locally consumed, and nobody even thought about selling them. Today with greater access to information, markets, and technology (like the shea grinding machines) there has been an increased focus on selling forest products.

Migration

Migration has become an essential livelihood activity in Samene. When harvests began to fail, cash needs to buy food, increased. With little money to be made in Samene, people left to find work in the cities. Nearly 80% of all individuals interviewed had some migration experience.

The most frequent migration type, for both men and women, is seasonal migration. Migrants leave Samene around December, after the harvest, and return in June, before planting begins. Although most migrants return every year to farm and consider Samene their home, some male migrants have established homes in Bamako or other cities of Mali and only occasionally visit Samene. All female migrants return every year to help their family's farm. Even when male migrants are living outside Samene, they typically keep strong ties to their household and send money home several times a year. There are a few cases of migrants abandoning their families and severing their connection to the village, but these cases remain rare.

I talked to one elderly man who remembers when his father would walk to the Ivory Coast to buy kola nuts to sell back in Mali, but the first real flow of migrants left Samene in the 1930's to work in Senegal. This migration was spurred by the need for cash to pay the taxes demanded by the colonial French administrators. In the 1970's migration to Cote d'Ivoire became popular, and the majority of men currently age 40-65 years old in Samene spent some time working in the Ivory Coast. These men usually found what they considered to be good jobs in factories, farms or at the port. During this time men are reported to have returned with 400,000 CFA, which was enough to get married, construct homes, and buy the necessary farming inputs. The golden days in the Ivory Coast ended in the mid 1980's, when the country switched to the CFA (dropping the exchange rate) and conflicts dampened employment opportunities. Today there are few migrants who migrate to other West African countries to find work.

Bamako is currently the most popular place for male migrants to find work. Young men may begin to engage in seasonal migration as early as age sixteen, but most don't leave until their early twenties. In Bamako men generally perform low skilled, labor intensive activities including: street sweeping, moving concrete, gardening and pushing carts of goods around the city. For a full day of work a migrant can hope to get 1,500 CFA (2-3 \$USD), but the work isn't always predictable or constant. Dugabugu, near Niono, north of Segou, is another popular destination for male migrants from Samene. In Dugabugu they farm rice and sugar and some men earn as much as 60,000 CFA a month there if they are experienced. Men rely on family or village based networks and connections to find work and a place to live when they arrive in the cities to work. Even with good connections, men often have to spend a considerable sum on housing and food when they are away from Samene.

Unless the migrant is the head of the household, the majority of money they make will be turned over to the head of the household upon their return. Younger men are able to use some of their money to buy a bicycle, radio or new clothing for themselves, but as they enter their early 20's they are expected to give nearly all of the money they earn to the head of the household. Old men in the village point out that this tradition is beginning to unravel and young men are becoming selfish and buying things for themselves and their nuclear families, without showing the proper respect for the head of the household to provide for all the members of the household.

Girls as young as ten years old will seasonally migrate to Segou, while older girls will go to Bamako. Female migration began in large numbers within the last 20 years, and there are still many fathers who forbid their daughters from going. The girls who can leave are not in school, and they are also not married yet. Married women generally do not leave the village unless they are briefly visiting family or going to the Segou market. Working in the city gives young girls the opportunity to learn valuable skills such as: soap making, sewing, fabric dying, or commerce. There are some girls that even attend a literacy school at night when working in Segou. In the past women only left the village to do small trading if there were difficulties in the household or their husbands were sick or deceased. One thing driving female migration is the greater status assigned to their *konyo minen*, or wedding package. A woman used to be able to collect all the bowls, clothing and canneries she needed for her wedding from artisans within the community, for very little money. Today, a lot more money is needed for young women to purchase the urban goods that give their *konyo minen* modern value.

Young women will typically work and live with a family in the city, washing clothes, cooking, caring for the children, or cleaning. There are some young women that also sell fruit, sandals, soap or water in the cities. Women commented that working for themselves selling something is the best type of work, but you must have a good amount of money to start these activities. A group of girls might all go to one of their *djatigis*, hosts, and ask for a loan to start selling goods. Female migrants earn between 5,000-7,500 CFA per month. The girls do not return home with any money and they are not expected to give their money to their fathers, unlike young men. Girls spend their money either on clothing, sandals, jewelry, makeup for themselves or buy pots and other household goods for their *konyo minen*.

Migration is in a large part driven by the annual food security of the household. A common refrain is: "Ni geleya te, n te taa." If there are no difficulties I will not go. After poor harvests,

when it is clear that additional money will be needed to buy food, more people from the household leave the village to find work in the cities. In a good farming year, income earned during migration might buy livestock, clothing or a motorcycle, but in a bad year it is all spent on food for the household.

Service sector activities

The service sector includes a great diversity of activities. The services range from calabash repair and hair braiding to traditional medicine and agro-processing. These services are an integral part of keeping the village functioning. Most all of these activities, and especially the high return service sector activities, are performed by men. Hair braiding, midwifery, repairing cooking bowls, and small scale agro-processing are some of the lower return services that women provide.

The service sector activities typically require specific skills and special tools or equipment. The government service workers at the schools, health care clinics, and mayor's office are well educated and receive a monthly salary, but the majority of government workers in these facilities, including all the teachers, are not from Samene.

Many of the services like phone booths, millet grinders and motorcycle repair are essentially small, self owned businesses, which operate on a pay per service system. Otherwise, men may be paid as daily laborers to do activities such as house construction or well digging. In this case, the activities would be categorized as nonfarm wage activities. The daily wage laborers are typically paid 1,000-1,500 CFA per day, and most need to seek a different employer every couple days when the specific task is complete.

Commerce

There are an amazing variety of commercial ventures in Samene. The majority of commercial activities consist of women selling small amounts of processed or unprocessed foods "door to door" or in the market place. Fresh fruit, fried millet balls, rice and sauce, cassava and bean fritters are some of the more popular food items sold in the market. Except for a few women who sell larger quantities of rice and sauce daily in the market, most women sell a small amount of food products once or twice a week in local markets.

The majority of commercial activity takes place inside the village for women, although there are some women that sell their food products in Segou or other regional markets. Besides food, a few women also sell fabric, clothing, jewelry, and medicines from bowls on their heads. *Jagoke*, or commerce is a highly coveted activity for women, but one that is difficult for them to enter because of the initial capital that is necessary to begin these slightly higher return commercial activities.

There are far fewer men engaged in commercial activities than women, although the high return commercial activities are dominated by men. Men do not sell food products. The men that sell goods in the market sell cooking bowls, farming tools, knives, jewelry, medicine, sandals, or

clothing. Commerce in livestock and field grains are two of the highest return activities that men are concentrated in.

Commerce, for both men and women may also be linked to farming, handicrafts and animal raising. There are a lot of women who sell small amounts of peanuts or millet to buy necessary household items and a few women even buy local grains and sell them for higher prices in larger markets. Commerce in livestock is an important livelihood activity for a few households in Samene as well. Some families have as many as 75 cattle and as many sheep and goats that they raise locally and sell in Senegal or the Ivory Coast for handsome profits. Men are able to make similar profits buying millet, peanuts, shea nuts, and beans locally and selling them in outside markets.

In the past, around fifty years ago, men would sell kola nuts, salt, cotton, calabash, traditional woven clothing, peanuts, straw mats and some chickens. Women sold yams, cotton, onions, and shea oil. A few women would walk to Segou to sell small things to buy wedding clothes. Overall though, market orientation was very low and most goods were used to provide for a household's subsistence. The older women told me they didn't even think of selling the goods that are sold today. '*Sisan, fenw bee be feere,*' today everything is sold, one woman said with a mixture of pleasure and contempt.

Handicrafts

Although handicrafts in Samene are not as necessary as they once were, due to the improved access to modern substitutes, handicrafts are still important for many individuals, and especially old people. Handicraft activities are more prolific during the hot season, when farming activity declines and the heat prevents more strenuous activities.

Traditionally, spinning cotton was a very important livelihood activity for women. Today a few older women still spin cotton and then pass it to the male weavers who make the traditional white cotton fabrics that are still worn by brides and older people. Mat weaving, rope making and net tying are other popular activities for old men. Women engage in embroidery, cloth dying, pottery and jewelry making. These goods are generally given as gifts or sold in Samene or local markets for small amounts of money.

Hunting

Hunters are a well respected group in the society. Wild game was once an important food source, especially during the hungry season. Although there is little game to be hunted in the region any more, hunting is an important part of the local culture. There are around one hundred hunters in Samene that are part of hunter's organization with strong political leverage. Hunters also patrol the village at night to prevent robbery or attack.

Fishing

Located only five km. From the Bani river (a branch of the Niger), many people in the community participate in fishing activities. There are over ten other natural or manmade ponds

located around Samene that are used by the village for fishing. Fish are an important supplement to the local diet and are used frequently to enhance the taste of base sauces.

During the primary fishing season in April and May, a number of fishing festivals occur and nearly every household has at least a few members attend. Both men, women and children participate. Although these fishing festivals are popular, only a small percentage of individuals fish more than a few times a year and list fishing as one of their livelihood activities. The amount of fish available has been decreasing continuously and now fresh fish are a rare treat, when in the past they supplemented most main dishes.

Community Service

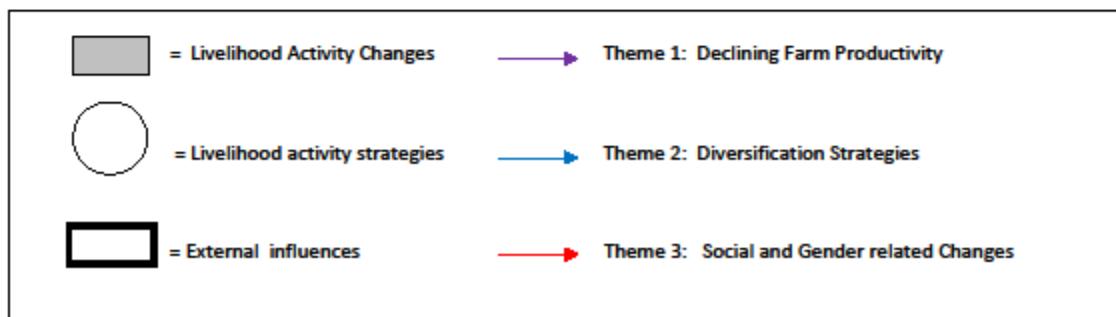
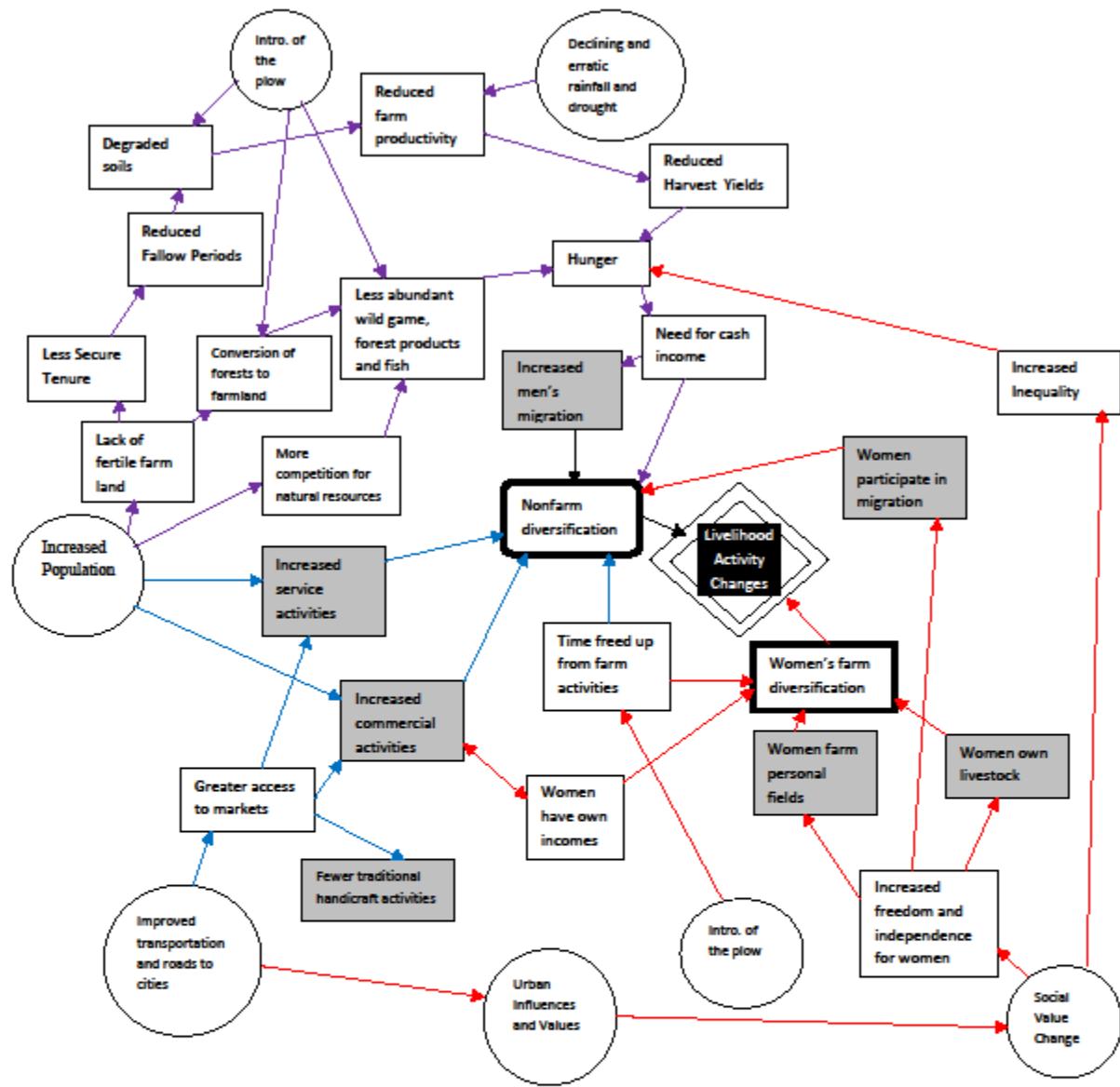
Community service activities include helping construct community infrastructure, volunteering at the health clinic, religious services, leading community groups, and teaching adult education or Koranic school. These activities are usually performed for free, although gifts are often given in exchange for help or services. Men are more likely to participate in community services than women.

Livelihood Changes and Trends

Livelihoods are dynamic, and adapt and change under the influence of a variety of demographic, climatic, technological, social, market and political factors. The livelihood changes diagram below depicts some of the major livelihood changes and trends that have occurred in Samene over the last 30-40 years. Many of the changes in specific livelihood activities were discussed in the previous section. The information for this section was collected primarily through a series of focus group discussions with elderly people in the village.

Chains of causal factors can be traced from the outside external factors towards the center to understand how the livelihood activity changes came into being. The chains themselves are interrelated, and a single nexus like hunger may have many causes and effects. The arrows are color coded to correspond with the three themes discussed below.

Figure 3: Diagram of Livelihood Changes in Samene in the last 30-40 years



Declining Farm Productivity (Purple Arrows)

One of the most prominent trends throughout developing countries is a lack of productive farmland due to a rapidly increasing population. In Samene there is little fertile land (that can be farmed without significant fertilizer inputs) available to meet the demands of the growing population. This situation has made tenure less secure and forced farmers to plow and plant the same piece of land every year.

In the past fields were allowed to fallow for 7-10 years, with secure field tenure, but today if a field is left to fallow it will be given to someone else because of the scarcity and competition for land. The lack of an adequate fallow period, along with the introduction of the plow has depleted soils, and as a result yields are much lower today than they were in the past. The men's group agreed that the yield of one hectare of millet 30 years ago is equal to the yield from three hectares today.

Another significant factor contributing to reduced crop yields are the declining and irregular nature of the rains since the early 1970's, along with frequent natural disasters (droughts, flooding and locust invasions). Rainfall used to be more consistent and the older men remember the rains beginning in late May and lasting four months, but today farmers are lucky to get three months of erratic rainfall.

In the past subsistence farming supported the community of Samene. "Since anyone can remember until thirty years ago there was enough food for everyone to eat," remembers Soulemane Djarra. In the last five years only ten families out of the 120 surveyed were able to provide enough food from their own fields to feed their families for all five years. The great majority of households run out of their staple crops with three to six months until the next harvest. The harvest of 2007 was cited as the worst in 30 years and during this year some families ran out of grain eight months before the next harvest.

The food security challenge has been compounded by diminishing forest products, wild game, and fish. These foods were once sufficient to see the village through the lean times before the next harvest. The growing population of Samene has led to increased competition for natural resources and forest land is often cleared to make space for new fields.

Food insecurity has compelled people to find new ways of seeking cash income to buy food. Cash income has become an essential part of livelihoods-it is needed not only to buy food, but also to pay for taxes, health care, clothing and education.

Diversification Strategies (Blue Arrows)

Activity diversification, and especially migration, has become the primary strategy adopted by households in Samene to meet cash income demands. Nonfarm activities are attractive because they are not threatened by the lack of rain, land, and other risk factors that threaten farmers.

Migration has become a critical livelihood activity for both men and women. Men's migration increased since the food deficits began, and also when the good jobs to be found in Abidjan dried

up. Losing these well paying, generally secure jobs in Abidjan forced more men to undertake menial work in Bamako.

Services and commerce related activities have also grown in Samene, facilitated by increasing access to markets and a greater local demand. However, local handicraft activities such as cotton spinning and pottery have, in many cases, declined because their products are easily replaced by cheap urban goods.

Social and Gender related Changes (Red Arrows)

Social values in the village have changed remarkably over the last couple decades. The narrowing of the rural/urban divide due to improved transportation, road systems, and increased migration has brought many urban influences into the village. Both old men and old women notice an increased sense of individualism and a lack of cooperation in the village, especially with younger generation.

Inequality in the village has increased while social support systems have declined. In the past, nobody went hungry and the rich were defined by those people that were most willing to help out others. A communal ethic and support system ensured that nobody went hungry. This consistent theme of a past where people helped each other and there was enough food to go around was reiterated by both the old men and old women. In current times, the rich are not as likely to share what they have and many households face a long hunger season.

Changing social values have given women more freedom and independence to pursue their own livelihoods than they had in the past. Women now own their own livestock, participate in migration, and farm personal fields-activities they were not involved in thirty years ago. Women's involvement in commercial activities has also greatly increased. The concept of women having their own incomes is also a recent development.

It is unclear exactly why women started farming their own fields, but it could reflect a greater burden of food security falling on their shoulders, and/or the increased free labor time women have since the introduction of the plow. During successful farm years, women are able to sell some of their crops and this extra income, along with a greater ability to control their own incomes, is what first allowed women to start buying livestock for themselves.

Another congruent development has been the rise of women's organizations focused on credit and income earning activities. Women's organizations today are more formalized and targeted to specific goals than the looser social and aid organizations of the past. The income or credit that women's groups have been able to generate for their members has enabled many more women to get involved in commercial activities and livestock raising.

Chapter 8: Livelihood Activities Portfolios of Men and Women in Samene

This chapter begins with a look at household activity portfolios, to gain an understanding of how the individual livelihood activities fit within the larger household strategies. Then the activity portfolios of men and women are compared, with a particular focus on the returns associated with the different activities. The chapter concludes with a summary of the relevant findings and a look at how they fit with the existing literature.

