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ABSTRACT OF DISSERTATION

Karen Marie Greenough

The Graduate School  
University of Kentucky  
2010



STRATEGIC FLEXIBILITY:  
HOUSEHOLD ECOLOGIES OF FUL'BE IN TANOUT, NIGER

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ABSTRACT OF DISSERTATION

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A dissertation submitted in partial fulfillment of the  
requirements for the degree of Doctor of Philosophy in the  
College of Arts and Sciences  
at the University of Kentucky

By  
Karen Marie Greenough

Lexington, Kentucky

Director: Dr. Peter D. Little, Professor of Anthropology

Lexington, Kentucky

2010

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## ABSTRACT OF DISSERTATION

### STRATEGIC FLEXIBILITY: HOUSEHOLD ECOLOGIES OF FUL'BE IN TANOUT, NIGER

(Agro)pastoralism in Sahelian Niger, as elsewhere, operates through household enterprises. Katsinen-ko'en (Fulbe) households, interconnected within kin and community networks, utilize a range of flexible strategies to manage a variety of ecological and economic risks. This dissertation argues that (agro)pastoralist households and communities maintain or improve viability in risky environments first by employing various mobility patterns, among other strategies, and relying on the tightly knit interdependence between household and herd. Secondly, households that most successfully sustain a cooperative integrity (i.e. partnerships between husband and wife, or wives, and parents and children) to negotiate decisions and strategies best withstand adversities such as droughts. The continuance of vital links between household and herd helps the household enterprise more easily weather difficult times and profit during advantageous times. Thirdly, the transfer of endowments from parents to children of ecological, economic and political knowledges and socio-economic networks ensures the continuity of family livelihoods.

This dissertation analyzes a range of household/herd mobility patterns on a livelihood continuum from sedentary agropastoralism to exclusive pastoralism, and the household decisions that lead to those mobilities. In this way, it adds to a growing body of literature that examines household strategies employed in very uncertain natural environments, contributing to pastoral studies and environmental anthropology. By folding household economics and political ecology into household ecology, it analyses resource and asset transfers within and between households, all under the influence of the natural and political-economic environments. Contributing to development anthropology, I argue that the most important buffer against the risks of unpredictable environments is a stable, undivided household, migrating with and managing its own herd.

I conclude by showing how development research and projects should support household/herd integrity to enhance livelihood security. When government or development agencies institute policies and projects that remove children from the household, or separate households and herds, they endanger the integrity of the household and the reproduction of livelihoods that make essential contributions to national economies. Rather than urging pastoralists to modify their livelihoods to fit images held by

administrators, these organizations and agencies should help pastoralists to build on adaptations that already facilitate their management of risky environments.

KEYWORDS: pastoralism, household economy, mobility, environmental anthropology, Fulbe

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December 13, 2010  
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STRATEGIC FLEXIBILITY:  
HOUSEHOLD ECOLOGIES OF FUL'BE IN TANOUT, NIGER

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## DEDICATION

This Dissertation is dedicated to my “mother” in the rangeland of Niger, Dede Lime, who passed away just before my dissertation research, and to the women in Tanout who feed and care for me, Howa and Chatou. Howa also passed away in December 2010. And to my real parents, Peyton and Donna Greenough, who, though they have not always understood what I am trying to do, have always supported me throughout my life.



## ACKNOWLEDGMENTS

I must first thank the people who gave so much of the information on which this dissertation is based: the Katsinen-ko'en of Arɔo Baluuri, Arɔo Issa, and Arɔo Alhaji Sanda. Several households put us up and fed us as we traveled from community to community. The elders at Mai-Kalafo and the elders at Siogari were especially helpful with stories about their lives. I could not have collected this information without my research team: Daji ɔi Husseini, Maman Manzo, and Veli ɔi Laabi.

None of my research would be possible without my good friends in the towns of Tanout and Gourbobou, and the Goje-ko'en Woɔaaɔe who, whenever I come to Tanout, feed me and provide me with companionship and good advice. Other people in Niger who help me invaluablely in myriad ways include Ibrahim Abdoulaye, Christie Collins, Martha Thiry (aka iez), Thomas Sommerhalter, and Eric van Sprundel.

On the home front, my sister Jessica Greenough maintained a state-side base-of-operations during my research in Niger, and she continues to help me. My sister Ellen Fredericks helped me with editing, and the welcome distraction of her own literary aspirations. My cousin Marc Greenough and his partner Steven Parks put me up while I lived in Seattle, and my parents then put up with me while I lived with them on the Olympic Peninsula. Amy Entze helped me tremendously with her librarian skills.

Last, but by no means least, I thank my chair, Peter Little, for plowing through drafts of proposals, papers and this dissertation, for his helpful comments and advice, and for getting me through some dicey administrative problems. I thank my committee members, Lisa Cligget, Monica Udvardy, and Keiko Tanaka, for their continued support and encouragement. I am very grateful to Matt Turner, PhD, for his assistance as IRB advisor. I thank all of my professors at UK for their instruction and advice, and my fellow grad

students, including many at other schools, for their friendship, support, encouragement and collaboration. Finally, I thank Wanda Brooks, our wonderful department secretary, who kept me on track whether I was at school or in the field.

Though many people have assisted in the planning and implementation of the research, and the writing of the dissertation, the work is mine and I take responsibility for any inaccuracies or weaknesses.

This research was conducted with very helpful financial support from the National Science Foundation, Division of Behavioral and Cognitive Sciences; the Social Science Research Council, International Dissertation Field Research; and the Graduate School of the University of Kentucky.

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This research was carried out under the auspices of the Institutional Research Board of the University of Kentucky, IRB #05-0803-P4S.

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## CHAPTER 1: INTRODUCTION

### THE PROBLEM

Conventional wisdom assumes various images of pastoralists: that pastoralists are irrational, “unmodern” nomads; that they all participate (or should take part) in a persistent, unilinear shift from nomadism to sedentarization; that livestock raisers are either “pure” nomadic pastoralists, or sedentary agropastoralists with perhaps an element of transhumance; that pastoralists are either poor and pitiful, or wealthy and enviable, but are always difficult; that pastoralists refuse to sell their livestock, avoid markets, and stubbornly resist change. Many researchers and scholars have worked to dispel these mythical images and replace them with illustrations and analyses of the complexities of pastoral communities in the past and today (e.g. Monod 1975b; Chang and Koster 1994b; Anderson and Broch-Due 1999; Niamir-Fuller 1999). Pastoralists in reality exhibit a vast range of different types of mobilities and livelihoods, rational strategies and adaptations to change in their various natural and socio-economic environments.

Pastoral literature describes historical to and fro shifts between mobile pastoralism and semi-settled cultivation, variously caused by the vagaries of war, droughts, disease, and political economic changes (Stenning 1959; Bonfiglioli 1988; Little, PD 1992), though more recent pastoralist trends from Africa to Asia seem to confirm ubiquitous decreases in mobility (Monod 1975a; Fratkin 1991; Spicer 1999). Livelihood change among mobile pastoralists is also a recognized phenomenon. Impoverished pastoralists often settle due to lack of livestock, and wealthy pastoralists settle by leaving their herds to hired or enslaved labor (Stenning 1959; Fratkin 1991; Azarya 1996; van Dijk 1999). During times of political unrest, mobile pastoralists may become more mobile and marginalized at the periphery of polities. Descriptions of historical mobility patterns among Fulbe peoples show the bimodal effects of state formation and political processes on pastoralists: either assimilation and settlement, or marginalization and increased mobility (Dupire 1962; Bonfiglioli 1982, 1988; de Bruijn and van Dijk 2001). At least since European colonization, external pressure on pastoral resources, especially the encroachment of cultivation, has almost universally confined mobile pastoralists to ever smaller spaces, restricting their access to pasture and water (Prior 1994; Fratkin 1997; Azarya et al 1999). Drought and rinderpest epidemics at

the turn of the 20<sup>th</sup> century forced Woδaaβe, mostly exclusive (“pure”) pastoralists, into temporary cultivation (Bonfiglioli 1988), and Katsinen-ko’*en*,<sup>1</sup> mostly agropastoralists, to find alternative income generating activities (see Chapter 3).

Humphrey and Sneath, however, emphasize that while nomadic populations have become more sedentary throughout the 20<sup>th</sup> century, “*for herders this is not irreversible. ‘Desedentarization’ is a possibility even today*” (Humphrey and Sneath 1999:196, authors’ emphases). While several studies examine present day pastoralist sedentarization (e.g. (Fratkin and Roth 2005), other research explores renomadization or desedentarization. From the nomadization of Fur farmers in Sudan (Haaland 1969), to pastoralists in decollectivised Mongolia (Mearns 2004) and Tibet (Manderscheid 2001), to drought stricken pastoralists in Rajasthan, India (Robbins 1998), subsistence producers either become mobile pastoralists, or pastoralists increase their mobility. Decreasing rainfall and drought in West Africa has pushed some Fulβe pastoralists to increase their mobility (Azarya et al 1999; Adriansen and Nielsen 2002). The recent Sahelian-wide droughts of 1969-73 and 1983-4, (like the drought-famine at the turn of the century) devastated livestock herds and forced pastoralist households to settle at least temporarily into cultivation or low wage, urban labor. After each drought most Woδaaβe households slowly rebuilt their herds until their livestock could support them once again as exclusive pastoralists in the rangeland. Though most Katsinen-ko’*en* returned home to cultivate in 1985, those in my research communities tell similar stories of refuge in the south of the country in 1984-5, then a slow restoration of livestock herds. After the drought, some Katsinen-ko’*en* chose to leave cultivation altogether, joining a small cadre of exclusively pastoral kin who had either given up cultivation earlier or had never cultivated.

Though many government administrators and functionaries, as well as the general public, still expect mobile pastoralists to settle into “modern” livelihoods, recent paradigm shifts in the research of dryland ecology (Behnke et al 1993; Niamir-Fuller 1999; Sullivan and Homewood 2003) have begun to shift development policy that, since colonization, has marginalized and discriminated against mobile pastoralists. More and more development organizations and even government agencies are beginning to understand and accept the necessity of *herd* mobility. Little emphasis, however, is yet given to *household* mobility, and little research has examined the intra- and inter-household dynamics of pastoral livelihood

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<sup>1</sup> Both Fulβe peoples: the singular of Katsinen-ko’*en* is Katsinen-kejo; the singular of Woδaaβe, a separate Fulβe group, is Boδaaδo. The singular of Fulβe is Pullo.

change, especially of households that have increased their mobility, or given up cultivation for exclusive pastoralism. How and by whom are such decisions made? What other strategies accompany mobility and livelihood change decisions? This dissertation examines the varied patterns of mobility and other flexible strategies that the Katsinen-ko'en employ to manage risk and livelihood security. It supports previous research (Niamir-Fuller 1999; Global Drylands Initiative 2007; Moritz et al 2009) showing that, though mobile pastoralism endures various threats from development policies discouraging mobility, it remains viable and useful as a subsistence livelihood.

I examine Katsinen-ko'en (agro)pastoral households, living at the limit of cultivation in the northern Sahel of central Niger, to illustrate the reality of a creative and productive people. Like other Sahelian communities, with their mutable forms of mobility, mixed livelihoods, and scattered residential patterns, they do not fit into the sedentary agriculture/nomadic pastoralism dichotomy, or the "transhumance" pattern (mobility only during the rainy season) which most outsiders, including Nigerien administrators, use to categorize rural populations of Niger. These households shift strategically between agropastoralism and exclusive pastoralism as semi-independent enterprises, and in fact specialize in balancing cultivation with livestock raising.

Both mobile and sedentary Katsinen-ko'en households currently occupy a category that, in 2005, FEWS (Famine Early Warning System, USAID, <http://www.fews.net>) described as the poorest of the poor. They live in a country that consistently ends at or near the bottom of the UNDP's Human Development Report as least developed (<http://hdr.undp.org/en/statistics/>) and where, according to the Oxford Poverty and Human Development Initiative's Multidimensional Poverty Index, 93% of the citizens live in poverty (Alkire and Santos 2010). Throughout a period of a decrease in average annual rainfall since the 1960s (Swift 1979; Sutter 1982; Hulme 2001) and two major droughts, these northern Sahelian communities have found sustainable harvests increasingly rare; in perhaps only one out of every four or five years will they bring in enough grain to last the whole year. A few households have gravitated toward more settled cultivation, but with the growing precariousness of cultivation, other households choose to shift from mobile agropastoralism to mobile exclusive pastoralism by building their livestock holdings to levels that will sustain such a livelihood. Others oscillate, cultivating one year, but not the next, in the unstable climate of their fickle natural environment. They manage to

strategically balance on the edge of their risky environment through the working partnership of the household.

The Katsinen-ko'en, as I describe below, self-identify as pastoralists (*waynaaḃe*), in opposition to villager agriculturists, thus I place the “agro” in parenthesis to symbolize not only the exclusively pastoral households within their society, but also their self-classification as pastoralists, even if they practice cultivation. The analysis of the household ecologies of the Katsinen-ko'en gives us new insights into the practices of other pastoral peoples, such as their neighbors, the *Woḃaaḃe*. Whereas *Woḃaaḃe* households specialize in exclusive and extensive pastoralism, they will also take up cultivation when disaster renders their livestock numbers too low to support them. Like most northern Katsinen-ko'en, they do not usually sedentarize, but merely reduce their mobility while they concentrate for a time on seasonal agriculture. Both Katsinen-ko'en and *Woḃaaḃe* practice a variety of other strategies to maintain or improve household sustainability. Besides the exploitation and marketing of livestock, dairy products and cultivation harvests, the Katsinen-ko'en undertake alternative income-generating activities, from field labor to artisan work to cattle trading, modifications that they have adopted at different times through history.

This dissertation argues that (agro)pastoralist households and communities maintain or improve viability in risky environments, such as that of the northern Sahel, first by employing various mobility patterns, among other strategies, and relying on the tightly knit interdependence between household and herd. Secondly, households that most successfully sustain a cooperative integrity (i.e. partnerships between husband and wife, or wives, and parents and children) to negotiate decisions and strategies best withstand adversities such as droughts. When vital links persist between household and herd, and household members can preserve the flexible collaboration through which they maintain their household enterprise, that enterprise can more easily weather difficult times and profit during advantageous times. Conflict leads to the breakup of household and communities, especially when the majority of households are mobile, and reduces people's capacity to manage risk. Thirdly, the transfer of endowments from parents to children of not only material resources, but also of ecological, economic and political knowledges and socio-economic networks ensures the continuity of family livelihoods.

This dissertation adds to a growing body of literature that examines household strategies employed in very uncertain natural environments, contributing to pastoral

studies and environmental anthropology. By analyzing a range of household/herd mobility patterns on a livelihood continuum from sedentary agropastoralism to exclusive pastoralism, and the household decisions that lead to those mobilities, it presents a much more complex picture than some authors have portrayed. By folding household economics and political ecology into household ecology, it analyses resource and asset transfers within and between households, all under the considerable influence of the natural environment, but also controlled more or less by local politics and market economics. Contributing to development anthropology, I argue that the most important buffer against the risks of unpredictable environments is a stable, undivided household, migrating with and managing its own herd. I conclude by showing how development research and projects should support household/herd integrity to enhance livelihood security. When government or development agencies institute policies and projects, such as schools, that remove children from the household and community, or attempt to separate households and herds, they endanger the integrity of the household and the reproduction of livelihoods that make essential contributions to national economies. Rather than urging pastoralists to modify their livelihoods to fit images held by administrators, these organizations and agencies should help pastoralists to build on adaptations that already facilitate their management of risky environments.

## **METHODS**

During eighteen months in Niger, from April 2006 into November 2007, I traveled between Katsinen-ko'en communities, spent time with my Gojen-ko'en (Woɗaaɓe) family,<sup>2</sup> and spoke with government and development agents and administrators in Tanout, Zinder and Niamey. During the proposal process, despite my long experience in Niger,<sup>3</sup> or perhaps because I had previously lived and worked mostly with Woɗaaɓe exclusive pastoralists and settled farmers, I unconsciously dichotomized my research population into sedentary Katsinen-ko'en cultivators and mobile exclusive pastoralists. I had not yet met the mobile

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<sup>2</sup> *I have lived with a few different Gojen-ko'en families and visited with others from other lineages. One particular Gojen-ko'en family, however, has taken care of me and my livestock since the late 1990s. Please note that when I speak of "Woɗaaɓe" I refer primarily (unless otherwise indicated) to the Gojen-ko'en of Tanout whom I know the best. Different Woɗaaɓe lineages, even in the same area, have slightly different practices and dialects of Fulfulde.*

<sup>3</sup> *I spent three years in Tanout as a Peace Corps volunteer (1985-88); seven years living independently in Tanout (1991-1998); and have returned three times before my dissertation research in winter 2000-2001, summer 2002 (thesis research) and fall 2003 (pre-dissertation research).*

Katsinen-ko'en agropastoralists, and I had also absorbed, since the 1990s, government agents received dichotomy of nomadic pastoralists/settled agropastoralists.

I aimed to compare the risk management strategies of mobile households to those of sedentary households. I found in the field, however, a complex range of strategies across a spectrum of livelihood arrangements and mobility patterns. After a few weeks in the field, I realized that my research population would not divide neatly into "settled cultivators" and "mobile pastoralists," but only roughly into categories of a few settled agropastoralists, a majority of mobile agropastoralists, and a few mobile exclusive pastoralists who do not cultivate. Some households wavered between categories just before or during the research period.

I had also planned, too ambitiously, to interview a random sample of households from several different communities. As I began to appreciate, though, the connectedness of households within families, and realize the amount of geography I must cover with only horses and a camel, my approach soon evolved into purposive sampling. I aimed to interview<sup>4</sup> all adult members (over eighteen years of age) of all households within one family (*wuro*). In the end, I interviewed adults in households from four different communities: Omboragat, Mai-Kalafo, Siogari and Futawa.<sup>5</sup> In only Mai-Kalafo and Siogari did I interview more than half of the members of each community and all or most adults in each household, and only at Mai-Kalafo was I able, for the most part, to interview all households within each family. The Siogari exclusively pastoralist households were separated from their larger agropastoralist families, who lived near wells to the south. In the last few months of the research I re-interviewed about two-thirds of my original sample to learn what strategies they had employed to maintain households and herds through the difficult 2006-07 year. I conducted initial interviews with 127 members of 60 households (67 men and 59 women), and second interviews with 83 members of 39 households (38 men and 44 women). In "Research Communities" below, I give the numbers of persons and households interviewed for each community.

Besides interviews, I obtained histories of migrations and other stories from elders of all four communities, held countless conversations with women and men, and plotted household movements and locations of key resources by GPS. I also visited and interviewed Woḍaaḅe friends about migrations and household resources.

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<sup>4</sup> See Appendix A for survey questions.

<sup>5</sup> I have named the communities for either their home wells or for prominent geographical features near those wells.

### ***Objectives and Questions***

As my methods changed, my theoretical approach also evolved. As I analyzed data, and reshaped my theoretical framework, I examined mobility patterns, household labor divisions, decision-making capabilities, and negotiations over decisions and strategies. I formulated new emphases, including the importance of strategic mobility for all households, partnerships among household members, an integration of household members with their livestock, and the involvement of households and their communities in political-ecological change. Though I had realized the strategic importance of mobility for exclusive pastoralists, I had not anticipated the extent of cultivators' mobility, nor the importance other strategies used to maintain economic viability. Most northern Katsinen-ko'en households, especially those herding cattle, are mobile, and because even sedentary households deal with an unpredictable ecology, and often unreliable socioeconomic and political environments, all households consider, at one time or another, various types of strategic mobility.

In opposition to characterizations of pastoralists as irrational, carrying out irrational nomadism, I argue that households use rational, flexible strategies, especially mobility of different kinds, to maintain or improve livelihood security, and that each individual household member fits into a flexible framework of resource transfer and decision-making in order to carry out these strategies. The (agro)pastoralist household operates as a partnership, by no means always serene, of course, and more often than not inequitable, but the household enterprise risks failure without the sharing and exchange of gendered labor and other resources, and the negotiation of decisions into strategies of sustainability. The members of the household—each with assorted capabilities, options and agencies—work together to achieve individual and collective goals through a framework of resources and decisions, while depending on their herds for milk and exchange goods (dairy products and livestock). Change from outside environments (natural or social) and from within households calls for new decisions, and shifts the rights and responsibilities of decision-makers from one household member to another.

### ***The Household and Units of Analysis***

[H]ouseholds are economic organizations, and indeed are the central locus of production, reproduction, and consumption ... (Crawford 2008:67).

Because I investigate who takes part in making risk management decisions for households, and how the decisions are made and implemented, I use two units of analysis:



the household and the individual household member. As households are organized into communities, I also examine how households and their members interact within, and with individuals outside, their communities. I consider livelihood transitions, variations in mobility patterns, and employment of different strategies as rational choices negotiated among household members, who use their knowledges of local ecology and resource accessibility, and exchanges of resources and assets through endowment, reciprocity or trade (Giddens 1979; Sen 1981; Long 1992; Arce and Long 2000) to maintain or enhance livelihood and household security. These negotiations and strategies depend firstly on the integration of household members into a flexibly organized whole, and the household's articulation within the larger spheres of extended family and community. Household integration and articulation hinge on a flexible socio-economic framework of assets and resource transfers, decisions and strategies. Household members fit into this framework contingent on their gender and age, their positions changing as they mature and gain responsibility and access to resources. Husband and father, as head of household and ultimately responsible for livestock and harvests, takes the position of head decision-maker. The more or less collaborative work of the household enterprise maintains food security for both humans and animals throughout the year, and livelihood security and sustainability over time, i.e. adequate access to resources and assets that enables households to meet basic needs, including food and water, health and education, and time for community participation (Frankenberger et al 2002:1).

### ***Logistics***

For much of the research period, I worked with a Katsinen-kejo man, Manzo Maman,<sup>6</sup> who helped me considerably with the questionnaires and the Katsinen-ko'en dialect of Fulfulde. Manzo comes from a southern village just west of Zinder. Daji 6ii Husseini, a Gojen-kejo Boδaaδo, acted invaluablely as guide, wrangler and tea brewer throughout the research period. One of Daji's relatives, Veli 6ii Laabi, took Manzo's place in the last month, when Manzo could no longer make the trips to Tanout. Various Katsinen-ko'en, Woδaa6e and village families hosted us, and we traveled between household groups with two horses and a camel. I delivered millet to our hosts, who always expressed gratitude and even surprise at this remuneration.

During visits and interviews we always tried to consider the Katsinen-ko'en's sense of propriety and dislike of *kormoto*, or nosiness. I constantly felt guilty of *kormoto*, and the

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<sup>6</sup> I use the real names of my assistants, but all other names in the dissertation have been changed.

Katsinen-ko'en, for their part, were always reserved, even suspicious, and quite reticent in their answers, especially in the ten months of the research. We rarely pried very deeply, and some subjects seemed too sensitive to broach until the second year when we had made good friends among a few families. Even then I felt I still lacked a large amount of information.

Riding horseback, my mode of transport (which I have used ever since my Peace Corps days in the 1980s) allows one a good view of the countryside; with the slow travel, one observes much more of the land, vegetation, and weather. Just as riding in public transportation, as inconvenient as it can be at times, allows one to overhear and engage in conversations, while on horseback one meets people at wells, in fields and in the middle of the rangeland. These methods of travel also put the researcher in similar circumstances as members of the research communities. Both have their drawbacks, however, especially keeping the animals. We often feared camel thieves, and during the hot dry season of 2007 I had to return the horses to Tanout town as we could not keep them sufficiently watered and fed in the research area. Moreover, because my transportation was so limited, and households so distant from each other, my results became much more qualitative than quantitative.

### ***Comparisons***

Daji and the Katsinen-ko'en men have discussed the migrations of the Woḍaaḅe, comparing (and generalizing) their movements to those of the Katsinen-ko'en, which are much more restricted. The Katsinen-ko'en "*ngala garaji*" (have no impetuosity or impulsiveness), say the Katsinen-ko'en men, like the Woḍaaḅe who [Jijiru and Bagalen] trek as far north as Tchintabaraden without knowing [or seeming to know] whether or not they will find grass. [*Field notes: August 13, 2006*]

We often compared Katsinen-ko'en and Woḍaaḅe cultures and livelihoods, but with serious effort, I dodged judgment calls—the low voice in the back of my mind that suggested “they do this well, but the others are better at that.” The two groups of people carry out different practices for different reasons. In truth, much more longitudinal research would be necessary before any kind of value statements could be made as to the differences between the two socio-economic systems, if such a goal were even desirable. As specialists of cattle breeding and because of their stronger heritage of mobility, most Woḍaaḅe lineages follow much wider mobility patterns than the Katsinen-ko'en; in some years such patterns could be more advantageous than in others. The Woḍaaḅe women with whom I live seemed to experience more problems with childbirth than the Katsinen-ko'en I studied, but this impression is biased by my more long-term knowledge of the former

women. Both the Woδaaḅe and the Katsinen-ko'en societies contain wealthy households and communities, and poor households and communities. Most of the exclusively pastoral, and some of the agropastoral Katsinen-ko'en whom I interviewed were wealthier than many of the Gojen-ko'en households that I know, yet I have also seen, heard of, and interviewed livestock-wealthy Woδaaḅe. Wealthy (agro)pastoralists, no matter what their ethnicity, are usually better able to retain that wealth through adversity (Starr 1987; McPeak 2005), but they also tend to avoid identification by government or development agents, and even researchers.



**Figure 1.1:** (Photo by Daji 6ii Husseini) Manzo and I work on questionnaires.



**Figure 1.2:** (Photo, seeðu 2006) Daji brews tea on a trip.



**Figure 1.3:** (Photo, November 2007) Daji on the camel and Veli on horseback pose on our way home to Tanout.





**Figure 1.4:** (Photo, October 2007) Katsinen-ko'en community elders pose for their photograph.



**Figure 1.5:** (Photo taken by Daji 6ii Husseini, May 2005) I pose with a group of Katsinen-ko'en women and girls.





**Figure 1.6:** (Photo, left, Ngadesi, nduungu 2006) A Katsinen-kejo women milks one of the household cows, while the calf suckles one the other side.

**Figure 1.7:** (Photo, below, Ngadesi, nduungu 2006) A Katsinen-kejo elder poses with some of his livestock in the background.



## THE RESEARCH AREA AND PEOPLE

### *Tanout Département: the Damergou*

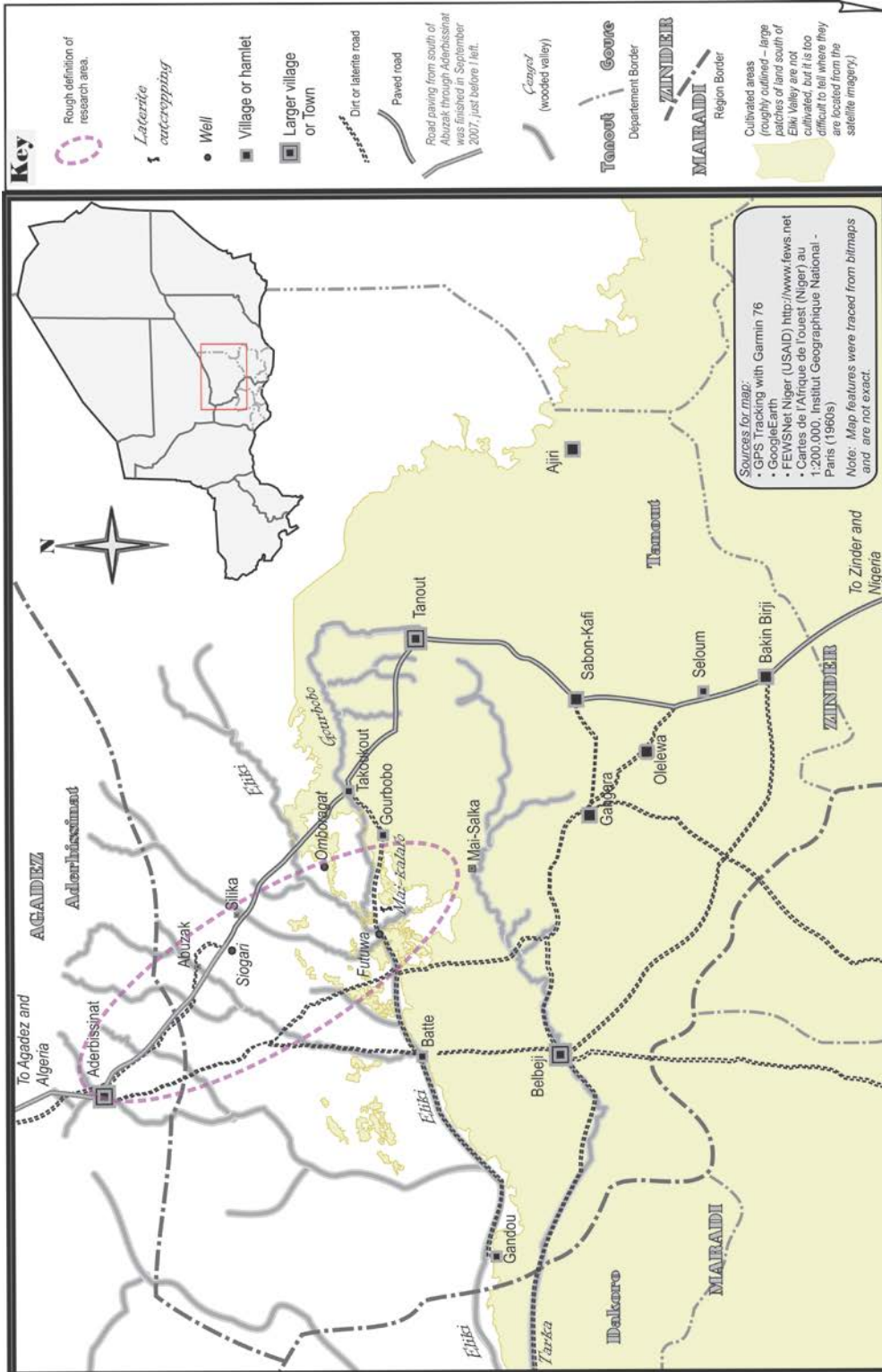
The households of the research communities live and migrate through an area of roughly 4000-4500 km<sup>2</sup>, in south central Niger, in the northern Sahel, just south of the Sahara desert. This area lies mostly within the département of Tanout, 60-100 km northwest of the town of Tanout, but extends, for the northernmost households, into the département of Aderbissinat. A *département* is a second level country division within a *région*,<sup>7</sup> and is administered by the préfet within the préfecture. Tanout département makes up the northwest corner of Zinder région, and borders Aderbissinat département, which lies within Agadez région to the north, and Dakoro département, which lies within Maradi région to the west (see Figure 1.8, below). The capital towns of all these régions and départements have the same names as their geographic territories. Tanout département contains the precolonial region of the Damergou. Most local people today speak of the département as “Damergou” (just as they refer to Zinder town by its precolonial name of Damagaram). Katsinen-ko’én elders when speaking of their trek north always refer to the time when “they entered the Damergou” (*kul min naati Damergu*).

Tanout is divided, by custom and somewhat by law, into two livelihood zones: the cultivated zone in the south and the pastoral zone to the north.<sup>8</sup> The border runs in an arc about thirty kilometers north of Tanout town (see Figures 1.8 and 1.9, below). In no way does the delimitation of these two zones restrict each livelihood to its respective zone. Pastoralists migrate into the cultivated zone in dry season (*ceedu*) and into the pastoral zone in the rainy season (*nduungu*). Cultivators clear fields north of the border, but have little legal recourse if livestock damages their crops. Most of the agropastoralist Katsinen-ko’én of my research population usually live just south of the border but migrate back and forth across it; a few mobile households live and cultivate north of the border. The Siogari exclusive pastoralists live just north of the border and rarely migrate south of it. Other Katsinen-ko’én exclusive pastoralist households migrated south of Mai-Cigifa toward Mahaka in 2006-07.

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<sup>7</sup> I use the French spellings to distinguish these geographic areas from the common English words.

<sup>8</sup> The French created a border that moved north during the colonial era. The independent government recognizes the border, legislated in 2010 by the Code Pastoral, but never enforces it.



**Figure 1.8:** Map of the département of Tanout showing the area usually inhabited by the research communities roughly defined by a purple dashed line.

The cultivation zone lies within the solid green portion of the map; some fields lie in the pastoral zone.



### ***The Katsinen-ko'en among the Fulbe Peoples***

What similarities might [Fulbe] communities offer that, though they speak dialects of the same language, present diverse sorts of economies and number six million individuals dispersed through the Sudano-sahelian zone from the point of Senegal to Lake Chad and beyond? In the face of such a grand diversity of ecological and economic conditions and historic cultural backgrounds, a comparative undertaking could seem something of a challenge. It can be justified, however, by examining social institutions. (Dupire 1970:13, my translation)

Both Katsinen-ko'en and Woɗaaɓe belong to the Fulbe language group, called Fulani (from Hausa) in English, and Peul (from *Pullo*, the singular of Fulbe) in French (see, among many other ethnographies, Dupire 1962; de Bruijn and van Dijk 1995; Riesman 1998 [1974]; Oppong 2002). The very diverse group of Fulbe peoples, many more than 6 million today, has spread from Senegambia and western Mali over almost all of West Africa, as far south as the Central African Republic, and east through Chad into Sudan. Today most Fulbe live as sedentary or semi-sedentary agropastoralists, but others carry out many different kinds of occupations from nomadic cattle pastoralists to urban merchants, to imams, to politicians. As Dupire suggests, different Fulbe communities can be compared by examining the similarities and differences of their social systems. As to similarities, Fulbe populations are patrilineal, recognize segmentary lineages, tend to practice endogamy and polygyny, and have practiced Islam (or at least respected the religion) for centuries.<sup>9</sup> Social stratification within families gives higher status (though not necessarily economic power) to elders, including older siblings and by extension to "elder" lineages, those with eldest brothers as legendary lineage founders.

Though the different Fulbe groups claim varied histories and livelihoods, they share a language, Fulfulde (Pulaar in Senegambia and Guinea), divided into more or less mutually comprehensible dialects, and a heritage—perhaps mythical for some groups—of cattle pastoralism. Fulbe also ascribe similar meanings to *pulaaku*: for the Woɗaaɓe, an ideological moral code for living (Stenning 1959:55-57; Kirk-Greene 1986); for urban Fulbe in southern Nigeria, "rules of conduct, morals, ethics and etiquette" (Ver Eecke 1999:96); for Malian Fulbe, "community" (Breedveld and De Bruijn 1996); and for Fulbe in Burkina Faso, "the qualities appropriate to a Fulani," including mastery over needs and emotions (Riesman 1998 [1974]:128). Though not all Fulbe (including many Woɗaaɓe) practice Islam, most take pride in the Fulbe Muslim preachers who spread the religion across West Africa, and the Islamic kingdoms and empires that endured through much of the 19<sup>th</sup>

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<sup>9</sup> Dupire (1970:14) attempted to find vestiges of a pre-Islamic religion among the Woɗaaɓe without success.

century (Johnston 1967; Azarya 1978; de Bruijn and van Dijk 2003). Conquests resulted in political stratification of the Fulbe and their conquered subjects, from elite rulers, clerics and warriors through merchants, artisans, farmers and pastoralists, to slaves, usually taken from non-Muslim populations (Dupire 1970:427-8). Europeans subjugated these states as they swept through the sub-continent at the turn of the 20<sup>th</sup> century.

As their name indicates, the Katsinen-ko'en originated in Katsina: first a Hausa state, then an emirate of Shefu Ousman dan Fodio's Fulbe Sultanate of Sokoto, and now a state within Nigeria. Relatively undifferentiated among themselves, the (agro)pastoralist Katsinen-ko'en belonged to one stratum of pre-colonial Hausa/Fulbe society. When Europeans instituted new colonial policies and economies, Hausa cultivation began to spread into pastures, and Katsinen-ko'en began trekking north into Niger. These treks left households along the migration routes so that families became scattered from Katsina to as far north as Abuzak valley in northern Tanout, at least as far west as Maradi and Dakoro, and east into Diffa région (see Chapter 3, and Appended Map A: [Katsinen-ko'en in Niger](#)).

### ***The Katsinen-ko'en in Tanout Department***

In Tanout département, the Katsinen-ko'en live among many other ethnic groups, including other Fulbe—Woɗaaɓe,<sup>10</sup> Uda'en, and Cilan-ko'en—as well as other pastoralists—Tuareg and Arab in the western two-thirds, and Toubou in the very east. The Woɗaaɓe and some Tuareg groups generally follow mobile, exclusively pastoralist livelihoods,<sup>11</sup> while other Tuaregs and most other Fulbe live as mobile or settled agropastoralists.<sup>12</sup> Hausa and Dagara (a Damergou group of Kanuri) villagers, sedentary agropastoralists, divide the département very roughly in half, with most Hausa living to the west of the Zinder-Agadez highway, and most Dagara and other Kanuri to the east.

The Katsinen-ko'en, even settled cultivators, consider themselves *waynaaɓe*, i.e. livestock breeders or pastoralists,<sup>13</sup> and generally empathize with other waynaaɓe, Tuareg and other Fulbe. Like pastoralists elsewhere, they think of themselves as economically and culturally distinct from cultivators settled in nucleated villages, *Haaɓe* (sing. *Kaado*), and mistrust them as a group, especially the Hausa. Aggravating this rift, governments—pre-colonial, colonial and independent—have tended to favor settled cultivators to the

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<sup>10</sup> While several authors distinguish “Woɗaaɓe” from “Fulbe,” the Woɗaaɓe recognize their inclusion into the larger Fulbe ethnicity, though they distinguish themselves from non-Woɗaaɓe (Ndovien).

<sup>11</sup> In Tanout, no household following an exclusively pastoralist livelihood can be sedentary.

<sup>12</sup> I know almost nothing about Arab and Toubou pastoralists in the département.

<sup>13</sup> Sing. ngaynaako, from the root wayna, to have sexual intercourse (of livestock), to breed.

detriment of mobile pastoralists, who in the past have paid extra taxes: head and cattle (Adebayo 1995; Idrissa 2003:99), plus taxes on migrations (Maubeuge 2002). More recently, pastoralists have seen aid and development projects turn up in villages, but rarely reach their scattered households. Service delivery, such as health care and schooling also seldom reaches their communities, if at all. Only a few adults in the research community had very briefly attended school in the 1970s as part of a program of forced schooling. No children have gone to school since then.

Tanout's census records,<sup>14</sup> from the year 2000, count a total of 331,601 inhabitants residing in an area of 31,171 km<sup>2</sup> (see Table 1.1 below). The census disaggregates the population by ethnicity and by livelihood. Mobile pastoralists (64,000 "nomades" according to the census) make up about 19% of this population. Fulbe groups include 20,000 people, or 6% of the département's total population, with around 3000 Katsinen-ko'en and 12,000 Woɗaaɓe. Fulbe "nomades" account for 70% all Fulbe, and as Wo'daa'be, almost all exclusive pastoralists, make up 60% of the Fulbe population, this leaves 10% as other "nomadic" Fulbe, including, one presumes, the exclusively pastoralist Katsinen-ko'en. The census report lists these amounts as estimates (note that the populations of nomads are rounded to the nearest thousand) and does not specify how enumerators determined whether or not a household is "nomadic." Census counts of pastoralists and mobile peoples are notoriously inaccurate (Delehanty 1988:147-49; Markakis 2004:14; Pedersen and Benjaminsen 2008:46).

Most Katsinen-ko'en communities follow the *Laamiɗo* in Gourbobou, designated a *chef de groupement* (a regional chief<sup>15</sup> of a group of nomads) by the Nigerien government. Between information received first from the *Laamiɗo*'s secretary, and then from the tax office at the Tanout préfecture, I obtained the number of *cartes de famille* (tax booklets) for 20 of the 25 Katsinen-ko'en *arɗo'en* (sing. *arɗo*; local *chefs de tribu*, i.e. tribal chiefs, an administrative title) registered under the *Laamiɗo*, and the number of persons registered in each booklet. The département counts 1115 *cartes*, with an individual taxpayer count of 3370, only a vague idea of the true number of Katsinen-ko'en households and taxable

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<sup>14</sup> Obtained from the Service du Plan, Tanout, in 2002.

<sup>15</sup> The title of chief should be understood only as a political designation given by Western colonists, not as an anthropological term for the head of a chiefdom or tribe. The precolonial emirates had their local governments and government heads (called "chiefs" by authors such as Azarya (1978), and one can trace a direct line from village or pastoral group leaders to present day local chiefs, but both positions were distorted by the French and British to meet colonial needs.

Katsinen-ko'en (adults under age 60). Other Fulbe families follow Katsinen-ko'en ardo'en<sup>16</sup> and some Katsinen-ko'en families follow chiefs of other ethnicities. The carnets de famille almost always undercount family members, usually listing only one wife in a polygynous household and no children—discrepancies often less the fault of the tax booklet holder than caused by rushed functionaries and lack of communication.<sup>17</sup> Between the census and the tax booklets, I estimate for 2006-07 (at an average family size of six members) a population of 8,000, with perhaps 400 exclusive pastoralists.

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<sup>16</sup> *The secretary told me that one chief in particular had a mixed following of Katsinen-ko'en and Cilanko'en.*

<sup>17</sup> *Many times men have asked me to read their booklets for them, to make sure that they are carrying the correct booklet, and a few times to write in family members. Because aid distributors sometimes use the booklets to record or verify donations, fathers want to make sure they list all family members.*

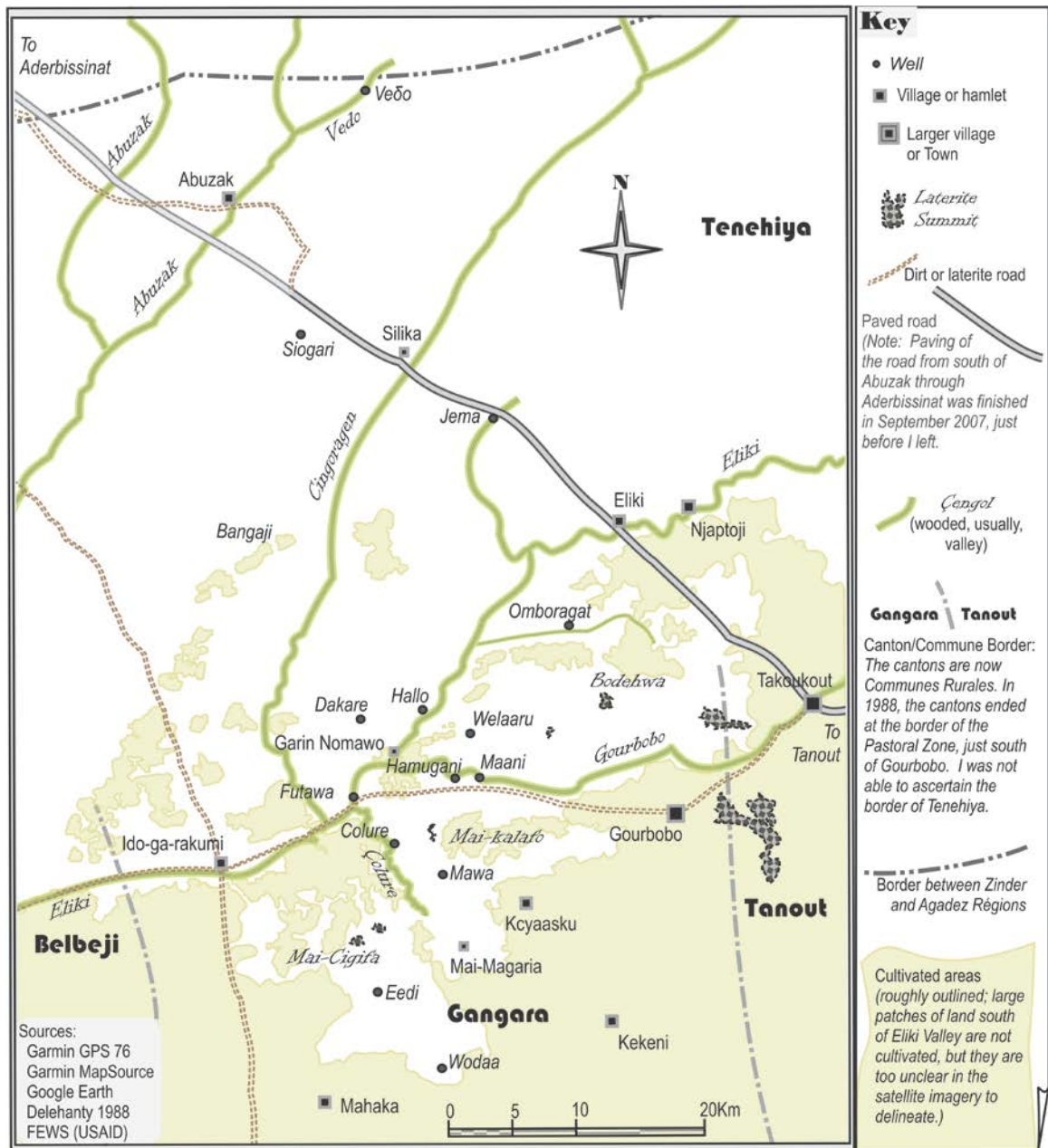
**Table 1.1:** Tanout demography from the 2000 census.

| <b>Total (estimated)</b>   | <b>331,601</b>        | <b>% of total</b> |                             |                   |
|--|-----------------------|-------------------|-----------------------------|-------------------|
| Sedentary  | 267,601               | 80.7%             |                             |                   |
| <b>Fulɓe (estimated)</b>   | <b>20,000</b>         | <b>6.0%</b>       | <b>% of Fulɓe</b>           |                   |
| Woɗaaɓe  | 12,000                | 3.6%              | 60.0%                       |                   |
| Uda'en   | 5,000                 | 1.5%              | 25.0%                       |                   |
| Katsinen-ko'en   | 3,000                 | 0.9%              | 15.0%                       |                   |
| <b>Nomad total*</b>  | <b>64,000</b>         | <b>19.3%</b>      | <b>% of nomads</b>          | <b>% of Fulɓe</b> |
| Fulɓe nomad  | 14,000                | 4.2%              | 21.9%                       | 70.0%             |
| Tuaregs nomad  | 23,000                | 6.9%              | 35.9%                       |                   |
| Arab nomad   | 8,000                 | 2.4%              | 12.5%                       |                   |
| Toubou nomad   | 13,000                | 3.9%              | 20.3%                       |                   |
|  | <b>Km<sup>2</sup></b> | <b>% of total</b> | <b>inh./Km<sup>2</sup>†</b> |                   |
| <b>Total area of<br/>département</b>   | <b>31,171</b>         |                   | <b>11</b>                   |                   |
| Area of zone pastoral<br><i>—includes the northern half of Belbeji and today's commune rurale of<br/>    Tenehiya</i>                                      | 16,371                | 52.5%             | 4                           |                   |
| Cantonal area<br><i>—the cultivation zone, includes today's communes rurales of Tanout,<br/>    Gangara, Belbeji (southern half), Olelewa, and Falenko</i> | 14,800                | 47.5%             | 18                          |                   |

All figures should be understood as rough estimates. Note that the Fulɓe and “nomadic” population counts are rounded to the nearest thousand. Cilan-ko'en, because they speak mostly Hausa, were probably enumerated with that population.

\*The census counts “nomades,” which I assume here to be mobile exclusive pastoralists, but may also include some mobile agropastoralists.

†My calculations of nomadic and sedentary inhabitants per square kilometer assume too much as they do not count settlements in the pastoral zone nor do they account for the fact that during much of the year, most mobile pastoralist households live in the “cantonal area” or cultivation zone.



**Figure 1.9:** Map showing wells and other geographical features important to the research communities.

There are many more wells in this area than shown on the map, mostly along the çengi (valleys) and their tributaries. Nearly all wells are owned by individuals, or groups of brothers or fathers and sons. All the villages and hamlets shown here have wells (not true for all of the villages in the département). A few larger, cement-lined wells (not shown here) were dug years ago by the government (probably colonial) or development organizations, and are considered “public” (called *buli* “gomenti”, or government wells). They are often managed by an influential pastoralist based in the area.

## ***The Research Communities***

### **Omboragat**

I already knew the arɔo at Omboragat, having interviewed his community for a USAID study about twelve years previously. In 2006, he and another arɔo at our initial meeting counted followers from Omboragat to several kilometers west of Cingoragen engol (pl. *çengi*; an archaic watercourse, a broad, usually wooded, valley), to Siogari and Veɔo wells, in addition to kin living near Ajiri. At Omboragat, our hosts, after the initial slaughtering of a buck (which every one of our arɔo hosts did for us), tried in subtle ways to demonstrate how poor they were, and continually hinted less subtly that we might influence or even distribute the aid they desired. We stayed several nights and interviewed two heads of household (mobile cultivators) from this community before I began to question the veracity of anything they told us. The vast geography of the mobile households, spread across an east-west expanse of at least thirty-five kilometers, also convinced me to concentrate on the Mai-Kalafo and Siogari households, distributed and migrating generally south and north. Households we interviewed as part of the other communities followed the arɔo at Omboragat.

### **Mai-Kalafo**

After our first meeting at Omboragat, we rode to Mai-Kalafo. Most of the Mai-Kalafo households follow one arɔo whose father, Ibrahim, established the original well, Hamugani, in the Gourbobo engol, and cleared the first fields in a small valley on the east side of a pair of laterite rock hills called Mai-Kalafo. Besides his own children, many of the men and women who follow this arɔo today are his siblings and cousins and their children; the rest are more or less distantly related. A few households living and cultivating at Mai-Kalafo follow an arɔo who lives in Gourbobo, and one household, which we interviewed at Mai-Kalafo while they lived with affines, reside north of Futawa, but follow the Omboragat arɔo.

The sedentary households live in three small, dispersed groups: one south of Hamugani well, a second north and south of Maani well, and the third north of Mawa well. A close relative of the households that live near Maani owns that well. As he lives near Kciyaasku village now, his relatives maintain the well in reciprocity for full access. Relatively distant relatives of the arɔo and his family, the households at Maani claim a different lineage. The arɔo's younger brothers dug Mawa several years ago in a small valley that empties into olure engol. Grandsons of Ibrahim have recently dug or bought two other wells: Welaaru, north of Hamugani, where they cleared another small field complex;

and Dakaare, between Eliko and Cingoragen Çengi. Brothers based at Maani bought Hallo well in Eliko Çengol and established fields on the hill to the south (for maps see Figures 1.9 and 5.10). All community households use any of these wells freely and camp anywhere they feel has good pasture. The Mai-Kalafo households also use wells owned by other Katsinen-ko'en in the region. After their own well collapsed in 2007, the Mawa households watered at Çolure well. Figure 1.9, above, shows these wells' locations, and Figure 1.10, below, shows an example of a residence pattern near a well.

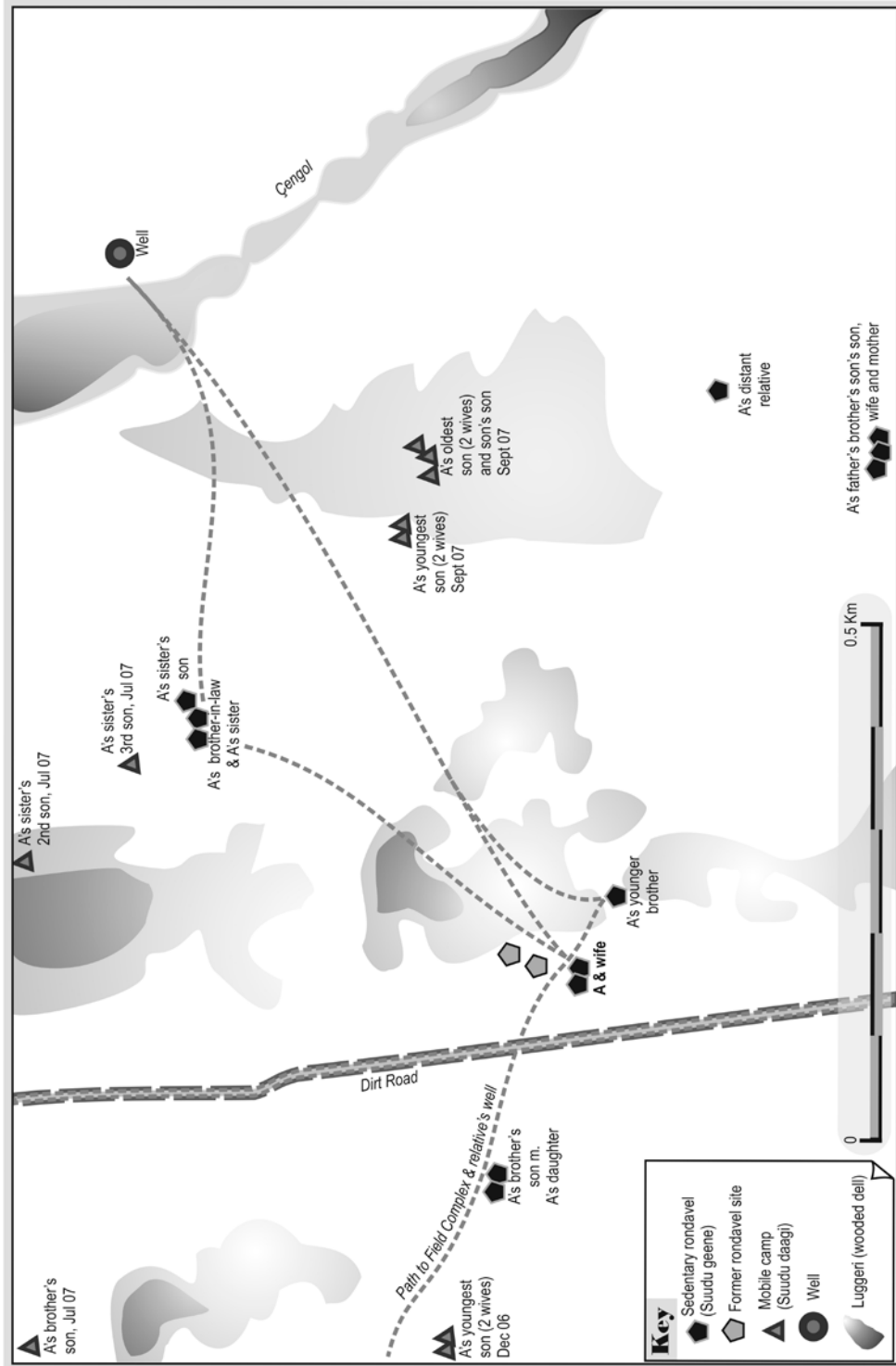
We interviewed adults from 47 of the 84 community households that elders counted for us during our initial meeting (four interviewed households follow the Gourbobo arðo). Eighteen of the interviewed households were sedentary. One, which I count as mobile, settled in 2005 and became mobile again in 2007. About six of the rest of the 84 households were sedentary, thus the great majority of the households in this community are mobile (see Chapter 5 for examples of various mobility patterns). Almost all men cultivated one field in the main complex east of the Mai-Kalafo hills, and some also cultivated fields north of the Gourbobo Çengol (for map, see Figure 5.11). One man did not cultivate in 2007, though he had in the last few years. A few heads of mobile households left cultivation to their sons while they herded, or gave it up for a season if circumstances made cultivation less profitable than a concentration on herding.

The Katsinen-ko'en of Mai-Kalafo are related more or less closely by blood and marriage to neighboring Katsinen-ko'en communities all along the Eliko valley from the highway to Gandou, including those discussed here. Family ties also include marriages between kin, often first cousins, in Seloum, in the south of Tanout; Oli, north of Dakoro; Maradi, in the south of the country; and Bima, Nigeria. The brides travel south or north to join their husbands, and live with aunts and uncles as affines (*esiraaɓe*).

Hausa cultivators established three small villages three to five kilometers west of Hamugani well, including Garin Nomawo. Three other villages, Kciyaasku, Mai-Magaria and Mai-Cigifa lie in an east-west line ten to fifteen kilometers south of Hamugani (see Figure 1.9). Tuareg fields lie to the east of the Mai-Kalafo fields, and to the west of Hamugani well and the Welaaru fields (see Figure 5.11). Tuaregs also own three wells in the immediate area (not shown on the maps). The Katsinen-ko'en only occasionally have dealings with their Hausa neighbors, but different individuals keep various relationships with individual Tuaregs, including field usufruct and loans, gifts of grain and dairy products, and two marriages. The Mai-Kalafo households usually market at Gourbobo, but also attend markets



at Tanout, Takoukout, Kekeni and Ido-Ga-Rakumi. Livestock and calabash traders travel to even more distant marketplaces (see Appendix E, Markets).



**Figure 1.10:** Map showing an example of the placement and relationships of sedentary and mobile households near a well.

Dates indicate the times when the mobile households lived in that location.

## **The CARE Project**

During the eighteen months that I spent visiting the Mai-Kalafo community, I observed peripherally the development of an ensemble of small projects for women, instigated by the CARE International bureau based in Zinder, and administered by a relative (cousin's son) of the arɗo and his wife. When we first arrived at Hamugani, some women had recently organized a savings and loan association (*asusu*). CARE delivered, at different times, rice and millet which the women sold at discounted prices to community members. Before the rainy season (*nduungu*) of 2007, the women bought more millet (perhaps from or through CARE) with the proceeds from the sale of the first sacks. They loaned much of this grain to community members for food and seed before the start of the rains.

In mid-2007, the CARE team brought a literacy teacher, a young Hausa man, who lived near the arɗo. After classes, taught in Hausa and attended by five or six women and one young girl, he also taught a few men. In October 2007, the CARE team brought nurses at two different times to inoculate mothers, babies and young children from Mai-Kalafo and the surrounding area. A Katsinen-kejo told me, with admiration, that the nurses worked into the evening until they were exhausted. One community member thought that ten years had passed since *likita* (health care workers) had come to their community. The first round of inoculations took place after a grand meeting at Hamugani, set up by CARE. Mai-Kalafo residents told me that many people attended, including officials from regional chiefs to representatives from the Zinder governor's office, and radio and television reporters. CARE agents announced that they would construct a pharmacy for humans and livestock. "Just for waynaaɓe!" the Katsinen-ko'en told me, "not Haaɓe!"

## **Siogari**

After visiting Mai-Kalafo for the first time, we traveled north to find six exclusively pastoralist households camped together north of Siogari well. This smaller community consisted primarily of exclusive pastoralists based at Siogari (see Figures 1.8 and 1.9). During *nduungu*, after they finished weeding, some cultivating households from Mai-Jiga and Bangaji (in and near Cingoragen Çengol) as well as Jema well (on the highway north of Eliki) migrated north to join them. Most of the exclusively pastoralist households followed the arɗo'en at Futawa and Omboragat. Many of their cultivating relatives lived at Futawa, Mai-Jiga or Bangaji. A second, related group camped further north at Veɗo in 2006, but an aggravated saddle sore on my mare at first prevented us from visiting them. Then the long time we spent gaining entrée with the Siogari community kept me from attempting

interviews among the Veḍo households. Most of these pastoralists seemed suspicious of me, and proved extremely difficult to interview and converse with. They seemed to want to hide their relative wealth. Many men traded in cattle, and I felt that they wanted to avoid close observation of their business. Some women told me they feared I would take their children away to school. Some men told me that I should bring aid if I wanted to ask questions.

With the addition of one cultivating household, seven households migrated together during nduungu 2006. Though they did not follow him as arḍo or even migration leader, one elderly man seemed to anchor most of the group through kinship. In contrast to most of the men and women, he, his wives, daughter, son and daughters-in-law welcomed us wholeheartedly, and we stayed with the elder or his son each time we joined this community. During several weeks of traveling with the Siogari group in 2006, we finally completed interviews with all of the men and all but one woman in seven households. During the rangeland's extraordinary nduungu in 2007, the small Siogari group expanded to fifteen or twenty households as the Veḍo group and cultivating households from the south joined them on their migration into Aderbissinat Département. I conducted second interviews with four households.

The Siogari and Veḍo Katsinen-ko'en spent the dry seasons around Siogari well, in an area with a radius of about three kilometers, neighboring Tuaregs at Silika hamlet to the east and Bangaji field complex to the southwest, as well as households from different Woḍaaḅe lineages. They usually attended Takoukout and Tanout markets, and the women sold dairy products in Abuzak and Silika hamlets. In nduungu 2006, they camped south and north of the çengol west of Abuzak hamlet. The men walked or rode their camels to the hamlet where they met with friends, bought goods in the little shops, and caught market trucks to town. In nduungu 2007, they marketed in Aderbissinat.

### **Futawa**

In ceeḍu 2007, after finishing almost all the interviews that I had planned for Mai-Kalafo, we finally travelled east to Futawa. We had met with the arḍo in Gourbobo, and during nduungu 2006 we interviewed his brother and son among the Siogari households. In the winter of 2006, we became better acquainted with the arḍo during an overnight at his Futawa camp. The arḍo's several sons cultivate his fields at Futawa and Bangaji and he travels between the two places. At the end of March 2007, in the height of the hot dry

season, we spent a week at his Futawa camp and completed six interviews in three households before lack of pasture and water for the horses drove us back to Tanout.

The arđo at Futawa is relatively young, having inherited the post from his older brothers when they left Niger to live in Bima, Nigeria. Their father, Haydo, dug one of the first Katsinen-ko'en wells in the area, and many of his kin live and cultivate between the Futawa, Mai-Jiga, Omboragat, and Jema wells. The Siogari pastoralists are also his kin and descendants.

### ***Livelihoods***

Fields and rangeland are rainfed<sup>18</sup>; no water lies above ground after seasonal ponds have dried one to three months after the end of nduungu. Except for Tarka Çengol in Belbeji, through which flows a river during exceptional rainy seasons, no water runs, even as seasonal rivers or streams. Only some wadis flow briefly immediately after a strong thunderstorm. Rains are unpredictable, creating microclimates of well-watered areas and dry that shift even within one season.

Most Katsinen-ko'en cultivate fields of millet, sorghum, beans and sorrel; they use the latter for sauce over stiff millet or sorghum porridge (like polenta). Table 1.2, below, shows various field sizes; see also *Fields* in Chapter 5. All households and almost all adults, men and women, in the research communities own livestock of some kind. Livestock holdings vary widely, however, from a few smallstock<sup>19</sup> and no cattle among sedentary households, to over a hundred smallstock and about fifty head of cattle among exclusively pastoralist households. Table 1.3, below, shows the ranges and averages of livestock for each category of household. We saw and heard of a few households that herded over a hundred head of cattle, but such households are exceptions today, and considered very wealthy. Every household that we interviewed except one owned at least one donkey to carry water (the exception borrowed from her brothers) and mobile households owned an average of seven to transport household gear. Several households (even mobile households) kept chickens, primarily for meat, but also for sale.<sup>20</sup> Many men own riding camels, which they also train and race, and a few men kept a horse. In Chapter 8, I discuss livestock numbers that necessitate or are necessary for different livelihoods.

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<sup>18</sup> No one in the research area practices irrigated cultivation, or plants cold season gardens, though further south a few farmers plant the latter, irrigated with pond water or shallow wells (8-12 meters).

<sup>19</sup> That is, sheep and goats; in Fulfulde smallstock is translated as bisaaji.

<sup>20</sup> Only one woman mentioned eating eggs. Though it did not seem taboo, the practice did not seem at all common; people wanted chickens more than eggs.

**Table 1.2:** Show various sizes of different fields.

| <i>Field</i>                | <i>length (m)</i> | <i>width (m)</i> | <i>hectares</i> | <i>acres</i> | <i>HH members</i> |
|-----------------------------|-------------------|------------------|-----------------|--------------|-------------------|
| VCA1-1 & BCA2-3 (main, old) | 560               | 264              | 11.4            | 28.2         | 3 + 8             |
| BCC2-1 (2nd)                | 450               | 110              | 5.9             | 14.5         | 9                 |
| VCD2-1 (2nd, new)           | 200               | 153              | 3.1             | 7.6          | 4                 |

- BCA2-3 cultivates his father's (VCA1-1) field which supplies grain, beans and sorrel for his household with two wives and five young sons, and his father's household with one wife and one young granddaughter. The households have low livestock wealth.
- BCC2-1 expects his two adult sons to cultivate this field and the main field (probably a similar size), which supplies grain, beans and sorrel for BCC2-1's household of one wife, two adult sons, a young daughter-in-law, two young sons and one or two young married daughters, each with one child. The married daughters and daughter-in-law came and went during the research period. The household is moderately livestock-wealthy.
- VCD2-1 cleared this field in 2006 and cultivated it and his main field (probably a bit larger) with his two young sons. Besides these sons, he and his wife have a toddler. They are livestock-poor.