Household Activity Portfolios in Samene

Table 9: The Importance Attributed to Each Livelihood Activity by Household

(1=Household's most important livelihood activity, 10=Household's least important livelihood activity)

	1	2	3	4	5	6	7	8	9	10	% of Household's active in each sector
Farming	96.7	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Forest Products	0.0	1.7	12.4	30.6	33.1	13.2	3.3	2.5	0.0	0.0	96.7
Livestock Raising	0.0	33.9	29.8	8.3	11.6	5.8	2.5	0.0	0.0	0.0	91.7
Migration*	0.0	45.5	24.8	12.4	5.8	0.8	0.8	0.0	0.0	0.0	90.1
Gardening	0.0	4.1	9.9	28.9	17.4	12.4	3.3	2.5	0.0	0.0	78.5
Commerce	0.0	6.6	6.6	10.7	10.7	16.5	5.8	0.0	0.0	0.0	57.0
Service Sector	3.3	5.0	9.1	4.1	2.5	3.3	0.8	0.8	0.0	0.0	28.9
Handicrafts	0.0	0.8	1.7	0.0	2.5	3.3	7.4	0.0	1.7	0.0	17.4
Farm Wage	0.0	0.8	0.0	1.7	2.5	4.1	5.0	0.8	0.0	0.0	14.9
Non Farm Wage	0.0	0.0	2.5	1.7	5.0	0.8	0.8	0.0	0.0	0.0	10.7
Fishing	0.0	0.0	0.0	0.0	1.7	0.8	2.5	1.7	0.8	0.0	7.4
Community Service	0.0	0.0	0.8	0.8	0.0	1.7	1.7	0.0	0.8	0.0	5.8
Percentage of Households	100.0	100.0	99.2	99.2	92.6	62.8	33.9	8.3	3.3	0.0	

Note: Shaded activities indicate nonfarm activities

* In the household surveys the type of migration (farm vs. nonfarm) was not specified. Migration is considered a nonfarm activity in the household surveys.

Farm activities

In Samene everyone is a farmer, and farming is the most important livelihood activity for nearly every household. More than 90% of households also raise livestock and collect forest products. Livestock raising is the second most important farm activity for households. Although gathering forest products is also taken up by all but a few households, less than 15% of households include it in their top three livelihood activities. For most households it is their 4th or 5th most important livelihood activity. Gardening is the fourth farming activity that more than 75% of the households in Samene participate in. The importance of gardening as a livelihood activity varies

widely between households. 15% of the households surveyed have at least one member working for a farm wage in the village. The final farm activity mentioned is fishing, which fewer than 10% of households consider a livelihood activity.

Nonfarm activities

Nonfarm activities have become increasingly critical to fill household crop production deficits. Migration is the second most important livelihood activity for households in Samene and the most important nonfarm activity. 90% of the households interviewed had at least one household member engaged in seasonal migration. During times of difficulty the number of migrants increases.

57% of households find work in commerce, and 28% are engaged in the service sector. For these two activities their importance to the household livelihood strategy varies considerably. Four of the 121 households surveyed listed service sector activities as their most important livelihood activity.

Handicrafts engage 17% of households, but they are generally not considered very important compared to other livelihood activities. 11% of households have at least one member who works for a nonfarm wage in the village. The final nonfarm activity included in the survey is community service which has the lowest household participation rate.

Seasonality

Life in Samene is highly dependent on the seasons. The seasons dictate the types of livelihood activities people are engaged in, their work load, and the amount of food and cash available. Table 10 summarizes the seasonal livelihood activities and draws the important distinction between the activities of the men compared to those of the women.

Table 10: Seasonal Activity Calendar

	Fonene Waati (December-February)	Tilema Waati (March-May)	Samiya Waati (June-August)	Kawale Waati (September-November)
Men's Livelihood Activities	Harvest and store field crops Wood Gathering Migration	House repair Field Preparation Fertilize fields Fishing Collect animal feed Handicrafts Migration	Plowing, planting and weeding fields Herding animals Migrants return	Start harvesting (Nov) Plant watermelon, squash and calabash Herding animals
Men's Work load	Heavy	Light	Heavy	Medium
Women's Livelihood Activities	Harvest field crops Sift and pound millet and sorghum Migration Gardening Wood gathering Process peanuts and shea nuts Sell shea nuts	Wood gathering Field Preparation Fertilize fields Collect animal feed Spin cotton Handicrafts Migration Small commerce Water gardens Collect forest products	Plowing, planting and weeding fields Small gardening Migrants return Light gardening Collecting shea nuts and other forest products	Start harvesting (Nov) Plant watermelon, squash and calabash Collect baobab leaves
Women's Work load	Heavy	Medium	Heavy	Medium

Livelihood Activities are not only determined by the seasons and gender, they are also related to a person's age. As men and women move through different phases of their life, their livelihood activities change. Table 11, shown below, outlines these changes by age categories. This table is oriented around men's and women's daily activities and includes more of the reproductive domestic activities that occupy a great deal of time, especially for women.

Table 11: Men's and Women's Activities by Age groups

Women's Activities	Men's Activities
Age 5-11 Take care of younger siblings Help mothers with housework Help pound millet Fetch water Collect forest products May attend school May help sell edible foods in market	Age 5-11 Herd animals Help prepare, plant, weed, and harvest field crops Watch over fields May attend school May take care of younger siblings
Age 12-Marriage (generally 14-19) Collect forest products Watch younger siblings Assist with cooking Clean house, wash dishes, do laundry Pound millet Help plant, weed and harvest fields Sift millet and sorghum when harvested May seasonally migrate May help sell edible goods in the market May help water garden	Age 12-20 Herd animals Help prepare, plant, weed and harvest field crops May attend school Help with house repair/construction
Marriage-Age 50 Raise children Farm own field Help plant and harvest household fields Pound millet Cook for family Clean compound Fetch water Collect forest products May raise some livestock May participate in gardening May do small service, commerce, or handicraft activities May process shea nut	Age 20-Age 50 House repair and construction Prepare, plant, weed and harvest field crops Seasonally migrate to the cities May raise animals or participate in service or commerce activities
Age 51-65 All of the above with less time spent raising children	Age 51-65 All of the above with more time spent attending to village affairs and less time in the fields
Age 66 and older Supervise grandchildren Handicraft Activities Gardening Activities	Age 66 and older Handicraft Activities Attending to village affairs

Looking at the basic activities for men and women in different times of their lives, it is clear that women have more reproductive and household responsibilities than men. The primary domestic responsibility assigned to men is to construct the huts and “remud” them seasonally. The reproductive activities women are responsible for, such as cleaning, cooking, caring for the children, and pounding millet are not accounted for in the livelihood index. These domestic responsibilities, combined with farming chores, often keep women busy from sunrise until everyone else has fallen asleep at night. Unfortunately, the livelihood framework presented here does not give women the credit they deserve for the unpaid reproductive activities they perform in the household. Nearly every woman from the age of 5-50 is performing domestic duties on top of their other livelihood activities. This fact must be kept in mind when comparing the differences in livelihood activities between men and women.

Table 12: Number of Livelihood Activities Men and Women participate in

	Mean Number of Activities	0-1 Activities	2 Activities	3 Activities	4 Activities	5 or more Activities
Men	2.29	12.8%	51.2%	29.1%	4.7%	2.3%
Women	3.79	3.7	3.7	33.3	35.8	23.5
Men age 15-25 years	2.43	0	57.1	42.9	0	0
Men age 26-50 years	2.47	4.7	58.1	27.9	4.7	4.7
Men age 51-65 years	2.5	6.3	50	31.3	12.5	0
Men age 66 and older	1.31	61.5	23.1	15.4	0	0
Women age 15-25 years	3.7	0	0	40	50	10
Women age 26-50 years	3.92	0	2	36.7	38.8	22.4
Women age 51-65 years	4.21	0	7.1	21.4	28.6	42.9
Women age 66 and older	2.38	37.5	12.5	25	12.5	12.5

Even when their domestic activities are not included, women, on average, are involved in more livelihood activities than men. Almost 60% of women are involved in more than four activities, and the same is true for only 7% of men. Throughout the year women are busy with different activities, whereas men often have little to do during the nonfarm season if they do not migrate to the cities to find work.

Both men and women are slightly more active in terms of livelihood activities from the ages 51-65, than from the ages of 26-50. For women, not having small children to take care of in her later years opens up her time to engage in more activities. By the age of 50 men are also typically done migrating during the nonfarm seasons and looking to diversify their economic activities closer to home. The number of livelihood activities for both men and women declines markedly after age 65.

Table 13: Men's and Women's Involvement in Nonfarm Activities

	Mean # Nonfarm Activities	% of total Livelihood Activities that are Nonfarm	0 Nonfarm Activities	1 Nonfarm Activities	2 Non Farm Activities	3 or more Nonfarm Activities
Men	0.87	38%	32.6%	50%	14%	3.5%
Women	0.78	21	34.6	54.3	9.9	1.2
Men age 15-25 years	0.86	35	28.6	50	21.4	0
Men age 26-50 years	1.02	41	23.3	58.1	11.6	7
Men age 51-65 years	0.75	30	43.8	37.5	18.8	0
Men age 66 and greater	0.54	41	53.8	38.5	7.7	0
Women age 15-25 years	1.1	30	10	70	20	0
Women age 26-50 years	0.71	18	40.8	49	8.2	2
Women age 51-65	0.71	17	35.7	57.1	7.1	0
Women age 66 and greater	0.88	37	25	62.5	12.5	0

As shown in Table 13, men participate in slightly more nonfarm activities than women, but they derive a much higher percentage of their livelihood activities from nonfarm activities, than women do because they are involved in fewer total livelihood activities. Men between the ages of 26-50 are the group most involved in nonfarming activities.

Table 14: Livelihood Activity Participation for Men and Women

	% of Men Participating	% of Women Participating
Farming	93%	87%
Livestock Raising	35%	43%
Migration Nonfarm work	22%	6%
Migration Farm work	8%	0%
Forest Products	0%	95%
Gardening	4%	53%
Commerce	12%	41%
Service Sector	21%	6%
Farm Wage	1%	10%
Non Farm Wage	8%	4%
Handicrafts	7%	18%
Fishing	5%	1%
Community Service	12%	1%

Except for farming, involvement in most livelihood activities differs significantly by gender. Collecting forest products is the most popular livelihood activity for women, followed by farming and gardening. For men, farming is by far the most common activity. Livestock raising, migration in nonfarm work and the service sector are the other three livelihood activities that involve at least 20% of the men.

High vs. Low Return Activities

There are many ways to classify livelihood activities. The division between nonfarm and farm activities has already been commented on. One of the other significant distinctions to be made between livelihood activities concerns their level of returns (Foeken 1992; Gladwin 2001; Hart 1994; Lanjouw 2007).

The lists in Table 15 are intended to present a general picture of the activities and their returns in Samene, but many of the activities could be considered a high or low return activity depending on the scale of the activity. For example, farming and migration are listed under all three of the different return categories. Some individuals generate a lot of income from farming, while for others farming is purely a subsistence activity. The returns from migration similarly vary from 5,000 CFA/month for cooking and cleaning for a family to more than 80,000 CFA/Month for a working as an accountant at a store.

Table 15: Low, Medium and High Return Activities in Samene

Low Return Activities	Medium Return Activities	High Return Activities
Farming	Farming	Farming
Gardening	Gardening	Gardening
Livestock Raising	Livestock Raising	Livestock Raising
Migration	Migration	Migration
Collecting forest products	Collecting Forest Products	Transportation Services
Hair braiding	Carpentry	Agro Processing
Selling fruit or other foods	Bicycle/motorcycle Repair	Running a small store
Fixing sandals	Tailoring	Operating a phone booth
Spinning cotton	Traditional Doctor	Government jobs
Making rope	Midwifery	Working with NGOs
Repairing calabash gourds	Koranic school teacher	
Praise Singing	House Construction	
Fishing	Day Laborer in Samene	
Hunting	Well digging	
Electronic Repair	Fortune telling	
Weaving	Hair cutting	
Farm Laborer in Samene	Veterinarian Services	

Classifying High vs. Low return activities

Measuring income returns from the different livelihood activities was one of the most difficult parts of this research. I knew that it was going to be problematic to ask about annual incomes because of the subsistence orientation of the village, income variability and seasonality, a lack of record keeping, and the “hand to mouth” way of living in Samene. In addition, cultural norms call for reticence and modesty when talking about income.

With this understanding I created a scale that corresponds to the language typically used in the village to describe income. When asked about how much income they make from a particular activity, people will respond: None, very little, a little, some, a lot, the most. I translated these descriptive terms into a scale from 0-5 that provides an estimate of the income generation from the various livelihood activities.

Scale of Income Generation from Livelihood Activities



Using this scale I attempted to calculate the incomes of the different activities. I was surprised to find that the average women was making significantly more income from her activities than the average man, until I realized I had an additive problem with my method for estimating income. For example, if a woman was involved in five low return activities, her activities would add up to between five and ten points on the scale, when she was probably earning an annual income less than 30,000 FCFA. A man involved in selling a lot of cattle and running a millet grinding machine would have around an eight on the scale, but be making more than 150,000 FCFA per year. Because women are involved in more activities than men their returns totals, as calculated by the scale, were consistently higher than men's, even though their total incomes were often not near as high as men's.

The data collected using this method can also not be used to estimate differences in returns between activities because the numbers on the scale are not assigned to specific amounts of money. Therefore, a ‘four’ achieved by running a small store and a ‘four’ achieved by selling mangoes do not represent even close to the same amount of income.

Without any way to go back and get the data I needed to more effectively estimate income differences, I have found that the scale system can be useful in looking at the different returns for men and women *within* a single activity. This data is presented in Table 16.

Table 16: Average Returns per Activity for Men and Women

	Average Return for Men	Average Return for Women
Farming	1.1	1.5
Livestock Raising	2.5	1.5
Migration	3.2	1.2
Forest Products	0*	2.1
Gardening	3.0	1.7*
Commerce	3.5	1.9
Service Sector	3.4	1.6
Farm Wage	2.0	1.3
Non Farm Wage	2.3	1.3
Handicrafts	1.7	1.5*
Fishing	1.7	1.0*
Community Service	0	1.0*

Note: Returns are calculated using the five point scale discussed above

*Indicates a livelihood activity where less than 5% of the gender category is involved in (i.e. sample size is too small to draw meaningful conclusions from)

Table 16 shows that except for farming, for every activity both men and women are involved in, men, on average, earn more than women. This is true because very few men sell food crops or have personal fields, compared to women. The activities with the greatest disparities between the returns men and women earn are migration and the service sector.

While women are more active in the farming sector (measured by activity participation rates) men earn more within individual farm activities: livestock raising, gardening, nonfarm wage, handicrafts and fishing, than women. Men are not involved in collecting forest products, the activity that involves the greatest number of women and has the highest returns for them, so returns cannot be fairly compared in this activity

Table 17: Percentage of Men and Women Involved in Low and High Return Activities for the Major Activity Sectors both Men and Women are Involved in

	Low Return*	High Return*
Farming		
Men	90%	10%
Women	96%	4%
Livestock		
Men	53%	47%
Women	91%	9%
Migration		
Men	27%	73%
Women	100%	0%
Service		
Men	17%	83%
Women	80%	20%
Commercial		
Men	11%	89%
Women	82%	18%

* Low return activities indicate activities that received a 0-2 on the scale. High return activities indicate activities that received a 3-5 on the scale.

Table 17 is significant because it shows that men and women earn very different incomes participating in the same activity categories. The differences in returns are significant in all activity categories except for farming. 80-90% of women earn low returns from each activity, and only a small minority of women earns high returns in any of their activities. For men, the converse of this trend is observed. Most men earn high returns from their activities, in all categories except for farming and livestock, and in both cases they are still more likely to earn high returns in these activities than women.

To help explain these findings let's take a closer look at the commercial activity category. 42% of women participate in this activity but more than 80% of them earn low returns. Women mostly sell small amounts of processed foods, forest products or garden products. Only 10% of men participate in commercial activities but almost 90% of them earn high returns from their commercial endeavors. Men are likely selling livestock or large quantities of crops. This data demonstrates the need to disaggregate the different types of activities and returns on activities men and women are involved in within each activity category.

Summary of Relevant Findings

Women

- Women are involved in more total activities than men
- Women are likely to diversify into farming activities.
- Most of women's activities have low entry barriers and rely on natural resources.

- 80-90% of women earn low returns from each activity category.

Men

- Men are involved in fewer total activities than women.
- Men are involved in more nonfarm activities than women.
- Besides farming, men tend to be concentrated in higher return activities.
- In all activity categories except for farming men earn more per activity than women.

In General

- With the exception of farming there is a high gender division in the livelihood activity categories.
- It is important to look closely at the specific types of activities men and women are involved in within each sector and the returns generated by these activities.

Although there is little research that notes the differences in how men and women structure their livelihood portfolios, my findings are generally consistent with the literature that exists. The studies show that women tend to be concentrated in low return farm activities and that they are less likely to participate in nonfarm activities than men (Ellis 2000; Gladwin 2001; Haggblade 2007; Sardier 2003). There is little data from rural areas that can back up this claim however, and my quantitative data makes a small contribution towards this end.

It is important to examine not only the number of activities men and women are involved in, but also the specific types of activities and the returns from these activities (Foeken 1992; Hart 1994; Lanjouw 2007; Gladwin 2001). Due to the time commitments necessary to break down the activity sectors into specific livelihood activities, it is rare for studies to draw attention to the differences within livelihood sectors. My data can fill this lacuna and also provide estimates on returns per activities that are also largely absent from research studies.

A unique finding from my data, points to a high level of diversification within the farm sector for women. When diversification is considered to be strictly nonfarm activities, on-farm diversification is discounted, and women appear to be only minimally involved in activity diversification. This is the finding of Ellis (2000), Haggblade (2007) and others. My data shows that women are in fact more active in activity diversification than men (measured by total number of activities). Within the farm sector there are many activities that women are highly active in including: farming personal fields, collecting forest products, gardening, and livestock raising. My research findings draw attention to the need to better understand how women use on-farm diversification strategies to mitigate risks and improve livelihood security

Chapter 9: Men's and Women's Assets in Samene

In this chapter the five asset categories will be considered for the men and women in Samene. The most relevant asset variables were chosen from the surveys for each asset category. The selection process was based on the quality of the data for each variable and their relevance to the specific asset categories. Variables were dropped if they were not expected to influence livelihood activities.

This section merely presents the asset portfolios of men and women and does not yet attempt to analyze the effect of different assets on livelihood activities. The variables chosen are described, analyzed and discussed below. The analysis uses the available survey data to highlight the differences in men's and women's assets.² The chapter concludes with a community asset ranking exercise to better understand the assets that the men and women in Samene consider to be the most important to their success.

Human Assets

- Gender
- Age
- Position in the Household
- Education Level
- Migration Experience
- Special Skills

Human assets are the characteristics of individuals. These include the ascribed characteristics of gender, age, and position in the household, as well as acquired assets like education, migration experience and skills. The effects of gender, age, and position in the household on livelihood activities are discussed in greater detail in chapters seven and ten and in this chapter they will be used to compare asset distribution. These prescribed traits mean little when they are analyzed independently, and their effect on dependent variables is not shown.

² The data is taken from the individual surveys. The individual surveys were administered to both the male and female household heads as well as at least two other individuals in each household. Therefore the survey contains a greater proportion of household heads than would be found in a random sample. Because household heads typically have the greatest assets in the household the assets status of both men and women are likely to be higher than average, when they are not disaggregated by position in the household.

Education Level

Table 18: Percentage of Men and Women who have achieved each level of Education*

Number of Years	Men	Women
0	37.9%	86.4%
1-3	12.6%	4.9%
4-6	28.7%	7.4%
More than 6	20.7%	1.2%

*Includes both government schools and Koranic schools

Education has been recognized to be one of the key human assets all over the world. The people of Samene, however, are generally poorly educated and do not place a high value on getting a good education. 86% of the women surveyed, had no formal or Koranic schooling. The same is true for 38% of the men surveyed.

One-fifth of the men surveyed attended government or Koranic school for more than six years, although only 8% of men attended formal school past the 6th grade. A single woman in the survey attended school past 6th grade, and she was pulled out of school after 7th grade. When averages are compared, males spend more than six times the number of years in school than females.