See Table 1.3 below for the numbers of livestock for each of these households. See Appendix H for the household budgets of VCA1-1 and VCD2-1.

**Table 1.3:** Showing ranges and averages of combined livestock holdings (including livestock owned by wives and children) for the three categories of households for 2006-7.

| <b>Sedentary Cultivators</b> |            |            |            |            |            |            |            |
|------------------------------|------------|------------|------------|------------|------------|------------|------------|
|                              | Low        |            |            |            | High       |            | <b>AVE</b> |
|                              | VCP<br>1-1 | VCD<br>2-1 | VCM<br>1-1 | VCA<br>1-1 | VCM<br>2-1 | VCN<br>1-1 |            |
| Goats                        | 6          | 5          | 5          | 6          | 21         | 23         | <b>13</b>  |
| Sheep                        | 0          | 2          | 0          | 2          | 23         | 32         | <b>8</b>   |
| Cows                         | 0          | 0          | 2          | 2          | 26         | 21         | <b>5</b>   |
| Bulls                        | 0          | 0          | 0          | 0          | 2          | 3          | <b>1</b>   |
| Donkeys                      | 1          | 0          | 4          | 1          | 4          | 8          | <b>4</b>   |
| Camels                       | 0          | 0          | 0          | 0          | 0          | 2          | <b>1</b>   |
| Chickens                     | 4          | 10         | 3          | 0          | 6          | 1          | <b>2</b>   |
| Horses                       | 1          | 0          | 0          | 0          | 0          | 0          | <b>0</b>   |

| <b>Mobile Cultivators</b> |            |            |            |            |            |            |            |            |
|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                           | Low        |            |            |            | High       |            |            | <b>AVE</b> |
|                           | BCV<br>2-1 | BCN<br>2-3 | BCA<br>2-3 | BCA<br>2-1 | BCI<br>1-1 | BCC<br>2-1 | BCB<br>2-1 |            |
| Goats                     | 3          | 4          | 12         | 19         | 0          | 0          | 40         | <b>14</b>  |
| Sheep                     | 2          | 5          | 7          | 19         | 33         | 39         | 40         | <b>19</b>  |
| Cows                      | 1          | 2          | 3          | 11         | 27         | 29         | 44         | <b>11</b>  |
| Bulls                     | 0          | 0          | 0          | 2          | 2          | 1          | 3          | <b>1</b>   |
| Donkeys                   | 0          | 1          | 8          | 8          | 13         | 6          | 12         | <b>6</b>   |
| Camels                    | 0          | 1          | 1          | 1          | 0          | 2          | 0          | <b>1</b>   |
| Chickens                  | 0          | 0          | 0          | 10         | 4          | 0          | 0          | <b>1</b>   |
| Horses                    | 0          | 0          | 0          | 0          | 0          | 0          | 0          | <b>0</b>   |

| <b>Excl. Pastoralists</b> |            |            |            |            |            |
|---------------------------|------------|------------|------------|------------|------------|
|                           | Low        |            | High       |            | <b>AVE</b> |
|                           | PDA<br>3-1 | PBA<br>2-1 | PDB<br>2-1 | PSA<br>2-1 |            |
| Goats                     | 12         | 46         | 50         | 58         | <b>42</b>  |
| Sheep                     | 10         | 43         | 50         | 55         | <b>43</b>  |
| Cows                      | 9          | 35         | 35         | 40         | <b>27</b>  |
| Bulls                     | 0          | 1          | 1          | 2          | <b>1</b>   |
| Donkeys                   | 6          | 7          | 6          | 8          | <b>8</b>   |
| Camels                    | 0          | 1          | 1          | 1          | <b>1</b>   |
| Chickens                  | 1          | 3          | 3          | 2          | <b>3</b>   |
| Horses                    | 0          | 0          | 0          | 0          | <b>0</b>   |

Averages are taken from all surveyed households. Yellow columns indicate households whose field dimensions are shown in Table 1.2, above. See Appendix H for the household budgets of the starred households below.

*Table 1.3, continued:*

VCP 1-1: elderly couple, 1 granddaughter. The husband gave his livestock to his son some years ago.

VCM1-1: elderly man and young wife, who is just beginning to build a goat herd. The husband has divided his livestock among his sons, including VCM2-1.

VCM2-1: middle-aged man, two wives, ten children, including one twenty-year old son. His son and younger brother herd his household's livestock.

\*VCN1-1: elderly man, wife, 2 young sons, daughter. He has not yet divided livestock among his 3 adult sons (see BCN2-3).

BCV2-1: young man, wife, 2 very young children. He herds for his sedentary brothers and mother. Neither livestock nor fields have been divided, yet.

\*BCN2-3: young man, wife, 2 very young children. With his older brother, he herds his father's livestock (see VCN1-1, above).

\*BCA2-1: elder brother of BCA2-3; middle-aged man with 2 wives, 4 daughters, 3 sons, one a teenager and one married with his wife and young child.

BCI1-1: elderly man, wife, 2 teenage daughters; married son, daughter-in-law, 2 young daughters. Each man owns half of the cattle here.

\*BCB2-1: middle-aged man, 2 wives, 10 children (4 teenagers); 1st wife's young brother and wife. He, his first wife, and brother-in-law inherited herds.

\*PDA3-1: young man, wife, 4 young children. He supports his household with a nascent cattle trade, and did not cultivate in 2006.

\*PBA2-1: middle-aged man with 2 wives, 2 daughters and 3 sons; one son is a teenager. He has never cultivated.

PDB2-1: young middle-aged man and wife with 5 young children of his own and 2 young foster children.

PSA2-1: older middle-aged man, 2 wives and approximately 8 children (3 teenagers).



The Katsinen-ko'en communities, even historically in Katsina, have always included a small minority of exclusively pastoralist households, headed by men who either never cultivated, or gave up cultivation for one reason or another. A young man might herd his settled father's cattle, along with his own, while migrating with his family. As his sons grow older, he may decide to settle into cultivation, leaving his cattle with his sons. I interviewed older men, however, who herded the family's livestock with the help of a young son or grandson, while their adult sons cultivated. It is very difficult to ascertain how many Katsinen-ko'en in the region do not regularly cultivate. I felt, however (with no immediate possibility of substantiating the feeling), that the number of households leaving cultivation has increased. The Katsinen-ko'en have migrated up to and past the northern limit of cultivation, and making a living here from growing grain becomes less and less viable here with the increasing unpredictability of the rainy season (Hulme 2001; Dai et al 2004).

Besides the mobility of the exclusive pastoralists and mobile cultivators, I was reminded on my second visit to Hamugani that even the thatched rondavels of the sedentary families are movable (see Chapter 4 for details of sedentary rondavels and mobile camps). Sons and nephews lifted off the roofs, dug up the wall posts, rolled up the grass matting and moved the ardo's and his wife's two rondavels about 50 yards to the east. There they re-thatched the roofs and bound new stalks to the outside of the grass matting walls, and the ardo and his wife moved into two newish rooms on fresh ground (the old ground was infested with ants). The fields themselves constantly "move forward" as the men clear bush "in front" and leave fallow behind (see Chapters 5 and 10). Men also cultivate more than one field in different places. The Katsinen-ko'en have inherited these strategies and others from their Fulbe ancestors, or developed them in contemporary generations, to cope with their natural and socio-political environments.

## **SECTIONS AND CHAPTERS**

Chapter 2 outlines the theoretical approach I employ to analyze the complexity of Katsinen-ko'en households and strategies. I define "household" within the larger extended "family" (*wuro*), and "community." I then show how I shift Wilk's (Wilk 1997) household ecology, combining the ecology, economics and politics, external and internal, to the household to help explain how strategies undertaken by the household and its members maintain or improve livelihood security. Chapter 3 describes the history of the Katsinen-ko'en communities' migration into the Damergou, using three families as case studies. In this chapter, I speculate on the push and pull factors of the long northward treks.

In Chapters 4 through 7, I describe the environments—social, ecological, political and economic—in which the Katsinen-ko'en live and work. Chapter 4 compares Katsinen-ko'en culture with those of their neighbors, first sketching a picture of the patterns of Katsinen-ko'en family and household, and elements of the household's life cycle. Chapter 5 describes the seasons of the (agro)pastoral year, and the land, and gives some examples of strategies that different households used to sustain themselves through the climatic vagaries 2006 and 2007. I examine the mobility patterns of four different Katsinen-ko'en households, and compare these patterns with those of two Woδaa6e households. Chapter 6 outlines the different government levels and extension services, and then elaborates the ways in which various aspects of the government might affect the Katsinen-kejo in her hearthhold, in his field, or on the range. Chapter 7 describes the different venues of market exchange in which household members participate, including local and distant marketplaces, large livestock trade, petty commodity trade, and the different labor markets. I also show how infrastructure, especially roads, facilitates or inhibits strategies for the maintenance of the (agro)pastoral household.

The final chapters delve into household ecology, looking at the framework of individual members' resource transfers and decision-making that compose household strategies. Although I introduce some aspects of labor, resource exchange, and strategies in earlier chapters, I expand in greater detail in these chapters. Chapter 8 examines the gendered and generational divisions of resources, including labor, livestock, land, and social networks, and how these resources are exchanged as endowments and earned entitlements. In Chapter 9, I look at the gendered process of household decision-making and in Chapter 10, I examine how those decisions become strategies. The final chapter looks at change, past and possible future, and how external change has and may affect the sustainability of (agro)pastoral livelihoods and households. In this chapter, I also argue that building on collaborative research, which works with the integrity of the (agro)pastoral household, will improve the sustainability of these households and their contribution to the larger national economy.

## CHAPTER 2: HOUSEHOLD ECOLOGY

### HOUSEHOLDS WITHIN LARGER CONTEXTS

Most households act as flexible nodes “in a network of social relations and resource flows” (Moore 1992:143) between their individual members and the extended families and communities to which they belong. They are flexible in the sense that their demographics change over time and space as they add and lose members, add and give up living areas, and shift their residential locations. They also alter in various ways (affinally, geographically, economically) the communities to which they belong. The household also acts as a type of focal point or nexus for political, economic and, especially for rural households with land-based livelihoods, ecological processes. They are “loci” of production, consumption, redistribution and reproduction (Moore 1992:135). Within their households, the Katsinenko'en (as do their neighbors) work together or contend with each other in political and economic ways, and much of their work and contention is bound up in some way with the natural environment. Individuals, acting for themselves or for their households, also collaborate, exchange, or conflict with members of other households, within and outside of their communities, in economic and political ways, influenced by, or in response to, the surrounding ecology. In the same manner, they participate in markets and deal in various ways with different levels of government administration, and both market and government dealings are, much more often than not in rural Niger, influenced by aspects of the natural environment.

Wilk calls households “structures of patterned human action” (1997:30) with fluid borders, delimiting members and non-members, which change depending on changing circumstances. Barlett summarizes a broad interpretation of this household structure into four general categories: “personnel and household composition [demography]; production activities and the division of labor [economy]; consumption activities and inter- and intra-household exchange [economy]; and patterns of power and authority [politics]” (Barlett 1989:4). Guyer challenges early African research (and Barlett's earlier 1980 description of households) where “the household has become a fundamental concept in the economic analysis of Africa” (Guyer 1981:98), an unexamined black-box unit of analysis. She warns that researchers in Africa must take into account the high mobility rates of household

members into and out of households, and the various rights and obligations that household members exercise outside the household, e.g. within lineages or other types of community.

Thought of in terms of rights and duties, households are constituted by a series of implicit or explicit contracts [among members, and between members and individuals outside the household], not by total subsumption of the members into a solidary unit whose internal relationships can be taken as given (Guyer 1981:99).

Following Guyer, feminist and gender theorists examining household economy helped further the breakup of the black box of household as unit of analysis and to examine the agencies of the individual members within, the parts they play and the decisions they make, constrained or reinforced by their gender and age (see also Hart 1992; Jackson 2008; O'Laughlin 2008). Dupire's (1960) research on pastoral women's place within household production anticipated the feminist movement, and then other scholars merged women's and pastoral studies (e.g. Baroin 1987; Dahl 1987; Talle 1988; Hodgson 2000c, 2001), in concert with research on women and gender inside and outside the household in Africa (Goheen 1996; Smedley 2004) and other rural or less wealthy economies (e.g. Bryceson 1995; Clark 2003).

Household economics examines the specific decisions and strategies that household members, differentiated by age and gender, make and act upon to maintain or improve (or undermine) livelihood security and household wellbeing. It looks at the ways in which resources are distributed within the household, at intra- and inter-household exchanges of resources and assets, and at the rights and obligations individuals have within households and toward individuals or corporations (community, lineage, etc.) outside the household. In household economic studies, Guyer further recommends an analysis of change, by examining the changing values of "what enters into transactions within domestic units" (1981:103), that is, the contractual, but often negotiated exchanges of resources and assets among household members (see also Moore 1992:134). She locates the provenance of these value changes in the wider political economy that surrounds households.

Because ecology also plays such an important role in rural Nigerien households' production and exchanges, I combine aspects of political ecology with Wilk's concept of household ecology (1997). Wilk uses cultural ecology and ecological anthropology to place households within different "ecological niches," that is, geographic locations with differential access to land-based resources and (political-economic) infrastructure such as roads and proximities to towns and markets. He examines the larger histories of his communities to show that they have always been connected with surrounding political

entities (pre-colonial, colonial and independent governments) and different types of markets. Then he opens up the household to analyze the different types of labor, exchanges and marketing each household member contributes to the agricultural enterprise. By shifting household ecology into political ecology, I remove the theory from the functionalism and organic closed-system metaphor of cultural ecology and ecological anthropology (Peet and Watts 1993:239), but can still focus more pointedly on the household, and households and their members' differential accesses to ecological and economic resources. I can investigate agencies and the power to implement decisions (politics) and exchanges of assets and resources (economics) within and surrounding the household, and how household members organize and combine resources and decisions into strategies to cope with the stochastic natures of ecological and other environments. Keeping Barlett's categories and Guyer's warning in mind, I analyze the economics and politics of Katsinen-ko'en households through the changing demographics of their life stages, and the changing relationships of rights and obligations among household members and between household members and individuals and entities outside the household. Following Wilk's example and heeding Guyer's advice (as well as those of Wolf and Roseberry), I examine the histories of Katsinen-ko'en communities: how and why they came to be where and what they are today.

Political ecology, though it is expressed today with somewhat divergent emphases, veered from cultural and human ecology, and ecological anthropology through analysts' desire to "integrate land-use practice with local-global political-economy" (Peet and Watts 1993:238; see also Wolf 1972; Paulson et al 2003:206). It embraces best the interactions of natural environment, markets, government, communities and households. The "ecology" in political ecology refers directly to the natural ecosystems and resources which humans exploit. "Political" refers to the ways in which humans control and access natural resources, and also stands for political economy, one of the parent theories of political ecology (Greenberg and Park 1994; Little, PD 2003; Paulson et al 2003). Political economy examines the how local and larger political systems interact with local, regional and even global economic systems (Greenberg and Park 1994:7). Wolf expresses this relationship more intimately (though not explicitly as political economy):

Between people and resources stand the strategic relationships governing the mode of allocating social labor to nature. ... [S]ocial labor is ... mobilized and committed to the transformation of nature primarily through the exercise of power and domination—through a political process (Wolf 1981:48-49).

Political ecology thus reminds us that economics, politics and ecology interlink and influence each other in different ways and to varying degrees, with different relationships between dominant and subordinate actors, depending on cultural and geographical locale (country, natural environment). Political ecology's Marxist background (once one transcends its tendency toward teleology) also insists on an analysis of the historical processes involved in the interactions between groups of people (Wolf 1981:42, *inter alia*), but household ecology, allows a concentration on the household and its members, within its community, while moderating the Marxist influenced concentration on class-based differential access to resources.

### ***Household and Wuro***

English-speaking authors usually translate the Fulfulde word *wuro* (pl. *ngure*) into "household." When I used *wuro* in my first conversations with arɗo'en and community elders to discuss the households that belonged to their communities, I wished to mean a man and his wife or wives and the children who live with them. I soon realized, however, that the Katsinen-ko'en use *wuro*, more often than not, to mean the extended family, usually headed by a patriarch, either a father or an elder brother. They also use *wuro* for the smaller nuclear unit, when necessary; there is no separate word. This usage indicates not vagueness, but rather a flexible notion of family, which, while recognizing the semi-independence of the nuclear unit, never lets one forget the larger whole to which that unit belongs (see also Weismantel 1989:56). To clarify *wuro* and household for this dissertation, however, I will use *wuro* to mean the extended family. Household will mean the nuclear unit of husband, wife or wives, and children living together in one camp or sedentary compound at any one time. These children may be the biological children of one or both spouses, grandchildren, foster children, or a younger sibling of a spouse. The household may also include a young daughter-in-law (see Chapter 4), or a dependent parent. This nuclear unit is a more or less independent unit of production—cultivation and/or livestock—and consumption—eating from the cooking fire or fires of the wife or wives of the household. In less independent households, a daughter-in-law cooks for her mother-in-law's household as well as her own, and a son cultivates his father's field or herds his father's livestock. Husband, wife and children live in the wife's *suudu*, perhaps nearby, but separate from the husband's mother's *suudu*.

The Katsinen-ko'en and Woɗaaɓe do use a separate word, *suudu* (pl. *cuudi*), for the wife's living and work space, or hearthhold (Ekejiuba 1995; de Bruijn 1997). Besides its

material and spatial aspect (see Chapter 4), “suudu” also refers to the mother and her children,<sup>1</sup> or the matriline, in contrast to “wuro,” the patriline. Whereas the patriarch or husband is *jawm wuro*, the owner or administrator of the household/family, the wife is *jawm suudu*, the owner or manager of the hearthhold.

### **Community**

Among the very mobile Woδaaḅe, one would describe community first geographically, as the *wuvre* or a group of households camping together, and second, politically, as the households following one arḁo. Although the two categories are not necessarily concentric, almost all if not all households would belong to the same *lenyol* (linage). While the Katsinen-ko'en recognize several different lineages, lineage identity is not as important to them as it is for the Woδaaḅe (see Chapter 4), and community is somewhat more complex.

In this dissertation, “community” refers to a group of households bound more or less by socio-political relations to their arḁo and their kin relations, and/or more or less geographically defined by frequenting particular wells or cultivating in the same field complexes. This necessarily fuzzy definition of community accommodates mobile households that neither remain in one place around their arḁo (though they are usually tied to him through kinship), nor do they necessarily reside or cultivate exclusively with the followers of their arḁo. In at least one case, a few closely related households cultivate with one arḁo, a distant relative, but pay taxes through a different arḁo, also a relative, but more distant geographically. The community of exclusive pastoralists and agropastoralists based at Siogari includes the followers of at least two arḁo'en. Community is best viewed as a flexible network of households, woven thickly together through kinship, local politics and geo-economic resources. Among mobile (agro)pastoralists, a community's nebulous borders cannot be drawn on a map; they shift with the seasons, demographic change, and the inclination of household heads to follow one arḁo or another, or to utilize one well and its surrounding pasture instead of another.

Communities in the research area are more stable, however, than the above explanation might portray them; family (wuro) ties, and well and field usufruct embed most households and their members into a dense network of kinship, resource access and socio-

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<sup>1</sup> Among the Woδaaḅe, only the children of two different mothers are considered half-siblings, or *jaadaaḅe* (sing. *jaadiraawo* or *jaadaaḁo*). All the children of one mother, even if they have different fathers, are *rimmdaaḅe* (sing. *dimmdaaḁo*), full siblings. To specify full siblings as we think of them, one says “inna go'o, baaba go'o”—one mother, one father. I was not able to verify this usage with the Katsinen-ko'en.

political obligations. Moreover, though many households follow an arɔo geographically distant from the natural resources that they exploit, most households, through their multiple network links, reveal a stronger integration into one community rather than another. For example, the households of the Siogari community are linked by kin relations and migration histories to ngure and their arɔo'en at Futawa, Mai-Jiga, Bangaji and Omboragat, but are more tightly linked to each other because they often migrate and work together at the same wells and in the same pastures.

## **ECOLOGY**

Ecology and climate constitute the predominant forces with which rural producers in Niger, using land-based resources, must cope. The single rainy season each summer determines not only harvests, but also the quantity and quality of pasture for the rest of the year. The stochastic nature of the climate, and the patchiness of the natural resources, increase with the decreasing isohyets as one moves north from savannah—in Nigeria and along the southern border of Niger—through the Sahel and into the Sahara desert. In the northern Sahel, even during a good rainy season—with large storms covering vast regions, with sufficient rain well-timed and well fallen so that it soaks into the ground—micro-climates develop in which certain fields or certain pastures do not receive enough or the right kind of rain, or the land floods.

Ecologies in such a non-equilibrial climate follow a “state and transition model” impacted by random, fluctuating rainfall (Behnke and Scoones 1993:8; Little, PD 2003:163), or “high variability in ecosystem structure and productivity ... [and] heterogeneity at the micro-level, or “patchiness” (Niamir-Fuller and Turner 1999:32). In such a rangeland, a pastoralist’s “objective would be to seize the opportunities and evade the hazards, so far as possible” that the varied patches of pasture present to him (Westoby et al 1989:271). Pastoralists seize opportunities and avoid hazards primarily through mobility, moving household and herds from one good patch of rangeland to another, but they also herd diverse species of livestock that exploit different types of vegetation. Cultivators diversify their crops and try to cultivate in two or more different locations.

In both 2006 and 2007, the rainstorms divided the Mai-Kalafo field complex, with an area of just under 300 hectares, in two unequal halves. The smaller, southern portion, perhaps 60 or 70 hectares, received enough well-timed rain in both years for decent harvests. In 2006, the larger, northern portion received too little rain; in 2007, it dried out after the first rains, then flooded with too much rain, after which the rains stopped before



the grain could fully form. In both years, the smaller Welaaru fields, about six kilometers to the north of the Mai-Kalafo complex (five or six fields totaling approximately 18 hectares), received earlier and more rain for somewhat better harvests than the northern fields of Mai-Kalafo. The similarities between these two years, however, do not indicate a pattern, suggesting that the cultivators at Mai-Kalafo should give up on the northern portion and concentrate further south or perhaps enlarge the Welaaru fields. One or two years later the scenario could be reversed with the northern half of Mai-Kalafo receiving excellent rains and good harvests while the southern half suffers a micro-drought.

The (agro)pastoral Fulbe, living at the edge of ecological possibility for rainfed cultivation (about the 200 mm isohyet for Niger), manage this uncertainty through strategies to secure diverse resources in multiple locations. These strategies necessitate decision-making by both individuals and households, and include negotiations over usufruct tenure to fields and rights to water at wells, if household heads cannot acquire well ownership. Outside the household, these negotiations over land-based resources take place between male household heads, between a household head and an ardo, village chief, or regional chief, or between an ardo and canton or groupement chief (see Chapter 6). Within the household, allocation of and negotiations over access to resources is regulated by institutional rules of endowment.

## **ECONOMICS**

### ***Endowments and Earned Entitlements***

An individual's personal portfolio of possessions, the endowments and earned entitlements he or she accumulates, result from both the communal and market exchange systems (described below). In his 1990 essay, Sen extended his 1981 analysis of entitlement, "rules that govern who can have the use of what" (1990:140), to intra-household distribution of assets and resources. A person receives endowments through family as inheritance and gifts, and, in the case of the Katsinen-ko'en, through the marriage contract. This "original bundle of ownership" (Sen 1995:39) includes pre-mortem divisions (or pre-inheritance) of livestock and field space, dowries of household gear (furniture, utensils, tent, etc.), as well as post-mortem inheritance of livestock, field space and wells. When she sets up her suudu (see Chapter 4), a wife receives milking rights to her share of her husband's milk stock (cows and/or goats<sup>2</sup>) and ownership of the dairy products she

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<sup>2</sup> No Katsinen-ko'en women milked sheep or camels (no one owned female camels), though other Fulbe and Tuaregs do so.

manufactures. In a cultivating household she also receives (if she desires) usufruct access to land “behind” her husband’s field. Endowments to children may also include knowledges of range vegetation, field and well work, food processing, livestock care and marketing.

While endowments come to a person through household and family membership, a person acquires entitlements through his or her legal exchanges of assets—including labor, produce or cash—as well as transfers of gifts (Sen 1995:52). In the agropastoral community these assets include livestock and livestock products; grain and other food stuffs, cultivated, foraged or purchased; household gear, furniture and utensils such as beds, mats, mortars and dishes; and production tools, such as well bucket-bags and cultivation hoes. Land assets include wells and usufruct tenure to field space, water and pasture. A person can also earn social assets, such as membership in social networks, which facilitate allocation of and access to land resources and access to marketing opportunities.

### ***Accessing Assets and Resources***

Resources, i.e. “the *means* available to people to achieve their goals” (Plattner 1989:7), for households and their members include land, labor, capital, time, information and social identity (Cheal 1989:12). Pastoralist researchers often refer to three general categories of resources: land—pasture, water sources and fields; livestock (capital)—cattle, sheep, goats, donkeys and camels; and labor—human and animal (Thébaud 1988; Fratkin and Smith 1994). As information and social identity both come, in different ways, from various people and groupings of people, people, as Guyer (1981, 1995) points out, impart wealth. Individuals claim resources from close kin through customary institutions, and obtain support and knowledge from social network contacts outside close kin. Time has often been overlooked as a resource, or at least not emphasized. Among the Katsinen-ko’en and Woδaaḅe, the gendered and generational division of labor responsibilities helps to balance tasks among household members—to divide, more or less fairly the amount of time each household member devotes to household labor.

If one looks at households as resource systems (Cheal 1989:12), one can analyze how resources belong to individual household members, how household members obtain and use them, produce and consume them, and allot, share and exchange them. Within the larger political ecology of a region, the household itself contains political negotiations between members over resource access and allotment (Hart 1992:121, 125), especially labor, but also livestock, foodstuffs and cash, many of which are derived directly or indirectly from the natural environment. Accessing, using and exchanging resources calls

for decisions on the part of those who own or desire resources. These decisions require agency on the part of the decision-maker in order to carry out decisions, bargaining power with other household members to negotiate the realization of decisions, or authority to demand that others carry out decisions. Bargaining power is constrained or enhanced by one's perception of self interest (Does my interest lie with my own well-being, my husband's, my children's, or the integrity of the household? And how do I define my well-being?), one's perceived contribution to the household (Who contributes more to the well-being of the household?), and one's capability to negotiate or redefine the social rules that govern resource access and ownership (Sen 1990; Hart 1992:120).<sup>3</sup> In this way agency, bargaining power and authority differ among household members depending on gender and age, and as the household matures through its lifecycle, the resources and varied agencies of household members also change. Whereas, because of his responsibility over herd and field, the household head gains more decision-making power as he matures into a patriarch, his power declines as that responsibility devolves to his son.

### ***Accumulating Wealth***

More than economic or political status, Fulbe (agro)pastoralists in the northern Sahel cite individual skill (*bawde*), knowledge (*hikima*) and cunning (*çoyre*) as determinants of wealth accumulation and differential access to resources. They also realize that wealth, based in livestock, is as unstable as the climate is uncertain. One bad drought can reduce a well-off pastoralist to a pauper, though the wealthy usually have a better chance of recovery (Starr 1987; Waller 1999; McPeak 2005). Whether or not a man can maintain his household's herd through a bad year depends as much on his skill at judging pasture, negotiating water rights, and marketing, as on simple luck in making the correct decision over where to spend the dry season (*ceeðu*). I will mention here three other important factors that influence one's ability to gain resources and wealth, which I discuss in more detail in following chapters.

Gender, first of all, governs the means to wealth accumulation. Though women own livestock, and a few wives in my study population owned more cattle than their husbands, men are endowed, through customary institutions, with more livestock than women, first through pre-mortem divisions and then through post-mortem inheritance (following Islamic custom, a sister receives half of what her brother receives). Male heads of

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<sup>3</sup> Hart critiques Sen on the first two of these points, but she seems more to be adding to his analysis rather than contradicting it.

cultivating households control the *gandu*, the large household field, and, in addition to their customary role as cultivator for the household, have more time to cultivate than their wives. Though the Katsinen-ko'en do not consider grain as wealth, the cultivator might convert excess grain into wealth through his purchase of livestock. With somewhat greater access to grain (depending on harvests, and after household needs are met), men have greater opportunities to gain wealth.

Women, on the other hand, besides their opportunities (in cultivating households) to obtain grain by cultivating small plots, or threshing grain, own the milk from the livestock they milk: their own, those that their husbands assign them, and those of their sons. A large herd can provide a wife with plenty of surplus milk to convert into dairy products for sale. Though these products do not bring the same revenue as livestock or even grain sales, a Katsinen-ko'en woman also does not have the same obligations as her husband for the sustenance of the household. A Muslim husband is compelled by Koranic law to provide food and clothing for his immediate family (Turner 2000:1016). Turner points out that this law allows household subordinates (wives and children) to keep any income derived from the products of their surplus labor, i.e. labor not dedicated to household maintenance. Though they are not as compelled by social custom as their husbands to use their personal wealth for household maintenance, most dairy- and livestock-wealthy women whom I interviewed contributed willingly and even proudly to the food and clothing of the household. Unlike other pastoral societies (Waller 1999:35), no customs restrict Fulbe women from dealing in cash, though young Katsinen-ko'en wives are discouraged from attending marketplaces. At least three women I interviewed, however, sold assets to buy smallstock and one heifer, either during my research period or the two preceding years.

Secondly, the dense social networks of kin, as well as more loosely linked non-kin social networks, provide one with access to resources (Berry 1989). Besides exchanges of labor, men and women gain access to land, water and livestock primarily through their close kin, from endowments, gifts, or reciprocal exchanges such as loans. The great majority of Katsinen-ko'en men are related more or less closely to the ardo or other well-owner who allows them to cultivate in the local field complex. Men also obtain fields and access to wells through friends in social networks. Both men and women give and are given gifts of dairy and grain, and livestock is loaned to and by kin and friends. Cattle, however, are loaned almost exclusively to men, even by women—another gendered aspect of wealth differentials.

Finally, rural producers see Allah and luck (*sa'a*) as having great influence over their livelihoods and economies.<sup>4</sup> *Sa'a* means time, as well as luck, in Hausa, and carries the sense of “timing,” good or bad, in Fulfulde. To have *sa'a* often means being in the right place at the right time, a concept as important in household and herd mobility as in getting a good deal in the marketplace. Herders and cultivators perceive themselves subject to the chancy natural environment, and ultimately the will of God, *yerdake Allah*. More than any other factor, the quality of the rainy season controls, through the amount of water available during the year, both grain and livestock production. (Agro)pastoralists also have little control over pests such as locusts, birds or mice, besides appeals to the agriculture service (often to little avail) and prayers. God controls climate and ecosystems, as well as good or bad luck in the marketplace, or while trading in cattle in the rangeland. The great majority of Niger’s populace refers several times a day to the part played by God or luck in their good or bad fortune (*Allah hokku sa'a*: God give you good fortune), and appeal to clerics (*moddibbe*) for prayers and charms (*maagani*). “Risk, for them [is] a spiritual affair” (Delehanty 1988:243). The devout Katsinen-ko’en believe they are not without influence over their God-determined fortune, that prayer, charity and sacrifice (*sadaka*), Koranic study and a life well-led will bring them benefits from Allah, if not in this life, then in the next. In both 2006 and 2007, while they waited for the rains to come, the cultivators held several *sadaka* rituals: hours of reading the Koran and prayer, while they sacrificed a buck or chickens and the young men cooked food for their elders. Elder women also receive *sadaka* gifts of grain at harvest time. Though most of the *Woɗaaɓe* I live with are not practicing Muslims, they readily acknowledge the power of Allah<sup>5</sup> over their lives and fortunes, while adhering strictly to an institutionalized (though not religious) system of “taboos,” prescriptions and proscriptions. They also give *sadaka* as a propitiation of Allah: men kill and roast a buck or ram for their neighbors (though without the hours of Koran reading), and women distribute balls of millet pounded with sugar to all nearby children.

### ***Exchanging Assets***

#### **Two exchange systems**

In order to discuss the details of household economics, I classify two different types of exchange systems that come into play within and between households and their members,

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<sup>4</sup> See Moritz (2003:326-7) and Dupire (1970:91) for Fulɓe determination of a child’s good fortune and future wealth (*risku*) through the fertility of pre-mortem gifts of livestock.