Some children attend Koranic school every day, but most attend Koranic school during the weekends, so that it is possible for them to attend both the government schools and Koranic schools. Typically children attend Koranic school for a shorter duration than government schools.

The table below shows the percentage of men and women who are able to at least write their names. Considering the large number of children who attend school for only a couple years, before they are 10 years old, the ability to presently write their names, may be a greater indicator of education level than the number of years of schooling. Half of men can write their names, compared to only 10% of women.

Table 19: Percentage of Men and Women who are able to Write their Names

	Men	Women
Are able to write their name	50%	10%
Are not able to write their name	50%	90%

For all survey participants, there is only one woman with no formal or Koranic education that can write her name. It was discovered that this woman attended adult literacy classes in Samene over the two years they were offered. No women with between one and three years of education can presently write their names. Young boys and girls are often put in school for just a couple years by their parents to avoid taxes or to keep them occupied during the day, with no intention of allowing them to pursue education at a higher level. Their attendance is often poor, because

they are pulled out of school whenever the household needs extra labor. 30% of men educated up to third grade could write their names, which indicates that the experience of school for young boys, might be different than the experience for young girls. Girls are more likely to be repeatedly pulled out of school and less likely to be given school supplies and encouraged by family members and teachers. For both men and women educated past 3rd grade, nearly everyone could write their names.

The school director, Baba Berthe estimates that around 20% of boys and 5% of girls in the village are in school. In the 9th grade there are sixty two students and eight are girls. Thirty ninth grade students passed the final exam (allowing them to move to 10th grade) and only one was a girl (Pers. Comm. Baba Berthe).

The adult literacy rate is also very low. It is estimated that the adult literacy rate is around 2%. Fewer than one hundred people in Samene have more than a 9th grade education and many of these people no longer reside in Samene.

The value households place on education varies considerably. In many households there are no children in school and in others every boy and girl attends school every day. The number of children in school is generally based on the attitude of the male head of the household towards education and the farm labor available in the household. Many household heads still see education as a waste of time, or corrupting to women.

Migration Experience

Migration has become an essential livelihood activity in Samene. When harvests began to fail, cash needs for food increased. With little money to be made in Samene, people left to find work in the cities. Nearly 80% of all individuals interviewed had some migration experience. Women make up 80% of the group that has never migrated. The median number of years of migration for men is seven, and for women three.

Table 20: Percentage of Men and Women who have Participated in Migration

	Men	Women	Total
Has not migrated	8%	34.6%	20.8%
1-5 Yrs.	33.3%	42%	37.5%
6-10 Yrs.	34.5%	23.5%	29.2%
More than 10 Yrs.	24.1%	0%	12.5%

Table 21 shows that the number of years a woman has migrated is inversely related to her age. Women first started participating in migration roughly 40 years ago, and their work was often based in nearby villages and towns. In the last twenty years migration became much more common and urban for women. No women over 65 participated in migration, but more than a third of women aged 51-65 did. These percentages continue to increase in the younger age groups. 90% of women aged 15-25 years old participate in migration. In this roughly 40 year span, women's migration went from nonexistent to ubiquitous.

Table 21: Number of Years of Migration by Age and Gender

Age Categories	Gender	0 Years	1-5 Years	6-10 years	More than 10 Years
Age 15-25	Men	7%	93%	0%	0%
	Women	10%	60%	30%	0%
Age 26-50	Men	7%	30%	37%	26%
	Women	20%	47%	33%	0%
Age 51-65	Men	6%	6%	56%	31%
	Women	64%	36%	0%	0%
Age 65 and older	Men	15%	15%	32%	39%
	Women	100%	0%	0%	0%

While men's migration numbers haven't changed very much³ over the last 40 years, the type of migration and location of their work has. All the men and women surveyed between fifteen and twenty five years old work in Mali. Most of the men flock to Bamako. In the second age category (26-50 years) only half of the men worked in cities in Mali. The majority found work in the Ivory Coast. The percentage of men who worked in the Ivory Coast increases with the age of the respondent. More than 80% of men older than fifty spent some time working in the Ivory Coast.

Women either migrate to Segou or Bamako, except in two cases where women were temporarily living with their families outside of Mali. More than 90% of female migrants find work in domestic positions where they wash, cook, clean and take care of the children for wealthier urban families. Two women work for themselves in the city selling water bags and fabric, and another two women found steady work on a farm in Niono. One women interviewed had no steady employment and did small activities for different households every day.

The men are involved in a greater diversity of migration activities than women. The type of work men find is highly related to the location of their migration work. More than 80% of the men who worked in the Ivory Coast found steady, well paying employment. Many of them worked at the port loading ships and others had higher skilled jobs like taking inventory, painting houses or working as mechanics. These jobs were secure and available year after year. Since 1985 these types are opportunities are difficult to find in the Ivory Coast.

The next generation, has for the most part, worked in Bamako. The migrants in Bamako typically find unsteady, minimally paid, hard labor-type of jobs, like moving sacks of concrete or loading trucks. 20% of male migrants that work in Mali, are employed on the sugar and rice farms in Dugabugu (a town served by the *Office de Niger* irrigation system, near Niono). This work is generally steady and more remunerative than work found in Bamako. Another 20% of migrants working in Mali found relatively stable work in Bamako sweeping streets, guarding houses, or working in gardens. The list of activities male migrants are involved in within Mali is

³ Younger men cannot be compared in the column representing migration work for more than 10 years because they are often currently still working as migrants and have not had time to achieve this status.

completed by educational pursuits and skilled activities like weaving, tailoring, painting, and mechanical repair. The eight men who were working in other West African Countries (Nigeria, Benin, Togo, Senegal and Niger) were involved in either skilled activities or self-employed, usually in commerce.

Migration is an asset, not only because of the income it provides, but also because of the skills and experience that can be obtained by working outside the village. Some of these skills are discussed in the following section. The experience of migration exposes young people to urban values and ideas. One woman had this antidote to offer, "I didn't know so many girls went to school. I saw lots of girls with nice clean clothes going to school, and I wanted to go too." In the cities girls come into contact with educated women, who have jobs and ride motorcycles to work in jeans.

Skills

While the population of Samene is not very educated, both men and women are highly skilled and knowledgeable in their particular livelihood activities. Special skills such as: driving, blacksmithing, tailoring and soap making give individuals the opportunity to enter more lucrative activities. Skills may be passed on through the family, learned in an organization, or acquired during migration.

Working outside the village is a prime time for individuals to acquire new skills. Women might be taught cloth dying, soap making, tailoring, embroidery, commerce or new cooking techniques by their patrons. Skills such as shea processing to make oil and soap, commerce, gardening, midwifery, and fabric dying are likely to be passed down in the family from mothers to daughters. Skills that might be learned in a women's group include: gardening, commerce, and shea nut processing.

Men could learn carpentry, blacksmithing, machine repair, painting, well construction, tailoring, commerce, accounting and gardening through their migration work. Most of the older men who worked for a few years in the Ivory Coast understand basic French as well. Special skills such as collecting medicinal plants, blacksmithing, commerce, hunting and fishing are passed on within the family. Blacksmithing in particular is a casted activity reserved for a particular group of people.

Basic farming and animal raising skills are nearly universal in Samene. Children begin learning about these activities when they can walk, and grow more knowledgeable through experience. Girls start learning the domestic skills of cooking, cleaning and caring for children before they are five years.

Physical Assets

- Farming Equipment: Number of plows and carts
- Transportation: Number of bicycles, motorcycles, and cars
- Capital Investments: Work truck, store, and phone booth.

- Livelihood Tools: grain grinders, welding equipment, blacksmith tools, generators, sewing machines, solar panels and pumps.

Physical assets are the key for many farming and nonfarming pursuits. In this section the physical assets that are analyzed are farming equipment, transportation, capital investments, and livelihood tools.

Farm Equipment

Ownership of the critical farming equipment forms the foundation for nearly every household's livelihood. Farming equipment, is one of the household's most expensive assets and it is almost always owned by men. The table below shows how farming equipment is distributed within the family.

Table 22: Farming Equipment Ownership by Position in the Household

Number of Plows or Carts owned	Male Household Head			Female Household Head		
	Brother	Son	Wife	Daughter or Sister		
0 Plows	3%	81%	86%	100%	100%	100%
1-2 Plows	62%	13%	11%	0%	0%	0%
3 or more Plows	35%	6%	3%	0%	0%	0%
0 Carts	12%	75%	89%	94%	0%	0%
1-2 Carts	65%	25%	5%	6%	0%	0%
3 or more Carts	24%	0%	3%	0%	0%	0%

Ownership of the household's physical assets is often difficult to assign. Generally the male head of the household will say that farming equipment and livestock are owned by the whole household, but under his control. (In this case, assets were recorded as being owned by the male household head.)

97% of male household heads reported owning at least one plow, compared to less than 20% for any other person in the household. Farming equipment, livestock and livelihood tools beyond the minimal amount needed for farming, are often owned by individual people within the family. Usually livelihood tools are owned by the person in the house that principally works with the tools, but in some cases, the household head will declare that he owns all the physical assets in the household.

“Brothers” of the household head, are the second most likely household group to own physical assets followed by “sons” of the household head. Two of the women surveyed reported owning wooden carts. These carts are important transportation options for women going to nearby village markets and they are also useful for farming activities.

Transportation

Table 23: Ownership of Bicycles, Motorcycles and Cars for Men and Women

	Men	Women
Bicycles		
Own 0	20%	0%
Own 1	61%	0%
Own 1 or more	20%	0%
Motorcycles		
Own 0	70%	0%
Own 1	30%	0%
Cars		
Own 0	96%	0%
Own 1 or more	5%	0%

80% of men own at least one bicycle. Bicycles are a critical asset for an individual. They have become indispensable for farmers who have to travel several miles to their fields every day, traders who travel throughout the commune selling different goods and anyone else whose daily work requires a lot of travel.

Motorcycles are highly coveted by men in Samene. They provide freedom to travel to Segou to do business, the ability to visit family members in other areas of Mali, and the security of being able to take sick family members to the Doctor and attend funerals outside Samene. 30% of men own motorcycles, and three cars are owned by men in Samene.

Although women would benefit greatly from bicycles because they too must walk every day out to the fields during the farming season, and do so often carrying heavy loads, they own no bikes or other forms of transportation.

Work trucks, *Butikis* (small neighborhood stores), and phone booths are the three large physical assets described as, “Capital Investments” in this analysis. The work trucks are used primarily to thresh piles of millet and sorghum and transport grain, animals and people to Segou and Cinzana Gare. Two trucks are owned by men in Samene. These truck owners are usually paid in cash for their transportation services, and in food stuffs for their threshing services.

In Samene, *Butikis* are mud brick stores which sell a small selection of goods needed in the village like, sugar, tea, bike tires, sandals, batteries, and soap. There are four smaller *butikis* and two large *butikis* in Samene. The two *butikis* captured in this survey were the smaller stores that sold a narrower range of goods. In the last two years three phone booths were constructed in Samene. Due to the lack of cell phone reception in the village, and the high price of a cell phone and credit, phone booths are an important service now offered in Samene. All three of these capital investments provide the means for high return activities and they are all owned by men.

Livelihood Tools

The next category of physical assets considered is referred to as livelihood tools. This category includes grain grinders, welding equipment, blacksmith tools, sewing machines, solar panels, pumps and other livelihood tools. Books, bicycle and motorcycle repair tools, the Koran, and fishing nets are some of the random responses, listed in the “other” column of livelihood tools. All of these tools are related to specific livelihood activities, namely activities that require special skills and offer potentially high returns.

Table 24: Ownership of Livelihood tools for Men and Women

	Grain Grinder	Welding Equipment	Blacksmith Tools	Generator	Sewing Machine	Solar Panel	Pump	Other
Men	5%	2.30%	2.30%	4.70%	7.00%	11.60%	2.30%	5.90%
Women	0%	0%	0%	0%	0%	0%	0%	2.50%

More than 25% of men own at least one livelihood tool and nearly 10% own two or more livelihood tools. Less than 3% of women own any livelihood tools.

Table 25: Percentage of Men and Women that Own Livelihood Tools

	Own 0 Livelihood tools	Own 1 Livelihood tool	Own 2 or more Livelihood tools
Men	73.6%	17.20%	9.30%
Women	97.50%	2.50%	0%

The two livelihood tools owned by women, a pasta making machine and a manual shea oil extractor, are also counted as part of the “other” column of livelihood tools. The pasta machine is shared by the wives in one household and the shea oil extractor was purchased by the Bougoni Women’s Group. Group ownership is important to women because it spreads out the financial burdens and risk, in addition to contributing to social capital formation.

The physical asset that is most important to women, is surely their *konyo minen*. When girls are growing up they focus their energy on acquiring their *konyo minen*, which is the collection of cooking pots, fabric, and other household items that women must purchase before their marriage and take with them to their husband’s house. The size of the *konyo minen* is a sign of wealth and as one woman put it, “It makes you feel proud and gives you respect. On your wedding day, if you don’t have a large *konyo minen*, then you and your family will be ashamed.”

Unfortunately this critical women’s asset, didn’t come to the researcher’s attention until half way through the surveys, and was not captured. The size or quality of the *konyo minen* is also very difficult to measure, especially in the cases when a lot of time has elapsed since the marriage.

Nice clothing is another physical asset highly valued by women, but again this physical asset is hard to measure, and perhaps difficult to justify as an asset that contributes to women's livelihood activities.

Financial Assets

- Animal ownership: the number of cows, goats, sheep, donkeys, and poultry owned by the individual.

Financial assets are very difficult to measure in Sub-Saharan Africa. People generally have little or no cash savings and this stash varies so much between seasons that it is difficult to get an idea of financial assets by counting the cash people have on hand.

Men and women are also uncomfortable talking about their financial position and do their best to hide their wealth. There is a saying in Samene that, "*Sa min be dogo, o be bonya.*" The snake that hides will get fat. Men and women will go so far as to pay others to raise their animals in another village, so they are hidden from the watchful eyes of neighbors and family members quick to ask for their piece of the profit.

In Samene financial assets are revealed through animal ownership. An old man explained to me that, "*Bagan ye in a fo an ka banqi,*" animals are like our bank. People save and invest their money in animals. The number of animals, especially heads of cattle, owned is probably the greatest indicator of wealth in Samene.

An individual might start by buying couple chickens, to raise and sell with the small amount of money they have been able to save up. With the money earned from selling the chickens, this individual might now buy a goat, which they will raise and sell in order to buy sheep, and so forth, until enough money has been saved up to purchase one head of cattle. Cattle are by far the most lucrative investment, but obtaining the initial cash savings to buy a head of cattle often takes many years.

That being said, some individuals specialize in chickens, goats, or sheep and never purchase very many cattle, even though they might be able. The maximum numbers of goats and sheep owned by an individual are forty and fifty respectively.

Table 26: Percentage of Men and Women owning each type of Animal

	Men	Women
Heads of Cattle		
0	44.8%	95.0%
1 to 3	17.2%	2.5%
4 to 5	14.9%	2.5%
6 to 19	14.9%	0.0%
20 or more	8.0%	0.0%
Mean Number	4.6	.16
Donkeys		
0	73.6%	97.5%
1 to 2	16.1%	2.5%
3 or more	10.3%	0.0%
Mean Number	.76	.04
Sheep		
0	52.9%	81.5%
1 to 5	20.7%	14.8%
6 to 10	19.5%	2.5%
11 and more	6.9%	1.2%
Mean Number	3.92	.8
Goats		
0	74.7%	64.2%
1 to 5	9.2%	29.6%
6 to 15	11.5%	4.9%
16 or more	4.6%	1.2%
Mean Number	2.56	1.51
Poultry		
0	77.0%	80.20%
1 to 10	14.9%	16%
11 or more	8.0%	3.70%
Mean Number	3.75	1.54

Livestock ownership for women is typically concentrated in less expensive animals, like chickens and goats. In fact, a greater percentage of women own goats than men. Around 20% of women own sheep, and another fifth of women own some sort of poultry as well. Three women surveyed owned cattle. While a fair number of women own animals, they rarely raise a large quantity of animals, and the higher levels of animal ownership are always dominated by men.

65% of men own at least one head of cattle, and almost 45% of these men own more cattle than are minimally needed for farming (one or two heads of cattle). There are three men that own more than 25 cattle. Donkey's are not typically raised and sold to make money-they are used for

farming and sometimes transportation. Mutton is an important ceremonial food, and about 50% of men have at least one sheep for ceremonial purposes. Other men raise and sell sheep in the cities during Tabaski. Goat ownership and poultry raising are not as common for men, although there are some men who specialize in one of these animals and raise up to thirty goats and one hundred birds.

Social Assets

- Membership in organizations
- Participation in decision making institutions
- Does the individual have control over money they make

Organizations

Organizations, groups, and associations are extremely important for both men and women. They can provide aid during difficult times, work, social support, and the initial cash needed to enter different livelihood activities. 58% of the women in Samene and 65% of the men are part of a local organization. There are a great variety of organizations and associations in Samene and they all provide different benefits to the organization member.

Women between the ages of twenty five and fifty are the most active in organizations. 75% of women in this age category are involved in at least one organization, compared to only 10% of women younger than twenty five and 40% of women over fifty years old. For men, participating in organizations is also low (40%) before 25 years of age, but after that age it remains at between 65-70%.

The great majority of women that belong to an organization are part of either a credit or a work organization. These types of organizations directly augment livelihood activities by providing work and/or credit to their members.

Table 27: Women's Involvement in Organizations: By Organization Type

Type of Organization	Organization 1	Organization 2	Organization 3
Service	1.2	2.5	1.2
Credit	11.1	11.1	0
Work	33.3	3.7	2.5
Social	9.9	0	0
Leader	1.2	0	0
Hunt	0	0	0
Business	0	0.6	0
Education	1.2	0	0
Percent of women that belong	57.9	17.9	3.7

Most women's credit groups are small, with between six and fifteen members, but there are also a few large credit groups with more than fifty women participating. These groups generally meet every month, or sometimes every week, and during the meetings the women all contribute a small amount of money-usually around 100-200 CFA. This pot is then given to one or more members of the organization on a rotating basis. When a woman receives the pot she might buy goods like fabric or clothes in the city to sell in Samene or clothes and food for her own family.

Women's work groups are paid to do farming activities on someone else's land. They will gather firewood or help plant and harvest crops as a group. Generally the money is saved with the group, rather than being split between the members, and then it is given in bulk sums either on a rotating basis or to someone who critically needs the money.

The third main type of organization that women belong to are referred to as as a "social organization." These organizations do in fact have more than social benefits. They generally become active when one of their members has a new child or is getting married, and then the members of the organization help with the celebration and give small gifts or sums of money. The number of women recorded as belonging to these sorts of organizations is probably underestimated. Most women don't think of the mutual aid networks they all belong to as organizations, per se.

Men in Samene are also highly involved in local organizations. Men are concentrated in either work based or leadership organizations. Men's work organizations typically are broader and less formal than women's organizations. Generally these organizations are large district farming groups that help each other in their fields, as they have been doing for more than a hundred years. If any money is exchanged it is usually saved for community projects or celebrations. Men's leadership organizations include the mayor's staff, the traditional leadership, district representatives and less formal district based leadership organizations.

Table 28: Men's Involvement in Organizations: By Organization Type

Type of Organization	Organization 1	Organization 2	Organization 3
Service	4.7	1.2	0
Credit	2.3	2.4	0
Work	23.3	8.1	4.7
Social	1.2	0	0
Leader	25.3	4.7	0
Hunt	1.2	2.4	0
Business	4.7	1.2	1.2
Education	2.3	0	0
Percent of Men that Belong	65.0	20	5.9

One of the organizations that nearly all people in Samene belong to that isn't taken into account here, is an informal social group called a *geren*. A *geren* is composed of people of the same age

group that generally grow up together and help each other during difficult times. For the most part, the group meets informally to share conversation and sometimes food.