<sup>5</sup> Allah is not, even in a metaphorical sense, a person as pictured in the Bible or Koran, but an all-powerful force.

communal exchange and market exchange. These systems are similar to Gudeman's (Gudeman 2001:9-10) "communal" and "market" realms, Polanyi's "reciprocity" and "market" categories (Hunt 2002:106, citing Bohannan), and Roseberry's (1989:202) "natural" and "money" categories, though without the "cultural/rational" or "traditional/modern" dichotomies that the latter two theorists imply. Interactions between individuals in village marketplaces in Niger are often, if not usually, just as real and social as economic interactions between members of a geographic or kin-based community, which are just as rational as the former. Cash transactions happen between community members, for instance when a woman sells millet bran or a man retails sugar to neighbors, or even between husband and wife, just as non-cash exchanges occur in non-kin social networks, for instance communal exchanges with villagers and market friends that facilitate market exchanges. Both labor hiring and livestock trade for cash or payment in kind happen within a kin-based community as well as in distant villages and pastoral communities. Of course, the further away geographically one goes for market exchange, the more anonymous and short term the social connection usually becomes. The categories do not have neat, distinct borders, however, but at more as a continuum or overlapping circles in a Venn diagram with exchanges falling inconveniently between classifications.

### **Local markets**

First I distinguish between markets and marketplaces: the former including the situations of labor and livestock and petty trading, and the later including the village and town places where goods are exchanged (Berdan 1989:102). Local markets include, first, marketplaces located in villages or towns, with their somewhat separate cattle and smallstock markets (*luumo na'i* and *luumo bisaaji*,<sup>6</sup> respectively). Secondly, the labor market encompasses various types of field work done for hire by men, women's threshing for men outside their households, the herding and watering of young men engaged for a year or more by other pastoralists, urban wage labor, and cleric's work. This labor may be recompensed in cash or in kind, i.e. grain or livestock. Cattle (or camel) trade, a third type of local market, is limited to Katsinen-ko'en men who can risk some capital or obtain credit to buy heifers in a cattle marketplace. They exchange the heifers, with pastoralists in the rangeland, for bulls which they sell back in the marketplace for a profit. The cattle trade

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<sup>6</sup> *Luumo* (pl. *luuɓe*) in *Fulfulde* refers to the abstract sense of market as well as marketplace. Camels, donkeys and horses are sold in the larger marketplaces that contain cattle markets. Smallstock is sold in all marketplaces; chickens are not sold in the livestock market, but in the main market, alongside fruit and vegetables.

includes hiring Katsinen-ko'en and Hausa drovers who drive cattle between range and marketplace. Some men also grow, carve and market calabashes, or engage in petty trade.

Markets and trading have been a part of West African economic life at least since, and probably before, the rise of cities and establishment of marketplaces in the first centuries of the last millennium (Smith, HFCA 1972:186; Coquery-Vidrovitch 1991, 1997).

(Agro)pastoral Fulbe have always participated in various types of exchange, including dairy and livestock barter or marketing for grain or other items that they do not produce themselves, such as clothing, cooking pots, tools and jewelry. They have also, when necessary, hired and engaged in herding and field labor for payment in kind. After the turn of the 20<sup>th</sup> century, marketplace participation expanded, first with colonists' demand for taxes (and their support of marketplace development), which increased pastoralists' need for cash (Dupire 1962; Baier 1980:140), and then when the droughts of the 1970s and 1980s reduced herding and cultivating households' ability to live primarily from dairy production, trading dairy products for grain, and harvests. Today, household members usually go to village or town marketplaces once a month on rough average, depending on their needs and salable produce. In general, men sell livestock to buy grain, sauce leaves, salt and potash for livestock, and clothing. Women sell dairy products and buy sauce leaves and condiments, clothing, and household utensils. Though specialized artisans have produced and bartered or sold metal agricultural tools, wooden utensils, earthenware pots and woven, dyed cloth for at least two millennia, opportunities to buy new, often imported tools and utensils (e.g. rubberized tarps for well buckets and tent coverings, enamel and plastic dishes, radios) have also increased marketplace participation.

### **Market exchange**

The market exchange system in this paper will refer to practices in which individuals exchange goods and services for generally immediate payments in cash or in kind. Though credit may be extended, payment is expected as soon as possible, or at some contracted time. Within the various markets, these exchanges include dairy marketing, in which women sell cultured milk (buttermilk, *finndiɗam* or *kosam*), clarified butter (ghee, *nebbam*), and cheese (*cuku*) in village neighborhoods and marketplaces, and to neighbors and passers-by; grain and beans sold and purchased in marketplaces<sup>7</sup>; and livestock, artisan and petty trade. Some women sell sorghum bran to their neighbors; some men sell calabash

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<sup>7</sup> The *Wodaabe* also buy grain and other foodstuffs in from men or women in villages. Grain is usually sold, even in non-market villages, by a dealer. I never saw the Katsinen-ko'en make such purchases outside the marketplace.

bowls from home and in the market; and a few men buy commodities (tea, sugar, batteries, etc.) in the village market to retail to their neighbors. Market exchange also includes the exchange of labor for cash or payment in kind, such as grain or livestock, among neighbors as well as in more distant villages. Wells are also bought and sold for cash, but usufruct access to land, often with less immediate recompense, may fall more within communal exchange. Exchanges of goods and services, for more or less immediate recompense, with a primary objective of personal or household gain, belong to the market system. Such exchanges can take place within the community as well as in the marketplace.

### **Communal exchange**

The “communal exchange” system refers to less immediate forms of reciprocity and gifting. Communal exchanges are conducted with social (usually kin) relationships foremost in mind, and often operate through the moral economy (Cheal 1989:14).

Reciprocity involves exchange of goods between people who are bound in non-market, non-hierarchical relationships with each other. The exchange does not create the relationship but rather is a part of the behavior that gives it content (Bohannon 1963, in Hunt 2002:106).

A cultivator who has had a good harvest gives surplus grain to his less fortunate siblings, children, nephews and nieces because they are kin, but also because he can expect gifts from them when he needs help. Exchanges of goods in ceremonies and rites of passage belong to communal exchange, as do endowments (exchanged essentially for labor). An ardo or well-owner allocates usufruct access to land or water through a sense of obligation to kin, or ethnic or even livelihood (pastoralists stick together), but that access comes with responsibilities on the part of the recipient to follow customary rules regarding care of the land and contributions of labor to well maintenance. Communal exchanges also transcend the boundaries of kin-based communities when a Katsinen-kejo woman gives milk to a Tuareg neighbor with no expectation of recompense, or a traveling stranger is hosted with dinner for the sake of conversation and news. When a man loans a ewe to a friend in a separate community through the customary livestock loan practice of *habbanayi*, he might expect a reciprocal loan when the ewe is returned, but both men usually (ideally) consider the relationship of more value than the ewe or her lambs. Communal exchanges also occur within the marketplace when marketers trade favors (Granovetter 1992), as when livestock brokers (*dilalis*) build long-term relationships with pastoralists and their families by extending assistance with livestock droving and other favors in the marketplace.



Communal exchange demands some sort of return, however, even if the reciprocity is delayed. Scott (1976:176, citing Malinowski and Mauss), refers to the moral principle “that a gift or service received creates, for the recipient, a reciprocal obligation to return a gift or service.” Often cited as a strategic practice for pastoral households or communities (see for example Dupire 1962; Niamir-Fuller and Turner 1999; Hammel 2001; Thébaud and Batterbury 2001), reciprocity usually involves personal, household or community gain (food, livestock, access to resources), yet within the context of a relationship maintained through and because of the reciprocity. A reciprocal exchange occurs between households within a community when an uncle, fortunate to harvest early grain, expects his nephew to repay grain that he has given him with a commensurate amount of grain (if possible) when the nephew harvests own. When a village, at whose well a pastoral community habitually spends *ceeðu*, expects the pastoral men to keep their well clean in exchange for access to its water, a reciprocal exchange occurs between communities. Only when hosting strangers does the reciprocal recompense seem to consist of no more than respect for the host’s household, and the self-esteem and prestige the host gains by sharing his wealth (see e.g. Barth 1969b:120-121).

### **Limits on exchange**

Certain assets, belonging more to family and community than to individuals, are less easily exchanged, especially in the market (see e.g. Gudeman’s “base”, 2001:6). Heifers and cows, the foundation of household livestock production and endowments to children, belong to this group of assets, while bulls and bull calves (except for one kept for stud when possible) are sold in the market<sup>8</sup> or slaughtered in rites of passage. “It’s good to sell a bull,” one man told us, “selling a heifer is awful.”<sup>9</sup> In these increasingly uncertain years it has become much more difficult to keep the lineage of cows inherited from one’s father (Bonfiglioli 1988; Krätli 2008), but a man (or woman) still sells even a barren or old cow reluctantly.

Other assets cannot enter into market exchange nor leave the community without changing it fundamentally (Gudeman 2001:30). A well that historically established access to land for a community, and now anchors the community, cannot be sold without the dispersal of the community. If the well collapses, the community digs (or hires

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<sup>8</sup> Baier (1980:145), citing colonial veterinary reports, notes that, contrary to conventional wisdom, pastoralists never sell their cattle, this has long been true.

<sup>9</sup> This is ideal behavior, though perhaps the norm. In real practice, a couple of men told me, seemingly unconcerned, that they sold a heifer or cow because she would bring the most money.

professionals to dig) a new well with the same name, in the same area. Fields that a community has cleared from the bush are passed down as endowments to sons, who remain thus members of the community. If communities do trek to new regions, leaving their fields and leaving or selling their wells, those wells and fields then become part of lineage history and lore, still part of the community's identity.

Children, exchanged through fosterage and given in marriage, are the most sacrosanct assets. They may leave the geographic community, but always remain within "the lenyol" (linage), usually living with extended family. Girls are given in marriage, ideally and in practice, most often to first cousins, even though such a marriage might mean a move to Nigeria.<sup>10</sup> A son may also be sent a long distance to Koranic school, but his teacher is usually a close relative. In this way, even though the children live a long distance from their parents, they are not "lost" to the larger community of the lenyol.

## **POLITICS**

Politics, whether in governments or within households, concern agency and power—"the capability of an actor to achieve his or her will" (Giddens 1979:69)—and the ability to carry out decisions. Decisions entail three levels of power: first, the power to carry out decisions for oneself; secondly, the power to negotiate assistance in carrying out one's decisions; and thirdly, the power to compel others to carry out one's decisions. Agency and the power to decide and act are located within social relationships and interactions (Giddens 1979:93), and constrained or facilitated by the social system, by various ideologies based both in ethnic traditions<sup>11</sup> and institutions, including customary and government institutions. Within the research households and beyond, however, power is also constrained (through economics) by ecology, by rainfall, by where water can be found and by where vegetation grows.

### ***Institutions and Resource Access***

Institutions can both confer and restrict power in negotiations over decisions and resource access. For example, Islamic law dictates twice as much inheritance to sons as to daughters, and confers to household heads both responsibility for, and power of allocation over, household produce, but also supports ownership of the individual (men and women) over their personal produce. Institutions can also reduce transaction costs (time, effort,

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<sup>10</sup> *Women enter into second marriages outside the lenyol, and even occasionally (I was told) with men of different ethnicities.*

<sup>11</sup> *Indefinite repetitions of practices by actors who assume that others have performed them before and have authorized them (Giddens 1979:200, citing Pocock).*

expense) of exchanges (Acheson 2002:29); for instance, customary market institutions govern the ways in which commodities are negotiated, services are contracted (even if orally), and obligations are fulfilled. Governmental institutions also direct market transactions through legislation, which may support or conflict with customary institutions. The customary institution of common property access to rangeland, and usufructuary access for pastoralists to cultivated land after harvest until just after sowing, reduces the transactional costs of negotiation over tenure, but it also eases mobility by denying rights to fence land (except for relatively small gardens). Government legislation has endorsed this customary pastoral land tenure with the Code Rural and Code Pastoral (Comité National du Code Rural 1993, 1997; Comité National du Code Rural 2010, especially Articles 4, 11, and 12; Mwangi 2009:166).

The politics of political ecology analyzes how different actors obtain differential access to natural resources, or, for some actors, differential power with which to allocate different resources (Little, PD 2003:165). The allocation, exchange and use of these resources impacts the ecology of the natural environment which feeds back into actors' various capabilities to access or allocate resources. Land degraded and devalued through use lessens the negotiating power of the person holding allocation rights to that land. Niger's pastoral zone appears to be relatively "open access" rangeland, an institution that reduces the transaction costs of negotiating for pasture use (Ngaido 2002:1-2). Access in the northern Damergou, as in most of the Sahelian rangeland, is in fact controlled by well owners' allocation of watering rights (Turner 1999a:652; Sullivan and Homewood 2003:32; United Nations Development Program 2007:5-6), which limits somewhat the number of households, and therefore livestock, which occupy a particular area at any one time. Permission to dig wells in particular locations is given by a regional chief (*chef de canton*), who must consider—constrained as he is by the bargaining power of other stakeholders, especially other well owners—the number of wells already present in the area and the distance between those wells and the proposed well (the Code Pastoral now also legislates the network of pastoral wells). A moral sense that one should never consume all of a certain resource, whether while pasturing livestock or when foraging for edible plants, also limits damage to land resources. Stripping bare a patch of sauce plants or the trees from a *luggere* (pl. *luggeji*, wooded grove) is considered a "Haaḅe" thing to do, outside the ethics of the Fulḅe.

### ***Politico-economic Differentiation and Resource Access***

Within rural communities, resource differentials do not result in class (as opposed to wealth) distinctions. In the larger regional context, however, control over resources (material and immaterial, such as knowledge) impose different limitations on individuals' and households' abilities to maintain well-being and accumulate wealth. Historically, a hierarchical feudal system of hereditary rulers, wealthy urban bureaucrats and merchants, religious men, peasants and slaves organized the precolonial Hausa states (see map, Figure 3.1). The 19<sup>th</sup> century Fulbe Sokoto Empire reclothed the Hausa states as emirates with new rulers but, for the most part, left the socio-political structure in place (Johnston 1967; Azarya 1978:27). Wealthy patrons still subjected rural clients, a class distinction reflected in the word "talakawa," a Hausa word in common use in Fulfulde, usually glossed as "commoners," but also carrying implications of poverty and servitude. Farmers and pastoralists who wished to escape this subjection moved to the geographical margins of the states and later emirates. North was one direction for escape, though there the "talakawa" might come under the control of Tuareg patrons (Baier 1980:36-7; Delehanty 1988:64).

Today, in the less populated northern Sahel, land and other resources come only indirectly under the control of regional chiefs. Except in and around Tanout town, and perhaps some of the larger villages of the département, land is not titled,<sup>12</sup> nor bought and sold. Men who ask permission, from their ardo or village chiefs, their kinsmen or their friends, are usually granted or loaned access to land for cultivation. Wells are owned and often titled, and a man or group of men either obtains permission from a regional chief to dig a well (usually hiring professional diggers who dig by hand), buys a well, or takes over the care of a well from an absentee owner (usually a relative). While livestock is bought and sold in local markets, livestock wealth or poverty depends more on personal ambition and skill, inheritance, and fate or Allah than accumulation through appropriation by an elite class. Though livestock-poor men may work as herders for the livestock-wealthy, including village and urban owners, local pastoralists view this as a means to earn livestock, rather than a relationship of exploitation.<sup>13</sup>

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<sup>12</sup> Land bought and sold in and near Tanout town is registered with the préfecture, (probably with the Commission Foncière) as are private wells in the département.

<sup>13</sup> Besides payment in cash or in kind, which has become more regularized over the years since the 1984-5 drought, herders who care for livestock far from the owner's scrutiny have the opportunity, whether they take it or not, of stealing from their employers, a practice at least as old as the trick Jacob played on Laban (Genesis 30:35-43).

The “traditional” chiefs, especially the regional chiefs (*chefs de cantons, chefs de groupements*: see Chapter 6) such as the Laamiɗo, supported to some extent by the local and national administrators, exert limited control over access to some land resources, but they do not, by any means, have absolute control over the resources or revenues of rural producers. Regional chiefs have access to resources such as vehicles, housing and a stipend from the government, and might reap more profit from fines, and even graft if they are so inclined. Local village or tribal chiefs (arɗo'en in the case of the Fulɓe), receive a small percentage (10-15%) of the taxes they collect, but they must also pay any taxes that they have been unable to collect. Because they are usually closer, geographically and relationally, to their followers, they often find themselves at a disadvantage when their followers expect more from them in the way of help during stressful times (e.g. food aid through the local administration). A few arɗo'en grow wealthy, but not usually through their political position. Because regional chiefs are further removed from most of their followers and therefore more immune to the moral economy of social obligations, they have more opportunities to grow wealthy through their hereditary positions. Nevertheless, unless a rural resident wishes to dig a well, becomes involved in a dispute that proceeds past the level of the local chief, or is arrested for a crime by cantonal officials (*dogari*), regional chiefs have little material impact on the people under their rule.

Legally, one needs governmental permission to dig a well, begin a new field complex, or cut trees,<sup>14</sup> but the area is vast and the government administration understaffed. Resource access and utilization is controlled more through complaints brought to a chief or the préfecture (départemental administration) than by regulatory personnel touring the region. For example, those cutting trees from a new field need worry only if they are close to a truck road along which the agent from the Environmental Service might patrol.

One can easily argue that rural Nigeriens suffer from a disparity in access to developmental resources and government services such as health and education, and that this disparity certainly affects their household economies. Development and government extension agents, including health workers, frequently discriminate against rural Fulɓe because they are less educated, because the agents often do not understand their ways of life or livelihoods, or simply because they belong to a minority ethnic group. One might also reason that merchants enrich themselves at the expense of this poorer class by purchasing

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<sup>14</sup> *It is illegal to cut almost all trees (except, in most areas, softwood trees and bushes such as Calatropis procera) without a permit, obtained through the Environmental Service.*

and then hoarding their grain and beans to sell back to them later at higher prices, and by buying up low priced livestock during drought years, but more research is needed to determine whether or not these practices, which persist at low frequencies, actually oppress rural producers. Merchant exploitation has not prevented some pastoralists from becoming quite wealthy in livestock.

One might extend this argument to contend that the educated class of government and development agents enrich themselves at the expense of the rural population, either through corrupt practices or simply by keeping them in their inferior and often poorer positions so as to secure or prolong the agents' own employment. Many rural as well as poor, urban Nigeriens certainly feel, if not oppressed, at least excluded from the wealth of the world, especially when they see the material affluence of Europeans and Americans and the Nigeriens who work for their organizations. In this case, the "talakawa" often express the frustration that rises from this knowledge of unequal wealth with demands for aid of any kind—food, livestock, medicines, cash—and a higher scale of payment for goods and services. In these latter respects, the northern cultivators and pastoralists seem to exist in a paradoxical situation. Having moved north partly to escape class oppression in the south and attempt to increase their prosperity, they have increased the riskiness of their livelihood ventures, especially now as the climate becomes more unpredictable (Hulme 2001; Dai et al 2004), and distanced themselves from development opportunities (though such opportunities are not abundant for more centrally located villagers and townspeople). Most (agro)pastoralists have experienced destitution once or twice within the last four decades, and the well-being of their households and families still hangs in a very precarious balance.

Though I will take up some of the above arguments in the final chapter of this dissertation, more proximate socio-political divisions and the demands of climate concern my research communities more directly. Rather than economic classes as they manifest in the industrial West (and similar to but different than race dynamics in the West), a combination of ethnicity and livelihood practices more intensely divides the rural population of Tanout department and much of Niger. In the cultivation zone south of the Eliki and Gourbobou çengi, most Hausa (and some Kanuri) farmers (Haaɓe) regularly oppress migrating Fulɓe pastoralists by demanding exorbitant fees for well usage and fines against field damage. They are often (but not always) supported in these practices by regional chiefs, local gendarmes and even the préfecture, a bias that can be traced to

colonial policies which usually favored cultivation, at least in the cultivation zone. The Sudusukayel Woɗaaɓe, who habituate a more southerly region than most other Woɗaaɓe lineages, claim that, as the “original inhabitants” of the area surrounding Tanout town, their rangeland was stolen from them by Haaɓe cultivators. Tuareg pastoralists grumble that the other ethnicities stole “their land” from them. Quarrels over field damage and pastoralists’ perceptions of discrimination can lead to livestock and property destruction, and actual battles ending in human injury and death.

North of the Elikɪ and Gourbobɔ ɕengi, pastoralists protest and fight against the encroachment of Haaɓe, because the Haaɓe fields take up range space (*nyaama ladde*: lit. eat rangeland). Though I was told that some Hausa were invited to settle in the Gourbobɔ ɕengol in the past, Fulɓe (and probably also the Tuaregs) now actively try to keep Hausa from establishing more fields in the area. The Fulɓe view the Haaɓe as “cultivators” (*remoɓe*), no matter that most also raise livestock (see also Moritz 2006:9), and injurious to “pastoralists” (*waynaaɓe*). One government administrator expressed to me his frustration over pastoralist complaints against Hausa fields in the pastoral zone. “How can we prohibit fields in the pastoral zone, when the pastoralists themselves cultivate there?” Most pastoralists’ who undertake cultivation, however, practice it differently than the Hausa and Kanuri (see Chapter 5), especially in the way that they expect livestock damage and usually attempt to avoid it rather than fight against it. Katsinen-ko’en elders told me that they moved north to escape encroaching Haaɓe fields, a process I describe in the next chapter. The Katsinen-ko’en still interact, however, with Haaɓe, and with neighbors of several different ethnicities, discussed further in Chapter 4.

### CHAPTER 3: A HISTORY OF MIGRATION— ECOLOGICAL AND SOCIOPOLITICAL CHANGE

The Damergou today has a far different climate and ecology than the savannah of northern Nigeria, watered by rain and rivers, whence came the Katsinen-ko'en. Even in the mid-20<sup>th</sup> century, when rainfall increased and the Katsinen-ko'en trekked north to find lush rangeland and much wildlife, this northern country was still drier than that which they had left. Though my research interviews and conversations did not concentrate on history, I did ask for and received a few stories of family migrations. In this chapter, I weave those stories with literature on regional history from various sources to assemble some past experiences of the Katsinen-ko'en, and examine the reasons they left their homelands for the north.

The Katsinen-ko'en appear very little as a distinct population in scholarly literature (Dupire 1962, 1970; Thébaud 2002 are exceptions), but are usually lumped together with other agropastoral Fulɓe, or perhaps mistakenly included among Hausa Katsinawa.<sup>1</sup> My history sources at Mai-Kalafo did not know an origin story for the first Fulɓe to settle in the Hausa state of Katsina. They may have immigrated into Hausaland and established themselves in Katsina as early as the 13<sup>th</sup> century (Johnston 1967:24; Ifemesia 1969:75), or continued trekking into the Bornu Empire (Adeleye 1972:507; Bonfiglioli 1982) to return sometime later. A Boɗaaɗo living in Bornu told Stenning (1959:37) of his ancestors pasturing in Katsina in “remote times.” Various political conflicts and droughts, including severe famines during the 18<sup>th</sup> century (Gado 1993:33), drove Fulɓe and others from one region to another. When Fulɓe victors established the Katsina emirate in 1807, agropastoral Fulɓe had lived in the Hausa state, an area of rich cattle pasture, for so long that “they no longer thought of themselves as members of the clans [such as Woɗaaɓe] to which they originally belonged” (Johnston 1967:65). The Woɗaaɓe living in Kazauré, who settled in Katsina after the battle of Mopuru (below), may have fled Bornu during the wars between Fulɓe followers of ɗan Fodio and Bornu in the early 1800s (Johnston 1967:77-79; Adeleye 1973 [1968]:89), or during an anti-Fulɓe policy in Bornu between 1849 and 1860 (Bonfiglioli 1988:37).

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<sup>1</sup> *“People from Katsina” in Hausa, the same Hausa name is given to the Katsinen-ko'en.*

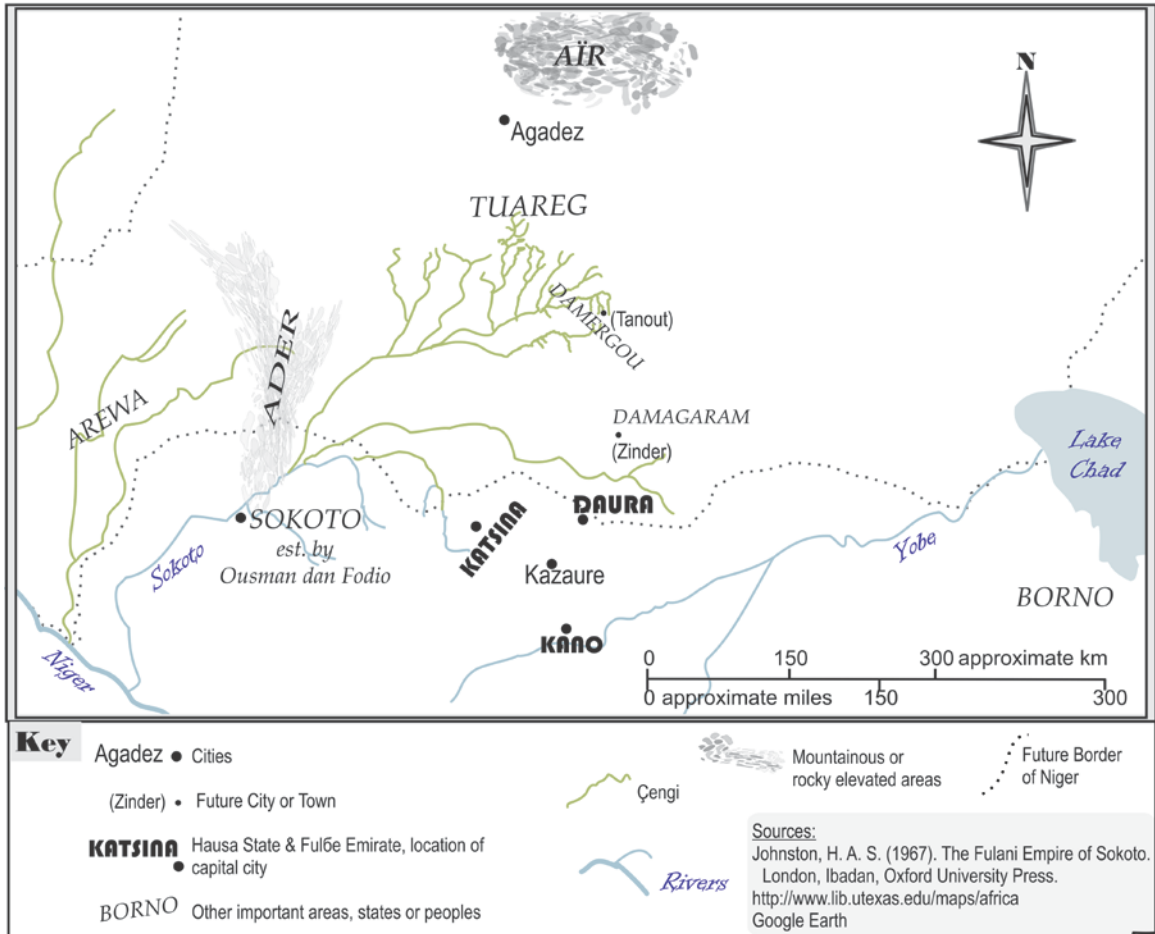


In Hausaland, in the 18<sup>th</sup> century, pastoral Fulḡe began to complain against harsh cattle taxes imposed by Hausa chiefs, and Fulḡe Muslim clerics increased their condemnation of the Hausa rulers' heathenism and oppression (Johnston 1967:31; Adeleye 1972:510, 527-8). Shefu<sup>2</sup> Ousman ḡan Fodio, an influential cleric from the Tooroḡḡe lineage, whose ancestors migrated into Hausaland from Senegambia in the 15<sup>th</sup> century (Johnston 1967:26), inspired a jihad that swept across the Hausa States and into Adamawa (southern Nigeria and northern Cameroon), creating the Caliphate of Sokoto, a collection of emirate states, ruled mostly by Fulḡe leaders. Katsina was conquered early in the campaign by a Pullo named Umaru Dallaji (Johnston 1967:63). ḡan Tunku conquered Kazauré, an area of land that lay across northern Kano State. After battling the emir of Kano for several years, ḡan Tunku finally received the title of emir from Bello, son of ḡan Fodio, who created the emirate of Kazauré out of parts of Kano and neighboring emirates (Johnston 1967:178-9).

One might conclude that after the formation of the Caliphate, the Hausa oppressors of pastoralists became the oppressed of the Fulḡe imams and emirs, but Shefu ḡan Fodio's Tooroḡḡe ancestors had lived for centuries in Hausa towns and villages and had adopted much Hausa culture, including the language (Bonfiglioli 1988:17-18). The Sokoto Empire, despite its dominant but minority Fulḡe ethnicity, remained "Hausa-ized", with the adjunct imposition of Islamic law (Johnston 1967:165). Though a unifying force, the Caliphate also could not end disputes and wars between emirates (the Hausa States had also constantly fought one another), or rulers' oppression of their subjects (Adeleye 1973 [1968]), as illustrated below.

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<sup>2</sup> *Sheik in both Hausa and Fulfulde.*



**Figure 3.1:** Map showing some of the precolonial Hausa states and Fulbe emirates, as well as other important political areas.

## MOPURU: HE-OF-THE-GRAY-HORSE

The Mai-Kalafo elders do not know how their ancestors came to live in Katsina; it appears that many generations of the Degerewol maximal lineage (see Chapter 4) lived as (agro)pastoralists in Katsina. Originally Woḍaaḅe until the early 1800s, those of Ali-jam maximal lineage lived in Kazauré, southwest of Katsina state. The legend of Mopuru, son of the Kazauré Laamiḍo,<sup>3</sup> connects the two lineages. When I began to describe what I had read of the legend (Dupire 1962:22), the Mai-Kalafo arḍo recognized the story immediately. “We know the history of Mopuru. Our grandparent was there! Before Mopuru, they lived near Ngoori.”

The Kazauré Laamiḍo’s son was called Mopuru (*he of the gray*) because he rode a gray horse. The day any man asked her father for his bride, this prince would arrive on his gray horse to stay with the bride for ten nights. One young Ali-jam man told his father that if Mopuru lay with his bride, a girl whose beauty had no equal, he would cut the prince’s throat.

On the wedding day, when Mopuru arrived at their camp, the young man hid in the bush west of the camp. He could see into the tent, where his bride fed Mopuru while he lay on her bed. Then Mopuru touched her breast and the husband said, “You die today. You felt her breast. Today you die.” The husband crept around to the back of the tent. He reached up under the mats to feel for Mopuru’s neck as he lay on top of the young woman. Then he pulled out his sword and cut through the Laamiḍo’s son’s neck.

After he buried Mopuru, the husband went to his father and the elders and told them that he had killed Mopuru.

“Today we are ruined!” they cried. The elders told the young men to spend the night dancing as if nothing had happened. They, the women and children would flee with the livestock to Sokoto. “Today, the land of Kazauré is ruined.”

When they learned that Mopuru had been killed, the soldiers and war guards of Kazauré called for war. “Come, here is killing galore!”

Then the Katsinen-ko’en from Katsina came to help the Ali-jam Woḍaaḅe fighting the Kazauré soldiers. They took many Ali-jam Woḍaaḅe away from the Kazauré soldiers by force. The Laamiḍo of Katsina welcomed the Woḍaaḅe. “Any remaining Woḍaaḅe should come here.” Those who escaped Kazauré joined the Katsinen-ko’en. That’s how Woḍaaḅe became lost among us. Anyone else would look at us and not realize that Woḍaaḅe live among us.<sup>4</sup>

The arḍo’s version differed somewhat from that of Dupire’s Boḍaaḍo narrator, who relates that the vanquished Woḍaaḅe were enslaved. The Mai-Kalafo arḍo insisted that the Katsina Laamiḍo, Dikko,<sup>5</sup> welcomed them and they had simply agreed to live under his rule. “The Laamiḍo of Katsina saved the Woḍaaḅe.”

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<sup>3</sup> Possibly the son of ḍan Tunku, who died around 1825, shortly after becoming emir (Johnston 1967:178-9).

<sup>4</sup> Interview recorded January 20, 2007: see Appendix F for a more literal transcription.

<sup>5</sup> Probably Maman Dikko, given rule over the western part of Katsina Emirate for the part his father, Muhammadu ḍan Alhaji, played in taking the land from the Hausa Katsinawa (Johnston 1967:64).

## DIFFICULT YEARS IN KATSINA AT THE TURN OF THE CENTURY

One evening, a Mai-Kalafo elder told us stories that his father, Ibrahim, and his uncles had once recounted:<sup>6</sup> the coming of the Europeans, the rinderpest epidemic which killed most of the cattle, and *Dogowa*,<sup>7</sup> the long famine. Ibrahim and his brothers were born and lived for a time at a place called Saafe, near a Hausa village our narrator called Kasuwa Dutsi, between the towns of Daura and Katsina (see map, Figure 3.2; timeline, Figure 3.3; and Table 3.1, below).

Ibrahim's father died, orphaning the five brothers and their sister at very young ages.

When their father died, their older siblings [or cousins], born long before, fostered them. They cultivated for them; they harvested for them; they stored the grain for them, in their own [the orphans'] granaries. Their mother pounded for them. Until they reached the age when they could take up their own work.

At that time, rinderpest, a highly contagious and deadly cattle disease, entered the Sokoto Empire from East Africa, devastating cattle herds between 1887 and 1894 (Stenning 1959:80; Bonfiglioli 1988:97; Gado 1993:40; Adebayo 1997) and again after the 1911-14 drought (Baier 1980:134). The elders called it *zagawo ndociya*, diarrhea of "live coals," because cattle corpses were burned to stop the contagion.

That was the cattle sickness: when a cow has diarrhea all the time, lots of diarrhea with blood, until she's so fatigued she dies. At that time, for years and years, the cattle caught *zagawo*. From the time it entered the country, it kept killing them. Even if someone wealthy, strong, had many cattle, he was left with just two or three; another was left only a young heifer; another, a young bull-calf. For another, well, all his cattle died. Our father said it was called "*zagawo ndociya*." Where the cattle died, when night fell, you would see fire burning the cattle. With their eyes they saw it. Fire burned them up.

That's why when they got together and they talked about the old days, they'd say, "Well, at the time of ember *zagawo*, how old were you?" The person would say, "Yes, when ember *zagawo* happened, I was so many years old." Well, that's what I heard; always we heard our elders when they spoke of this history.

Our narrator remembered hearing that the British began to vaccinate cattle. The rinderpest and perhaps the death of their father must have left the brothers impoverished. Our narrator merged the story of *zagawo* with another about how his uncle, Gaatoru, transported charcoal and cotton to market to earn money for his marriage.<sup>8</sup> He filled large leather bags with charcoal, which he made by burning dead branches. At that time, farmers grew cotton in gardens at the forests' edges, which Gatooru and his friends purchased and carried with the charcoal on their heads from Saafe to Kano, about 100 kilometers as the

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<sup>6</sup> Interview recorded on March 20, 2007: see Appendix G for the full transcript.

<sup>7</sup> Hausa, "the long one"

<sup>8</sup> Or some sort of currency, probably to buy the marriage bull and gifts, see Chapter 4.

crow flies. No one used donkeys in that era. Only wealthy itinerant traders loaded their trade goods on oxen. Ibrahim's brothers owned no oxen.

Three years after Gaatoru set up his household (a few years after he married, see Chapter 4), the famine Dogowa began. Gaatoru's younger brother, Ibrahim, had just started *soro*, the endurance test by which young Katsinen-ko'en men prove themselves worthy of marriage.<sup>9</sup> A six-year Sahel-wide drought from the Atlantic to the Red Sea, between 1910 and 1915, caused a devastating famine beginning 1911 or 1914, depending on the locale, and lasting through 1915 (Stenning 1959:86; Bonfiglioli 1988:92; Gado 1993:91).

During that hunger, people pounded calabash pieces to make gruel to drink. A person feels hunger, takes up those pieces. Puts them in the mortar, breaks them up, and pounds, pounds, pounds. When they've become flour, then s/he drinks it—well, if there's milk, s/he puts in milk. Then s/he stirs it up; then s/he just drinks it up, chews and chews.<sup>10</sup>

After the British defeated the emirates between 1900 and 1903, the Fulbe rulers showed little opposition to Lord Lugard, governor general of the Protectorate of Niger (Azarya 1978:55). Fulbe remained rulers of the emirates as long as they cooperated with the colonial administration, and the Europeans (*Nasara*) seemed to have little direct impact on (agro)pastoralists living in outlying areas. European cloth arrived there first.

At the celebration of our cousin's mother's birth this person came from the south, from the big city. He wore a tunic of white, cotton cloth.<sup>11</sup> People came; they even grasped it. "Come and see the Nasara!" Like that was a Nasara! At that time, they hadn't even seen a Nasara. Even when the Nasara did come north, not everyone saw him. He stayed in the large towns. People only heard, "Yes, we saw the Nasara." At that time, they [his father and uncles] were all at Saafe, just small children. Then the Nasara started coming out on tour to see the little bush villages. But, on a horse, not in a truck.

His father and uncles had no direct dealings with Europeans until they trekked to Dakoro and lived under the French administration of "Mai-Buji."

### **THE TREKS OF THE KATSINEN-KO'EN FROM NIGERIA**

Diarra (1975:285-6) describes continual "mouvements migratoires" of Fulbe (including Katsinen-ko'en) who infiltrated central Niger from southwest to northeast along çengi like Tarka, with good pasture, rainy season ponds, and high water tables (see also Baier 1980:133). Diarra and Baier suggest that Fulbe movements into Niger took place slowly over many years of migration, like Stenning's "migratory drift" (1959:206-7). Diarra

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<sup>9</sup> *The Mai-Kalafa Katsinen-ko'en had given up soro, and though they told me that other communities still held soro contests, I neither saw nor heard of any.*

<sup>10</sup> *Fulfulde pronouns in the human noun class have no gender.*

<sup>11</sup> *Probably Lancashire cotton cloth imported by British merchants around 1880 (Flint 1973:389).*

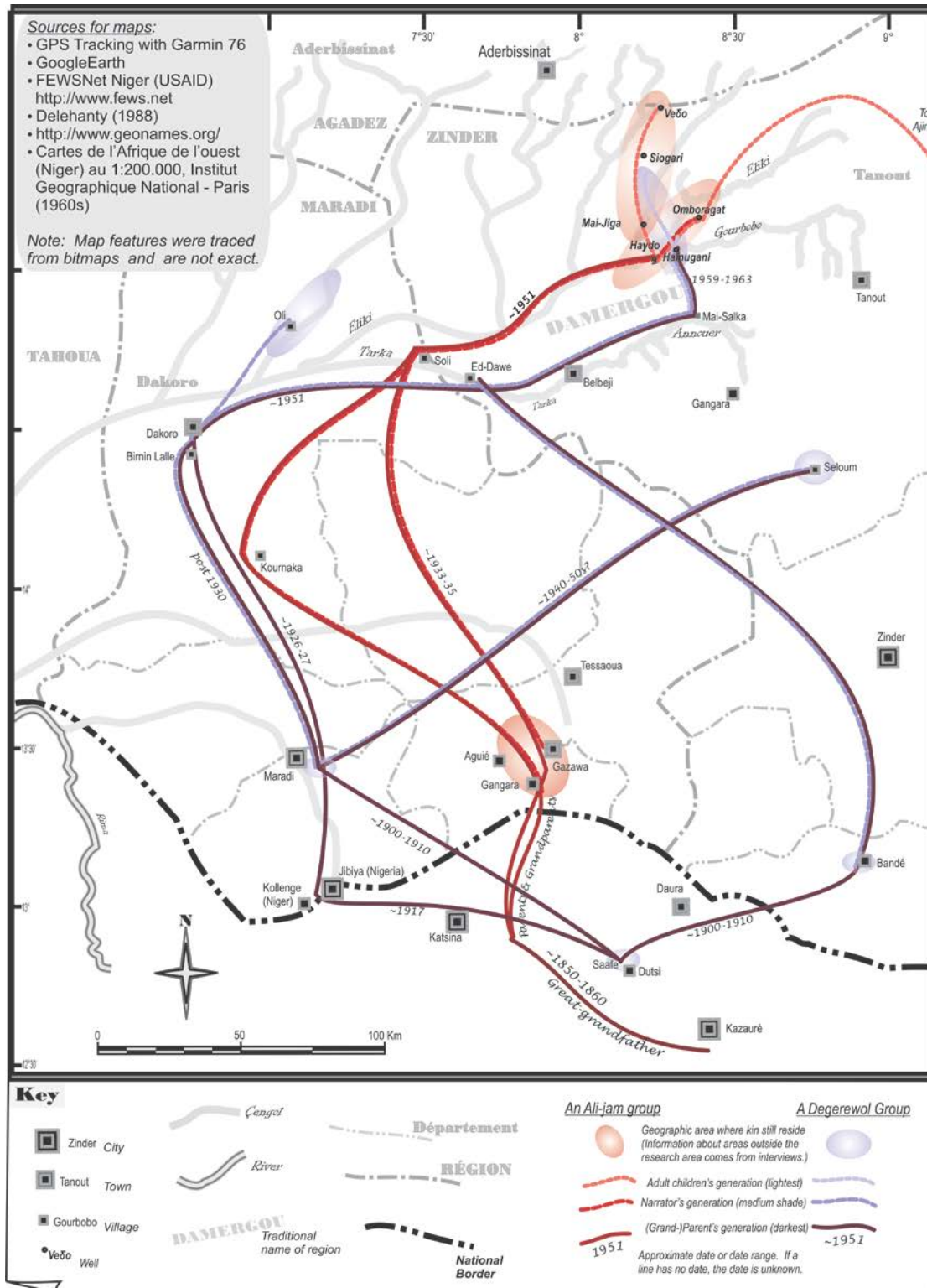
describes how some Fulóe settled in the south among their Hausa neighbors, echoing not only my informants' accounts of relatives still residing and cultivating in areas that their fathers left, but also my assistant Manzo's village, where sedentary Katsinen-ko'en cultivate grain and peanuts. Baier notes that migration into Niger "often represented a shift from semi-sedentary to an almost exclusively nomadic way of life" for families that "preferred nomadism when their herds were large enough to support them" (1980:134), a trend that agrees with accounts and current practices of exclusively pastoral Katsinen-ko'en.

Rather than slow migrations, the Katsinen-ko'en elders of the research communities related relatively rapid displacements for their parents and grandparents: long, northward treks from 100 to 150 kilometers, taking place within a few years. Later treks west, including those of kin following the pioneers, were shorter yet no less swift. Informants told us, "We moved from there to here and stopped nowhere along the way." Basset and Turner (2007), comparing "sudden shift" (trek, or *perol*) to "migratory drift," remind us that a seemingly sudden migration often takes several years of "test movements" (reconnaissance and seasonal migration), while building social networks in the new areas. Usually *perol* (which some informants called these treks) means establishment, temporary or permanent, in regions already familiar from longer, seasonal migrations. Households that "joined the lenyol" of pioneering families trekked to known locales with established networks, and some pioneering households may have done the same. Sometimes, however, a pastoralist household leaves "home" territory for previously unexplored regions (Bonfiglioli 1988:39).

Ibrahim's son described his father's first long trek from Jibiya to Dakoro as taking place within two years. His father herded in the new area one season and then moved his young family north the next year. He met other Fulóe there whom he may have known in the south. Later, while they lived in Dakoro and Mai-Salka, Ibrahim and his sons herded in new rangelands, including Mai-Kalafo. Knowing the reliance that both Woðaaŋe and Katsinen-ko'en place on scouting pastures and information obtained from other pastoralists, I find it unlikely that Ibrahim and the other pioneers moved their households north in what seems a very risky venture without advance knowledge of what they would find there.

The case histories below describe the historical treks of three Katsinen-ko'en families. At Omboragat, two arðo'en and their brothers carefully counted back the years of their families migrations. Over two or three different evenings I recorded the history of the treks of Ibrahim, who dug the well of Hamugani and cleared the first fields at Mai-Kalafo. During

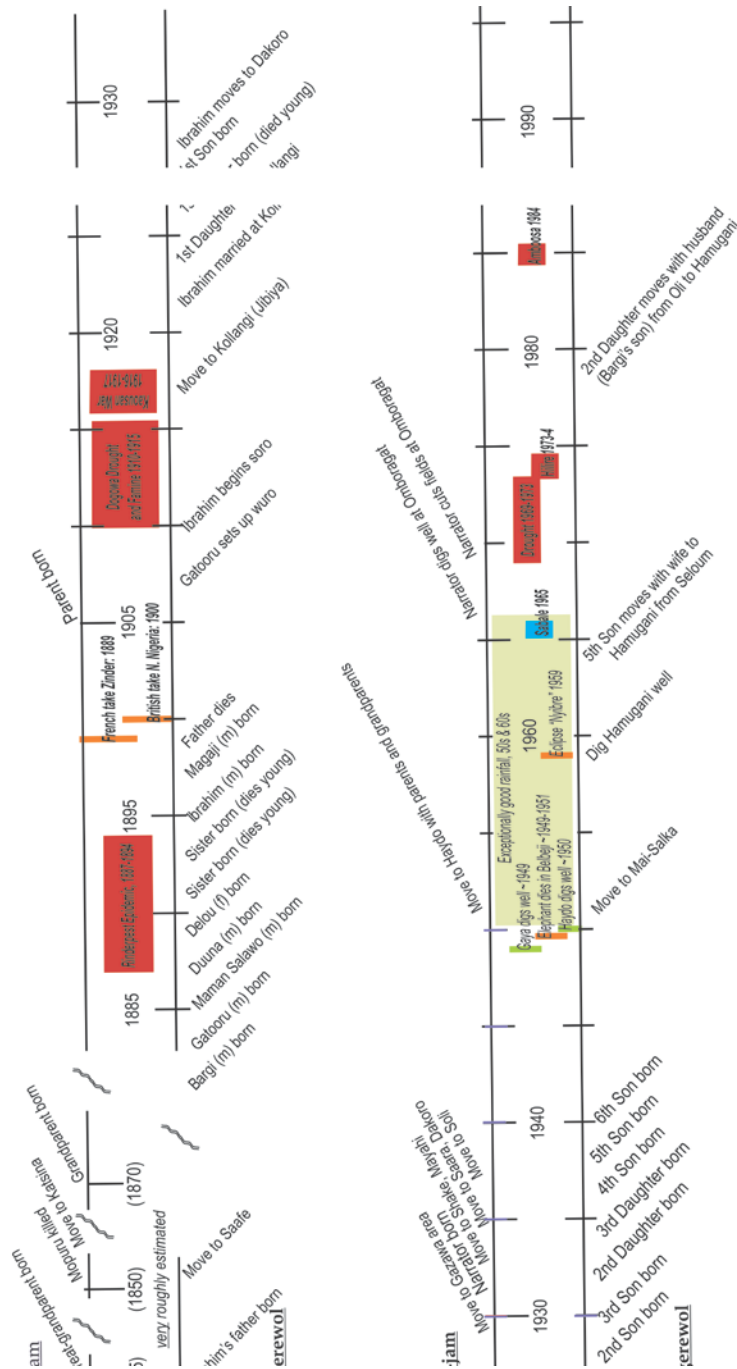
a stay with a third household, mother and son recounted their family's movements. In the following section, I discuss possible reasons for these long treks. Katsinen-ko'en migrated from the area around and between Kazauré and Katsina north into the new colony of Niger, perhaps because of British taxation or onerous rules imposed by local chiefs. According to my informants, however, they left primarily to find virgin land for pasture and fields after Hausa encroachment into "their" lands.



**Figure 3.2:** Map of migrations of the families of two different lineages of Katsinen-ko'en, Degerewol and Ali-jam.

(Note: Borders have remained almost the same from the times when the French established them, though not all borders were established at the same time.)





**Figure 3.3:** Timeline showing estimated dates of births and migrations of members of the narrators' families, as well as historical dates for the first two case studies.

Some dates of events are known, but others were estimated or guessed, such as the date, almost arbitrarily chosen, for Mopuru's death. We knew the approximate ages of the narrators, but I made many assumptions about births (e.g., that siblings were born two years apart) and marriages: that men's first marriages were made when they were in their mid to late twenties, and Ibrahim and his siblings were the children of a second (or third) marriage, made when his father was forty-five years old. I made other estimations to fit ages and marriages around historical events that were mentioned in the narrations.

**Table 3.1:** Historical dates of droughts other events.

Some events have been described in cited texts; other dates have been estimated or calculated with the help of informants. I have lived through or heard about many of the later years and events.

| <i>Date</i>   | <i>Year Name</i>  | <i>Place so called, by whom<br/>(Area affected)</i>  | <i>Comments</i>  | <i>Season<br/>+: good<br/>0: bad</i> |
|---------------|---|--|--|--------------------------------------|
| 1887-1894     | <i>Zagawo</i><br>Rinderpest,<br>Peste Bovin<br>(East and West Africa) | Fulɓe<br>English, French                             | Bloody diarrhea killed most of cattle (Stenning 1959:80; Bonfiglioli 1988:97; Gado 1993:40; Adebayo 1997)  | 000                                  |
| 1910-1915     | <i>Dogowa, Kumumuwa</i>   | Katsina, Hausa, Fulɓe (Sahel)                        | Dogowa: “Long one” (Hausa) Severe drought, entire Sahel, with famine (Stenning 1959:86; Gado 1993:91; van Beusekom 1997).  | 000                                  |
| 1918          | <i>Mai-buhu</i>   | (Gourbobo/Belbeji)                                   | “Of sacks” (Hausa) “After plentiful planting rain, season ceased. ... Some of the destitute went to Nigeria and returned with sacks of millet” (Delehanty 1988:196).   |                                      |
| c. 1949, 1951 | <i>Nyiwa</i>  | Damergou, Fulɓe                                      | “Elephant” (Fulfulde): year last elephant killed in Damergou 1949: calculated by elders during an interview with BBA1-1 1951: “[A]n elephant was discovered and killed south of Belbeji” (Delehanty 1988:127)  |                                      |
| 1953          | <i>Muda</i><br>Name in research area unknown; probably not affected   | Sokoto region  | Heavy rainfall in Sahelian West Africa destroyed crops, causing famine (Gado 1993:91; Grolle 1997)   |                                      |
| 1959 Oct 2    | <i>Nyiɓre</i>   | Fulɓe (West Africa)                                  | “Darkness”: solar eclipse (Espenak 2010)   |                                      |
| 1965-6        | <i>Mai-Funjali</i><br><i>Sabale</i>                                   | Tanout<br>west of Tanout, Katsinen-ko’en<br>(Niger+) | Mai-Funjali—“of tea glasses” (Hausa): grain was so expensive it was measured in tea glasses (Meaning of Sabale unknown). “[H]eavy late season rainfall in 1965 caused crop failures that led to famine in 1966 in northern Nigeria and Niger” (Grolle 1997:205). | 00                                   |

| <i>Date</i>                                  | <i>Year Name</i>              | <i>Place so called, by whom (Area affected)</i> | <i>Comments</i>   | <i>Season +: good 0: bad</i> |
|--|-------------------------------|---|---|------------------------------|
| 1973-4<br>(previous year was also very weak) | <i>Hiliire</i>                | west of Tanout, Katsinen-ko'en                  | "Space," "bare ground" (Fulfulde) because of drought  |                              |
|  | <i>Saɓe Burgonka</i>          | Tanout, Hausa                                   | "Put your blanket over your shoulder" [and go to look for work] (Hausa)                                       | 00                           |
|  |                               | (Sahel-wide)                                    | Worse for pastoralists in western Niger and Mali, than eastern Niger  |                              |
| 1974   | <i>Kountche nanngi (iko)</i>  | Fulɓe (Niger)                                   | "Kountché took up (power)" (Fulfulde): Seyni Kountché became president through a coup                         |                              |
| 1975   | <i>Hitaan doombi</i>          | Fulɓe (Belbeji and/or Tanout)                   | "A year of mice" (Fulfulde): notable mice plague  |                              |
| 1984-5<br>(previous year was also very weak) | <i>Amboosa</i>                | Katsinen-ko'en & people west of Tanout          | "Wheat chaff" (Fulfulde) which was donated as animal feed, but which people ate.                              |                              |
|  | <i>'Yal Buhari</i>            | west & south of Tanout                          | "'Daughter' of Buhari" (Hausa), the president of Nigeria who closed the borders to famine refugees from Niger | 000                          |
|  | <i>Banga Banga</i>            | Tanout  | "Crowds of people" (Hausa) who went to refugee camps to receive relief aid                                    |                              |
|  |                               | (Sahel and beyond)                              | Worse for Tanout Fulɓe than 1973-4  |                              |
| 1985   |                               | (Niger)   | Year after drought  | ++                           |
| 1986-7                                       | <i>Kusu</i>                   | Central Niger (Niger)                           | "Mouse" (Hausa): a year of mice infestation, when mice were killed for bounty through a government program    |                              |
| 1987   |                               | (Niger)   | Kountche died; Ali Saibou took over presidency  | +                            |
| ~1994 or 1995                                | <i>Ngol Malalu, Ngol Layi</i> | Katsinen-ko'en (Tanout +)                       | "Of Vines" of squash melons (Fulfulde); bad for most people; rains spotty and late                            | 0                            |
| 2003   |                               |   | Good for most   | +                            |
| 2004   |                               | (Niger +)                                       | Drought, locusts; migration far south   | 00                           |

| <i>Date</i>   | <i>Year Name</i> | <i>Place so called, by whom (Area affected)</i> | <i>Comments</i>   | <i>Season<br/>+: good<br/>0: bad</i> |
|---------------|------------------|---|---|--------------------------------------|
| 2005          |                  | (Tanout +)                                      | Rains came in May, grass lasted into July 2006  | ++                                   |
| 2005<br>Oct 3 | <i>Nyiɓre</i>    | Fulɓe<br>(Niger)                                | “Darkness”: solar eclipse (Espenak 2006)  |                                      |
| 2006          |                  | (Tanout+)                                       | Rains came late, but grass and grain lasted from previous year  | + / 0                                |
| 2007          |                  | (Tanout+)                                       | Northern range excellent; many fields good, but locusts ate millet, and season too late for some fields | + / 0                                |

### ***Case History: An Ali-Jam family***

The arɗo at Omboragat told us that his great grandfather was born at Kazauré (probably in rural land near the town). According to the Mai-Kalafo arɗo, this arɗo's ancestors were among the Ali-jam Woɗaaɓe vanquished by the Kazauré soldiers and then saved by the Laamiɗo of Katsina. This great-grandfather moved from Kazauré into the land of Katsina. A generation later his grandfather and father entered Niger, near a town called Gangara, in Aguié department. They moved north to land near Gazawa, east of Tessaoua, where our narrator was born about 1932. Over the next few years, the Ali-jam families trekked north through the département of Dakoro (at that time part of a *cercle* under French administration) to Soli, where the grandfather dug a well in approximately 1935. Though the village of Soli lies today just inside the Dakoro border, our narrator told us that he and his family had now moved into the Damergou. Kin who migrated into Niger with his grandfather moved northwest to Kournaka, southeast of Dakoro. The narrator's family lived near Soli until around 1951, when they joined their arɗo Haydo at Futawa<sup>12</sup> where he had dug his well. Our narrator herded his livestock east of Futawa and, in 1966, dug his own well in Omboragat ɕengol. A few years later he cleared fields south of the well and moved his family into this ɕengol. He became arɗo after establishing himself at Omboragat, probably during the famine year of 1984-85.<sup>13</sup> His kin who had moved to Kournaka also migrated east to Futawa and then into Omboragat. From Omboragat, some sons, born at Futawa and brought to Omboragat, left cultivation and migrated north to Siogari and Veɗo, joining households that moved north from Futawa. Other households migrated from Omboragat further east as far as Ajiri.

### ***Case History: Ibrahim of Hamugani, a Degerewol family<sup>14</sup>***

While Ibrahim, born around 1895, and his five siblings, four older and one younger, were growing up in Saafe, some of their half-brothers and cousins trekked north into what became Niger at the turn of the 20<sup>th</sup> century. One group of about ten men with their families established themselves in an area east of Maradi. Another group trekked to an area north of Bandé, south of Zinder. After the long famine of Dogowa, when Ibrahim's two eldest

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<sup>12</sup> "Futawa" refers to "resting" in Hausa.

<sup>13</sup> The number of arɗo'en seems to have increased at this time when much aid was distributed through the Laamiɗo and arɗo'en.

<sup>14</sup> The majority of this story was related on March 20, 2007, though not all of the narration was recorded. See Appendix G for the transcript of the recorded history. Hamugani (Hausa) means "Until we see [it]," with an implication of disbelief. The well was named thus, grandsons told us, because no one could believe that only Ibrahim, with one or two sons, could dig the well by himself.

brothers had young families and Ibrahim was about 20, all the brothers moved from Saafe west, and then west again, to clear fields at a place they called Kollangi near the border between Niger and Nigeria.

A Kaaḏo called Jibiya came and asked them if they wanted a neighbor. They answered, yes, a neighbor would help them chase away a hyena that was bothering them. The first year Jibiya brought one wife with her sons and all ceeḏu (dry season) they cleared a large field. In the nduungu (rainy season) they planted and at harvest they gathered a thousand sheaves. The next year, he brought his other two wives with their sons and they spent all ceeḏu clearing another field. During nduungu they planted and at harvest they gathered two thousand, then four thousand sheaves. When the white man came and saw Jibiya with all his sons and all their grain, he asked for the head of the family. Jibiya identified himself, so the white man made him chief and called the place Jibiya.

Numerous Fulḡe pastoralists lived in Jibiya's country and they asked the colonial administration for their own Pullo chief; they did not want to follow a Kaaḏo. The white man refused, however—he would not create two chiefs in the same place. Thus, the Katsinen-ko'en who had cleared the original fields had their land politically usurped from them by a Kaaḏo and a European. About ten years after they first cleared fields there, Ibrahim and his brothers left Jibiya, migrating north into Dakoro, to cultivate south of a pond where two Hausa men had already cleared bush and dug some shallow wells.

Ibrahim, now a *garso*, an experienced scout, was the first brother to leave Jibiya, and migrate into Dakoro. When he first brought his livestock north, probably during nduungu, he met an Aderen-kejo (a man from Ader, perhaps a pastoralist), Woḏaaḡe and the two Haaḡe who first cleared fields and dug wells at what would become the town of Dakoro. The next year he brought his wife and two children, a daughter and a son, and cleared a field. Two elder brothers came to Dakoro for a few rainy seasons, but only to herd their livestock. One season, when Ibrahim had harvested much surplus grain, he asked his brothers, "Why go back? Stay here. I have lots of grain for everyone." One brother's pregnant wife was close to delivery, which helped the brothers decide to stay. Later Ibrahim traveled to Jibiya and drove his remaining elder brother north "*e semmbe*" (with force), convincing him to join them; their youngest brother followed. The rest of Ibrahim's six sons and four daughters with his first wife were born in the Dakoro area.

Ibrahim and his brothers lived between Dakoro and Birnin Lalle, where a French man, whom local people called Mai-Buji,<sup>15</sup> established administration headquarters. At first the Katsinen-ko'en followed a Jijiru (Woɗaaɓe) arɗo. When the brothers had all come north and other families joined them, the Katsinen-ko'en decided to ask Mai-Buji for their own arɗo. Mai-Buji asked whom they wanted to follow, and they gave the eldest brother's name, Bargi. Mai-Buji asked Bargi if he knew how to take care of his people. Bargi said that he knew, but that Mai-Buji would also teach him. Mai-Buji told him that he gave a good answer; he could be arɗo. When he (Mai-Buji) returned from Maradi, Bargi should come to Birnin Lalle with all his supporters. On Mai-Buji's return, they held the ceremony which installed Bargi as arɗo. Ibrahim was made his assistant.

Mai-Buji had a road built—perhaps from Birnin Lalle to Maradi—and ruled that any pastoralist who allowed his cattle to walk on the road would be heavily fined. Ibrahim declared that he could not live under such a law and, about 1951, migrated east into the Damergou, to Mai-Salka, a Tuareg well. Shortly before, in the year an elephant was killed near Belbeji (between 1949 and 1951, see Table 3.1, above), a Katsinen-kejo named Gayya, with a Boɗaaɗo friend, dug the first Katsinen-ko'en well north of Mai-Salka at Çolure. Haydo dug his well a few years later. Ibrahim, some of his sons, and one or two brothers cleared fields at Mai-Salka among the Tuaregs, while other sons, including the present arɗo, herded as far north as Agadez country. His second son carved calabashes (*paali*).

Their older brother, now deceased, taught our narrator to carve paali. A Hausa at Mai-Salka taught their older brother. Our narrator's grandfather hadn't cultivated paali as far as he knew. Perhaps some Katsinen-ko'en had grown them in Nigeria, but his father didn't grow them until they migrated to Dakoro (perhaps because they met Woɗaaɓe there, by far their most important customers). [*Field notes: February 8, 2007*]

As more and more Hausa moved into the Mai-Salka area, Ibrahim decided to move north into Gourbobou Çengol where his sons had been herding the livestock. In the year of the solar eclipse, 1959 (Espenak 2010), he and two of his sons dug the well called Hamugani and then cleared fields in the small valley east of the laterite hills called Mai-Kalafo. About fifteen years later, Ibrahim married a Tuareg woman from Mai-Salka, with whom he had a son.

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<sup>15</sup> "Buji" means skirt in Hausa, or in this case long, wide short pants. Men in the office at the National Archives in Niamey (including a man who had been his driver) told me that this man was Maurice Vilman. Archival records show that in 1936, Vilman was adjoint principal des services civils de commandant [de] la subdivision de Madaoua and chef de la subdivision de Madaoua. In early 1940s, he became chef de la Subdivision Nomade for Tahoua Cercle, to which Dakoro belonged at the time.

Sometime after their move to Mai-Salka and the Damergou, one of Ibrahim's sons learned that a relative had moved from the Maradi area to Seloum, north of Bakin Birji. He traveled there to contact this "uncle" and fell in love with one of the uncle's daughters. After a period of trial before the reportedly irascible uncle finally accepted him, he was allowed to marry the daughter. The families keep an active connection, continuing to marry their children to cousins in Seloum and Mai-Kalafo. During the drought year of 2004-05, the Mai-Kalafo family migrated to Seloum to use wells belonging to their affines and graze their livestock in the surrounding pastures. Another of Ibrahim's sons married a cousin who grew up in Ed-Dawe, east of Belbeji. Her family had migrated north from the Bandé area, but most of the family eventually returned to Gusau, Nigeria, about 135 Km southwest of Katsina.

Ibrahim and his brothers are now deceased, as are Ibrahim's two eldest sons. His surviving sons, including the son of his Tuareg wife, and three daughters all live at Mai-Kalafo now. The eldest son was the arɗo at Mai-Kalafo during my research. Descendants of Ibrahim's brothers also live at Mai-Kalafo, while others live at Oli, north of Dakoro. Though some of their own sons have dug or bought wells and cleared fields north of Hamugani, no one from Mai-Kalafo has dispersed as much as the Haydo and Omboragat families, except for one relative (perhaps the son of one of Ibrahim's brothers) who lives near Ajiri. Also, except for the Ajiri relative, no one from Mai-Kalafo has truly left cultivation, though a few men cultivate only sporadically.

***Case History: Joining the Lenyol***

Damana, a contemporary and distant relative of Ibrahim's sons, and his wife grew up at Ðan Kama, just west of Aguié. His wife told me<sup>16</sup> that she had been married and just set up her suudu at Ðan Kama when she and her husband migrated north with his parents, leaving her parents at Ðan Kama. The young men of the family often took the cattle north during nduungu and the family decided to migrate to Tagaza, in Dakoro country, south of Oli. At Ðan Kama she had lived in a grass rondavel, but as they moved north she learned to work with a mat tent. Her son, with whom she now lives, was born at Tagaza, and her parents-in-law both died there. Her son told me that in 1974, a year after the drought, when Kountché took power, he cultivated south of Belbeji (perhaps near Ðan Tawaga where some of his nephews live now), and migrated north the next year, *hitaan doombi*, year of mice. Before Amboosa, the famine of 1984-85, his father and mother migrated from Tagaza to Çolure to

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<sup>16</sup> *The interviews with Damana's wife and son took place in mid-March and were not taped.*



join the lenyol there. Damana's wife remembers living nowhere between Tagaza and Çolure, while her son said that he lived at Mai-Kalafo during Amboosa. He and his father probably separated some time before he cultivated south of Belbeji. At this time they followed an arđo who lived near Kasawsawa, in Elikı Çengol, north of Belbeji.