Participation in Decision Making Institutions

Another way to evaluate an individual's social and political assets is to look at their participation in decision-making institutions. The survey measured decision-making by looking at different levels of participation. At the first level are the individuals who are simply invited to community meetings. One third of the men surveyed were invited to attend community meetings, and most of these men were household heads. Seven women, or 9% of the women, were also invited to attend community meetings. Typically though women sit in the back of the circle and do not speak, unless the meeting is run by an NGO that mandates the participation of women.

Table 29: Percentage of Men and Women in positions of Leadership

	No leadership role	Invited to Community Meetings	Leader of an Organization	District leader	Village leader
Men	55	33	1	5	6
Women	88	9	4	0	0

The second category of participation is leading an organization. Women that are the leaders of the major organizations are often also the women that are invited to community meetings.

District representatives form the third category of participation. Two individuals are elected from each district by their constituencies, to represent them in the modern leadership institution. All ten of the representatives are men.

The top tier of leaders in Samene includes the chief and the circle of elders, the mayor and his staff and the religious leaders. No women belong to this elite group either. Seven percent of men had two or more leadership roles, and the same is true for only one of women surveyed.

Control over Money

Table 30: Degree of Control Men and Women have over the Income they Earn

	None	A Little	Some	A Lot	Total Control
Men	11.50%	14.90%	20.70%	11.50%	14.40%
Women	7.40%	7.40%	53.10%	32.10%	0%

The degree of control individuals have over the money they earn is considered a social, rather than a financial asset because it is a reflection of the status of the individual and their relationship to the household head.

The majority of women have some control over their incomes. When asked to define what this means, women will generally say that this means they keep some money for themselves and give

some to their husbands. Almost a third of women have “a lot” of control over their incomes, but no women have total control. The women who have a lot of control over their incomes are more than likely the female household head.

More men have little to no control over their incomes than women. Men are expected to give their incomes to the household head, especially in their younger years. Typically, male migrants bring their earnings to the household head when they arrive back in the village, and then, depending on the farming season, the household head will return what he doesn’t need to buy food. Women’s incomes, on the other hand, are not necessarily counted on as part of the household’s survival strategy. The nearly 15% of men that have total control over their incomes are all male household heads. Older brothers or sons of the household head will often have “some” or “a lot” of control over their incomes.

Natural Assets

- The size of the individual’s field
- Gardening space

The natural environment is the foundation for most livelihood activities, especially for women. Women’s personal fields are very important to their livelihood portfolios. When women are married they are generally given a field to cultivate for themselves. The foodstuffs from their fields either provide critical food supplies for the household or personal income for women. Over 80% of women between the ages of 20 and 50 have their own fields to farm. No unmarried women or women older than 65 farm their own fields.

Table 31: Number of Hectares farmed by Men and Women on their Own

	0	.5-1	Greater than 1
Men	93%	3.5%	3.5%
Women	35.8%	53.1%	11.1%

Men generally do not have their own fields and work on the household fields which are to sustain the household. There are six men out of the 86 surveyed that reported farming their own fields. These men are all between the ages of 30 and 50 and come from large households or in one case a smaller household with a larger field.

Gardens

Table 32: Percentage of Men and Women that Have a Gardening Space

	No garden	Plot in Community Garden	Plot in Household Garden	Own Garden
Men	97.7	0	0	2.3
Women	43.2	22.2	29.6	4.9

More than 55% of women have a place to garden. Most of these women either have a plot in a household garden shared with the other wives in the house or a plot in the community garden. Almost 5% of the women surveyed have their own gardens.

The 22% of women, who have a plot in one of the four community gardens all acquired them in the last year (2008) when the community gardens were constructed. Because the gardens were in the process of being built over the time the surveys were administered, the individuals that were first surveyed were more likely to report not having a plot in the community garden than the individuals surveyed later in the process. It is now estimated that nearly 40% of married women have a plot in one of the community gardens.

Two of the individual men surveyed owned their own gardens; otherwise, men do not participate in gardening.

Community Ranking of Assets

The assets discussed earlier related to the surveys are not necessarily the most important assets, because some essential assets were not surveyed. To fill in these gaps and discuss assets in a more qualitative manner, small groups of men and women were assembled in Samene.

The topic addressed was which assets are the most important for the household's success. The men and women identified many essential assets from all the asset categories. From this list they were instructed to collectively decide on the five assets that were the most important for them.

Men choose the following assets (in order of importance):

1. *Den ka fa* Having enough to eat, so the children are full
2. *Keneya* The health of the family
3. *Bagantigi* Owning of a lot of animals
4. *Kalan* The education level of the household
5. *Jigiyia* Your hope- someone that you can count on for help and money

Women choose:

1. *Keneya* The health of the family
2. *Den ka fa* Having enough to eat so, the children are full
3. *Dutigi numan* The head of the household is fair and a good leader
4. *Denw chaman* Having lots of children
5. *Denmissen Kalan* Having well educated children

When the men discussed assets that were personally important for them to live a good life they mentioned:

- *Senefenew* Farming equipment (A plow and a wooden cart)
- *Musow furu* Getting married
- *Bagantigi* Animal Ownership
- *Dugutaa*-Migration
- *Kalan*-Education

- *Duba*-A large family

Women mentioned:

- *Balima chaman* Lots of brothers and sisters
- *Bagantigi* Animal ownership
- *Nako* Gardening space
- *Togolaforo* Having a Personal field
- *Fali Watoro* A cart and donkey
- *Tobolike Minen* Cooking pots
- *Jagoke* Commercial Activities

Chapter 10: Social Rules and Norms of Access in Samene

Livelihoods are embedded in the social rules and norms of society that affect access. Access gets at the power dynamics and structures that shape livelihood options for different social groups. Scoones defines access as the ‘*differential ability* of people in rural areas to own, control, otherwise ‘claim,’ or make use of resources’ (Scoones 1998).

In this section the social rules and norms in Samene are considered with particular attention to the concept of gender. It has already been shown that the asset bases and activities of men and women are quite different in Samene. The social rules and norms take into account the social, cultural, institutional and organizational factors shaping these differences and contributing to intra-group differences as well. Social rules and norms are the gates that can lock individuals out or grant them access to a wider range of opportunities.

This chapter will discuss the social rules and norms in terms of the gender division of labor, household power structures, education, financial resources, household roles, organizations, institutions and networks. This chapter also pays attention to the ways that men and women are able to gain access and challenge the social rules and norms.

Access, Gender and the Household

I will begin by directing the spotlight on the household, at the center stage where gender is acted out, and propose that the *dutigi*, or male household head provides the keys to accessing opportunities in this institution. The *dutigi* will therefore be given the stage name of the ‘gatekeeper.’ The male head of the household controls the household assets and makes the important household decisions. He decides who can migrate each year, which children will go to school, when to plant the crops, and how independently the rest of the household members can control their own money.

When women in Samene were asked which household assets are the most important to a household’s success, women consistently listed *dutigi numan* in their top three responses. *Dutigi numan* was described as a household head who is fair and a good leader. De Haan asked similar questions in two Malian villages and found *gestion*, or the way in which a household is managed, to be one of the most important criteria for household sustainability as well (De Haan 2001). The *dutigi* is largely responsible for the success or failure of the household. If he lacks authority, or is not considered fair and worthy of respect he is doomed. A *dutigi*’s resources, lineage, networks, education level, and position in the community shape the collective fate of the household as well as the opportunities for different members within the household.

Households are places of cooperation, sharing and resource pooling. Whitehead and Kabeer (2001) propose that households are also sites of competition and differential power arrangements (see also Von Braun and Webb 1989 and Jones 1986). The reality of households in Samene is somewhere in between these two descriptions or more accurately the household fits both descriptions. For this reason my descriptions of the household might appear contradictory to some. The household is a complex, dynamic institution. At any given time households are sites of joint and competing interests, separations and interdependencies, rigid hierarchies and flexible relationships. Of course, some households might be more cohesive and dependent on each other,

while others are more independent and competitive but, all households fall within somewhere along the continuum cannot be simply described one way or another.

Household Hierarchy

All members of the household are situated somewhere in the hierarchy according to their relationship to the household head. Each member of the household performs the role dictated by this relationship. An individual's position in the household determines their access to resources, the respect they receive from other family members, and the decision making power they have within the household, among other things.

The female household head generally has more authority than any other women in the household, and is more likely to be consulted about household affairs. However, all married woman are subservient to their husbands and under their authority. If a woman wants to leave the village, attend a wedding at night, join an organization, attend literacy school or start a new livelihood activity she must ask the permission of her husband. Women are often beaten for disobeying their husbands or not showing them the proper respect.

A woman's husband acts as the gatekeeper of her opportunities, but if a woman's husband is not the *dutigi*, her access to the keys is further complicated because her husband must also seek permission and access from the *dutigi*. Younger brothers and sons of the household head are also under his authority. A brother just a couple years younger than the household head is expected to give all the money he earns during migration to his older brother. The children are at the bottom of the hierarchy and must obey anyone older than them.

The way food is served in the household during meal time is an apt metaphor for the power relations and resource distribution within the household. Food distribution is based on gender, age, and relationship to the household head. The household head is served first and his meal contains the most meat, vegetables, fish or other special foods that might supplement the daily millet based dishes. The household head eats alone or with his brothers. The other men in the household are served next, and lastly the women and young children eat what is left of the meal together. Although, it is a communal meal and everyone gets something to eat, the food is not distributed evenly and it is not uncommon for some members of the household to leave the meal hungry.

All of the critical household assets are held by the household head. Nearly all household heads own at least one plow, and the same is true for less than one fifth of the brothers or sons of the household head. The household head also generally controls the wooden carts and transportation options available in the household. Out of the 81 women surveyed only two owned either a plow or a wooden cart. In most cases all the manure generated by the household's livestock are used in the household fields, and women's fields suffer. Due to the degraded nature of the soils in Samene, organic fertilizer (manure) is one of the most sought after agricultural inputs.

Cracks in the hierarchy

This household hierarchy that appears as rigid as an Egyptian pyramid can be upset and shifted from within. The following examples demonstrate that household roles, authority, decision-

making, and access to resources are not static and enduring; they are rather-flexible and negotiated.

Freedom within household roles

In some ways it could be argued that women today have more control over their activities, assets, and income than men. A man's sole responsibility is to provide for the family. All his activities and income are directed towards this task. If the household doesn't have enough to eat than it is his fault.

During the household surveys when the male household heads were asked about the activities of the household they rarely mentioned women's activities, or considered women's assets or income to be part of the household assets. The animals and other physical assets that women own, are not automatically considered to be part of the household's subsistence resources. Women are primarily responsible for the domestic tasks that maintain the household. The income women make is considered to be something extra that is not traditionally counted on for the family's survival.

Individual men do not own their own fields and the income they earn is generally expected to buy food or pay the taxes for the household. In this sense it is more difficult for men to accumulate wealth as individuals than women. Soulemane Keita explained that, "women are more successful because they don't have to invest all the money they make in the family."

More men (27%) report having little to no control over their incomes than women (15%). In most cases, the male household members beneath the *dutigi* are expected to turn over their incomes to him. Nearly all male household heads, but no female household heads, have full control over their incomes. More than 85% of women report having 'some' to a 'lot' of control over their incomes, and it is often easier for women to save their personal money than for men, other than the *dutigi*, to do the same.

In cases when the husband is not fulfilling his duty of providing for the household, women may have to use more of their incomes and food supplies to keep their children from going hungry. A group of women explained to me that when a husband fails to support his wife and children, she no longer has to obey him. In these households women might be released from the authority of their husbands to a great degree, but also burdened by bridging the gap in the household's food resources. Women with greater incomes or more education are also likely to be more independent from their husband's, authority.

Negotiation and Power

Doing research in Mali, Brock and Coulibaly (1999), reflect that access is negotiated through a series of overlapping, flexible institutional arrangements. The ability to access assets can be as important as actual asset ownership. Access to household resources often involves a complex process of negotiation where both sides play the cards they have in order to get what they want. This finding is in line with the research on intra household bargaining, such as the study carried out by Christine Jones in Northern Cameroon.

Jones (1986) conducted her research in a rice production area where women were required to work on their husband's fields and turn over all the income they earned in their personal fields to their husbands. Jones writes that 'social norms are the result of a bargaining process taking place between members of the household' (pp. 105). If a woman does not receive what she considers an adequate 'contract or compensation' from her husband for working on his field, she will reduce the amount of time she works for him in the future and be more inclined to work as hired labor. Husbands were quite aware that their wives' continued participation depends on their own generosity (Jones 1986, pp. 110). Thus, this social norm is a contested boundary of struggle and 'recontracting,' dependant on mutual obligations and concessions.

In Samene, the use of household assets must be negotiated through the household head, and for women access depends on their efforts to win their husband's favor. Women go out of their way to please their husbands and make them comfortable. They cook him special foods; treat his guests with hospitality, and place fresh water in his bathing area. Yes, these are women's household roles, but they are often performed strategically to win the favor of their husbands, so they will be granted greater privileges and enjoy greater access to resources. Women might also give their husbands money or supply him with millet, in exchange for being able to use the wooden cart to go to market or take some manure for their field. Conversely, women can demonstrate their displeasure with their husband's by cooking poorly or serving the meal late and men know that if they fail to properly manage the household and provide for their wives' they will lose their authority and respect.

Here we are speaking of a type of power that builds from Foucault's descriptions of power, but moves towards giving actors greater agency. Villareal (2004) speaks of the 'room to maneuver' that subordinate populations have and the possibility that actors can deviate from discourses shaped by previous generations and thus induce change in structure (De Haan 2005). De Haan recommends that the livelihood approach should adopt an analysis of power based on the dynamic process of 'wielding and yielding.' This dynamic implies that women, or other subordinate groups, are not sheer victims, they play an active role in their subordination and also embody the possibility of rebelling and improving their position within the wielding and yielding process (De Haan 2005 pp.13).

Household disruption

Changing social values and conflicts in Samene are often the cause of household disruption and fissure into more nuclear units. During group discussions the older people in the village explained that both men and women act more individualistically today and are less likely to adhere to the complete authority of the household head. In many cases, younger brothers officially split from the household with their nuclear families or remain in the household, but control their own money and focus their attention on their family rather than the larger household unit. There are also more frequent stories of young migrants buying themselves motorcycles, stereos and clothing, rather than turning their money over to the household head.

Cooperation and Competition

In Guinea Von Braun and Webb (1989) found that that the two highest principles of life that define and govern family obligations at the compound level are expressed in the Mandinka terms

badingya and *fadingya*. *Badingya* represents harmony, cooperation and the obligations that bind the community together. *Fadingya*, on the other hand is an expression of personal ambition, competition and even aggression. The simultaneous forces of cooperation and conflict, are not only related to women and men, but also involve age groups and groups of different status in the same compound (Von Braun and Webb 1989). This nuanced view of the household structure is needed to make sense of the dichotomies of cooperation and conflict that are present in West African households.

Consistent with the ‘cooperation paradigm,’ households in Samene can be described as sites of resilience and cooperation, where the activities of each member come together to create a diverse and secure household livelihood portfolio. Each member of the household contributes what labor, skills, or income they have in order to keep the household functioning. During difficult times, women will give the crops they farmed to their husbands to help with the food security of the household. The men who migrate to urban areas return with urban goods and the critical supply of cash that is needed to pay taxes and buy foods when supplies run low. Wealth is not something that is normally hoarded selfishly; it is divided dozens of ways within large extended family structures. In general, household members do share resources, work together and see their fate as interconnected.

A realistic view of households in Samene, demands that conflicts, differential power arrangements and significant intra household inequalities be considered as well. Separate interests often compete for scarce resources, such as labor time and animal traction. In many household there is also significant competition between the co-wives for household resources. In addition, household resource pooling does not mean that all household members have equal access.

The story of the Mariko household is an example of how household wealth is not always distributed equally among the members of the household. The Mariko household is one of the wealthiest in Samene. The deceased household head rose to a high position when he fought in WWII for the French. The household remained together after his death and one of his son’s now works for the army and another is a famous Christian preacher, who owns his own car. When I talked to the women in the household, I expected them to be living a life of relative ease and comfort, but the reality was far from this image. The wives of the two brothers complained of hunger and told me that their husbands rarely sent them enough money to take care of their children.

There are also a few examples of women who appear to be quite wealthy, in terms of their assets, while their husbands struggle to get by. The presence of a wealthy member of the household does not always mean that the rest of the household will improve their position as well.

Support of Women’s livelihood activities

The amount of support and independence the ‘gatekeeper’ provides the women in the household, is a critical access variable, and one that varies widely. For example, many men forbid their wives from traveling outside the region. This restraint prohibits women from entering certain commercial activities. Some men have denied their wives permission to attend NGO sponsored

trainings in the city as well. One way a husband can demonstrate his support for his wives activities is to plow her field, which many men do. There are however, a lot of women that must still use a hand hoe because their husbands refuse to plow their fields.

While some men encourage their wives to be involved in money making activities and even give them the initial capital they need to start a small business, others do everything in their power to keep their wives from earning money themselves or prohibit them from holding their own money. One woman quietly told me that, “When women earn money it is theirs, but many want to help their husbands and give them money or they do so out of fear.” Women may attempt to hide and minimize their incomes as a way of circumventing the gender politics that surround the control over incomes.

Aminata Troure’s success in her livelihood activities is largely due to the support of her husband Baro Keita. Issita never attended school, but Baro has a 9th grade education. More than ten years ago Baro benefited from farming loans provided by FIDA (Fonds International de Développement Agricole) and helped Aminata get three loans of her own. With the first loan of 25,000 CFA Aminata bought a grill and fishing baskets to start a small business selling fried fish. After paying back the first loan she took a second loan for 50,000 CFA and bought a donkey and some sheep. Her final loan for 75,000 CFA allowed her to buy a wooden cart, so that she could ride in her cart pulled by her donkey down to the river everyday to buy fish. Today Aminata owns five goats, two donkey, and two sheep and has her own fish frying stand in the market. Baro allows her to keep all her money and even encouraged her apply to the savings and lending center so that she could keep her money more securely. Aminata is the President of a women’s credit group and a member of another work group. Interestingly, many of the most successful women in the village have been supported in their endeavors by well educated and often financially well endowed husbands.

Gender Division of Labor

The gender division of labor in Samene is well established and defined. Certain domestic responsibilities, restrictions and opportunities come with being a member of each gendered age group (see Table 10). Within the household women are responsible for the reproductive activities such as cooking and caring for the children. Activities that women are involved in outside of the house, like gardening, selling food products and collecting forest products, are considered a “natural” extension of their roles in the household. For example, shea nuts which are the foundation of a very important livelihood activity for women, are processed into soap, lotion, and cooking oil-all of which benefit women in their domestic roles. Activities that are seen to be incongruent with women’s cultural roles in the household include hunting, repairing machines or bicycles, carpentry, and transportation services and no women are found in these sorts of activities. Unsurprisingly, these activities include most of the high return nonfarm activities.

Women’s time consuming domestic chores often leave them little time to pursue activities outside the household. Women with many young children to take care of are forced to withdraw from supplemental income generating activities until their children are old enough to help them in the home. Unlike men, whose activity load varies according to the farming calendar, women never have a season off. Their domestic responsibilities are full time, year around jobs. During

the five months after harvest men have few household responsibilities, and are freed to enter income earning activities. Most of the women surveyed who are involved in many activities no longer have young children, or come from large households where many wives share the tasks of cooking and caring for the children.