After Amboosa, Damana and his sons, including my informant, followed a relative, (now an arđo living in Gourbobo) north to Njaptoji where they lived for seven years. My informant said that he cultivated there for two years, but had no luck there. His mother told me that her husband dug a well near Njaptoji, but while they spent the day at Takoukout market, a son fell in the well and died. They sold the well to Wođaađe for 320,000 fCFA,<sup>17</sup> and Damana and his sons dug another well near Agali (a Tuareg name; I did not obtain the location). During the 1990s they experienced hunger and banditry during Ali Seybou's presidency.<sup>18</sup> They sold the new well also. Then Ibrahim's sons gave Damana a field and they returned to Mai-Kalafo. Damana's son cultivated at Mai-Kalafo, but herded at Njaptoji for five years.

Damana and his brothers are now deceased, but their sons live at Mai-Kalafo, and his daughter married one of Ibrahim's grandsons. When the Laamiđo installed their relative as arđo they registered themselves under him, though they still cultivate at Mai-Kalafo and the arđo lives in Gourbobo. The arđo at Mai-Kalafo told me that Damana followed him when they first moved to Mai-Kalafo, but Damana's son, involved in a long-running, smoldering dispute with the arđo and his relatives, never mentioned following him.

## REASONS FOR TREKKING

The creation of these [farmers'] villages took place especially inside refuge zones where pastoral groups habitually went on transhumance during the dry season. The installation of these settlers, with the creation of fields and the denudation of wooded areas, rendered this practice no longer possible. With the first rains, serious conflicts exploded between peasants and herders: the peasants wanted to protect their fields, just sown, with young millet sprouts; the herders wanted to take advantage of the first green grass and besides could not go far north where the beginning of the rains had changed [from its usual time] (Bonfiglioli 1988:131, my translation).

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<sup>17</sup> franc CFA: the money of Niger, which is tied to the franc français, and therefore to the Euro. During the research it started out at about 475f to the dollar and then sank to under 400f. For simple exchange, today we use 500f to one dollar. This transaction occurred not long before the devaluation of the fCFA; at that time 320,000 fCFA would have equaled more than \$1200.

<sup>18</sup> President 1987-1991 (BBC Timeline: Niger, <http://news.bbc.co.uk/2/hi/africa/1054274.stm>). The Tuareg rebellion began in 1990 and many bandits took advantage of the resulting chaos to perpetrate armed robberies against pastoralists. Either rebels or bandits (who called themselves rebels) even attacked marketplaces, including Gourbobo. Mai-Kalafo men and women told of an attack when they were present at the market.

Bonfiglioli, telling the history of a Woḍaaḅe family, describes here the move north of sedentary cultivators in the Dallol Bosso in western Niger during the 1930s. The situation appears analogous with that of the Katsinen-ko'en who moved north into Dakoro and Tanout, though they themselves cultivated like the Hausa. Interviewees always told us that they or their families trekked north and east first in order to find pasture and fields, and secondly to join the *lenyol*. Haaḅe had moved into and taken over the land where they lived. Interestingly the pioneers of Delehanty's (1988) four Hausa research villages—Ḍan Barko in the south of Tanout département and three villages just north of Eliko Çengol, near the Dakoro border—also moved north in order to find more land for fields and pastures; some of the Hausa pioneers possessed large cattle herds. Unsatisfied with the simple explanations given him for their northern migrations, Delehanty investigates different possible reasons for the migrations, including lack of land, either for fields or pasture; escape from a restrictive class system where a wealthy Hausa merchant class in the south dominated the rural peasants; and escape from repressive demands made by the French administration. Though the livelihoods of the Katsinen-ko'en and the Hausa were not entirely the same, his historical analysis, along with other clues in the elders' narrations, helps me elaborate fuller reasons for the Katsinen-ko'en's pioneering treks.

Before the French invaded Niger, different lineages of Tuaregs controlled the Sahel, though a few Hausa and Kanuri hunters and cultivators lived in the Damergou (Baier 1980:36; Delehanty 1988:119), and Woḍaaḅe pastoralists may have lived in Ader,<sup>19</sup> all under the sway of Tuareg aristocracy. When the French defeated the Tuareg rebel Kawousan in 1917 (Bergeret 1999; Idrissa 2003), they imposed what Bonfiglioli calls "la paix française" (1988:90). Oral histories I have heard tell how the French massacred part of the Tuareg population while much of the rest fled from the colonial territory (see also Baier 1980:121). Their flight opened a vast, rich rangeland into which Woḍaaḅe and other Fulḅe pastoralists moved. The forebears of my research communities did not move north immediately after the Tuareg defeat, however. They required some pushing first.

A few developments particularly illuminate the push factors of the treks. Though Hausa farmers had cultivated peanuts in the precolonial era, the British began to promote peanut cultivation as a cash crop just after 1900 (Delehanty 1988:345), just before Ibrahim and his relatives began to move away ("*sankiti*," to disperse) from Saafe to Maradi, Bandé and Jibiya. As orphans, with many half-siblings and cousins, Ibrahim and his brothers may

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<sup>19</sup> *Gojen-ko'en oral tradition tells of an ancestor hero who fought in the Ader for Shefu ḍan Fodio.*

have needed more field land, even without the encroachment of peanut cultivation. With little livestock after the devastation of the Rinderpest and the Dogowa famine, the need for good fields probably dominated their thoughts at this time.

The French took over Niger quickly in 1899 and set up their capital in Zinder, after a bloody battle, though this did not affect the Katsinen-ko'en immediately. In the late 1920s, however, the French followed the British in encouraging peanut production by supplying seed (Delehanty 1988:346), though Nigerien cultivators had already begun to export peanuts to commercial companies in Nigeria, and, before that, millet to Nigerian peanut cultivators (Baier 1980:158, 209). British and French administrators now also demanded that taxes be paid in cash, which farmers most easily raised by selling peanuts. Hausa farmers in southern Niger, with a climate amenable to peanut cultivation, began to clear new fields to add peanuts to their grain cultivation. In this way, Jibiya and his many sons, plus the relatives who followed them to their new home, would have filled the bush with their fields.

Delehanty explains how the French systemized their tax scheme in 1909, yet taxed their rural citizens differently, based on their geographical location—southern farmers paid a higher head tax because they could earn more from selling peanuts—and livelihood—pastoralists paid the lowest head tax, though they paid a higher cattle tax, *jangali* (Delehanty 1988:341).<sup>20</sup> Tax collection, corvée labor to construct roads and buildings, military recruitment, and obligations to contribute to reserve granaries were all more strongly enforced in the south than in the north less accessible to colonists. In northern cantons, rural dwellers could more easily escape the censuses that marked households and herds for the head and cattle taxes, though French administrators also collected pasturing taxes from Fulbe passing through their territories. Commandant Maubeuge of Tanout reported on October 1, 1936, that he collected “428 francs de droits de pacage” (rights of pasture) from “Peulhs” (Fulbe) migrating from Nigeria (Maubeuge 2002:56). The next month, the commandants of Konni, Maradi, Tanout, Tahoua and Agadez met to discuss the flight of “Peulhs” north to Aderbissinat to avoid taxes. Maubeuge reported that to avoid taxes they move all over, even to Nigeria “hoping to be forgotten” (2002:61).

Like the French (Bonfiglioli 1988:91-92), the British taxed the citizens of their new colony so that the colony would be self-sufficient. High Commissioner Lugard adapted the

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<sup>20</sup> *Jangali originally constituted a payment of cattle or other animals by pastoralists to sedentary chiefs in exchange for use of the pasture that they controlled (Adebayo 1995:121-22).*

precolonial system of taxation, established first by the Hausa and adopted by the Fulɓe emirs, to British specifications, but used the same categories of head tax and jangali (Stenning 1959:82; Adebayo 1995:116). In Nigeria also, different geographic regions were taxed differently, depending on their potential income and accessibility. The Fulɓe pastoralists hated the jangali that the British imposed upon every head of livestock, cattle and smallstock. They could pay the onerous tax only by selling part of their herd. To avoid the tax, they migrated into Niger during tax season, between July and October (Adebayo 1995:131), corresponding neatly with nduungu. The Katsinen-ko'en near the border with Niger could benefit doubly from their northern nduungu migration into Niger. Finding themselves taxed heavily by the French in southern Niger, however, and increasingly crowded by Hausa peanut farmers, they trekked further north. They did not escape completely, however, as the report of Maubeuge indicates. One of Ibrahim's sons remembers one year driving cattle with his father, from either Dakoro or Mai-Salka, to a distant market in order to sell them for tax money. Hausa farmers followed the Fulɓe into the Dakoro and Birnin Lalle area in the late 1930s (Delehanty 1988:140). On a tourney in late March of 1936 that extended west to Birnin Lalle, Maubeuge found a "crowd of natives come from Maradi and Madaoua to construct huts and cultivate fields" (2002:62, my translation). In the same report, Maubeuge adds a plea for European administration of the Subdivision nomade, where the population, left too long to themselves, has forgotten to recognize any authority—"the budgetary situation could only benefit."<sup>21</sup>

Mai-Kalafo elders told me that at Birnin Lalle, Mai-Buji exempted Fulɓe from corvée labor<sup>22</sup>: the Fulɓe pastoralists were no good at that type of labor, their father told them. One son, however, related a revolting task imposed upon him when he was a teenager. When a dog bit one of the French at Birnin Lalle, the administrator demanded that all dogs in the area be killed, requiring that the Fulɓe bring him the tails as proof. When the son chosen to deliver the tails arrived at the government compound, the administrator's wife attempted to pay him. He refused to accept money for a chore which would embarrass him forever with the girls in the area. More than this trouble, Ibrahim and his brothers found Mai-Buji's law regarding the new road new impossible to respect. The threat of heavy fines if cattle crossed the road convinced them to move to Mai-Salka, where they were probably

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<sup>21</sup> *The French must have established the border between Soli and Gandou in the 1940s when, according to Archives officials, Vilman ("Mai-Buji") administered the Tahoua Subdivision Nomade.*

<sup>22</sup> *Parts of the colonial road that led from Zinder to Tanout, built with such labor, can still be seen in uncultivated land south of Tanout, as two lines of rocks that bordered the road.*

less troubled by French administration than by Hausa farmers migrating north. One might wonder why they moved east and not north into the çengol where Oli lies (and where relatives live now). Perhaps they knew Tuaregs at Mai-Salka who welcomed them; also Gaya and Haydo had preceded them, though following the Eliko Çengol rather than Tarka. The Damergou is also known throughout Niger for its fertile soil that, when well-watered, produces abundant harvests and rich pastures.

In the 1950s and into the 1960s, after two decades of roughly fluctuating but generally rising rainfall, the Sahel experienced exceptionally good rainy seasons. Elders remember this as a time of bounty. Women in Tanout town remember preparing all kinds of rich foods, and one friend often tells me how at that time she need dig only a little into the ground with her hand to reach water. She remembers Woðaaße women pouring milk into ponds, unable to sell it all; even the dogs were satiated. In one disaster year during this period, Mai-Funjali, so much rain fell late in the growing season that it destroyed the crops (Grolle 1997:205). Hausa farmers moved further north during this era, drawn by the region's rich soil, and built villages throughout the Damergou, up to and past the northern border of the cultivation zone (Delehanty 1988:141). Though only a small collection of Tuareg houses around a well comprise Mai-Salka today, fields surround the hamlet, and Hausa farmers may have crowded the area in the mid-century. Many farmers left the Damergou during and after the droughts of 1973 and 1984. More problematic, for the Katsinen-ko'en perhaps, the fields of new villages to the north, Mai-Magaria, Kekeni and Kciyaasku, would have obstructed nduungu migration. When Ibrahim and his brothers and sons moved to Mai-Kalafo, they could more easily reach pastures outside the expanding cultivation zone, and found more field space for the growing families of the sons.

### **RECENT DROUGHTS**

Beginning in 1969, rainfall began to decrease until in 1972 and 1973, the Sahel experienced a devastating drought. Fulße in central Niger, Woðaaße and Katsinen-ko'en, were able to save much of their livestock by migrating far to the south of the country. Daji's eldest brother remembers migrating to Guidimouni, in southern Goure département. The arðo at Hamugani and most of his brothers trekked south of Zinder to where his wife's relatives lived. The men left the households there and traveled into Nigeria to find grain with which to feed their families. His wife remembers selling a goat or sheep every week in order to buy enough food for the household. When they returned home to Mai-Kalafo, the arðo gave up mobile pastoralism. He may have lost too much livestock, but he told me that

he was simply tired of moving around. The 1983-84 drought hit Tanout pastoralists harder. The Katsinen-ko'en men and Daji continually traded stories back and forth about where they migrated and how they struggled back from the destitution inflicted by that drought. More herds were completely devastated and for several years pastoralists resorted to cultivation and other means of earning money in order to replenish their herds.

The Mai-Kalafo Katsinen-ko'en trekked far south and remember this drought as that which killed off their herds. Because almost all are cultivators, they planted their own fields in 1985 and harvested well that year. One of the arɔo's sisters stayed at Mai-Kalafo with her family during 1984. She remembers harvesting *gunaaji* (squash melons, *Citrullus lanatus*) that year, so many that she dried and stored them in a granary. The Siogari elder trekked into Dakoro that year, but lost all his cattle. He carefully rebuilt his cattle herd through smallstock sales into the large herd he owns today. He gave up cultivation after that drought; in his opinion the uncertain harvests were no longer worth the work.

I spoke with many Katsinen-ko'en whose relatives had moved back into Nigeria to live, at least some driven south by one of the droughts. During the 1984 drought, a young Mai-Kalafo couple moved to Gombe, in west central Nigeria, to live among relatives and cultivate. They took their oldest son, but left their youngest with the wife's parents; the boy's mother's brother now fosters him. After brothers and cousins entreated them to "come back to the lenyol," they returned in 2004, coincidentally another bad drought year when most Mai-Kalafo households again migrated south to Seloum and ɗan Barko. This couple built a rondavel near the wife's parents and the husband cultivated two fields the next year. Their cousins loaned them a few goats and sheep to start a herd.

### **CONCLUDING REMARKS**

Though this history is far from complete, four themes emerge from the above discussion. First, the Katsinen-ko'en have experienced their own history, separate from but closely intertwined with that of other ethnicities. Their history, like much Woɗaaɓe history, has been characterized by the avoidance of conflict and search for new land, manifesting thus as a history of mobility. Secondly, the northward trekking Katsinen-ko'en have left behind them many relatives with whom they still maintain connections of marriage, and often through these alliances, access to refuge zones. Thirdly, the treks of the Katsinen-ko'en have taken them into new ecological zones to which they have had to adapt their livelihoods. Like the Woɗaaɓe (Bonfiglioli 1988:131-2), as they moved north they adopted the Tuareg practice of using camels and donkeys for transport. Droughts and market sales

emptied their herds of oxen, but also the longer distances they now travel require beasts more easily mounted and loaded, as well as more amenable to the desert environment. Cattle and camel trading has also become an important income generator for many Katsinen-ko'en men. Fourthly, as they have adapted their livelihoods to a new ecological environment, the political ecology in which the Katsinen-ko'en live has also changed as the natural, socio-political and economic environments have altered over decades and the northerly routes of their treks.

## CHAPTER 4: SOCIO-CULTURAL ENVIRONMENT— ETHNICITY AND SOCIAL ORGANIZATION

The Katsinen-ko'en are some of the most hospitable people in Niger, a country of generally hospitable people. Simply stopping for directions at a Katsinen-ko'en camp often brought a woman with a calabash of milk or *suutam* (cold porridge) for us to drink. I rarely visited a woman who did not offer me something to eat, sometimes cooking a dish while she insisted that I wait for her to finish. Somewhat paradoxically, the Katsinen-ko'en seem to embrace a tendency to fade into the rural landscape of their *ladde* (rangeland). Most Damergou natives have little trouble identifying a Katsinen-kejo as a Pullo, especially once he or she begins to speak, but outsiders, including Nigeriens, might lump elder Katsinen-ko'en with Hausa and Dagara villagers. Before an outsider begins to notice subtle differences between the Katsinen-ko'en and their neighbors, they seem to blend into the general population of Damergou villagers. Both Hausa and Fulbe who originally immigrated from Katsina are called Katsinawa in Hausa, the lingua franca of central Niger. If outsiders went looking for Katsinen-ko'en villages, they would find only a few, and might entirely miss the rondavels and camps scattered singly or in small groups over the hills of the Damergou countryside. As they are sedentary or mobile (agro)pastoralists, one might too facilely describe the Katsinen-ko'en as a hybrid of Woɗaaɓe and Hausa cultures, but such a superficial sketch denies them their own ethos, evolved over more than a century in Nigeria and then another century of migration through central Niger.

Societies establish ethnic boundaries through symbols such as dress, language, rituals, and moral standards by which ethnic performance is judged (Barth 1969a:14). The Katsinen-ko'en establish moral boundaries for themselves through Islam and by aligning with *waynaaɓe* and Fulbe values, and symbolic boundaries through a slightly different dialect of Fulfulde, slightly different dress from that of Hausa and Dagara, and different residential and cultivation patterns (the latter also are part of the *waynaaɓe* ethos). They also recognize different historical origins from other Fulbe groups. The arɗo at Mai-Kalafo told me that the Uda'en had once been Tuaregs whom Shefu ɗan Fodio captured and rehabilitated as his own elite guard. True or not, several Uda'en characteristics resemble Tuareg practices. The Cilan-ko'en, the arɗo told me, had been Fulbe whom a Hausa chief



enslaved. The chief prohibited them from speaking Fulfulde until they forgot the language (see also Dupire 1962:23-24).

Young Katsinen-ko'en men usually wear a distinctive style of dress with long caps, and one or two dangling earrings, and keep their hair worn relatively long, like short afros.<sup>1</sup> After about age thirty, men shave their heads and dress like Hausa men in knee-length, loose cotton shirts, with turbans or shawls over fezzes. Women and girls dress wear blouses and ankle-length wrap-around cloths like Hausa women, but their *gude* (wrap cloths) and *kennaji* (blouses) are often of mismatched cotton prints,<sup>2</sup> and they decorate their blouses with characteristic square patterns of lace. They love bright colors in varieties of patterns, where many Woɗaaɓe women often prefer dark colors. Women also use two distinctive styles of braiding hair, though, because they always cover their heads with a scarf in public (like Hausa, but unlike Woɗaaɓe women), one rarely sees a woman's braid style. Both young men, girls and young women wear beaded chokers and necklaces, unique to the Katsinen-ko'en, that drape in large squares over their chests.

The Fulfulde of the Katsinen-ko'en varies slightly in its vocabulary from that of the Woɗaaɓe; it took me some time to become accustomed to it. Once an elder corrected me when I asked about a woman's *kore*, which means spouse, ungendered, in the Woɗaaɓe dialect I had learned. Among the Katsinen-ko'en, the word is used uniquely for "wife" while the husband is called *gorko*, the common word for "man," or *gorjojo*, a word not used by the Woɗaaɓe who taught me Fulfulde. Sometimes Daji would not know a particular word, but most of the Katsinen-kejo vocabulary contained no obstacles for him. The Katsinen-ko'en men and many women speak Hausa almost fluently, but with the grammatical mistakes, especially gender confusion, common to many non-Hausa. All the Katsinen-ko'en used Hausa numbers for counting and money, rather than Fulfulde, and the men prayed simple requests and thanks in Hausa after they recited the Arabic Koranic verses. One elder told me that his father did not speak Hausa well, and that his own children all speak better Hausa than he does.

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<sup>1</sup> Men of the grandfathers' generation used to wear braids like the Woɗaaɓe men do today. The Woɗaaɓe usually pierce one ear of their male babies, and young boys wear a small copper ring.

<sup>2</sup> Because, I later deduced, they often receive single cloths, from which skirt and blouse are made separately, rather than a half bolt of three cloths which make the uniform dress of a village or townswoman.

## SUUTAM: BALANCING CULTIVATION AND HERDING

The Katsinen-ko'en identify as waynaaɓe, but also as agropastoralists, as people who balancing cultivation with herding. Even most exclusive pastoralists appreciate the possibility that they might someday return to their fallow field or clear a new field in the bush. Some elders, even one exclusive pastoralist, expressed regret that their exclusively pastoralist sons had not taken up cultivation. The Katsinen-ko'en view rare, good harvests as one way to buy livestock, a means to replenish herds depleted by sales and deaths during bad years.

Altine finished threshing and began to pound millet for suutam. She started cooking nyiiri while she winnowed the millet bran, and cooked sauce for the nyiiri while she pounded the suutam flour. Then she started boiling the sobbal for the morning suutam. She told me, "The old man isn't satisfied with only nyiiri; he wants suutam in the morning. Nyiiri isn't food, you have to have suutam." [Field notes: March 3, 2007]

I heard several time that *suutam* is real food and *nyiiri* (often made from less-favored sorghum rather than millet flour) is just something to fill one's stomach. *Suutam*, a cold porridge of cooked millet dough (*sobbal*) mixed with buttermilk (*finndiɗam* or *kosam*) is the tangible symbol of the balance between herding and cultivation, and a ubiquitous motif of Katsinen-ko'en life. Every other population I have met in Niger prepares a form of this porridge (*houra* among the Hausa) but few seem to esteem it so much as a family meal as the Katsinen-ko'en (see Douglas 1982 on the symbolism of food for family meals). The Katsinen-ko'en midday meal is suutam, and other meals often contain leftover suutam. A Katsinen-kejo suudu without sobbal and finndiɗam on the *denki* (pl. *denkiji*, the wife's calabash table) ready to mix into suutam, or sobbal in preparation, would indicate a destitute household. In lean times, a woman may prepare suutam without milk (*maakaaru*), or with sorghum flour instead of millet, but even in the fat days of a milk-filled rainy season, the wife will place a little sobbal in her kosam, which the Katsinen-ko'en rarely drink by itself as a Boɗaaɗo would. The first thing most women do each morning—in the dark before dawn during rainy and harvest seasons—is begin pounding millet for sobbal. When I asked both women and men if the women cultivated (*rema*), they told me that bringing suutam to her husband in the field constitutes the wife's "fieldwork."



**Figure 4.1:** (Photo, nduungu 2006) A woman pounds sobbal into a large ball after cooking the millet flour into a stiff porridge.



**Figure 4.2:** (Photo) Another woman mixes sobbal into finndiḍam with a gourd ladle to make suutam.

## RELATIONS WITH NEIGHBORING ETHNICITIES

### *Woɗaaɓe*

The Katsinen-ko'en I spoke with viewed their Woɗaaɓe neighbors as part of their extended Fulɓe family, something like parallel paternal cousins (perhaps older). They considered them rash, however, daring to live much more on the risky edge of survival. When I asked a woman if a household like hers could live without cultivation and herding only five cows, she told me, no, that only Woɗaaɓe could live that way. The Katsinen-ko'en of Mai-Kalafo are particularly friendly with the Bi-Ute'en lineage of Woɗaaɓe who live near them. They grew up with Bi-Ute'en families, and several times when I visited them, the arɗo or his brothers hosted Bi-Ute'en with whom they exchanged news about local happenings and reminisced on the past. Woɗaaɓe are also respected as traditional healers.

Though I spoke to no Bi-Ute'en about their relationships with the Katsinen-ko'en, Daji kept insisting that all Katsinen-ko'en were born in a *si'ire*, a village, even though I argued that we knew many exclusive pastoralists, some of whom had never cultivated. I finally decided that this metaphor expressed the innate difference Daji saw between the two peoples: the Katsinen-ko'en are fundamentally cultivators, though not truly Haaɓe, and could not be compared with the Woɗaaɓe who specialize as true cattle breeders. The Woɗaaɓe call all other Fulɓe, including Katsinen-ko'en, *Ndovi'en*, a name with a somewhat derogatory insinuation. Bonfiglioli (1988:63) traces this name's origin to the mid-19<sup>th</sup> century, when the nomadic pastoralist Woɗaaɓe felt that other Fulɓe were assimilating too much into Hausa agropastoral and urban cultures. Loftsdóttir (2008) and Thébaud (2002) also note an antagonism between Woɗaaɓe and "Fulani" neighbors.

The Woɗaaɓe hold an important place in the Katsinen-ko'en economy as customers of their cattle and calabash trades. The Katsinen-ko'en cattle traders search out Woɗaaɓe bulls, and calabash artisans look especially to Woɗaaɓe women, who buy sets of five to twelve nested calabash bowls, some intricately carved. Women of other ethnicities, including the Katsinen-ko'en themselves, buy calabashes singly and in sets, but Woɗaaɓe mothers count several large sets in their daughters' dowry possessions, and whitewashed calabashes displayed during each lineage reunion show a Boɗaaɗo woman's wealth.

Once during the rainy season of 2006, when pastoralists had crowded into small areas of decent pasture, the Siogari Katsinen-ko'en camped among Woɗaaɓe, each group camping on separate hills. We were surprised one day to see a large group of Woɗaaɓe move onto the plateau where the Katsinen-ko'en had been camping for a couple of days. They lined up

their long *worso* (lineage reunion) camp right through the Katsinen-ko'en camps, ignoring them and their livestock. I asked one Βοδaaδο if he wasn't concerned that he was grazing his cattle in the midst of the Katsinen-ko'en camps. He laughed, "No, not at all!" The Katsinen-ko'en moved to the other side of the çengol, essentially forced from the plateau.

***Other Fulbe: Uda'en and Cilan-ko'en***

Besides the Katsinen-ko'en and Woδaaβε, Cilan-ko'en (or Silan-ko'en) and Uda'en reside and migrate in the département. Both of these groups practice agropastoralism, like the Katsinen-ko'en, with few exclusive pastoralists among them. Uda'en migration patterns usually lead them from Gangara area west to north of Batté. In the rainy season of 2006, however, when we camped with the Siogari households east of Abuzak hamlet, we saw some Uda'en cuuði, with their distinctive tall denkiji outside the tents, evidence of concentration of pastoralists into small pockets of pasture. At the start of the 2006 rainy season, Cilan-ko'en migrating north camped briefly between the Hamugani rondavels and the Gourbobo Çengol. In the dry season of 2007, on our way to visit Katsinen-ko'en households south of Mawa, we asked directions from a Cilan-ko'en household. Some of the households we visited watered at a well owned by these Cilan-ko'en—a relationship not all that friendly, it would appear. The men told me that they had to wait until midday to start watering their livestock, and one wife commented "*Be manta ko'e maβε*" (they—the Cilan-ko'en—are conceited).<sup>3</sup>

***Tuareg: Feedujo, plural Pe'eli***

The Katsinen-ko'en have an ambivalent relationship with the Tuareg, known in this area as camel and sheep breeders, also mostly mobile (agro)pastoralists. The Katsinen-ko'en admire the Tuaregs as waynaaβε and engage in various exchanges with them, but also fear them. Although the men who cultivated at Welaaru became involved in a dispute with the Tuareg family who owned the well south of their field complex, and a few times various Tuaregs fined Katsinen-ko'en for field damage, for the most part, Katsinen-ko'en and Tuareg live together civilly, and sometimes as friends. The Omboragat arδο compared his good relations with his Tuareg neighbors, with whom he negotiated field borders acceptable to everyone, to clashes with Hausa cultivators coming north from Sabon Kafi to clear fields in the surrounding rangeland. The cattle traders may have counted Tuaregs among their customers. Two Katsinen-ko'en men sold their large racing camels to Tuaregs outside the

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<sup>3</sup> *The well owners would not normally be perceived as wrong in such an arrangement; their own and their relatives' livestock would be given priority at their own well.*

marketplace, but also feared that Tuaregs would steal the camels if they did not sell them. They also probably bought their young camels from Tuaregs. One young man traveled as far as Ajiri to exchange his racing camel with a Tuareg man for cash and a young camel. Several of the men I interviewed, had obtained fields from Tuaregs.

We saw some rondavels—with their distinctive, sharply pointed roofs—of small Tuareg hamlets in the Elikı Çengol west of Futawa, some empty huts near fields east and south of Mai-Kalafo, but otherwise saw only mobile households in the research area. Pastoralist Tuaregs set up large camps with several broad tents, and tend to stay in one place for longer periods of times. Although we observed no conflicts between Katsinen-ko'en and Tuareg pastoralists, the Katsinen-ko'en men complained that one group of sheep herders would descend from Agadez in the dry season and destroy the pasture. During the rainy season, the Siogari women would not fetch pond water for drinking and cooking because the Tuareg live in the çengi bottoms during the dry season.

Tuaregs from Mai-Salka are dreaded by everyone for their livestock rustling (though affinal relations tended to protect the Mai-Kalafo community). Idrissa (2003:202) notes how at the turn of the 20<sup>th</sup> century the Damergou Tuaregs constantly robbed caravans that traveled from Kano across the Sahara. With the decline of the caravan trade,<sup>4</sup> the Tuaregs from Annouer Çengol to Ido-ga-rakumi turned to livestock thieving, becoming legendary over generations as experts at hiding stolen livestock. Supposedly the market village Ido-ga-rakumi<sup>5</sup> acquired its name because of the camel thieves who plague the area. One young man from Mai-Jiga, a son-in-law of a Mai-Kalafo man, received a camel from some Tuareg friends and then sold it. After the camel's owners found it for sale again in the Gandou market, they traced previous sales back to the young Katsinen-kejo. He protested in vain to authorities that he did not know the camel was stolen.

Despite their reputation as thieves, the Mai-Salka Tuaregs have affinal ties with the Mai-Kalafo Katsinen-ko'en. Ibrahim's son with his Tuareg wife claims not only his paternal heritage but also, when needed, his maternal Tuareg heritage. Just like his father, one of Ibrahim's sons with his first wife recently married a Mai-Salka girl. This third wife (the only current wife) is a few years younger than her husband's daughter, her neighbor, but she married the Katsinen-kejo elder by choice, and now lives comfortably with both the daughter and the daughter's cousins. In 2007, this daughter gave her father and his young

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<sup>4</sup> *A few still journey from Bilma and Agadez through the Damergou south to Zinder and beyond.*

<sup>5</sup> Hausa: literally, "Eye-see-camel," a warning either to "Watch your camel" or that "Others are watching your camel."

wife one of her own daughters to foster. The elder's sister looks after his Tuareg wife almost as a step-daughter. A few times the young wife told me how content she felt among her affinal family, hinting that she had been unhappy at home. Both the half-brother and the new wife spoke Hausa with their Fulbe kin, though the half-brother understood Fulfulde well and sometimes spoke it. The wife had not yet learned much Fulfulde. The half-brother told me he spoke no Tamashaq; after his father's death he lived with his mother in a Hausa village. When she died, he returned live with to his half-brothers and married a Katsinen-kejo woman.

***Dagara: Beri-berijo or Beri-beri'en***<sup>6</sup>

On the continuum of Haaɓe-ness and untrustworthiness (from the point of view of a Katsinen-kejo or Boɗaaɗo), with Hausa at the extreme end, the Dagara, a group of Tanout Kanuri lie toward the lesser end. Katsinen-ko'en and Woɗaaɓe have a long-standing attachment as "joking cousins" with the Kanuri since the long residence of Woɗaaɓe and other Fulbe in Bornu, west of Lake Chad, in the pre-colonial era (Dupire 1962:26-27; Bonfiglioli 1982). Fulbe and Dagara tease each other, sometimes mercilessly, when they meet in a market or village. When the Mai-Kalafo men left to find fieldwork, they headed for Dagara villages northwest of Tanout. A traveling cleric-artisan from Mai-Kalafo also plied his trade there. Many Gourbobobo residents are Dagara, including our host family. They worked for the Laamiɗo and were friendly acquaintances of the Mai-Kalafo Katsinen-ko'en. Notably, Dagara own no fields encroaching on Katsinen-ko'en land.