Although at any single point in time the gender division of activities appears rigid, a look back at the last thirty years shows that women's activities have changed dramatically over time. Today women can engage in urban migration, raise animals and farm their own fields-activities that they didn't even think about a few decades ago. Women's roles still center around domestic responsibilities, but the last couple decades have shown that the edges of the gender divides are more flexible, and amenable to changing incentives and conditions, than one might have thought.

Men have more freedom to enter a wider range of livelihood options. The only taboo activity for men-women's domestic chores-offers no possibility of income generation. Men have also demonstrated the ability to eschew gender divisions under the right conditions. For example, news has spread that in other villages in the Segou region, men have started entering and taking over women's activities like, gardening and shea nut operations, when they switched from subsistence activities to profit making enterprises. Other researchers have similarly discovered that gender relations are vulnerable during times of change, such as the introduction of new agriculture technology (von Braun and Webb 1989).

Throughout the two years I spent in Samene I never heard a woman complain that she was excluded from an activity, simply because she was a woman. Farming *tiganegaru* (a ground nut) and house building are the only activities women said they absolutely could not participate in because of taboos associated with these activities for women. The biggest hurdle that women identify as preventing them from participating in certain activities is a lack of financial capital.

Financial Resources

While gender may appear to be the most significant factor in determining who can enter which livelihood activities, income or financial resources may in fact be at the foundation of many of the gender divisions. When men and women were asked about who can enter certain high end activities like operating a store, running a agro-processing machine, and driving a transport truck they amusingly replied that if women had enough money they could also enter these activities.

The majority of men and nearly all women, are effectively excluded from most higher end activities, because they lack the initial startup capital necessary to enter these types of activities. When Malike Keita was asked about the work he does, he shrugged, opened empty hands and explained, "Work is good, but if you don't have money you can't work."

Wealth is something that is accumulated and builds upon itself, but if you don't have the minimum amount of money to purchase an animal or start petty trading than you will be stuck in activities with low returns and low entry barriers. Financial capital is also strongly related to physical assets. Without financial resources, physical capital like carts, plows, and bicycles cannot be purchased. Except for a couple carts and livelihood tools, men own all the physical assets in Samene. This effectively excludes women from independently participating in any

livelihood activities that require physical capital ownership. Most of the high return nonfarm activities do rely on livelihood tools and equipment. Women are concentrated in natural resource based activities, particularly farming and collecting forest products, which demand no special tools or financial capital to enter.

Using animal ownership, and in particular cattle, as a proxy for financial resources, it is obvious that there is a great deal of financial inequality in the village, and that this divide is most stark between men and women. 55% of men own at least one head of cattle and the mean number of cattle owned by men is 4.6. 95% of women own no cattle and the mean number of cattle owned by women is .16. The distribution of financial and physical assets is also highly unequal between men in different positions in the household. Once again, it is the *dutigi* who owns or controls the vast majority of these critical assets, including plows, carts, and cattle.

Na Djarra is an exception to the rules, as one of only two women to have worked outside the village in a steady job. This initial income provided the impetus in her rise to become one of the wealthiest women in Samene. Na and her family lived near Niono and she worked on a large irrigated rice farm for four years before she was married. With the money she saved up she purchased four sheep. A couple years later she sold two of the sheep and bought a cow. Today, at age 42, she owns three heads of cattle, five goats, four sheep and ten chickens. The money she has made by selling livestock has enabled her to start a little business selling fabric. Na also collects shea nuts and gardens.

Education

Education is also a critical factor in opening up higher return livelihood activities for individuals. All the employees in Samene that receive a steady salary, such as the mayor and the doctors and teachers are at least able to read and write. The high return nonfarm activities in Samene, such as running a store, operating a phone booth, and managing a large commercial business also require at least a basic education.

In Samene a new generation of younger, wealthy, better-educated men, have become an increasingly powerful group. The unofficial members of this group are not represented in the formal leadership structures, but they run most of the large businesses and often act independently of social traditions and authority. These men generally also have good outside connections and are the group most likely to be involved in high return nonfarm activities.

Bakary Coulibaly is probably the best example of this group of men. His 9th grade education helped him: secure temporarily work with the NGOs FODESA and FIDA; become the Director of the commune's pharmacy; procure yearly loans from major Malian banks; and start a literacy school in Samene. With the loans he took and the intermittent, but well paying work with NGO's, he invested in cattle. Bakary was also able to personally benefit from the work NGOs did in Samene. He made a 'deal' with FODESA to build the largest garden in Samene for his household, and he also became the secretary of the grain storage building FODESA constructed in Samene. Bakary's wealth was not gained in the traditional way-by being born into the household of a major landowner or animal trader. He was able to take advantage of opportunities that came along and enter high return activities largely due to his education.

Literate women are not found in high return nonfarm farm activities of Bakary's level, but in some cases, their education gives them more opportunities and freedom than their peers. Even women with only limited reading and writing skills, are in demand to act as secretaries for women's groups, to write letters requesting aid to family members in the city, and to work for NGOs. To even register an organization officially at the Mayor's office requires a literate woman to fill out an official membership list and the group's statement of purpose.

Seli Doumbia is 45 years old, and with a 7th grade education, she is the most educated woman I surveyed. Her father was a doctor and believed all boys and girls should be educated. Seli is the secretary for Groupe Yele, the largest women's credit group in her district. Every night women from the village bring her notes from family members to read and reply back to. Every Tuesday, Seli works at the health clinic when vaccinations are given, recording baby's names and weight. She was also recently selected to act as a community health care worker for a project that UNICEF is starting in Samene.

Although there are clearly many direct and indirect benefits of education, few households value education for their children. Girls especially are denied access to education and for every four boys, only one girl is enrolled in school. This ratio increases in the upper grade levels. In the 9th grade there are sixty four students and only eight are girls.

If school children pass the 9th grade exam, they must attend school in Segou to continue their studies. This requires money for their living expenses and family members in Segou to watch over them. Finding a safe living situation, for teenage girls, is especially difficult and their father's fears that they will refuse their arranged marriages or have too much freedom in the city generally prevent girls from furthering their education.

In addition to formal education, knowledge and skills are important nontraditional education measures that open up opportunities for men and women. Knowledge and skills are diverse, and specific to gender. Women know how to garden and make soap from shea nuts, while men know how to track animals in the forest and make traditional medicines. Women lack the skills associated with high end activities like transportation, blacksmithing, running a store, and managing a large business. Women are disadvantaged in their knowledge of how to access information and navigate in the world outside the village. Information about how markets work and how to obtain information about prices, for example, are very valuable skills that enable individuals to move ahead in livelihood activities, like commerce and service enterprises.

Organizations

When an individual lacks a key asset they often rely on their stronger assets to fill in for the deficient asset. For example, social capital might be utilized by the income poor to raise cash during an emergency. Organizations are one of the ways that people in Samene overcome asset bottlenecks and circumvent access restrictions. Organizations can provide credit, skill training, work, business opportunities, emergency aid and social support to their members.

While both men and women are actively involved in organizations, women derive different benefits from organizations than men. In general, men's organizations are important in tying

them to the village and filling key leadership roles. Women on the other hand are concentrated in organizations that provide them more direct benefits like work, credit, or aid during difficult times.

The older people in Samene remember when there used to be one village identity and groups were only divided by age and gender. You were automatically considered part of the group of children you grew up with. This basic informal organization, known as a *geren*, is one of the informal organizations in Mali that has endured over time. Everyone in Samene is a member of a *geren*, composed of their same age cohorts. These are typically groups of fewer than twenty individuals who are friends and often from the same district as well. This group sticks together through all the major life events. They often attend school together, celebrate marriages and births together, form organizations together, undertake farming activities together, and help each other through difficulties.

In the past, groups generally centered on farming assistance, but also supported each other during difficult times. Formal women's groups originally were formed only for the purpose of organizing celebrations. Now there are a plethora of groups, and individuals have more freedom to choose the groups they want to belong to. Organizations are formed with specific objectives today, and are more likely to be linked to outside resources.

Work based organizations are popular with both men and women, but function quite differently. Nearly 40% of women are involved in a work group that performs farm work for a small wage. The men's work groups that involve more than 35% of men are less likely to work for a wage—theirs is a system of labor exchange during the peak periods of labor demand on the farm. It is rare to hear of an individual woman selling their labor for a wage, but as a group women have greater strength to negotiate with men and find work. This type of organization directly facilitates diversification, by opening up new money making opportunities for women.

Women's credit groups are critical to women's security and livelihood opportunities. 22% of women are involved in a credit association. The rotating collection of money contributed by members of a group can usually be claimed every month or week by whoever in the group most needs the money. Often this money is used to pay for an emergency Doctor's visit or to purchase goods for a wedding, but it may also become the critical financial capital that enables women to start a small commercial enterprise. Sometimes this money is even invested in livestock.

Another reason that women's credit groups are so essential is because women lack the means to take loans from formal lending institutions and are particularly scared of money lenders and the shame that would result from not being able to pay back a loan.

The examples below are given to illustrate the ingenuity, accomplishments and range of women's groups in Samene.

Groupu Dugale. This women's group has fifty two members who are all from Boukoura. It was started with only a dozen women two years ago by Seta Tangara. Every week the members of the group contribute 50 CFA. This money is put together to purchase millet from farmers in the village. The millet is stored in the FODESA grain storage center until the prices rise and it can

be sold for a nice profit in Segou. The money generated from these sales is loaned out to members without interest.

Sigitumason. Aissitan Coulibaly started this organization about five years ago in Sokoro. The seventy five members in the organization work together once or twice a week in the fields for a wage. The wage earned by the group is invested in pots and other cooking ware for large celebrations. All members of the group can borrow these materials when they host a wedding, a funeral, or a baptism. The group owns one size 30 pot (30 kilograms of metal), and one size 50 pot that is big enough for a woman to sit inside and is prohibitively expensive for one woman to purchase. To join this group you must be from Sokoro and everyone must pay 500 CFA.

Groupu Yele. With nearly 200 members, this is one of the largest women's credit groups in Samene. All members are from the district of Bougoni. Groupu Yele was started only three years ago by Selimata Djabete. Every Wednesday all members contribute 50 CFA to the rotating pot, which is given to each woman in their turn. When woman in Bougoni wanted to expand the size of their district garden, Groupu Yele agreed to donate the collection pot towards this cause for one month. The group also collectively purchased a manual shea oil extractor to help them process shea nuts.

Although the benefits of women's groups are impressive, they often have membership restrictions. Nearly all women's groups are exclusive to women from a certain district, and some are even narrowed to include only certain households. Without strong social networks joining a women's organization might also be difficult. Jeneba Troure, who was not born in Samene and Ami Kankaleba, a Dogon woman who also recently moved to Samene, have not found a women's credit group that will allow them to join.

There are a couple men's credit and business associations that function similarly to women's organization, but they are generally smaller, more restrictive and have higher dues. There are a handful of men's groups that are also well connected to outside resources. Consider Group Tanye, an organization of 18 men in Nyena from the same age cohort group or *geren*. For the last eight years this organization has been able to secure large loans from a national bank to help them buy farming inputs or livestock.

Men are often automatically considered part of an organization due to their position in society. Most male household heads are part of the village leadership organization and younger males are all part of some farming association. 30% of men are involved in a leadership organization, compared to just 1% of women. Men are simply born into these organizations and they aren't as likely to be motivated by specific material benefits like women are when they seek organizations to join.

Other men's groups that have strong authority in Samene include the hunter's organization and religious organizations. Male secret societies play a role in Samene, but information about their activities and members is highly restricted.

In the last twenty years outside organizations and NGOs have become active in Samene. They have constructed infrastructure, created new resource management frameworks, formed

organizations, enhanced existing livelihood opportunities, and worked to improve the natural resources in the region. Complicated gender politics often come into play when outside organizations come into the village with lots of resources, and the benefits of the NGOs work are never equally distributed.

Most of the aid organizations working in Samene depend on the Mayor and his staff for information and mobilization. He is the gatekeeper of gatekeepers. The mayor chooses who will be invited to these meetings with NGOs and who will eventually benefit from their projects. For example, when a foreign NGO recently came to the village wanting to test a new variety of rice, the mayor chose the fifteen households that would receive the free rice and fertilizer for the test plots. All the households he chose were either somehow related to his own or were the households of the elected representatives in the other districts. As the village gatekeeper the mayor can channel opportunities and aid to certain groups of people, and exclude others from participating.

Association de Recherché Action Femmes et Developpement (ARAFD) is an organization that specifically targets women. This NGO helps women develop and sell local forest products like zanban, gomme arabic, and shea. Forty six small groups were formed in Samene around four different forest products. ARAFD is providing the leaders of each group with training on markets, prices, accounting, and business strategies, so they can sell their products in larger markets. Only three of the forty six groups are men's groups. This project is only in its first year, but it could potentially be of great benefit to women by organizing them and providing them with the skills to reap greater profits from activities they already participate in.

My Peace Corps community gardens project also targeted women, by focusing on an activity that is exclusively theirs. Peace Corps provided the fencing, and the women contributed some money to dig the wells in the garden. Over 400 women now have plots in one of the four community gardens.

An example of a project that has failed to include women is the Multifunctional Platform (MFP), a grain grinder and small-scale agro processing machine, constructed in Samene by FODESA. Selimata Djarra told me the story of the Multifunctional Platform from her perspective. As one of the women in the village with some education Selimata was selected to help run the MFP. She attended a week long training with the other four men, and one woman also chosen to help manage the MFP. Once FODESA left the village and the project was turned over to the management team in Samene, Selimata explained that she dutifully showed up to work during her allotted time, but she was never paid and wasn't allowed to see the books the men kept. She didn't understand the record keeping as well as some of the better educated men and couldn't fix the machine if it broke, so she was slowly pushed out of the organization, along with the other woman. A similar story, of project management being taken over by men, is told about the grain storage center and the savings and lending center, also set up by FODESA.

Institutions

Institutions are the shared informal and formal rules, customs and structures that govern human actions, enable cooperation and provide social order to a community. In Samene institutions take

many forms. Institutions provide the framework for governance, natural resource use and management, and land tenure. They also dictate how marriages are arranged, how religion is practiced and how households are run. The institution of the household has already received due attention. Four institutions in Samene: formal leadership institutions, arranged marriages, land tenure, and the savings and lending center, are discussed below to provide examples of a few of the institutions with the most relevant gender implications.

Formal Leadership Institutions

Access to leadership positions and decision making in Samene is highly restricted. The traditional leadership is composed of landholding families and founders of the village-groups that generally overlap. The modern leadership consists of the mayor and his staff as well as seventeen representatives from the commune. One representative is elected from each district, and he is not necessarily one of the founders or landowners, rather he may be a well respected and fair man, who is a good speaker, and has some education. No women from Samene have positions in the traditional or modern leadership structures. This authority belongs solely to the men. There are a few women who are known leaders of their districts or organizations, who are invited to attend some types of community meetings. However, this invitation does not give them the right to speak or state their opinion. Custom dictates that the women sit quietly in the back.

Arranged Marriages

Early arranged marriages are embedded into the social fabric of Samene. These marriages form strategic alliances between households and can be important in mediating conflicts, obtaining honor, and improving the security of a household. The Gatekeeper arranges all the marriages for his children and often his younger siblings as well. Girls are usually engaged, or promised to a man before they reach ten years of age and they are married before they are seventeen. Their own desires and preferences are not considered. Any resistance a girl displays to the man chosen, damages the household's honor, shames the girl, and disrupts intricate alliances and networks between households.

While young girls have a certain degree of independence especially when they are working outside the village, they quickly lose all their freedom in marriage. In marriage a women's new responsibility is to serve her husband and take care of the house. Early arranged marriages often prevent women from pursuing her studies as well.

Land Tenure

The amount of land farmed by a household and the security of that land are dictated by the local customs of land distribution and tenure. The relationship between the farmer seeking land and the landowner is very influential in granting land. The households of the major landowners control the most land and have the greatest security. Other individuals and households related to the landowners or somehow connected to them through friendship ties, marriages or lineage are also more likely to farm larger fields, and worry less about losing their fields.

In Samene traditional land tenure arrangements are dominant. When a person is said to have tenure or rights to a resource, he or she controls a bundle of rights in the resource (Berry 1988 pp. 53 cited in Crowley 1991). The bundle of rights includes the right of use, transfer, allocation, eviction, exclusion from use, and rights against decreasesments (Crowley 1991 pp. 3). The landlords control these rights and grant land to households to farm, although they retain the right of eviction and transfer, under certain conditions. The head of the household is the primary right holder and his wife and children hold secondary rights to the land (Crowley 1991).

Although the recent opportunity for women to farm their own fields is an important advancement, their access to land is still riddled with constraints. Married women that want to farm their own fields must negotiate through their husbands with the landowners. The amount of land granted to them, thus depends on the relationship between their husbands and the landowners, unless the woman herself is the sister or daughter of the landowner. The fields women are granted are often far from their homes and largely infertile. When I was speaking with a group of women, Ami unabashedly reported that, “Women are given the land that is too tired for men to farm,” and the other women clucked in agreement. Women’s rights to the land they are granted are also highly restricted and their tenure is quite insecure. If part of a woman’s field is not planted, which might happen if they are sick or have new babies, her field can easily be taken back by the landowner.

The traditional fertilizer (animal manure), produced by the household’s animals is controlled by men and used on their fields. Only women who own their own animals and take complete responsibility for them, including paying someone to herd them during the rainy season, will be allowed to have their own animal manure.

Even with these limited rights and access restrictions, 65% of women have some land to farm and 55% of women have land for gardening. Only 7% of men farm their own fields, and 3% own gardens. Men are expected to work in the household fields, and only in cases where there is surplus household labor will men be granted their own land to farm. Women also have responsibilities in the household fields, notably during the planting, harvesting, and storage phases-and can only work in their own fields after these obligations have been fulfilled. Women’s fields are called *surofolo*, which means night field, because women often only get to work in their fields late in the day when all their other tasks are complete. Nevertheless, the custom of granting land to married women for farming and gardening has given women a unique opportunity to earn personal income.

Savings and Lending Center

In 2007 a small savings and lending center was opened up in Samene by Fonds de Développement du Sahel (FODESA). As of June, 2008 there were 137 members from Samene and four other neighboring villages. Forty two of the members are women. Eight organizations also save their money at the center, and five of them are women’s organizations, including Groupu Yele and Bali Bali Geren (two of the groups featured in the organization section).

Of the women who participate in the savings and lending center, most are part of a program called *pari* that resembles their traditional credit groups. Each week they make small deposits

and then they can borrow small amounts of money from their savings when they are needed. The bank also offers up to 100,000 CFA in loans, but most people borrow no more than 5,000 CFA.

One women who relies heavily on the center explains, you can't count on other people to help you with your difficulties anymore. *Sisan, n ko jigitigiso kera bankiso*. Now the person that you used to be able to count on for help has become the bank. For individuals an account in the center requires 2,500 CFA, and for organizations the entrance fee is 10,000 CFA. This is a substantial investment for women, but one that they value due to the security and privacy of their money in the bank. When money is saved in the home, it quickly disappears when family members and friends come asking for small loans. Another advantage of the savings and lending center is that there are no social restrictions, unlike those faced in most men's and women's credit associations. Also, members also don't need to wait until it is their turn to receive the pot like they generally would in a local credit group-loans can be taken at any time.

Networks

Complex and dense networks based on age, marriages, gender, residential districts, livelihood activities and family lineages, crisscross the village and link it to other nodes in Bamako, Segou, Abidjan and other West Africa cities. In a village everyone is tied to each other and the village in multiple ways. These networks are useful for finding aid during difficult periods, securing jobs, and providing housing for migrants and students.

Adama Kane's story outlined below illustrates the power of networks and connections, in facilitating livelihood activities.

Adama Kane was born in Segou and lived there until he passed his 6th grade exams. At this time, he moved to Samene with his parents, who were returning to their home village after his father's business failed. In Samene Adama's father had been good friends with Umar Troure, the largest landowner in the village and his younger brother also operated the largest store in the village. When Adama's family returned to Samene, Umar gave them twelve hectares of prime farming land and two storerooms in the market. Adama's father started a commercial business buying farm crops from residents in the area and reselling them in Segou. Before Adama was thirty years old his mother and father both passed away and as the oldest son he became the head of the household and took over his father's business. Adama quickly reestablished a connection he had in Segou with an old schoolmate, who had become a big buyer of shea nuts, bissap, and metal. Seizing this opportunity, Adama expanded his commercial enterprise in Samene so that he could sell these other goods to his friend. Adama Kane now buys millet, bissap, metal, shea nuts, beans, and peanuts from all over the commune and sells them in Segou and Bamako. He employs four workers, owns one large truck, a motorcycle and ten head of cattle.

Migrants rely on village or even regional networks to find work and housing in new places. Many of the male migrants from Samene live in the same area of Bamako with households from Samene that have a permanent residence in the area. The older generations that found work in Abidjan, all worked for only a couple different bosses. They had a good reputation in one of the companies that managed the ports and anyone from Samene could get a job there. Friendship

networks are also utilized by both male and female migrants seeking work. Migrants who are already employed will search for jobs for friends, so when they arrive they can go right to work.

Large households usually have household members living and working in many locations outside of Mali and these individuals are counted on, especially when harvests are poor, to send cash back to the village. If even one member of the household has secured well paying salaried employment, he becomes their *jigiya*, their hope and the person they count on. The money sent by this person can enable other members of the household to enter new activities with high financial barriers. Adama says, “If someone in your family finds good work, than you can work also, but if nobody has any money then you can’t work.”

Umar Troure is the largest landowner in the village and there are 95 members in his household. One of his brother’s sons, Lasseni, was educated and found good work in Spain. Even with more than enough farmland, large herds of livestock, and many migrants in the household, Lasseni is their *jigiya*. His remittances enabled his father to set up a phone booth in Samene, and his mother to start her own garden.

In the village, households form the most basic, and generally the strongest networks. Even smaller families that split from the larger households can depend on the support of their extended family members during times of celebration and hardship. Sisters or daughters that are married into another household, often ask for help from their mothers, fathers, brothers, and sisters.

When women were asked who they would ask for cash in a critical situation, most mentioned their husbands, but many also gave the names of their siblings or sons. Men were more likely to mention their brothers and good friends, or if they were older, their sons. The majority of people that were thought to be able to help during a desperate situation were working outside the village. The poorest households are often the smallest households that have no men able to earn money through migration activities.

Yacouba Djallo is the seventy five year old head of a small household with poor human assets. He had three sons and three daughters, but two of the sons abandoned the family, after a conflict, and now live in Bamako. The third son is thirty five years old married with four young children. Yacouba is too old to be much help in the fields or around the house, so the son cannot leave the village to work. He does farm wage work when he can, but earns little money. Without any remittances coming from outside the village and a lack of farm labor, food and cash are scarce and everyone in the family is hungry a lot.

Within the districts, most households can trace back their lineage to a couple founding households, and these connections still carry a lot of weight. Due to this common ancestry and history, the districts in Samene are tight networks of mutual aid and support. The five districts in Samene are separately very well organized and most adults participate in some sort of district based leadership, work group, or community service group. In Sokoro, the oldest district in Samene, all the male and female household heads regularly meet to discuss community affairs, although they do so separately. When the Sokoro mosque was expanded every adult male in the district helped with the construction.

Conclusion

The social rules and norms embedded in power dynamics and structures are present between every step in the livelihood framework and determine an individual's ability to access livelihood opportunities. The differences in asset ownership and activity participation between men and women can be explained by the social rules and norms of society.

The social rules and norms open or restrict livelihood options for individuals depending on their age, gender, position in the household and society, and wealth or assets. They are the gates that can be opened or locked by the gatekeepers. The household, headed by the *dutigi*-or the gatekeeper- has been a common theme in this section used to bring to life one of the most critical access barriers men and women face in constructing their livelihoods. Deconstructing the household and using it as a tool to help understand access, has shown access to be complicated and never straightforward. Access is at once opportunistic and negotiable and rigid and uncompromising.

Chapter 11: Samene's Livelihood Framework

The livelihood framework I designed was constructed to help summarize and explain my findings and answer my research question. It incorporates both the data and the key concepts and processes that I discovered during my research. This chapter will start by outlining the premises on which my livelihood framework is based and then transition to a presentation and explanation of the livelihood framework diagram itself. The second half of the chapter explains how my data fits into this livelihood framework.

Basic premises of Samene's Livelihood Framework

My livelihood framework is based on the following premises:

- 1) Not all diversification is the same.
- 2) The livelihood experience is different for different social groups.
- 3) Access embedded in power and social relations is critical in understanding livelihoods.
- 4) Social differentiation is a central process in the livelihood framework.

Each of these premises is discussed in turn below as they relate to my findings and the existing literature.

1) Not all diversification is the same.

Many researchers speak of diversification as if it is a single process with uniform effects. It is either good or bad. However, there is an incredible range of diversification activities. Repairing broken sandals is not the same as running a store. These activities have different access restrictions, demand different assets and promise different outcomes.

Most researchers evaluate diversification by counting the number of livelihood activities a person is engaged in or by calculating the percentage of income nonfarm activities contribute to total incomes (Benjamin 2004; Bryceson 1999; Ellis 2000; Haggblade 2007). These are measures of the degree of involvement in diversification activities. They are satisfactory methods if the research is not specifically concerned with how diversification benefits social groups differently (Foeken 1992; Hart 1994; Lanjouw 2007; Gladwin 2001). For research such as mine that is concerned with the outcomes of diversification activities and differences between social groups, it is necessary to look closely at the specific types of activities that different social groups are involved in and the income returns generated by these activities (Foeken 1992; Hart 1994; Lanjouw 2007).

My framework depicts activities as the manifestation of an individual's assets and access. This understanding is central to my research question. An individual's ability to enter diversification activities that result in asset enhancement and income accumulation depend on their assets and social position. For this reason, activities cannot simply be counted they must be qualitatively disaggregated and seen as a reflection of the individual's livelihood experience.

2) The livelihood experience is different for different social groups.

My findings show that men and women and the rich and poor have different assets, access capabilities, activity involvement and livelihood outcomes. This finding is well established by other researchers, but it has not been adequately addressed in the livelihood framework (Arce and Hebinick 2002; Ellis 2000; Gladwin 2001; Jiggins 1989; Kang et al. 2004; Scoones 1998). The conventional livelihood framework also neglects to account for the complex interactions and synergy that I found between the livelihood components, which come together to create an *integrated livelihood experience* for the members of each social group.

My framework draws on Arce and Hebnick's description of the internal logic of the livelihood experience as constructed by the specific cultural repertoire of shared experiences, knowledge, insights, prospects, interpretations of the context, and an integrated set of assets and shared challenges (Arce and Hebinick 2002). My framework attempts to address the interrelatedness and synergy between the livelihood components and the observed regularities and patterns in livelihoods among men and women and the rich and poor.

3) Access embedded in power and social relations is critical in understanding livelihoods.

The conventional livelihood frameworks fail to bring the issue of access to life. Access is generally depicted as a benign and neutral factor that must be accounted for, but has little real significance. In line with researchers such as Brujin (1995), De Haan (2005), Kang et al. (2004), and Scoones (1998) I found access to be of preeminent importance in understanding livelihoods. The institutional factors that are often considered only in passing are very important for explaining (differences in) resource endowments and activity strategies (Van Dijk 2002 cited in Kang et al. 5; Scoones 1998). Institutional factors are the social rules and norms based in power dynamics and structures that shape livelihood options for different social groups.

'Understanding institutional processes allows the identification of restrictions/barriers and opportunities (or 'gateways') to sustainable livelihoods' (Scoones 1998 pp. 12). My research supports the claim that different social groups are faced with unequal power relations and differential access to resources (Brujin 1995; Kang et al. 2004).

The literature on social exclusion has been particularly helpful to me in understanding how unequal power dynamics structure livelihoods. Kang et al. (2004) describes poverty as the result of a historical process of the exclusion of certain social groups from natural resources, decision making, land rights, income control, information, trade opportunities, knowledges, livelihood opportunities and social services. The process of social exclusion involves one group claiming a specific opportunity for their own relations based on material, social or physical characteristics such as race, gender, property ownership, caste, education, social status, or ethnicity. These characteristics can become accepted barriers that fence in opportunities for the eligibles and exclude the ineligibles (Ellis 2000, pp.11). Social exclusion is a process in which groups try to monopolize specific opportunities for their own group. The concepts of social exclusion, access and power were found to be critical elements in my research and are fundamental to the design of my livelihood framework.

4) Social differentiation is a central process in the livelihood framework.

The livelihood framework I propose centers on the process of social differentiation between social groups. This process of differentiation and the presence of inequality between social groups are key themes in my findings, but they are rarely addressed in livelihoods literature. Exceptions include Brujin (1995), De Haan (2004), Kang et al. (2004) and Scoones (1998) who have found inequality and social differentiation to be important aspects of livelihood analysis and advocate for greater incorporation of these elements into the livelihood framework.

One of the chief sources of inspiration guiding my livelihood framework is based on De Haan's concept of trajectories that is so vividly described below.

"Depicting livelihood trajectories can perhaps best be described as unraveling a historical route through a labyrinth of rooms, which each room, having several doors giving access to new livelihood opportunities, but the doors can be opened and the room of opportunities successfully entered only with the right key qualifications. As a result, some doors remain unopened and rooms of opportunities not accessed; sometimes new rooms of opportunities are successfully exploited, but perhaps more often a person ends up in a room that very much resembles the room from which they have tried to escape a while ago" (De Haan 2005, pp. 17).

In line with De Haan I also emphasize the historical path an individual takes through the livelihood framework and the doors of access that can be opened or closed only with the 'right key qualifications.' The livelihood framework I propose can be used to compare the livelihoods of different social groups and explain how differentiation occurs in the village.

Samene's Livelihood Framework

Samene's livelihood framework is represented as a spiral. A spiral begins in the center and travels outwards in successive, linked orbits. The first orbit represents the weak assets, poor access and low return activities that are characteristic of poor and marginalized groups. At this level people are just barely getting by and their livelihoods are likely to be based within their household. Each successive orbit represents an increase in assets, a widening of access and participation in more prolific livelihood activities. In the second orbit livelihoods are based in the village and in the third orbit, livelihoods rely on resources, activities or networks, based outside the village.

Rather than the labyrinth of rooms described in De Haan's quote on livelihood trajectories I have depicted orbits of opportunity. Each orbit of the spiral is representative of the integrated, interrelated set of assets, access constraints, activities and outcomes that shapes ones livelihood experience. For individuals with strong asset bases and few access constraints, advantages are accumulated over time as they move outward in the spiral. As these groups move through the livelihood framework they continue to build up their assets allowing them access to a wider range of income earning opportunities.

The individuals with weak asset bases face what Barrett et al. refer to as the asset poverty trap (2001). Without sufficient assets to access activities that lead to positive livelihood outcomes, individuals in this situation are faced with a never ending cycle of poverty.

Locked gates guarded by gatekeepers prevent access to the outer rings of the spiral unless one has the right qualifications to pass through the gates. If an individual possess the keys to open up gates, they move outwards along the spiral in a process of accumulating advantages, but those lacking the keys to open these gates are stuck moving around the same orbit with little hope for advancement. The livelihood framework thus represents a process of differentiation between individuals and different social groups.

Assets, represented by the asset pentagon in the diagram, are the access keys. Each point in the asset pentagon represents one of the five assets: social, physical, natural, financial, and human. (see pg. 9 for more on Asset Mapping). In the first orbit of the spiral the total area of the star shape within the pentagon is smaller than the area of the star shape in circle two, which is relatively smaller than the asset pentagon in circle three. The area of the star represents an individual's power and capacity to access assets, transform assets into activities, reach desired outcomes, and challenge the rules and social norms of access (Bebbington 1999, pp. 2022).

The gates of access represent the social norms and rules that open or close livelihood options. The ability of an individual to pass through a gate is determined by the social rules and norms of society and an individual's assets. The minor gates of access regulate movement within the orbits and the critical access gates regulate movement between the orbits. Within the circles the minor access gates need to be opened to access resources, transform assets into activities, and reach desired outcomes. Within each orbit an individual might be slowly improving their livelihoods, but they cannot move between circles until their assets have reached the critical threshold that allows them to make the big jump to the larger orbit. The key qualifications that allow an individual to make this jump vary and might consist of many different combinations of the five asset categories. In some cases an individual's social standing and education are their access keys, while for other's their large cattle herds and field size give them the power to move through the access gates.

Gatekeepers guard the critical access gates that regulate movement between orbits. The concept of the gatekeeper borrows heavily from the literature of social exclusion. The powerful groups in society (i.e the gatekeepers) have the ability to manipulate social relations, norms, rules and values to their own advantage (Brujin 1995). The rules and social norms such as, the gender division of labor, land tenure arrangements and household resource distribution are enforced by the gatekeepers to protect their own privileges. In my research I identified many overlapping powerful groups in the community including household heads, large wealthy households, landowning households, village leaders and the village founders.

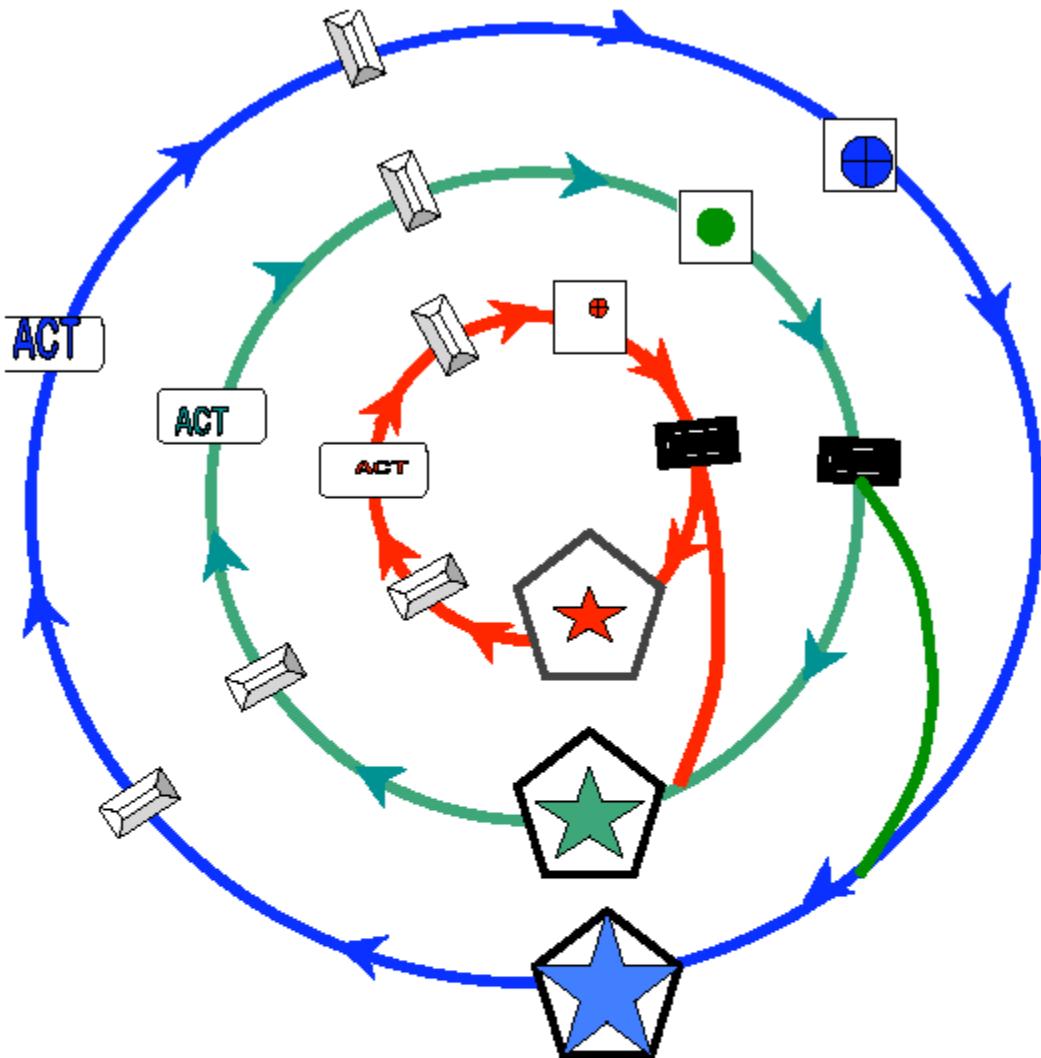
The critical access gate between the first and second orbit is typically guarded by the household head, or *dutigi*. The *dutigi* holds the power in the household and controls the livelihoods of individual household members. Both men and women rely on the *dutigi*'s support to move to the second orbit. There are many tools a *dutigi* has on hand to prevent members of his household from moving to the second orbit if it is not in his best interest, such as demanding their incomes,

refusing them access to the household's productive assets, and prohibiting them from undertaking certain activities.

The critical access gate between the second and third orbit is typically guarded by either the mayor or the chief. Both the mayor and chief are fair leaders, who look out for the community's welfare, but they also use their power to ensure that privileges remain with the groups they belong to and that others outside these groups are unable to access the advantages they enjoy. It goes without saying that gatekeepers at both levels are men, and that women are one of the groups that are uniformly excluded from accessing the third livelihood orbit.

The mayor and chief have the power to channel opportunities (i.e leadership roles, NGO projects, land, etc.) to certain individuals and groups. They also control the access in and out of the village that is so critical for the livelihoods of individuals in the third orbit. These two gatekeepers act as the executive, judicial and legislative branch enforcing, interpreting and making the rules that the rest of the community must follow.

Figure 4: Samene's Livelihood Framework



Samene's Livelihood Framework



Assets: Each point of pentagon refers to one of the five assets and the total area of the star in the pentagon represents an individual's assets and power to move through the access gates.



Activities: The livelihood activities and strategies pursued by an individual.



Outcomes: The outcomes of livelihood activities.



Minor Access Gate



Critical Access Gate

Describing the Livelihoods of Men and Women in the Livelihood Framework

One of the consistent patterns found at all orbits of the livelihood framework is that men's livelihood success is highly dependent on their household's wealth where no such relationship is evident for women's livelihoods. In Samene patrilocal marriage customs dictate that women leave their household of origin for their husband's household. While no data was collected about a women's household of origin, the wealth of the household they married into was found to have little influence on their livelihood success.

A household's wealth can be easily estimated using three interrelated variables: cattle holdings, field size and household size. Large households are likely to have large fields and cattle holdings, whereas small households are likely to have small fields and cattle holdings. The table below shows that households with more than fifty people have about ten times more cattle and almost ten times larger fields than the smallest households.

Table 33: Household Cattle Holdings and Field Size by Household Size

Household size	Mean # Cattle	Mean Field Size (hect.)
0-15 people	3.2	3.7
16-30 people	6	6.2
31-50 people	7.1	12.1
More than 50 people	36.6	34.8

Men's assets, access and activities are positively correlated with the wealth of their households. Table 32 shows that in households with large cattle herds, men will also have a higher individual cattle ownership. In households that have more than 25 head of cattle, 82% of men individually own at least one head of cattle⁴, and the same is true for only 54% of men from households that own between zero and two head of cattle. Men in households that own more than 25 head of cattle own an average of 15 head of cattle individually, compared to men in households that own between zero and two cattle where the average individual cattle ownership for men is less than 4.