***Hausa: Haaɓe, singular Kaaɗo***

The arɗo's brother came back late from his *feɗoru* (calabash garden), yelling about something having to do with cutting trees in a *feɗoru* and the agent of the *Service de l'Environnement*. In the morning, the arɗo explained what had happened. His brother had discovered that a Kaaɗo cleared a *feɗoru* close to his brother's garden in the Çolure Çengol, clearing absolutely all the trees and bushes out of the space. The brother wanted his brothers to accompany him to report the Kaaɗo to the agent. This story brought on a long discussion about how bad Haaɓe were—how Haaɓe had taken over Njaptoji (founded by the government as a pastoral center). The Mai-Kalafo arɗo warned his sons that if CARE put a center here and they let Haaɓe move in, they would take over. [Field notes: October 24, 2006]

The Katsinen-ko'en and the Woɗaaɓe have their most problematic relationship with Hausa neighbors, a relationship that extends back into history. Though individual Katsinen-ko'en may have individual friends among the Hausa, the two ethnicities generally have quite

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<sup>6</sup> The Woɗaaɓe also call Kanuri people *Sirata'en*, sing. *Sirataajo*.

negative, suspicious views of each other. Hausa fields still encroach upon Katsinen-ko'en wells and pastures.

About twenty years ago, soon after her father died, Haaɓe cleared fields "on top of" her father's well, impeding access to the well. The family dispersed. [Interview: March 19 2007, VCM2-4]

Haaɓe rake grass out of pastures in the cultivation zones, for their own livestock, and to sell to pastoralists who drive their livestock south after the harvest. This has been a growing problem, intensified over the years, but especially in 2004, when desperate pastoralists bought anything made from stalks or grass to keep their stock alive. The raking might also be reinforced by the growing privatization of southern fields.<sup>7</sup> Hausa complain that Fulɓe livestock invades their fields.<sup>8</sup> Fulɓe protest exorbitant fines that Hausa levy against them, and complain that villagers either charge them too much for village well use or refuse them water altogether. Fulɓe perceive the government as filled with, and sympathetic to, Haaɓe. Katsinen-ko'en and Woɗaaɓe often feel cheated by Haaɓe field owners, merchants in the market, and the government.

#### **BELIEF SYSTEM: "KUL ALLAH YERDAKE"—IF GOD AGREES ...**

The Katsinen-ko'en follow a relatively relaxed Islam, in which men and women, once they have been married, pray five times a day, fast during *Sumaayru* (Ramadan), and give *sadaka* (charity) to elders and *zakat* (tithing) to their clerics. A few men have made the pilgrimage to Mecca. Some men, and perhaps a few women, study Koranic verses with a local cleric, and several families send one or even two sons away to Koranic school. Clerics officiate at naming ceremonies, marriages and holidays such as *Lehiya* (Eid al Adha) and the end of *Sumaayru* (Eid al Fitr). The Mai-Kalafo community included three clerics, who serve their own and other communities, as well as an elder who studied the Koran seriously. The Siogari community hired clerics from other communities to officiate at their ceremonies. All Katsinen-ko'en, like the Hausa but unlike many Woɗaaɓe,<sup>9</sup> confer Muslim names on their children with the help of a cleric. Many children acquire a nickname by which everyone calls them, but neither children nor family forget their true "Mohamediya" name.

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<sup>7</sup> Because people actually own title to the land, and not simply hold cultivation usufruct rights, they might assume ownership of the grass on surrounding land and fallow fields.

<sup>8</sup> During my USAID survey in 1993, a southern Hausa village distinguished between Woɗaaɓe—men with braids—who did not damage their fields, and Uda'en—those without braids—who caused much trouble.

<sup>9</sup> Many of the Gojen-ko'en men take Muslim names when they work in the cities to give their employers and neighbors something more familiar to call them by.



Though Allah and his <sup>10</sup>will form an integral part of their lives and thoughts, the Katsinen-ko'en wear their religion like an old, comfortable shirt. Men and women buy *layaaji*, amulets containing Koranic verses, from clerics, but also search out other *maagani* (charms and remedies) from *Woɗaaɓe* and itinerant Nigerian healer/magicians (*boka'en*, sing. *bokaajo*). Although boys are circumcised in accordance with Islam (probably by barbers), between seven and ten years of age, little ceremony surrounds this ritual. Mothers may distribute a small *sadaka* of fried cakes when the boys are healed. Their custom also accommodates a brief period of pre-marital sex before girls are married and given to their husbands at fourteen or fifteen years old.<sup>11</sup>

The Katsinen-ko'en believe strongly in swearing on the Koran (*defteere*), and the horrible penalty, death or leprosy, if one should swear falsely. On our second visit to Mai-Kalafo we witnessed a tremendous debate among the elders of the community. A girl had refused to marry the young man her father had chosen for her; she told her father that she would only marry "Sani," the arɗo's wife's nephew. The father believed Sani had cast a spell on the girl and demanded that he swear on the Koran that he had not. Some protested that if anyone was to swear it should be the girl. Why should they risk killing Sani or any of his relatives over such a thing?

Without villages, even sedentary Katsinen-ko'en have no mosques, but most sedentary men create a *juulirde*, literally a "praying place," near their rondavels by lashing together an upright mat of grain stalks to make a wall east of a patch of bare, sandy ground. They face this wall (which breaks the east wind) to pray. The men gather for Friday prayers only if they attend Friday market in Gourbobo, but during *Sumaayru* they gather for long evening prayers (*lishaa*) at the arɗo's *juulirde*. Just north of the Mai-Kalafo fields, on a hill overlooking Gourbobo Çengol, lies the *lidi* ground, a patch of sand and laterite pebbles where the cleric conducts Eid prayers for the Mai-Kalafo community and their neighbors.

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<sup>10</sup> I do not know if the Katsinen-ko'en think of Allah in the male gender. Hausa call Allah "Sarki," i.e. a male chief or king.

<sup>11</sup> Though *Woɗaaɓe* often marry children very young, only when they reach 17 or 18 years of age are girls given to their husbands. Before then, they enjoy (for the most part) a few years of premarital sex with boyfriends.



**Figure 4.3:** (Photo, October 2007) At the “Iidi” gathering place for prayers and sermon at the end of Sumaayru (Eid al Fitr).

A man walks to the front of the congregation to give his offering to the moddibbo (cleric). The women sit behind the men, slightly hidden by the grass.



**Figure 4.4:** (Photo, January 2007) Just before Lehiya (Eid al Adha) a man measures out a tithing of millet with a special calabash for the *zakat*.

He will give the grain to the community’s moddibbo.

## THE SUUDU AND HOUSEHOLD GEAR

### *Cuuḍi Geene*

She told me that she'd heard of a Katsinen-ko'en village to the west that was a regular Haaḅe town, with people living in "cans." I took this to mean metal roofs. "That's probably Kasawsawa," I said. "We spent three nights there about twelve years ago. They had adobe houses and a storage building of cement bricks with a metal roof." "Katsinen-ko'en don't usually live that way," she said. [*Field notes: March 11, 2007*]

Except for a few communities in the département who live in mud clay (adobe) brick houses in nucleated villages, sedentary Katsinen-ko'en live in *cuuḍi geene*,<sup>12</sup> rondavels built of tree limbs, grain stalks and grass. Some *cuuḍi* are surrounded by fences of tree trunks to dissuade donkeys and cattle from entering the yard. Many *cuuḍi geene* have awnings to provide shade, often with a wall to break the wind. The *cuuḍi*, like the mobile tents (*cuuḍi daagi*), are scattered singly or in small (usually partial) *wuro* groups. Households in one *wuro* build their rondavels with 50 to 80 meters between them, with 500 meters to several kilometers between *wuro*. Such dispersal may reflect the customary mobility of tent life, necessary on the trek north and east, though in the past sedentary households probably built the same type of rondavels in Nigeria. The husband constructs a rondavel for each of his wives; he might also build one for himself. I saw only a few adobe rondavels built by Katsinen-ko'en in this area, three built by a Mai-Kalafo man after the CARE team had suggested they build a mud-clay grain storage hut. The mud-clay walls soon became infested with termites, which do not seem to attack the grass and stalks of the *cuuḍi geene*.

### *Cuuḍi Daagi*

Mobile families live in *cuuḍi daagi*, tents of mats (*daagi*, sing. *daago*) woven from palm fronds. Women construct and maintain the *cuuḍi daagi*, and each wife in a mobile household owns her *suudu daagi*. The women whom I asked thought the tent more a responsibility than an asset, however (cf. Rasmussen 1996 for tent ownership among Tuareg women). Each wife married into a mobile household is given a tent as part of her dowry when she moves back to her husband after the birth of her first child. After that she either weaves or buys new mats,<sup>13</sup> and digs up or buys new tent poles. While the husband is responsible for keeping a *suudu geene* in good repair, the wife must replace old mats and

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<sup>12</sup> Literally, grass living quarters; the singular of *cuuḍi* is *suudu*. Besides its meaning of hearthhold, a *suudu* may be a rondavel, a tent, a mud-brick house or simply the patch of ground that a *Woḍaaḅe* woman defines as *suudu* with her bed, table, a back fence of branches, and the calf rope in front.

<sup>13</sup> Some men also weave mats.

broken poles for her suudu daagi. Her husband might help her buy the expensive, heavy plasticized canvas tarp that covers the tent in the rainy season.

Before each move, the wife takes down her tent, rolls up the mats around denki and bed poles and loads them on donkeys with the rest of her household gear. At the new campsite she unties and unrolls everything, sets up her bed and denki, then raises the tent over everything. Only during the rainy season and on longer treks, when a household might move every day for two or three days, will she resign herself to a tentless night. While Woδaa6e sleep under the stars for most of the year, the Katsinen-ko'en hate sleeping in the open.

I walked up the hill to find Zara and Habbi setting up their denkiji directly east of their brother-in-law's camp. Their donkeys had scattered in the morning, and they spent most of the day looking for them before they moved. The sun had set now and I said, half joking, that in a while the waning moon would rise. Zara considered the possibility of continuing to work on her tent at night. [Field notes: February 5, 2007]

### **Women's Belongings**

All women possess a bed large enough for husband, wife and a small child or two as well as a denki, a "table" constructed of forked posts and poles with a mat of lashed sticks spread across the top of the poles, on which they set their milk and suutam calabashes. Like tent poles and mats, a young wife's parents give this furniture—along with most cooking and serving utensils—to her as her dowry. Her husband gives her one or two enamel basins as part of her bridal or *biki* gifts (see below). Later she maintains and adds to this gear as her family and income grow. Her husband may help her to cut new posts and poles for her denki and parts of her bed that she or her family cannot purchase, but she will search for and cut the sticks and grass which she lashes together to make denki mats.

Women with older children, especially an older daughter, a *mboofiδo* returned from her husband's house for the birth of her first child, set up a smaller second bed either perpendicular to, or parallel to and across the suudu from the main bed. Such a suudu with two beds, whether of grass or of mats, is necessarily larger than a one bed suudu.<sup>14</sup>

### **Suudu Arrangement**

Almost all that a Katsinen-kejo woman owns and works with has its place within the suudu walls. In cold weather, she might build her cooking fire in the center of the suudu. The denki, constructed inside the suudu, differentiates a Katsinen-kejo suudu from other

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<sup>14</sup> A Boδaaδo mother sets up a separate bed past the north end of her saga for her *mboofiδo* daughter, perpendicular to the north-south line of her own bed and saga, with the head of the daughter's bed to the east. After the birth of the baby, the (now) grandmother constructs a small tent over the bed with its door facing south.

Fulbe cuudi. A Woɗaaɗo's tent (*tukkuru*), when set up, surrounds only her bed, and sometimes a small table for a grain sack. The long, low table (*saga*) that holds her milk calabashes remains outside and to the north of the tent. An Udaajo also sets up her denki outside and to the north of her tent, but at about five feet tall to keep her cheese and milk out of animals' reach. In a cattle-herding household, Katsinen-ko'en wives tie the calves in front of the suudu, either to a long rope (*daangol*, like the Woɗaaɗe) or to posts.<sup>15</sup>

The Woɗaaɗe organize their household and family camps strictly around age—with the oldest men's households to the south, and, within a household, the first wife's suudu to the north (see also Dupire 1962:156). While Katsinen-ko'en wives follow this tradition for women, unless a son still lives in his father's household, younger men do not always place their camps (or suudu geene) to the north of their elders. A sedentary husband usually builds his suudu geene southwest of his wife or wives. A mobile husband with two wives will set up his mosquito net, a small tarp or other shelter (*turakaaru*) between and in front of their cuudi. Because the dry season wind and most of the violent thunderstorms come from the northeast, all cuudi (including those of the Woɗaaɗe) face west or slightly southwest. Always setting up the suudu daagi to face west also provides continuity and helps a person to orient herself. No matter where she camps, the suudu remains constant, with the sun always setting in front.

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<sup>15</sup> Cows are tied (or hobbled) only if absolutely necessary in nduungu if the household lives near fields.





**Figure 4.5:** (Photo, top left) The suudu gene of a grandmother who lived with her two granddaughters.

A shelter-awning of a millet stalk mat, walled with euphorbia branches, stands in front. Soft-wood trunks (bambambe and euphorbia) and branches wall a cooking area in the lower right, and a fence surrounds the suudu. In the back ground stand the cuuḍi of the woman's brother's household. This woman (and others) always kept her sandy yard meticulously swept.



**Figure 4.6:** (Photo, center left): The same suudu gene, during the dry season of 2007, with a granary (un-roofed) and a store of firewood out front.

**Figure 4.7:** (Photo, bottom left): The interior of an older woman's suudu geene, showing two denkiji and calabash bowls painted with plaster (probably from local gypsum).



Denkiji and bed posts, poles, and feet are bambambe branches. Gourd ladels and a teapot stick into the spiral of flexible branches lashed to the bambambe roof supports. The inner walls are woven of tebbere grass, lashed to larger forked limbs that hold up the roof. A churning gourd, in a carrying net rests under the front denki, and a clay water pot stands in the foreground.



**Figure 4.8:** (Photo, top left) The cuuḍi daagi of two co-wives of an exclusive pastoral household.

Their husband constructed a shelter in front of the cuuḍi. Ropes in the foreground are used to tie up the goats (left) and calves (right) at night (dry season, June 2006).



**Figure 4.9:** (Photo, center left) A woman has raised the long taarewol, the mat which surrounds the bottom of the tent, so that cool breezes might blow through the tent.

Plastic sheeting protecting the inside of the suudu from rain, is often sandwiched between mats on the outside to protect the plastic from the sun, and mats or blankets on the inside to protect the plastic from the poles and people from heat. The denki holds calabash bowls and enamel ware. A small denki below holds grain sacks and other gear. The bed's pedestal "feet" support thick carved cross-poles which support long poles (all purchased from Tuareg smiths) on which mats and blankets are spread.



**Figure 4.10:** (Photo, bottom left) A woman and her daughter set up their suudu in the evening.

She pounds holes for the tent poles with her pestle. Her denki, unlike the suudu above, runs across the back of her suudu (east).



## SOCIAL ORGANIZATION

Social organization is maintained through social institutions which, through repeated practices within the confining rules of a moral economy, sustain the reproduction of the society. As I outline the Katsinen-ko'en social organization, I compare the social conventions I observed with those of the Woɗaaɓe and other Fulɓe peoples. I also describe the various communal exchanges that take place during life stage rituals and celebrations.

### *Lineages: Lenyi, singular Lenyol*

Like the other Fulɓe, segmentary lineages govern the larger scheme of Katsinen-ko'en social organization (Fortes 1953; Smith, MG 1956; Dupire 1962:280-89; 1970:chapters 7 & 8). They group themselves into the same two moieties as the Woɗaaɓe: Degerewol and Alijam.<sup>16</sup> My elder informants could not describe the lineage system very clearly, however, though the arɗo at Mai-Kalafo narrated for me the legend of Dege, putative head of the Degerewol, and Ali, his servant. Ali, after marrying Dege's daughter and tricking Dege and his sons out of their cattle, became the head of his own, younger lineage. One elder told me that he could list only a few lenyi; he simply knew which lenyol specific households belonged to. He named his own lenyol, Hontorɓe (Degerewol), and then Galen-ko'en, Tuntunmen-ko'en, Woojaaɓe, and Daaɓan-ko'en before he gave up, saying there were just too many "branches" (*leɗɗe*).<sup>17</sup> The Hontorɓe at Hamugani well would speak of "those Galen-ko'en" at the Maani well in jest, as in a bit of a joking relationship.

The Woɗaaɓe have a much stronger sense of lineage, ranking primary lineages (*lenyi*) and secondary lineages (*taare*) rather strictly from oldest to youngest, based on the age or social ranks of the legendary lineage founders. The Katsinen-ko'en, on the other hand, though they know who belongs to which patrilineage, attach little meaning to lineage levels, and lenyol flexibly includes neighboring families related in past generations by blood or marriage. The Woɗaaɓe usually migrate together with lineage members (their extended family), family marriages (*kovli*, sing. *kobgal*) are made within the lenyol, and Woɗaaɓe dance rivalry (*gerewol*) takes place between the moieties. A *teegal* marriage occurs when a Boɗaaɗo seduces a young wife from another lineage, often during a dance (Dupire 1962:250; Greenough 2006; Loftsdóttir 2008:72).

The Katsinen-ko'en, while they tend to marry first cousins and thus marry within their lineage, have no reservations about marriage outside the lineage, or even outside their

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<sup>16</sup> Dupire (1962:280) calls these "lignages maximaux." Two other Katsinen-ko'en moieties may reside elsewhere in Niger.

<sup>17</sup> These lenyi are not found among Woɗaaɓe lenyi.



ethnicity. Kovli, first marriages, are made between families within the lineage or of two different lineages. Teegal marriages are simply second marriages with little consideration for lenyol. The strong yet moderate Islam that the Katsinen-ko'en have practiced for generations tends to trump the non-Islamic practices, such as seduction marriages, of the Woḍaaḅe.

### ***Relationships of Respect and Joking Relationships***

The Katsinen-ko'en and Woḍaaḅe observe similar relationship rules, including joking relationships between cross relations (*denḍiraḅe*), and grandparents and grandchildren (*maamiraḅe*, *taaniraḅe*), and those of avoidance and *semteende* (respect or shame). The Katsinen-ko'en practice respect and avoidance rules less intensely, though. De Bruijn and van Dijk (1995) discerned a similar distinction between Fulḅe with a history of mobile, exclusive pastoralism and less mobile agropastoralists (see also Dupire 1970:chapter 5). Like the Woḍaaḅe, elder siblings (and cousins) among the Katsinen-ko'en command the respect of their juniors, and elder generations, even if younger in age, receive respect from younger generations, even grandchildren for their grandparents. At celebration feasts, the young Tuareg wife of the Mai-Kalafo elder sat among her husband's sisters and cousins, slightly apart from her husband's daughter and nieces, older than her in age.

The Woḍaaḅe observe *semteende* of affines (*esiraḅe*, all older relatives of one's spouse) as rigorously as possible,<sup>18</sup> and never utter their names. They ignore their first born,<sup>19</sup> other than to give them tasks and scold them (similar practices exist through Fulḅe society, see e.g. Dupire 1970:190-191; de Bruijn and van Dijk 1995:209; Riesman 1998 [1974]:54). The Katsinen-ko'en never call their first child by his or her name, often referring to a son as "ngaynaako am" (my herder), yet both parents speak with the child. Sometimes in interviews, however, a parent left out all mention of a first-born, whom I subsequently discovered during a conversation with a relative. The Katsinen-ko'en maintain respect for their affines, but without the strict avoidance that the Woḍaaḅe practice. Because of the prevalence of first cousin marriage, a young wife might live with her father's sister as mother-in-law, often a warm relationship, though not, in this instance, a joking relationship. In at least one case, a man's uncle/father-in-law had fostered him. He lived near his father-in-law and constantly helped him with his affairs. Relations between Katsinen-ko'en spouses also tend to be more relaxed than those between Woḍaaḅe spouses,

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<sup>18</sup> *A wife in a patrilocal household must necessarily work with and converse with her mother-in-law, yet she treats her with utmost respect.*

<sup>19</sup> *The quintessential definition of pulaaku, some Woḍaaḅe women told me.*

and I often noted the closeness of co-wives, as compared to Woδaaḅe co-wives. With a few exceptions, Katsinen-ko'en co-wives work closely together, their cuuḅi only a few yards apart, and often fostered each other's children.

## LIFE STAGES

### *Kinship and Marriage*

The practice of Islam as manifested in rural Niger heavily influences lifestage rituals among the Katsinen-ko'en, though some customs similar to those of the Woδaaḅe coexist with Muslim directives. The Katsinen-ko'en, like the Woδaaḅe, recognize two types of marriage, *kobgal*, the first marriage performed by the parents, and *teegal*, a second marriage arranged between the couple themselves after the divorce or widowing of a woman. The husband takes another wife either in polygynous marriage, or after divorce or his first wife's death.<sup>20</sup> Divorce occurs only after a husband declares before witnesses that he divorces his wife. All marriages, unlike Woδaaḅe marriages, are officiated by a cleric. The Woδaaḅe women do not divorce their husband for a teegal marriage, and might return to their kobgal husband if the teegal marriage does not last.

Parents marry their daughters probably shortly after menarche, and sons in their twenties; the girl's age is much more fixed than the young man's. One woman told me that all young men were married at age seventeen, and though her nephew appeared to be about that age when he married, most men seemed five to ten years older than their wives, if not more. Young grooms also have more influence over the choice of their bride, than the bride does, though she can refuse her parents choice with varying consequences. Because the couple is engaged and marry over a brief period (perhaps one or several months), the Katsinen-ko'en have no opportunity for the long-term avoidance practiced between Woδaaḅe bride and groom. In fact, many first cousin couples have grown up together. Both Daji and I noticed much freer exchanges between spouses among the Katsinen-ko'en. Even some young wives had little compunction over arguing briefly with their husbands.

At a kobgal the groom's family slaughters a young bull for a feast, which lasts a day and a night, to which all relatives and neighbors come. Because of semteende, both bride and groom avoid the ceremony and celebration. The groom's male relatives, his father and a brother or uncle, drive the marriage bull to the bride's home on foot, even for a long distance such as between Seloum and Mai-Kalafo. Before, on the same day, or shortly after

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<sup>20</sup> *Though under Islamic law, a man may marry four wives at once, I came across only two men with three wives.*

the marriage celebration, the groom's relatives deliver the bridewealth: *sadaaki* (money) for the bride's parents, and *kaya* (clothing and some utensils, see Photo 4.10, below), for the bride. The groom's father and elder brothers often contribute to the bridewealth. Only with these gifts can the groom ask (*biiko*) to take his bride home with him to his father's house.

### ***Birth and Naming***

As soon as a young wife knows she is pregnant with her first child, if her parent's home is nearby, she steals away to her mother without telling even her mother-in-law. For a longer distance she will arrange transportation, but every young woman birth their first child under the care of their mother, grandmother or foster mother. Until her biki, after the birth, she is *mboofiḍo*.<sup>21</sup>

After any woman gives birth, she and the baby stay confined inside her suudu until seven days after the birth, usually on the same day of the week as the birth. On that day, the baby's parents, or grandparents in the case of the mboofiḍo, hold the *goyngal* (pl. *goyli*), the naming ceremony.<sup>22</sup> Before its elder relatives, the cleric names the baby in a noon ritual of prayers (*fatiya*, blessing), then a ram is slaughtered for a son or a ewe for a daughter. Men roast the meat to distribute among the guests during the afternoon feast for kin and neighbors. Among the Woḍaaḅe this ritual slaughter seals social paternity (possibly different from biological paternity) and the patrilineage of the child. Though paternity is less questioned among the Katsinen-ko'en, the slaughtered ram or sheep surely fulfills the same role at a *goyngal*.

A day or so before any celebration, girls and young women pound millet, given by the celebrating parents or grandparents, to cook into a special, steamed millet porridge on the feast day. For the afternoon feast, women bring *nyiiri* and *suutam*, as well as buttermilk, butter, and gifts of cloths (*gude*, sing. *wuddere*). Both men and women give large calabash bowls filled with grain and small amounts of money to both the mother and father, and their elders. Besides buying extra food (including perhaps grain and a ram or ewe), male hosts of any celebrations also buy tea, sugar and cola nuts to divide among their guests. His wife may also buy some food, such as sauce condiments and oil.

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<sup>21</sup> The word comes from the root *woof-*, to become thin, though I am uncertain how the two meanings, "young mother" and "to become thin" relate. Perhaps *mboofiḍo* is an attempt to trick fate, as when parents names their child Banza (worthless) or Muni (ugly). Dupire (1962:174) translates "boofiḍo" as "celle qui couve," that (feminine) which broods.

<sup>22</sup> The Woḍaaḅe call this ceremony and celebration *humtoru*, but the Katsinen-ko'en seemed to only use this word for the naming of a woman's first child.

Zeynu worried that she had no milk to sell to earn money for upcoming goyli. I asked her if the mothers would be angry if she didn't take them money. She said, "Well, what can they do if you don't have it? They just have to be patient until next time."

Habbi told me that if you give a woman a wuddere at her goyngal, she will give you two at yours, then you will pay back three. If the gude become too many, then the two women will agree to reduce the amount. Money begins around 50f (about 10¢ U.S.) and goes up 50f each time. Grain and other food are not involved in this type of increasing exchange; they are simply given without measuring. [*Field notes: October 22, 2007*]

The cloths received at a celebration, though often sewn into clothing and used for wraps for the new baby, also constitute a symbolic gift, especially for a goyngal, and might be passed from one woman to another. No other non-food, non-cash gifts are given. Women buy gude in the market singly or in a set or two of three gude, each wuddere approximately two meters long by one meter wide (see Appendix D, Measurements). A new mother usually receives one or two cloths from each friend, though a close elder female relative might give her a set.

Some months after a mboofiḍo's child is born, when her parents and affines are ready, and a lull in seasonal work allows time for a large gathering of kin and friends, mother and child are celebrated again with the *biki*, the most important of Katsinen-ko'en celebrations. A newly married girl has not yet truly left her parents' household; she is in a liminal state. She returns for visits, especially if she quarrels with her new husband, and then again while her mother cares for her during her first birth. The *biki* sends her definitively to her husband's house, with the promise, if not the actual goods, of the dowry for her own suudu. Once again the husband's male kin drive a bull to be slaughtered at his affines' house. As with the naming and marriage celebrations, relatives and neighbors gather bringing gifts of food and money, but the *biki* celebration usually lasts longer than one day: young men and women dance (separately) at night, and men and boys race camels on the second day. After the *biki*, the new mother, no longer a mboofiḍo once again wears a blouse. When her husband sends gifts similar to those brought for the wedding, he is permitted to come and take her home.

As with other traditions, returning home for a first birth exists in a much stronger form among the Woḍaaḅe. A young Boḍaaḍo wife often never leaves her father's household and stays with her mother through her second and third births. A Katsinen-ko'en elder explained that in his generation young wives would remain with their mothers for three years before their husbands could reclaim them. My Woḍaaḅe assistants explained that they keep the same practice today, though after a couple years of *biiko*, the husband is allowed to sleep with his wife behind his in-law's camp. "Why did your custom change?" I

asked the Katsinen-kejo grandfather. He replied, “*Adini* (religion) says that a man wants his wife and a woman wants her husband and their parents should not keep them apart.”

Laame’s son, just married this year, has not yet brought his bride home. Laame’s youngest daughter was married last year and she hopes that the girl will come home soon as mboofiðo. When she has a couple of girls to pound grain again, Laame will be able to accomplish other work such as weaving mats. [*Field notes: January 3, 2007*]

Lame’s youngest daughter has come home and her younger sons help their older sister pound flour. Laame told them she was getting too old to pound for all of them; they wouldn’t eat if they didn’t pound. [*Field notes: February 5, 2007*]

A consideration of household economics must note the transfer of labor in the situation of marriage and the mboofiðo. When a new wife leaves her mother, her mother-in-law acquires help in her hearthhold: a grain pounder (*unoðo*) and cook. When the young wife returns home as mboofiðo, her mother (and sisters) reacquire her labor, except for a brief period after her baby’s birth, until her biki. The balance of boys’ and girls’ labor in a household concerns both men and women. A woman despairs when she bears only boys, as she will have to wait until they marry before she acquires female help. Until then she coaxes her sons to pound grain. A woman with only daughters, besides feeling chagrin at giving her husband no sons, knows that once her daughters are married with their own *cuuði*, she will have no daughters-in-law to work in her hearthhold. She must ask to foster her granddaughters. Mobility also often removes a son from his mother’s hearthhold after his wife sets up her *suudu*. In such a case as well, a son or daughter may be pressured to give up one of their own daughters to live and work with her grandmother.



**Figure 4.11:** (Photo, January 2007) Men butcher three yearling bulls for a combined marriage ceremony between the children of two brothers.

Guests drink tea west of a euphorbia bush in the background.



**Figure 4.12:** (Photo, February 2007) Kaya: a mother has opened a suitcase of cloths, scarves, flip-flops, pomade, and perfume given to her newlywed daughter by the groom.





**Figure 4.13:** (Photo, ceeɗu, March 2007) Girls steam millet flour to make nyaamri, a special porridge served at every celebration.

Young men (*sukaabɛ*, right background) visit in the shade of a young acacia. .



**Figure 4.14:** (Photo, ceeɗu, March 2007) Women chat and mix suutam for a goyngal. The slaughtered ewe lies in the upper left background.





**Figure 4.15:** (Photo, January 2007) Girls (*surbaabe*) and young women dance at a celebration for Lehiya (Eid al Adha) in dabbunde.



**Figures 4.16 & 4.17:** (Photos, January 2007) Boys and young men (*sukaabe*) dance on the cold windy day after Lehiya.





**Figure 4.18:** (Photos, January 2007) Young men race camels in the haze of the very cold, dusty day of Lehiya. In this early heat, the racers ran the youngest camels.



**Figures 4.19 & 4.20:** (Photos, January 2007) Young men show their winning camels.

### ***Foster Children***

In general, women will foster girls when they need help in their hearthhold, but also for company, and men foster boys when they need a herder, but I found quite diverse fostering situations. I never observed nor heard anyone actually ask for a child, but during interviews or conversations a few women without daughters mused about asking “in the lenyol” (among extended kin) for a girl to foster. Grandmothers especially will foster granddaughters who help them with their housework and keep them company. The father’s mother seems to have priority over her son’s daughters. One elderly woman told me that she received her daughter’s daughter from the girl’s paternal grandmother. In a divorce situation, a man may leave one or two young children with his mother, at least until he remarries. Men often borrowed their older brothers’ sons as herd boys, either for a season or to grow up in their households. Women may foster the children of their co-wives, beginning when the child is weaned. Especially if the mother of the weanling child (*entereejo*) has just given birth again, fostering helps keep the child from trying to nurse. One Katsinen-kejo man declared that he would not marry a woman with children and another man refused to allow his wife foster a child; this attitude seemed atypical, though, and other men criticized it. I came across more than a few hearthholds in which a woman was raising the children of a deceased or divorced co-wife. Sometimes these situations seemed very happy; in other situations the relationship was more strained (though some mother-birth child relationships seemed just as strained).

If a man had fostered a young teenager as a herder, the wife or wives usually did not count him as belonging to their hearthholds, though they fed him, of course. Unless he had grown up with a wife from a young age, he was their husband’s responsibility. A man will help his foster son to marry and provide him with his share of livestock when the young man establishes his household. A foster mother provides her foster daughter with her *suudu* after her *biki*, but both marriage and dowry arrangements may depend on how much the girl’s birth parents are still involved with her life. A grandmother may leave the marriage arrangements to the girl’s father, though she contributes to the dowry. One grandmother fostered two granddaughters, but when her father needed her to herd for him one granddaughter returned to live in his household, at least temporarily. Children often visited their birth parents and may have been able to rely on them for economic help.

Sometimes birth parents came to regret giving up their children, though they resigned themselves to their fate. One woman had given her first children, two daughters, to their

grandmothers and subsequently bore only sons. After the birth of another son, she expressed frustration that she still had no daughter who would help her with housework (her co-wife who had no children fostered two of her sons). Another couple left their toddler with the wife's parents when they moved to Nigeria for several years; when the wife's brother needed a herdboyc, he fostered the son. The couple returned to live near the wife's parents, but their son remained with his uncle. Though the birth father complained that he did not have enough help in his field, and the boy visited his birth parents, as far as I knew, the boy never helped his birth father with cultivation. Once I overheard some neighbors denouncing the foster father (not in his hearing) for mistreating his nephew by calling him names and denying him some food, but the situation did not seem serious, and I never heard the birth parents comment on incident.