Table 34: Percentage of Men and Women that own at least one head of cattle (or the equivalent)* for different Household Cattle sizes

Household cattle holdings	Men	Women
0-2 head of cattle	54%	58%
3-6 head of cattle	53%	50%
7-25 head of cattle	70%	61%
More than 25 head of cattle	82%	55%

* Livestock Unit (LSU): 1 cattle: 5 sheep: 10 goats

⁴ For individual animal ownership Livestock Units (LSU) are used to add up the different animals owned by an individual. (1 cattle: 5 sheep: 10 goats).

The same relationship is found between a man's cattle holdings and his household's size and household field size. The most convenient indicator of an individual's wealth is their animal ownership, and this indicator will be relied on throughout the next section.

For women, there is little correspondence between her livelihood experience and the wealth of her household. This finding can be understood in relation to the norms of patrilocality and patrilineal descent. When a woman is married she leaves her birth family behind and joins her husband in his compound. Daughters stand to inherit none of their father's assets. Women's nonproductive livelihood activities and income are also less of a part of the household's livelihood strategies, than men's activities and income.

The Livelihood Experience of Men and Women in the different Orbits of the Livelihood Framework

The following section describes the livelihood experiences of men and women in the different orbits of the framework. Each orbit represents the particular assets, access, and activities that form the integrated livelihood experience for individuals at different levels of the framework.

Men in the first orbit

Men in the first orbit are, more often than not, from *duguma* or lower income class, households that are small and poor. In these households there are few men capable of migrating and/or farming and many dependents in the household. Livelihoods at this level are extremely vulnerable, and a bad harvest means hunger and resource depletion.

There are few household heads, or *dutigis*, found in the first orbit because they generally control all the shared household assets. Only *dutigis* from very poor households, like Amadu's are found in the first orbit. Amadu is the *dutigi* of a household with only eleven people. The household owns no cattle or plows and Amadu and his two wives farm one hectare by hand. Out of the eight children in the household, only one son and one daughter are old enough to migrate during the nonfarm season. Amadu farms and makes a small amount of money repairing radios. He survives by begging and through gifts of millet from his older brother.

The other type of man likely to be found in the first orbit is from a *cemance*, or middle class, household, but is not the *dutigi* and thus has little income and few assets of his own. Generally social norms dictate that men who are not the *dutigi* turn over their incomes to him so that he can provide for the household as a whole.

Yacouba's story is a good example of a man whose position in the household prevents him from accumulating any personal assets or making independent livelihood decisions. Yacouba Dumbelle is the younger brother of Youssef, who is the *dutigi* and the district leader of Bougoni. Yacouba worked twenty years in the Ivory Coast as a record keeper at the port and now his primary task is farming in the household's fields. He has no personal livestock or physical assets and all the income he has ever made he gave to Youssef. Yacouba does have a 9th grade diploma and extensive migration experience and he would like to try to find work outside of Mali. Youssef prohibits him from leaving. Youssef's authority as the *dutigi* is compounded by his

position as the district chief, and Yacouba would violate well entrenched and respected social rules if he disobeyed Youssef's authority.

Even though men like Yacouba from *cemance* households may not leave the first orbit, they do not worry about hunger and their livelihoods are more secure than men from *duguma* households because their assets and activities are just a small part of the household's livelihood strategy. When a son gives all his hard earned migration income to his father, he may have nothing for himself, but he knows that his father will protect and provide for him.

Men in the first orbit are involved in one or two livelihood activities. The primary activity pursued by men at the first level is farming. If there is enough household labor, younger men will seasonally migrate, although they are likely to find only low return, labor intensive work in the cities. Except for migratory activities, livelihoods in this first orbit are based within the household.

For both men and women there is a lifecycle effect within the livelihood framework. Different orbits correspond to certain life stages. For example young men (15-30 years old) and old men (65 years and older) are likely to be found in the first orbit. Younger men have not had time to develop their own livelihoods and older men can no longer actively participate in many livelihood activities.

Assets

In terms of assets, men in the first orbit are likely to own no physical assets except for maybe a bicycle or radio. They do not own livelihood tools or equipment that would allow them to enter into activities besides farming and migration. Human assets for men in the first orbit are low, and they are less likely to be able to read and write than men at the higher level orbits.

Men in the first orbit do not have their own fields to farm and they generally own no livestock. For many men at this level, their social assets are likely to be weak because they are from poorer households or have low standing in their own households. Only 31% of men who are not leaders (men invited to community meetings or leaders of organizations) own at least one head of cattle, compared to 92% of men who own one head of cattle or more and are leaders. Men in the first orbit are also significantly less likely to be any type of community leader or participate in an organization. Livelihood support for men at this level comes from their households, rather than outside organizations, networks or connections.

Access to the second orbit

Men are unable to make the jump to the next orbit largely because they cannot accumulate assets, either due to the poverty in their households, or the social norms that require them to turn all their income and assets over to the *dutigi*. To pass to the second orbit, men must get the permission of the gatekeeper, who in this case is the *dutigi*. It is the *dutigi* who guards the access gates into activities outside of the household and he who determines the control individuals have over their own incomes. When men have established their own families and the farming

foundation of the household is secure, the gatekeeper is more willing to let them pass into the second orbit.

When men in the first orbit were asked who could help them during an emergency, they were more likely than the men in the upper orbits to have replied, *mogosi* or no one. Men in the first orbit, also lack a *jigiya*. A *jigiya* is someone, who is relatively wealthy and usually lives outside the village, that helps their friends or kin access opportunities and provides them with financial resources.

Another access constraint men in the first orbit face is a lack of the financial capital necessary to start or enter activities leading to more desirable outcomes. Umar Keita is the *dutigi* of a poorer household. He is able to read and write and dreams of owning a small business like a phone booth or a battery charging station, but he doesn't have the financial capital to buy the equipment he needs to get started.

Men from the first orbit adapt different strategies to pass through the critical gate into the second orbit only in certain situations. The most prominent strategy is a slow accumulation of livestock. The first goats or sheep are often purchased with either a loan from a father, brother or close friend, or from income saved up slowly from migratory activities. In other cases, a small proportion of a man's income might be slowly saved and invested in simple livelihood tools that grant access to new, more prolific activities like bee keeping, bike repair or well digging.

For a *dutigi* of a small poor household, the surest way to reach the next orbit is to raise sons that will be able to help farm and provide income to the household. Education or special skills might also help grant access to the second orbit, but they are useless without the financial capital to start the activities that can capitalize on these human assets.

Sedu has relied on his religious erudition and complementary social standing to give him access to the second level. Looking at Sedu Troure's assets, it might appear that he belongs in the first orbit. He is a *dutigi* of a household with very poor farming assets, but Sedu is one of the most prominent religious leaders in the village. His primary activity is studying the Koran and teaching children. This activity does not earn him a cash income per se, but the village will ensure that a man of his standing will be taken care of. The households of his students often send him bags of millet and during the holidays other families give him meat.

A final path that men might take to access the second orbit is to secure better paying work outside the village. Adama's story is an example of this case. Adama, is the younger brother of a *dutigi*. He passed into the second orbit when he was offered an accounting job at a small store in Bamako. This relatively well paying and secure job combined with his University degree gave Adama the power to break into the second level and control his own income even though he isn't a *dutigi*.

Men in the Second Orbit

Men at the second orbit are involved in livelihood activities that generate income and enhance assets. Their livelihood portfolios are marked by their participation in activities besides farming and low return migration. The most common supplementary activity for men is livestock raising. Men at this level are likely to own a couple cattle or small ruminants that they fatten and sell in

local markets (including Segou). They may also be involved in slightly higher return migration activities, such as farming rice near Niono or commerce in Bamako. Other medium return activities that men at this level are associated with in Samene are: tailoring, bicycle repair, house building, mat weaving, well digging, and small scale commerce. Activities at this level involve interactions at the village level.

For men at the second level as well as the first, household wealth in terms of cattle, fields size and household size, is positively correlated with individual livelihood success. At the second level, most men are from *cemance*, or middle class, households.

Men at the second orbit have greater independence and fewer demands on their labor and income from the *dutigi*, so they are able to enter supplementary activities and invest their income in livestock or livelihood tools like plows, carts, sewing machines, or bike repair tools. In the case when the individual is the *dutigi*, he also has more physical and financial assets and greater security than a *dutigi* at the first level.

Serry Djarra, is an example of a man who has achieved success in the second orbit. Serry is the son of the *dutigi* of a middle class household. He worked for seven years in Bamako during the nonfarming season pushing goods around the city in hand held carts. He gave some of the money he made to his father, but invested the rest into starting a small commercial business in Samene. Serry sells sugar, batteries, cigarettes, oil, tea and soap from a stand outside his house. With his profits he has slowly built up a herd of cattle and also purchased a motorcycle for himself.

Many men have small service or commercial enterprises at this level. Issah owns some basic tools and repairs bike and flat tires under a small shack he built near the main road. Dramane is a carpenter, who constructs wooden carts, tables and cattle yokes and Adama is a blacksmith who makes the *dabas* or hand hoes that are so critical to farmers.

Assets

Like their counterparts in the first orbit, men at the second orbit do not farm their own fields or have gardens. In terms of financial assets, they are likely to own a couple cattle or several small ruminants. Unless members of this orbit are *dutigis* they do not generally own plows or carts of their own, but they might own personal livelihood tools that assist them in their activities like sewing machines, fishing nets, bike repair tools or weaving looms. Men in the second orbit generally have good health and they are more likely than men in the first orbit to be literate or have special livelihood skills.

Access to the Third Orbit

Access to the third orbit is highly restricted. The gatekeepers at this third level are likely to be powerful people within the village like the mayor, the chief, the village founders or the major landowners. These gatekeepers allocate land, choose the beneficiaries of NGO and governmental projects, control movement in and out of the village and enforce the rules and norms that keep the social hierarchies in place.

Without a high social standing and networks to resources, jobs, or family members outside Samene it is difficult for a man to move to the third orbit. Men who are able to build up a profitable commercial or service enterprise or secure a skilled job outside the village, might also gain the social status and financial resources that will allow them to access the third level. Education or special skills are in many cases the keys that help men access these high return nonfarm activities.

Consider the access difficulties that Malike Djarra faces in accessing the third orbit. Malike is the *dutigi* of a *cemance* household. The household's forty members farm twelve hectares and have four head of cattle. As the *dutigi* Malike controls all of these farming assets. Malike himself is only active in farming, but his three sons seasonally work in Bamako and contribute their incomes towards household expenses. This is a very typical household livelihood portfolio. Malike cannot enter the third orbit, because he, nor anyone in his household, is involved in a high return activity, nor do they appear to have any good connections outside the village that can help them access more prolific opportunities. Malike's household lacks the livelihood dynamism characterizes the activity portfolios of the men at the third level.

Issah Keita's story demonstrates how he was able to use his assets and social position to move into the third orbit. Issah is the first son of a fairly wealthy district leader. His father is too old to perform his duties so Issah has become one of the district representatives. In his earlier years, he worked in Abidjan and in Dugaubu and especially in Abidjan he was able to earn a relatively high income. With this migration income, Issah started buying a couple sheep to fatten and sell during Tabaski. He slowly built up his herd and now owns twelve head of cattle and ten sheep. One of the members of his *geren*, or age cohort group, is the owner of the livestock truck in Samene, and he helps Issah sell his cattle and sheep outside of the village. The income Issah earned from his migration work along with his high social standing in the village and help from his childhood friend enabled Issah to grow a profitable cattle raising business and access the third orbit.

Men in Third Orbit

Men who have entered the third orbit come from *sanfe*, or upper class households. *Sanfe* households are likely to be large (over 40 people), farm more than 10 hectares and own at least 7 head of cattle. There are no men that have reached the third orbit that come from poor households. Many of the men that are members of the third orbit also come from powerful households, such as the household of the chief, mayor, village founders or major landowners.

Dutigis from wealthy households are likely to provide critical assets such as land, credit, or livestock, to their brothers or sons and also give them a high degree of independence over their labor and incomes because their contributions are not critical to the household's vitality. The large size of most wealthy households, also frees up men's labor to start their own activities. Individuals from wealthy households can take advantage of kinship networks outside the village to secure resources, commercial activities, information, and jobs.

Men in the third orbit are likely to be the *dutigi*. 97% of *dutigis* own at least one head of cattle, and the same is true for only 44% of brothers, and 30% of sons. Men who are not the *dutigis*, but

earn high incomes, are also likely to be from wealthy households. The only men who farm personal fields have their own plows and carts are from large wealthy households.

The majority of men in the third orbit continue to depend highly on livestock and farming for their income, but most are also involved in supplementary nonfarm activities. Many of the most successful men are involved in more than two activities. Men involved in more than two activities are three times more likely to own at least one head of cattle, than men involved in two or fewer activities. (75% to 25%).

At this third orbit, there appears to be a split between men whose wealth is built on farming activities and men who rely on entrepreneurial nonfarm activities for their wealth. This second group of men are all from middle to upper class households just like the first group, but they are less likely to be from one of the powerful households in the community than men who rely solely on farming activities. The following paragraphs present examples of these two livelihood strategies taken up by men in the third orbit.

SeduSacko is a traditional example of a man found at the third orbit. Sedu is the *dutigi* of a household with 46 members and his father was one of the major landowners in Samene. Sedu has never attended school and earns all his income from his expansive farming activities. Sedu oversees the farming operations on the household's 30 hectares, and many years there is a surplus of crops that he is able to sell in Segou. Animal raising is the primary income generator for Sedu. He owns 40 head of cattle, 10 sheep, and 25 goats that he sells in Bamako and in markets outside of the country.

Soulemane Djarra participates primarily in nonfarm activities, although his household has a strong farming base. Soulemane is a 47 year old *dutigi* and has an 8th grade education. There are 32 members in his household and the harvests from their 17 hectares are enough to sustain them most years. Soulemane also owns 10 head of cattle. While farming and livestock raising are the most important activities to the household because they provide for food security and some income, the majority of Soulemane's income comes from his involvement in business and consulting projects with NGO's like FODESA and ADS. These connections outside the village have granted Soulemane access into the third orbit even though he is not from one of the traditionally powerful households. Soulemane has worked with FODESA outside of Samene constructing buildings and roads and he has also benefited from all of FODESA's projects in Samene. He helps run the grain storage bank and also the savings and lending bank that FODESA established in Samene. Soulemane's involvement in these high return nonfarm activities is facilitated by his education and the security his household has in the farming sector.

Some of the wealthiest individuals consider their nonfarm activities to be more important than their farm activities. Only men in the third orbit can access high return service and commercial activities. These high return nonfarm activities such as running a small store, working with NGOs, operating a phone booth, blacksmithing, transportation services, millet grinding, motorcycle and vehicle repair or skilled urban wage work all require a basic education level or highly developed skills, and in most cases special tools and equipment as well. All the men who listed service activities as their most important activities had at least a 6th grade education.

The men surveyed who are involved in high return nonfarm activities are all from households with strong farming assets, characterized by large fields, many plows and carts, and large cattle herds. Therefore, it appears that a strong farming foundation is necessary in facilitating involvement in higher return nonfarm activities.

Assets

Men in the third orbit are generally strong in all five asset categories. Most farm their own fields (or are in charge of the households fields) and a couple even own large gardens. In the third orbit, men own a large number of livestock and often many physical farming assets such as plows and carts, in addition to luxury goods like motorcycles, solar panels and televisions.

In terms of human assets, men at this level are generally more than 40 years old and, in many cases, they can read and write or have other special livelihood skills. 47% of men with at least a 4th grade education are involved in three activities or more, compared to 27% of men with less than a 4th grade education. The four men involved in 4 or 5 activities all have at least a sixth grade education.

Social assets are perhaps the most critical in granting membership to this elite third orbit. All men at the third orbit have a high social standing and come from *sanfe*, or upper class, households. Another social asset that characterizes this group are networks and livelihood activities that reach outside the village.

The discussion of the third orbit will conclude with two examples of men's livelihoods at this level.

Daouda Djarra is the *dutigi* of a household of 30 people. He has a 6th grade education, and his late father was a soldier and a very wealthy man. His father passed down to him one car, one truck, a millet grinding machine, and hundreds of bags of stored millet. Daouda farms 10 hectares with his household, and most years they sell more than a 20 bags of millet and beans. Besides selling food crops and raising a dozen cattle to sell, Daouda also operates the millet grinding machine and is paid to thresh the millet beads from their stalks with his truck. Daouda has a well developed mix of farm and nonfarm activities that make him one of the richest men in the village. The physical assets that were passed down to him (i.e. the truck and the millet grinder) along with his education and the income accrued from his farming activities have established Daouda's place in the third orbit.

Lage Troure is the son of Baba Troure, who is the *dutigi* of one of the largest households (100 people) in Samene. The household farms 30 hectares, owns 12 heads of cattle and sells farm crops most years. Lage attended school until the 6th grade and then worked for 12 years farming coffee in the Ivory Coast. He was able to use his wages from Ivory Coast to invest in livestock and also buy a plow and cart for himself, unlike most migrants who were required to turn over the majority of their incomes to the *dutigi*. Baba also gave his son a small personal field that generates a small income for him during good years. Lage's largest regular source of income is his small tailoring business. He was able to buy a sewing machine by selling his cattle and food crops from his field, and learned the craft during an apprenticeship in Bamako with a cousin.

Coming from a large wealthy household that does not depend on Lage's labor or income, he has been able to use his income to invest in highly profitable activities aided by his education and trade skills.

These are examples of some of the different pathways that men have taken to achieve livelihood success. Now we will turn to look at the livelihood experience of women in the different orbits. Note the similarities in some of the access constraints that both men and women face in the first orbit. As we look at the outer orbits of the framework, women's numbers decrease due to gender differentiated social rules and norms that restrict women from improving their livelihoods and reaching the third orbit.

Women in First Orbit

Women moving around the first orbit are just 'getting by.' They struggle to pass through the minor access gates in the orbit and at the end of the day they end up just where they started. Women at this level have little independence and power due to their weak assets.

Women in the first orbit rely on low return farm activities based in the natural resources. They collect forest products and most also farm their personal fields or garden as well. Activities performed in the first orbit provide only for subsistence needs. The shea nuts are used for cooking oil, and garden and food crops are consumed within the household. If any small amount of income is generated it is used to buy basic necessities that woman rely on such as soap.

The following example is a description of the experiences that women in the first orbit face.

Minema Coulibaly is the second wife of the *dutigi*'s younger brother. She is 30 years old and has four young children. Her social standing in the household is low due to her gender, age, and position as the *dutigi*'s brother's second wife. Minema collects shea nuts and gum arabic from the forest and has a plot in the community garden. She is responsible for a lot of the cooking and she helps plant and harvest the household's crops as well. Although Minema works long hard days, the only activity that earns her any money is selling the *gum arabic* to a local buyer. She saves this money to buy soap and gifts for weddings and baptisms. The shea nuts are made into cooking oil and consumed within the household. With her four young children and arduous household chores Minema has little time to pursue any other activities. She also does not have the financial capital to buy animals or start a commercial activity. Minema is not part of a women's organization and she has nobody that can give her a loan, although her older brother has come to her aid before. Minema's weak assets only give her access to farming activities with low entry barriers and she is not able to accumulate income or enhance her assets over time.

Women like Minema are highly dependent on their husbands, and have no power to challenge his authority. Without income of her own, Minema must beg for money from her husband for clothing, cooking supplies, spices, and medicines. If a woman in Minema's situation were prohibited from joining an organization or traveling to markets by her husband she will not be able to challenge his authority.

Assets

Overall women have good access to natural resources. Forests are common pool resources open to all women to collect from as they wish. Many women at the first orbit have a garden plot as well. Although 75% of women have personal fields to farm, women at this level are less likely to have personal fields than women at the second orbit.

It is rare for women in the first orbit to own livestock. Women who do not farm personal fields are twice more likely to own no animals than women who do farm personal fields. Apart from their natural assets, women at this first level have very few assets at their disposal. They do not own physical assets or livestock that might allow them to enter new activities or generate income.

Weak social assets are generally a key indicator that a woman is at the first orbit. In the first orbit, women are likely to have low status within the household and in society (they are less likely to be the daughters or sisters of one of the powerful households in the village). Women here are also less likely to have someone that can loan them money and help them during difficulties than women at the second orbit. Although a sizable minority of women in the first orbit are members of women's organizations, organization membership is not as common as it is in the second orbit.

When evaluating assets, it is important to consider how age categories influence livelihoods. Of the 23 women who do not own any animals or farm their own fields, 12 are either over 65, or unmarried. Older women might not participate in a lot of activities; however, they might enjoy a relatively high status in the household, due to their age, especially if they are the female household head.

Access to the second orbit

The weak assets controlled by women in the first orbit, give them little power to move through the access gates and negotiate with the gatekeeper. At this level a woman's husband or the *dutigi* is the major gatekeeper. If the gatekeeper does not allow his wife to control her own income or participate in certain activities, women will find it very difficult to break through the critical access gate into the second level.

One of the major access constraints women face is a lack of time to devote to their personal activities. This constraint is especially acute for the women who are assigned the bulk of cooking duties or have many small children that are not yet old enough to help them with their household chores.

Women are able to open the critical gate between the orbits and move into the second orbit only under certain conditions. If a woman is the daughter or sister of a powerful man in the village she will have greater power to negotiate with the gatekeeper and move through to the second level. Her blood relatives are also likely to be able to loan her money to start an activity. When asked who could help them during difficulties, more than half of the women mention someone

from their original households. Setu Djarra knows her older brother can help her, and Kortum can count on her mother for help.

In some cases women continue to move around the first orbit, slowly enhancing their assets and activities until they reach the critical threshold that allows them to break out into the second orbit. Accumulation may begin when women are granted personal fields or plots in a garden, or when they start to sell small amounts of forest products or field and garden crops. Expanding farming activities to generate a surplus beyond subsistence needs, is another way women might be able to access the second orbit. Sira Troure bought her first goat by saving money from shea nut sales and many of other women are able to save money by selling peanuts from their fields or spun cotton (more common in the past).

Another way that women are able to procure the initial capital to move into relatively higher return activities, is to participate in a women's organization that provides wage work or credit to its members. For example, *Jeliya ton* is a women's group that collects firewood to sell. The 12 members in *Jeliya ton* use this money to buy fabric to sell in Samene. When a small amount of money can be saved, women often try to start a small commercial business (usually selling some sort of food) or they invest in livestock.

In a few cases women enter the second orbit with assistance from their husbands. Their husbands have the power to open the gates into more prolific livelihood opportunities than they would have been able to access on their own. Issah Djarra is a major buyer and seller of farm crops in Samene, and his wife also has become a grain trader. Her husband allows her to use his scale to measure the grains and he also sells her grains for her in Segou when he travels there. In another example, Adama Doumbia granted his wife a sizable plot in the large, well equipped garden that he owns and she has been able to sell many garden crops with her husband.

In the previous chapter (Chapter 11) the two women who worked on the sugar farms near Niono were mentioned. These two women worked for 4 and 5 years respectively outside the village earning a much higher wage than any other women migrants working as domestics in urban centers. These women were also unique because they were married when they were working in Niono and living with members of their original households with homes in Niono. Both women used the income they saved from this work to invest in livestock and now they own more livestock than any other women surveyed. When they returned to Samene, the prestige of their work along with the power of their financial assets enabled them to attain large fields to farm.

There are also a few cases where the ability to read and write has opened up opportunities for women and enabled them to enter the second orbit. Consider the activities of Sira Mariko, who has a 6th grade education, and the role her education played in attaining these opportunities. On Fridays Sira works in the savings and lending center, and she also serves as community health care monitor twice a week. In addition, Sira is a member of the parent teacher organization and a women's work organization. With the extra income from these nonfarm activities, Sira invests in her goat herd and buys spices in bulk in Segou to sell in her district.

Women in the second orbit

Women in the second orbit are involved in activities that enhance their assets and lead to income accumulation. These women are likely to be involved in the same fundamental farming activities as the women from the first level, but they often engage in supplementary activities and are able to generate income from their farming activities, rather than relying on them purely for subsistence needs. Women at the second orbit are also likely to be involved in more activities than women at the first level. Involvement in more activities is correlated with higher incomes and animal ownership. Sixty percent of women involved in four or more activities owned at least one goat or sheep, compared to only 24% of women involved in three or fewer activities.

During a focus group discussion, when I asked women how they would identify a wealthy women they said first by her activities. A women's participation in commercial activities is a sign of her wealth. Even though most of women's small commercial ventures such as selling small amounts of garden crops, shea nuts or fried millet balls generate low returns, they do require some financial capital and free time to start and are thus out of reach to most of the women at the first level. Some women are involved in slightly higher return commercial activities, such as selling fabric, medicine, jewelry, livestock, or farm crops and forest products, and all these women are found in the second orbit. Another distinguishing feature of the commercial activities of women in the second orbit is that they are likely to sell their products outside of Samene in larger regional markets. One woman explained, "Musow min be taama ko jugu bena wari sooro." The women that can travel a lot are going to make money.

Asetu Dumbelle's activity portfolio is typical of a woman in the second level. She farms one hectare of peanuts and millet and also collects shea nuts. Outside of farm activities she sells embroidery that she stitched and braids hair to earn a little supplementary income. Asetu also raises three goats that she bought with the income she made by selling shea nuts and embroidery and braiding hair.

The majority of the women in the second orbit have no education, but the few literate women in Samene are more likely to be found in the second orbit. In fact, all women that have some education are involved in three or more activities. In some cases basic literacy has helped women get work with NGOs or find temporary work with community services such as child vaccinations, voting registration, and health monitoring. There are no women in the community that have full time wage positions in Samene. Even though they may not have any formal education, women at the second level often rely on special skills, like cotton spinning, soap making, gardening or embroidery.

To enter this second orbit a woman must have her husband's support. Women at this stage have greater independence from their husband's and usually also have a high degree of control over their own incomes. Women who have a lot of control over their incomes are also more likely to own animals, than women who have little to no control over their incomes (54% compared to 33%).

Assets

Nearly all women in the second orbit farm their own fields and several women at this level farm more than three hectares. Women are likely to have plots in a garden as well. In the second orbit, women also have greater financial assets (i.e. livestock). Nearly all women in the second orbit own at least a couple goats and some own sheep and cattle as well. Only 11% of women who have fields 1.5 hectares and greater have no animals, compared to nearly 80% of women who do not farm their own fields. Owning physical assets is rare even for women at the second level, but the few women that do own wooden carts are found in the second orbit.

In terms of social assets, a majority of the women in the second level, are female household heads and thus have more authority in the household. It has already been mentioned that position in the household, control over money, and field and livestock ownership are all highly correlated.

Women in the second orbit are often members of a women's credit or work organization, and more likely to be the leaders of the organization than women at the first level. Women that are part of an organization are 2.5 times more likely to own some animals than women who are not part of organizations (73% to 27%).

A higher social standing in the community or a leadership role is another characteristic of women in the second orbit. Ninety percent of women who are leaders own some livestock, compared to 39% of women with no leadership role in the community. Here 'leader' includes women who are the leaders of an organization or are regularly invited to community meetings.

The strong social assets that Pola possesses have been the key to her success in the second orbit. She is the wife of the older and now deceased brother of the principal landowner in Samene. Pola has not followed the traditional custom of marrying her husband's brother. As the wife of one of the most powerful men in the village Pola has the power to challenge this social convention of remarriage. Pola also has another strong social asset: her son, Madu, who works in Spain and regularly sends her money.

Pola is around 60 years old, but without a husband to attend to and no small children, she is very active in a diversity of livelihood activities. She collects a large amount of shea nuts and sells the majority. She also uses some of the shea oil to make soap, a skill that only a few women have. Pola was given three hectares to farm and a fenced garden of her own with a well near the household and she sells both garden and food crops. Pola helps support her younger sister and a daughter who live in Samene, but with her remaining income she has purchased five goats. When community meetings are called, Pola is one of the few women invited to attend.

With the exception of a couple stories like Pola's, the wealth of the household that women marry into doesn't appear to influence their livelihoods to a great extent. The standing and wealth of the households they were born in might be better predictor of women's success. Unfortunately I lack comprehensive data linking women to the household's they were born into. The lives of a few women I knew personally appear to confirm my speculation that women who are originally from powerful households, will carry this social standing to their husband's household, and use it to negotiate through access gates might have constrained other women.

Selimata Mariko's story is a prime example. Selimata's father was a major landowner in Samene. Her father's powerful position in the village, gave Selimata the keys to become an

influential woman in the village. Selimata is the President of two large women's organizations. One is a rotating credit group and the second is a women's work group. Five years ago Selimata purchased a pasta making machine with two other women in her household, and she sells pasta every day in the market and also farms her own field and collects shea nuts. Selimata has never been able to have children of her own. This inability might have ostracized another woman of a lower initial social standing, but in her case it has freed her up to participate in many activities and lead organizations. Selimata is well respected outside the village and is invited to important community meetings.

Access to the third level

No women in Samene are found in the third orbit. The gatekeepers between the second and third levels guard certain advantages and privileges for themselves and do not allow women to enter. The high return activities and especially the nonfarm activities are closely guarded by men who do not allow women to pass. Women are excluded from the high return activities that might allow them to enhance their assets and gain power in the community.

Women do not have the connections and networks that lead to access to information, jobs and markets outside the village that men in the third orbit have. Women's mobility after marriage is also highly regulated by their husbands. They cannot leave the village to participate in market activities without the permission of their husbands and they would never think of looking for work outside the village after marriage.

Many highly entrenched social rules and norms keep women from moving to the third orbit. In appearance women must always be 'beneath their husbands' (or men in general). This social norm prohibits women from participating in activities or accumulating assets that challenge this subservient role. A second social norm that is inimical to the advancement of women in the livelihood framework is the gender division of labor. The vast majority of women's time is consumed by uncompensated household duties. It follows that women have little time to devote to their personal activities and that they are confined to a narrow range of activities considered to be the logical extension of their roles in the household. Traditional land tenure systems, also prevent women from making a lot of money farming. Women have poor tenure rights and are given only small plots of land. Women's fields are also considered secondary to the household's fields and they are more likely to be given degraded land and lack the means of acquiring fertilizer.

Table 35: Summary of Men's and Women's Livelihood Experience at each Orbit of the Livelihood Framework

	Social standing	Types of Activities	Scale	Outcomes	Key Assets	Access constraints	How to access next orbit
Men Orbit 1	From poor households Less likely to be <i>dutigi</i>	Low return activities w/ low entry barriers. Subsistence farming, possibly low return seasonal migration activities. One or two activities.	Household (with the exception of migration)	Survival	Health, labor power Member of a household and community Household's fields	Little control over income or activities Low social standing in household Poverty of household Overall weak assets	Animal ownership Acquire livelihood tools Skills/education Higher return migration work Greater control over income and labor Support of <i>dutigi</i>
Men Orbit 2	From middle class households More likely to be <i>dutigi</i>	Often involved in activities besides farming and migration such as livestock raising, commerce, service activities, and skilled trades	Village	Asset enhancement Income accumulation, Increased security	More freedom over income and activities Farming assets of household Animal ownership May own livelihood tools. May be involved in an organization	Cannot farm own field Lack strong social assets Lack total control over income and labor	Higher return work outside the village. Start own business Connections outside village Wealth of household
Men Orbit 3	From wealthy households Often from one of influential households Likely to be the <i>dutigi</i>	High return activities. Strong farming base Often with high return nonfarm activities in commerce or service sectors. Often 3 or more activities.	Outside the village	Asset enhancement Income accumulation, Increased security, Improved standard of living	Literacy or special skills Physical capital assets Strong farming assets Large cattle herds Wealth of household Connections outside the village High social standing Farm own fields	Violating norms of equality in village	
Women Orbit 1	Less likely to be the female household head or first wife or from a wealthy or influential household	Low return activities w/ low entry barriers Collect forest products. Most also farm personal fields or have garden.	Household	Survival	Health, labor power Member of a household and community. Natural assets-access to forest, personal fields and garden plots	Little control over own income and labor. Poor farming resources. Time constraints. Poor financial and social assets.	Support of <i>dutigi</i> Sell forest products or garden and field crops Animal ownership Join women's organization Migration activities or wage work
Women Orbit 2	Likely to be the first wife or female household head. Might be from a wealthy or influential household	Likely to be involved in animal raising and/or commerce, in addition to farming, collecting forest product ,and gardening. Involved in 3 or more activities.	Village	Asset enhancement Income accumulation	Husband support Animal ownership Time availability Ability to travel May be literate or have special skills Personal field Garden plot Member of an organization Leadership role in community	Gender division of labor Time constraints Gatekeepers Lack connections outside village Lack of mobility Lack of financial assets	Unable to access third orbit due to access constraints and gatekeepers

Chapter 12 Conclusions

The primary objective of this thesis was to answer the question of how assets and access (social rules and norms) influence livelihood diversification options for men and women. The livelihood framework I designed answers this question.

Each orbit of the spiral is representative of the integrated set of assets, access constraints, activities and outcomes that shapes one's livelihood experience. As individuals move forward and pass through the critical access gates into the successive layers of the spiral their assets increase and they are able to access more beneficial livelihood activities.

Not all diversification activities are equal. Activities are considered to be a manifestation of an individual's assets and social position. Some individuals are only able to access the low return diversification activities that are necessary for survival, while others use diversification activities to enhance asset enhancement and accumulate income.

An individual's assets and social standing give them the power to open the access gates and improve their livelihoods. The gates in the livelihood framework are the social rules and norms of society, which shape the livelihood options for different social groups. Access to resources and activities is not evenly distributed; it is embedded in power and unequal social relations. Some of the significant social rules and norms considered in this paper are the gender division of labor, intra-household resource distribution and decision making, and land tenure rights. The concept of the gatekeeper was used to bring the themes of access, power and social exclusion to life.

For men and women a number of key assets have been identified in granting individuals access to the critical access gates between orbits. For women her husband's support and her position in the household and the community were found to be the two most significant factors in determining her livelihood position. Time availability, animal ownership, personal field size, gardening space and involvement in organizations were identified as the key assets that lead to livelihood success for women. For men the wealth and social standing of their households, and their own position within their household are critical determinants of their livelihood success. Financial capital and access to credit, cattle ownership, networks outside the village, education and special skills, migration experience and physical capital were found to be the key assets for men.

Individuals with these assets, have the power to open the access gates within and between the orbits. Their experience is one of accumulating advantages. The individuals who lack the assets necessary to access activities that can improve their livelihood position are stuck in a cycle of poverty. Therefore, the process of livelihood construction and activity diversification is a process of social differentiation.

Groups are differentiated by gender and by asset status or wealth. Women are primarily concentrated in low return farming activities, and have access to only a narrow range of nonfarm activities. However, there are considerable variations in the livelihood experiences within gendered groups based on the differences in asset ownership and social standing of individuals.

Men and women are both found in the first and second orbits of the livelihood framework and share some basic similarities in their livelihood experiences at these first two levels, but women are excluded from the third orbit and the high return activities that characterize this level of livelihood success.

A livelihood framework that can help us understand the differences in how social groups compose their livelihoods is a critical tool in our time. Livelihoods in the developing world are undergoing significant changes. In many regions of the South poverty and inequality are on the rise. The holistic, people centered livelihood approach is well suited to understand the multiple dimensions of poverty and the diversity of responses to poverty.

Livelihood diversification has been one of the primary responses to poverty and insecurity. In the face of the continuing trends of rapidly increasing populations, declining farm productivity and landlessness in many developing countries, farmers are turning towards nonfarm activities to survive. Ellis (2000) and others argue that diversification is a worthwhile policy goal and that removing the constraints to and expanding the opportunities for diversification should be encouraged. Yet, promoting diversification is not equivalent to helping the poor. Without explicit efforts to reach marginalized populations, stimulus to the nonfarm sector benefits those already possessing the assets-financial savings, skills, education, social contacts-necessary to take advantage of emerging market opportunities (Barrett et al 2001 pp. 327).

Understanding how to promote diversification that reduces inequalities between social groups and specifically targets women and the poor is an important objective that can be facilitated by the livelihood framework. The livelihood framework proposed can be used to identify the critical assets that increase livelihood opportunities for certain groups and the pathways that individuals have taken to achieve livelihood security. For example if the policy goal is to improve livelihoods of poor women, one could identify and work to improve access to the key assets, such as farm land, animal ownership, and organization membership that women have used to gain access to the second livelihood orbit.

The livelihood framework calls for a three-fold strategy for improving livelihoods that works to strengthen assets and activities and remove obstacles that limit activity participation and access to resources. Some of the critical development interventions and policy recommendations that emerge from considering this approach in relation to livelihoods in Samene are outlined below.

- 1) Improve access to rural financial systems so that poor people are able to participate in the livelihood activities that require an initial financial investment. As Malike said, "Work is good, but if you don't have money you can't work." Without the initial capital to buy cattle, tools, plows, or construction materials for example, the poor are excluded from participating in many of the most attractive diversification activities. If an individual is unable to acquire the minimum assets that grant them access to the second livelihood orbit where they can begin the process of accumulation, they will remain stuck in the asset poverty cycle.
- 2) Improve access to markets by increasing transportation options, and improving roads and communication systems. An individual's access to markets for labor, goods and

information along with their urban social connections are critical determinants of their position within the livelihood framework. Livelihood activities that have a broad reach outside of the village are more profitable than activities restricted to the household or village level. Currently only rich men are able to take advantage of more profitable urban markets. Policies that reduce travel times and costs and expand access to information and jobs in urban markets will open up more opportunities for groups that are traditionally excluded from these more attractive activities.

- 3) Increase education and innovative skill training. Literacy was found to increase access to livelihood opportunities in Samene and specific skills are necessary for nearly all nonfarm activities. Nonformal education in the areas of accounting, adult literacy, and skill training for activities such as bike repair, tailoring, bee keeping, fabric dying, soap making, marketing, embroidery, and weaving should be encouraged alongside the formal education systems. Innovative training programs might also focus on skills that could open up more lucrative migration opportunities for men and women.
- 4) Strengthen activities that have been shown to be pathways to improved livelihoods. For women these are activities such as gardening, commerce, collecting forest products and animal raising. Activities that are pathways to livelihood improvements for men include migration, animal raising, and commercial and service enterprises. One example of an NGO that is working towards this goal in Samene is Association de Recherché Action Femmes et Developpement (ARAFD). In Samene, ARAFD organized women into groups that collect different forest products and trained them in improved processing and storage techniques. The NGO also provided training and assistance for how to access price information and sell forest products in larger markets. A similar model that focuses on organization (in a way that enhances social capital), and includes information and technology exchange as well as improved access to markets could also work to strength other livelihood activities.
- 5) While encouraging these supplementary activities, we should not lose sight of the fact that farming is the foundation for livelihoods. Continued investment in raising farm productivity, especially in ways that benefit women, should be a primary area of focus. This might include interventions and policies that work to improve women's access to land, new technologies and information, animal traction, plows, seeds, and fertilizers so they don't have to depend on their husbands to improve their farms. Traditional land tenure systems also pose major equity and efficiency challenges, especially to marginalized groups. Improving the functioning of land markets in rural areas is a critical goal that emerges from the livelihood framework (Cornia 1994; Havnevik et al. 2006).

It is my hope that Samene's livelihood framework can be used to increase our understanding for how rural peasants construct their livelihoods and guide policies and development efforts that aim to improve livelihoods in a equitable and holistic manner.

Samenecow bee I ne ce. N'aw te nin te se ka ke. Ala k'aw demi. Ala k'an to nogon ye.

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