Foster children seem little different from birth children in the way in which their foster parents treated them, or in which they respected their foster parents. Though the relationship often seems based only in labor, grandmothers certainly foster their granddaughters out of affection, and men who have been raised by uncles remember the relationships fondly. More than one woman expressed much pride and affection for her co-wife's children whom she fostered. One young man, who had been raised by his mother's co-wife, lived with his new wife next to his foster mother's suudu, and his new wife helped the foster mother with her housework.

### ***Adultery, Divorce and Death of a Spouse***

The arɔ̀ asked me if I knew what a *kortojo* (adulterer) was, and explained that a man from his community was caught in another man's wife's suudu. The aggrieved husband and his relatives wanted to fine the *kortojo* 80,000f (about \$160, the price of a heifer), but the arɔ̀ would not agree to such a high amount. I asked if the man forced himself on the woman. The arɔ̀ replied that he never even slept with her. The arɔ̀ wanted to fine him only 10,000f. Eighty thousand would have been *zalumci* (tyranny, Hausa). He said the woman had told the *kortojo* that she was pregnant and if he did anything to hurt her *reedu* (pregnancy, lit. stomach), the situation would be doubly bad for all of them. I suggested that she had intelligently tricked him. The arɔ̀ agreed. [*Field notes: January 20, 2007*]

We heard very few stories of adultery, though divorce is common. If a man divorces his wife, his children generally stay with him, but I heard of and saw a few cases where divorced women and widows kept their children with them. Though these cases seemed rare, I was surprised to hear of them at all as I have never heard of this happening in other ethnicities. Levirate marriages, while not obligatory, occur among Woɔ̀aaɔ̀e; otherwise the deceased man's brothers or cousins will take his children from his widow. I observed no evidence of levirate among the Katsinen-ko'en. A widower's children usually stay with their

father if he has another wife or soon remarries. I interviewed one woman, however, who was raising her deceased sister's children. This sad situation, and others like it, my own semteende, and trying to avoid too much kormoto prevented me from digging for more information.

### **Magaji, the Inheritor: Herding Sons and Caretaker Sons**

If an agropastoral household has more than one son, the male head usually assigns at least one son to herd for the household while the other sons help him to cultivate. As the family grows, he will assign one son to herd the cattle, while a younger son (or daughter) will herd the smallstock. These "assignments" are flexible and, depending on the configuration of the family and the livestock it owns, may be passed down from one son (or daughter) to the next. As I mentioned above, parents often call their eldest son "ngaynaako am" (my herder) as a substitute for his name, but this does not mean that he herds exclusively. In some ngure where the parents have settled into a suudu gene but still have a cattle herd, one mobile son will herd most of his parents' cattle as well as those belonging to sedentary brothers, leaving a few milking cows at home. We met only four or five men who herded for their sedentary parents and brothers; all were married with their own children.

Each son, as he marries, becomes the potential caretaker of his parents (or foster parents): the *magaji*, a Hausa word which means "inheritor." As a general rule, he lives with his parents when his bride first comes to live with him. He still works under the supervision of his father, and his wife works for her mother-in-law. In most families, the groom still possesses only a few smallstock, and perhaps a heifer, livestock given him by his father (or mother) and loaned to him by relatives and friends (see Chapter 8). When his younger brother marries and brings his bride into the household, the elder son may move away, released from the position of *magaji*. His father soon (perhaps with pressure) *seendana mo*—divides and gives him his share of livestock. If the parents settle, often, but not always, the youngest mobile son herds their cattle. The youngest son often, but not always, settles near his parents to help cultivate his father's field, eventually taking what remains of the field after his father has given his brothers their share. This pattern is not a fixed rule, however. No family has the same demography, nor do their sons all have the same aptitudes or inclinations.

### **ESTABLISHING A HOUSEHOLD**

A man cannot have a household without a wife, nor can a woman have an independent hearthhold without a husband. When I asked some women if their community had any

women household heads, they told me no, Katsinen-ko'en do not do things like villagers. Though the loss of a spouse inflicts a great disadvantage for a Katsinen-kejo, adult children and livestock wealth ameliorate difficulties for both single women and men. One sedentary widow, the closest I met to a female household head, lived in her own suudu gene with two granddaughters, but between her brothers' houses. Her three mobile sons often visited, supplying her with grain. They also herded her cow and loaned her a milk cow. In two different communities, two relatively young women without adult children lived separated from their husbands. One, whose husband had deserted his wife to work in a village somewhere (much to the shame of his parents), lived with young children in her mobile brother's household and tried to cultivate her husband's field by herself. The second woman had left her husband who had not yet formally divorced her (everyone seemed confused by the situation). She lived with her sister and brother-in-law, while her son (unmarried) from a previous marriage lived with his uncle and cultivated his father's field. Her husband had no other wife and lived with his young second son and very young daughter-in-law. He continually expressed his desire to find another wife, though his reputation as a difficult husband preceded him. One research community included a man who had given up on marriage and virtually lived nowhere. He slept and ate as a guest in different households and joked about finding *zoweraaji*—divorcees and widows—to sleep with.

A young wife usually works for her mother-in-law (unless her mobile husband lives apart from his parents) and the wife of the youngest son may live near and cook for her mother-in-law for the rest of her mother-in-law's life. If her husband herds cows, he will assign his wife cows to milk. I gathered that the division of milk cows among wives is less strict among Katsinen-ko'en than among Woδaaβe wives, whose sons receive the beginnings of their herds, as babies, from cows assigned to their mothers. Katsinen-ko'en sons usually receive no cattle from their fathers until they are married and have begun to establish a household. I was never able to ask for details of Katsinen-ko'en livestock transmission from father to son, and discovered different practices through the surveys. Livestock division among sons seemed to depend on the father's (or mother's) livestock holdings and his willingness to part with animals. Many of the exclusively pastoral men told me that they had mostly established their herds through purchases and loans, with little help from their fathers.

Though she begins to milk once she has set up her suudu, a young wife stays at home, and must send any dairy products for market with her mother-in-law or older neighbors. Only once she has born three or four children (or has lived with her husband for a comparable number of years) is she allowed more freedom to go to market. I discuss the importance of women and men, and their respective assets, to one another in much more detail in Chapter 8. In the next chapter I discuss the natural environment in which men and women work together and introduce some of the strategies they employ.

## CHAPTER 5: NATURAL ENVIRONMENT— THE LAND, SEASONS AND STRATEGIES

### GOOD AND BAD YEARS

One can never emphasize enough the unpredictability of the rains in the Sahel, and consequently, the permanent risks of disequilibrium from one year to the next (Thébaud 2002:96, my translation).

In the disequilibrium environment of the Sahel, annual (seasonal) rainfall has risen and fallen erratically and in irregular, unpredictable cycles with a decade or so of low rainfall followed by a decade or so of high rainfall, but with years of unusually high or low rainfall within those decades. Last century began with a terrible drought and the first decades saw relatively average rains, until the late thirties into the early fifties experienced vacillating highs and lows. From the 1950s until the late 1960s, rainfall stabilized at a relatively high level. Then annual rainfalls declined steeply until the devastating drought of 1973, which in some areas of the Sahel lasted through 1974. Rainfall rose slightly until a spike in 1978, then plunged again to the low of 1984. I have heard some researchers recently suggest that these two later droughts exhibited the first evidence of global warming's effects on Africa.

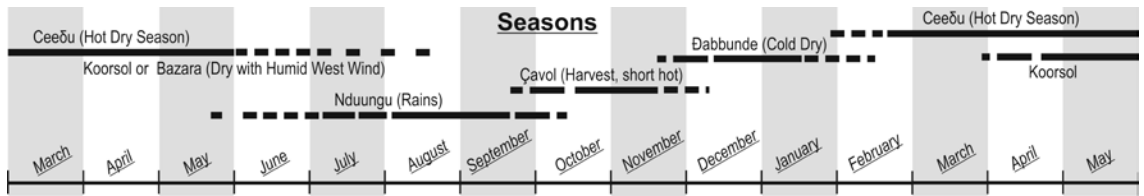
Rainfall and the rainy seasons seem to have become more and more erratic in the last two decades, coming very late with floods, or quite early with good rains. The actuality of this impression is difficult to tell. Weather posts and measuring equipment in Niger suffer the same general decline that all government agencies have experienced. Dai et al note that “across the Sahel the number of rain gauge stations has been decreasing since the early 1970s” (2004:1326). Niger never collected very comprehensive data, but now only estimates must be averaged over broad regions, completely neglecting the phenomena of microclimates intrinsic to disequilibrium ecologies. Some researchers have observed a greening of the Sahel over recent years (Hutchinson et al 2005), though because their data come from remote sensing, conclusions as to the reasons or source of this greening—spontaneous tree or grass growth, human planting—remain tentative (Olsson and Hall-Beyer 2008). Other researchers observe a persistent decline in rainfall, a “desiccation,” over the past fifty years (Hulme 2001; Dai et al 2004), which they and others attribute to warming ocean temperatures (see also Kerr 2003; Giannini et al 2008). Through on the ground observation one can substantiate that, in most years, rain falls only in patches, hitting some places well and others very little. All Nigeriens I have spoken with

acknowledge the increased riskiness of the climate since the decline of yearly rainfall from 1969. The land has dried and trees and wild animals have disappeared, partly through human activities and partly through lack of rain.

The year after Amboosa was good; after that you spend years getting nothing, selling everything [livestock], then a year that's good; then more years when you have to sell.  
[Interview: March 14, 2007, BGG1-2, a woman about 80 years old]

On average, my interviewees indicated that since the drought of 1984 (called *Amboosa* or *Çal Buhari*, see Table 3.1), they experienced only one very good year (good harvest and good pasture) in every four to five years, and one very bad year (no harvest, no pasture) in every four to five years. In most years “sometimes we get a little; sometimes we get nothing,” many people told me. A good harvest (e.g. 2005) will last into, if not through, the next year, and only every four to five years would a harvest fail without at least mediocre pasture (e.g. 2004 and 2009). Thus, during the three or four not so good years, the first mediocre or bad harvest may be supplemented by grain from the previous year (e.g. 2006) and the pasture in most years allows livestock to thrive or at least survive so that households may support themselves through livestock sales. Though very bad years such as 2004-5, during which almost everyone migrated south, seemed to have rarely occurred, most of my respondents agreed that, since 1984, bad years outnumbered the good.





**Figure 5.1:** Chart showing the five seasons of a Pullo's year in the Damergou.

The dotted sections show the variable starting and ending times and uncertain lengths of each season. Ceeðu, here meaning the hot dry season, is the generally the longest and most certain of any of the seasons.



**Figure 5.2:** (Photo, dabbunde, November 2006) Goats look for browse north of Abuzak well.



**Figure 5.3:** (Photo, nduungu, August 2007) Daji holds my horse and his camel just after a light rain storm, east of Abuzak Hamlet.

## SEASONS

Fulbe in the research area, similar to Fulbe in other regions, break their year into two major seasons, the dry and the rainy, or *ceeδu* and *nduungu*. Ceeδu, lasting nine to ten months of the year in the northern Damergou, consists of three different seasons: *çavol*, the harvest or short, hot season after *nduungu*; *dabbunde*, the cold season, in which temperatures drop into the 50s and perhaps even the 40s°F (10 to 4°C), with a significant wind chill factor; and *ceeδu*, the hot season, during which temperatures can rise above 120°F (50°C). A transitional season begins during *ceeδu* when the dry, northeastern, desert wind switches to the humid, southwestern, gulf wind, bringing small, erratic storms of wind and rain. This season takes various names including *koorsol* (c.f. Bonfiglioli 1981; Schareika 2003, for alternatives). Eventually, if the seasons proceed well, *koorsol* ushers in the rainy season proper, *nduungu*, with broader, longer lasting thunderstorms. The overlapping dashes in the above chart show not how seasons overlap but the irregularity of seasons' beginnings and endings, especially the commencement of *nduungu*, which should arrive in June or July, but may start as early as May, as it did in 2005, in Tanout département, or as late as August as it did in 2006 and 2007, in much of the département. *Nduungu* begins at different times in different locales, or may begin, then let up for another dry period, also called *koorsol*, and then settle in for too brief a period after that.

*Nduungu* ends and *çavol*, the harvest season, starts when the wind shifts back from the humid southwest wind to the northeast wind that blows in off the Sahara. The wind may reverse direction a few times as the season changes, and rain may fall in *çavol*. Pastoralists worry when rain falls on the dried grass, that the water will damage it, turning it black and rotten. Especially if *nduungu* has been productive, *çavol* is the most pleasant time of year, as the anxieties of *nduungu* (will it rain? will the rain destroy something?) are over and the wind cools and dries. The cultivator and his wife work hard during *çavol* cutting, threshing and storing grain, but hard work means grain for the household for at least part of the year. Pastoralists still enjoy the fruits of *nduungu*: the cattle have milk, and the herders continue to water at ponds. Pastoralist wives and daughters relax a bit, because households move camp less often than they do during *nduungu*.

When the sky color changes to a deeper blue in the morning, we know that *dabbunde* will arrive soon. The days and especially the nights become colder and colder, until one actually welcomes the sun, and it becomes difficult to sleep outdoors at night. During *dabbunde* the northeast wind whips up dust storms that cloud the sky and limit visibility

with a dry haze. Sand flows over dunes and clay flats, rustling like thousands of snakes. Friends of the livestock thief, say herders, these storms cover foot and hoof prints with sand and limit a tracker's vision. At this time, the cultivator finishes "pouring" (*loova*) grain heads into his granaries and threshing beans, clearing his fields in anticipation of pastoralists' southern migration. The ponds dry to cracked mud and the herder turns to the hard work of watering at a well. His hands chap and bleed pulling on the heavy well ropes in the cold water and wind. Mobile households settle in the lee of luggeji for shelter from the wind.

The transition between cold and hot season often happens very suddenly sometime in February: a very hot day follows a cool one, and the cold never returns. The livestock is now watered only every other day to allow them a full day's grazing away from the well. Sometime after the start of *ceedu*, *koorsol* begins when the wind shifts from northeast, dancing around for a few weeks before it settles in the southwest. When rainstorms wet dried grass and dum palms in the south, this wind carries the tantalizing, sweet scent of wet *balli* (fronds of the dum palm) and *teebere* (*Cymbopogon schoenanthus*) in the still dry north. Small rains begin to fall in one northern area or another in April or May. These showers sometimes sprout new grass, but usually are false starts of *nduungu* that will not truly arrive for a month or two. Occasionally good fortune allows crops sown after stronger, early rains to survive and grow all the way to harvest. During *koorsol*, the cattle, smelling rain and new grass, become very restless, and the pastoralist watches his cattle carefully. He gathers information about rainstorms and new grass, and when he hears of good pasture begins to move household and herd north. He might split his household for a few days to move his cattle more quickly into new pasture, while his wife and some sons follow more slowly with the smallstock. A mobile agropastoral household may also split; the herder (usually the household head) takes most of the livestock to distant, already green pastures, while the rest of the household waits near the fields for rain. Cultivators often "bury" some grain seed in part of their fields before the rains, hoping that good rain will sprout the seed before mice or birds eat it.

Everyone continually watches the eastern sky. The southwest winds seem to blow moisture until they hit a barrier of pressure that turns the moisture into thunder clouds, which build behind an eastern foggy, haze. With the right combination of wind, moisture and pressure, the southeastern wind slows into a thick heaviness and the cool northeastern storm wind races through, first driving dust and sand, then, under thunder and lightning,

brings pelting rain. Early in the morning after a heavy storm, the cultivator goes out to his fields. He looks for pooling on the ground, and then in his fields digs down as far as he can through the drenched sandy clay. If the ground is soaked past his elbow, he will probably decide to sow. All members of the household who have no other chores accompany him to the field after breakfast for a day of happy, hard work. One or two men or boys chop holes in the ground about a meter apart with a long hoe particular to this job. Everyone else follows, dropping a few seeds in each hole and covering the holes with their feet. Over the next few days, the household head and his sons will finish sowing the fields, first with millet and sorghum, and later with beans and sorrel.

When the rains truly settle in, with a storm or three every week, and the grain and grass grows past sprouting, people look back and say, *nduungu* began on such and such a date, with such and such a storm. This marks the onset of the agricultural year, from which time the numbering (as opposed to naming) of lunar months starts afresh.<sup>1</sup> Because of localized microclimates and different starts of rainy seasons, different communities may number their months differently. In discussions, however, these varied times are explained away: “Oh, but the people in that village planted two months before we did.”

While the cultivator settles into weeding his fields, the pastoralist “chases green grass” (*tokka nduungu*) taking advantage of the variations in rainfall and the sprouting grass (Schareika 2001). The Katsinen-ko’*en* (agro)pastoralists follow various migration patterns, depending on how much they concentrate on cultivation. Cultivators, tied to their fields once they begin to sow, move little, at least until they have finished the first weeding. Scouts in exclusively pastoralist households (usually household heads) strike out to look for the newest, greenest grass, and return to lead the households to the best areas they have found. A day or two later, they scout again. The cows refuse to lie down in wet manure, so even if the household does not move to new pasture, they shift their camp to accommodate the cattle and prevent them running away. While women and girls work hard striking and setting up camp every few days, and elder men scout for new pastures, the young men rest during this season when boys follow the livestock to water at ponds. A good season reunites lineages of *Woδaaβe*, separated during *ceeδu*, and young people begin to dance. The Katsinen-ko’*en* exclusive pastoralists, and the agropastoralists who leave their fields after they finish weeding, also congregate in a good *nduungu*. Because most of their

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<sup>1</sup> *In contrast, the lunar months of the Islamic year, named in Arabic and Fulfulde, shift back in time during each solar (agricultural) year.*

cultivating kin remain near the fields, however, the atmosphere among the Katsinen-ko'en seems less celebratory than that in the long lines of Woδaa6e camps spread over green hillsides.

After a couple of months, the thunderstorms begin to dwindle, the grass dries and the grain crop produces heads, readying for harvest. In a good season, the rains will not stop early leaving the millet and sorghum to dry without grain in the heads, nor will they last too long, spoiling the grass and millet. avol arrives with the east wind, bringing new decisions depending on the quality of the previous nduungu. Will we harvest enough millet to fill the granaries, or must we simply cut the stalks to store as fodder for the coming bad dry season? Which ponds have filled the most and will last the longest? Which have the best pasture? To which well will we go when the ponds have dried?

## **THE LAND**

### ***The Rangeland***

*"Ladde hannde re'i"*—the bush today is finished. [Interview: February 1, 2006, BCO1-1]

When the Katsinen-ko'en first moved into the Damergou, they found true *ladde*, wild bushland along the Elik Valley and north. More savannah-like than today, luggeji contained trees rarely found in this region today, such as *barkeeki* (*Piliostigma reticulatum*) and *eehedi* (*Sclerocarya birrea*), and wild animals including gazelles, antelopes, and ostriches. One arδo told us how they climbed trees to escape hyenas. Though the land seemed relatively empty of humans, Tuareg pastoralists and caravanners, and Dagara and Hausa hunters had lived here for centuries. Researchers (Marshall 1990; Smith, AB 1992; Marshall and Hildebrand 2002) remind us that humans have been affecting Sahelian ecology for thousands of years. Pastoralists, who began herding cattle around 6000 BP in the then grassy Saharan highlands, descended south with the drying of the Sahara to the latitude of the research area in about 4000 BP (McIntosh 2006). Throughout the research area and beyond, large area of pottery shards, a cemetery, and the slag and broken pieces of kilns from iron smelting give archaeological evidence of past human life and livelihoods. In all probability, however, the region never carried such a large population as it does today.

The land of the Damergou is grooved by the broad valleys of archaic rivers, called engi, with their tributary *ilaagi* (sing. *ilaagol*) and wadis (*ngebeji*). During nduungu, most engi retain broken chains of large ponds. Some engi have been obstructed by dunes, blown in during drought years and now stabilized with grass. Near the village of Garin Nomawo, Elik engol is almost unrecognizable because its trees have been cut and the hills of its

banks worn down by wind. West of Futawa, the wide, shallow valley has been divided by ranges of grassy hills until one can no longer find its original course. Such stable dunes, and every once in a while a live dune, remind one that this landscape has been formed just as much by wind as by water. Tanout town, high in the midst of rocky laterite hills, lies on a watershed where much less defined archaic water courses “flow” east toward Lake Chad. West of town, the çengi flow west, starting in the south as Annouer, which flows into Tarka, and in the north as Anekr, which joins two çengi east of Tanout to become the Takoukout-Gourbobo Çengol that flows into Eliko coming down from the north. Eliko and Tarka Çengi join east of Dakoro, to run west then south into the Rima River (Nigeria) that flows into the Sokoto and then into the Niger (see [Appended Map A](#), Figure 1.8).

With higher water tables, the çengi and ilaagi are usually lined with trees, mostly *Acacia* species, and *Balanites aegyptiaca* (*tanni*), in addition to the nearly ubiquitous *hanzahi* (or *hanza*, *Boscia senegalensis*).<sup>2</sup> Some çengi have thick undergrowth, but in areas more populated by (agro)pastoralists, the acacias and *tanne* spread tall over little undergrowth. This may be due to over-browsing, or, as some Woðaaɓe claim, to the manure from dry season camps that over-fertilizes the soil, making it too “hot” for young trees. Luggeji surround ponds or grow in vales with easier access to the water table; some preserve trees species that once grew more abundantly in the north (see Appendix C).

While the soil at the çengi bottoms consists either of sand, or the deep, dark gray mud-clay of ponds, the hills above them are composed of lighter colored, hardened clay dust, layered thinly or thickly with sand. North of Eliko Valley, a thin veneer of white sand and a quartz gravel covers the red clay of the hills. South of Eliko, black laterite thrusts up through the tops of the sandy, clay hills. Often named (e.g. Mai-Kalafo, Boðehwa, Mai-Cigifa), these summits present prominent landmarks.<sup>3</sup>

“Soft” grasses, *gene diime* (noble or genuine grass), grow in the wooded luggeji around ponds. Food plants also grow in the çengi bottoms and well-watered luggeji, such as *malohiya* (*Corchorus olitorius*), the common “green sauce” plant, and *tabaade* (*Gynandropsis gynandra*), an edible “spinach.” Prickly *kebbe* (*Cenchrus biflorus* <sup>4</sup>) dominates most hillsides, and in low, wetter places without trees, *kebbe* can grow very thick, and tall enough to hide smallstock. Although the dry burrs stick to and in everything from clothing and skin to the

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<sup>2</sup> Interestingly no *hanzaa* grow between *Ido-ga-rakumi*, *Batté* and *Tende*, and perhaps further west.

<sup>3</sup> *Delehanty* (1988:55-58) gives a more technical description of soil types north and south of Eliko.

<sup>4</sup> *Kebbe* (sing. hebbere) refers to the plant, and *sabeeji* (sing. sabeere) refers to the burr. The *Katsinen-ko'en* usually speak generally of “*kebbe*,” while the *Woðaaɓe* refer, in general, to “*sabeeji*.”

eyes of livestock, pastoralists value the green grass for cattle, and the seeds in the burrs nourish donkeys and horses throughout the year. Elders relate how their parents pounded and winnowed the tiny, black seeds from the burrs for famine food (see also Pedersen and Benjaminsen 2008:47). A few other grasses are almost as obnoxious as kebbe, especially the *selbe* (*Schoenefeldia gracilis*), whose sharp, barbed seeds cause mouth sores that prevent livestock from eating. Small broadleaf plants, such as *gadagiri* (either *Barleria hochstetteri*, or *Alysicarpus spp.*), grow under and between the grasses.

Acacias, *hanzahi* and *jigahi* (*Maerua crassifolia*) scatter across the hills and along the wadis that wind down into the valleys. Above the wadis and depressions, the trees usually grow only to bush size. The quickly growing *bambambe* (*Calatropis procera*) also proliferate, especially, it seems, in areas afflicted with localized drought, or in soil degraded by overgrazing and too much manure. When rain soaks the land well, *bambambe* tend to wither and die. Some regions are almost entirely populated with patches of softwood trees, *Commiphora africana* (*boḍaade*), *Euphorbia balsamifera* (*aguwoji* or *aliyaaji*), or *Leptadenia pyrotechnica* (*suwaleeji*).

Over and between the hills, bare patches of hard clay develop for one reason or another, sometimes, I have been told, because people have resided in one location for a long time. West of Aderbissinat, during the 2007 nduungu of lush pastures, we rode past barren hillsides that Daji believed to have been sites of ancient villages. Other bare places cover deep, extensive nests of large, long-legged ants that denude the surrounding ground. Abandoned nests sink as the tunnels below them collapse. Shallow depressions of hard clay collect a few inches of rainwater after a storm, from which people and livestock drink for a day or two. Vine plants with a sort of melon-squash, *gunaaru* (*Citrullus spp.*), or a smaller gourd-like fruit, *kotal* (*Cucumis sp.*), spread over these bare places. Mobile households also appreciate these clay flats for camping spots, clear of the prickly *sabeeji* and out of fire danger.





**Figure 5.4:** (Photo, ceeɗu, May 2006) Tuareg tents south of a large luggere.

The luggere surrounds a pond in Gourbobo Çengol, southeast of Boɗehwa laterite hill, in the background. In the foreground stand small bambambe and the remains of thick kebbe grass that grew during the very good 2005 nduungu.



**Figure 5.5:** (Photo, ceeɗu, May 2006) Just south of Siogari well, a small gazelle (center) leaps through tall, thick kebbe.

Foreground: leafless boɗaade; background: tanne and silluɗe trees, and hanzaaje bushes.





**Figure 5.6:** (Photo, dabbunde, December 2006) Tuareg tents shelter in the lee of a small luggere of acacia and tanne.

A line of trees that indicates a çengol. After the bad 2006 rainy season, the hills are almost barren of pasture. A jigahi, chewed by donkeys and camels, stands in the foreground.



**Figure 5.7:** (Photo, nduungu 2007) The northern rangeland west of Incera.

A storm builds in the northeast. Except for some bare patches, the pasture is filled with mature kebbe. Sheep and goats graze among acacias in the background.





**Figure 5.8:** (Photo, left, nduungu 2007) Gadagiri grows among young kebbe.

A piece of burnt kiln from ancient iron smelting rests beside the plant.

**Figure 5.9:** (Photo, bottom, nduungu 2007) A clay flat half filled with water from a recent storm.

Aguwoji, hanzaaje, bamambe and a boðaahi populate the slope behind the very shallow, very temporary pond.



## **Fields**

In the northern Damergou, Katsinen-ko'en and Tuareg agropastoralists clear (*feɗa*) fields from ladde on hill sides and tops. These sandy, wind-blown, but stable dunes may seem less fertile than valley bottoms,<sup>5</sup> but livestock would overrun fields placed there on their way to watering at ponds and wells. This practice constitutes a major difference between waynaaɓe and village fields, often cultivated in valley bottoms (see Figure 5.10, below). No fields, even villagers' fields, are fenced. Grain fields, which men intercrop with beans and *polle* (*Hibiscus sabdariffa*, red sorrel), are cleared completely of all grass, bushes and trees, except for an occasional shade tree—common practice among all cultivators this far north. Mai-Kalafo cultivators believe the euphorbia that dominated their ladde soaked up too much water. The clearing results, for much of the year, in a sandy desert over which wind drifts the sand; this cools the “hot” Damergou soil, Hausa cultivators tell me.

Fulɓe and Tuareg plant only calabash gardens in ɕengi bottoms, where the plants can access more water; and only these gardens are fenced, with hedges of cut, thorny branches and live euphorbia. A Katsinen-kejo woman showed me a former calabash garden at the edge of a large pond in Cingoragen Valley, which a Tuareg had given up planting. It was difficult to imagine how he would have prevented cattle herds trampling his vines no matter how thick his thorn fence.

The Katsinen-ko'en men clear fresh ladde a few meters “ahead” every other year or so to add virgin soil to their fields. They leave the same amount of land fallow “behind” their fields—the *maysoore* (pl. *maysooji*). Wives and daughters of cultivating families, if they have the time and inclination, cultivate in the maysoore behind their husband's or father's field, or maysoore might be given to a newcomer until he can clear a fresh field. The maysoore is not very fertile land, but the weeding should be less onerous as it has been cultivated for several years. The women do not seem to realize much harvest unless they are lucky with rain, and have time to weed, or can convince their sons to weed for them. The women seemed to earn more grain from threshing, than they did from their own parcels. Eventually new bushes and trees sprout in the fallow land; in the oldest maysoore land at Mai-Kalafo, tall trees shade a small luggere. Mobile cultivators camp in the maysoore while their livestock grazes on the remains of the grain stalks and bean vines.

The cultivators clear fields in different rectangular shapes; only the landscape, the fields already in place and a cultivator's supply of labor determine the borders of a new

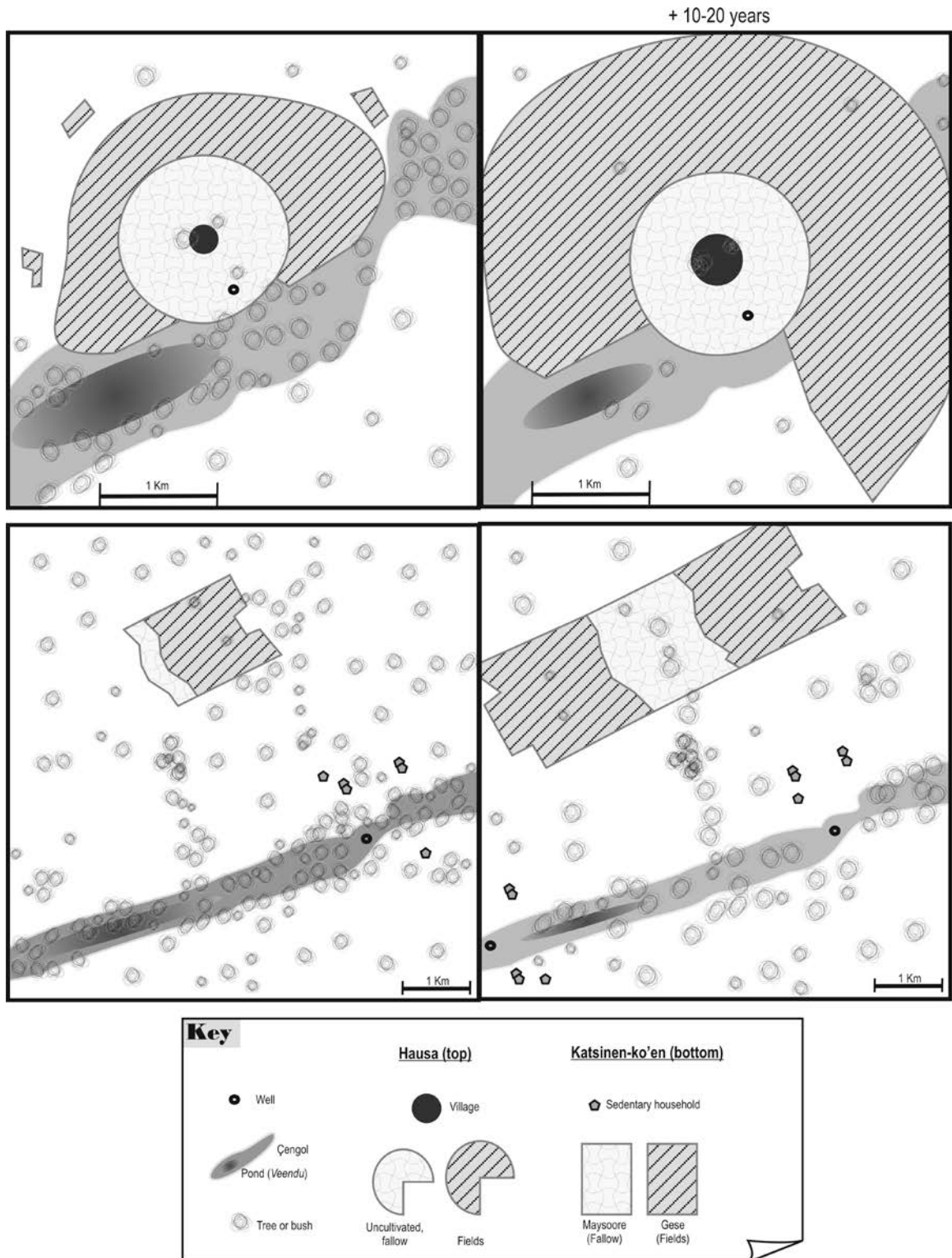
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<sup>5</sup> I never discussed soil quality with the cultivators.

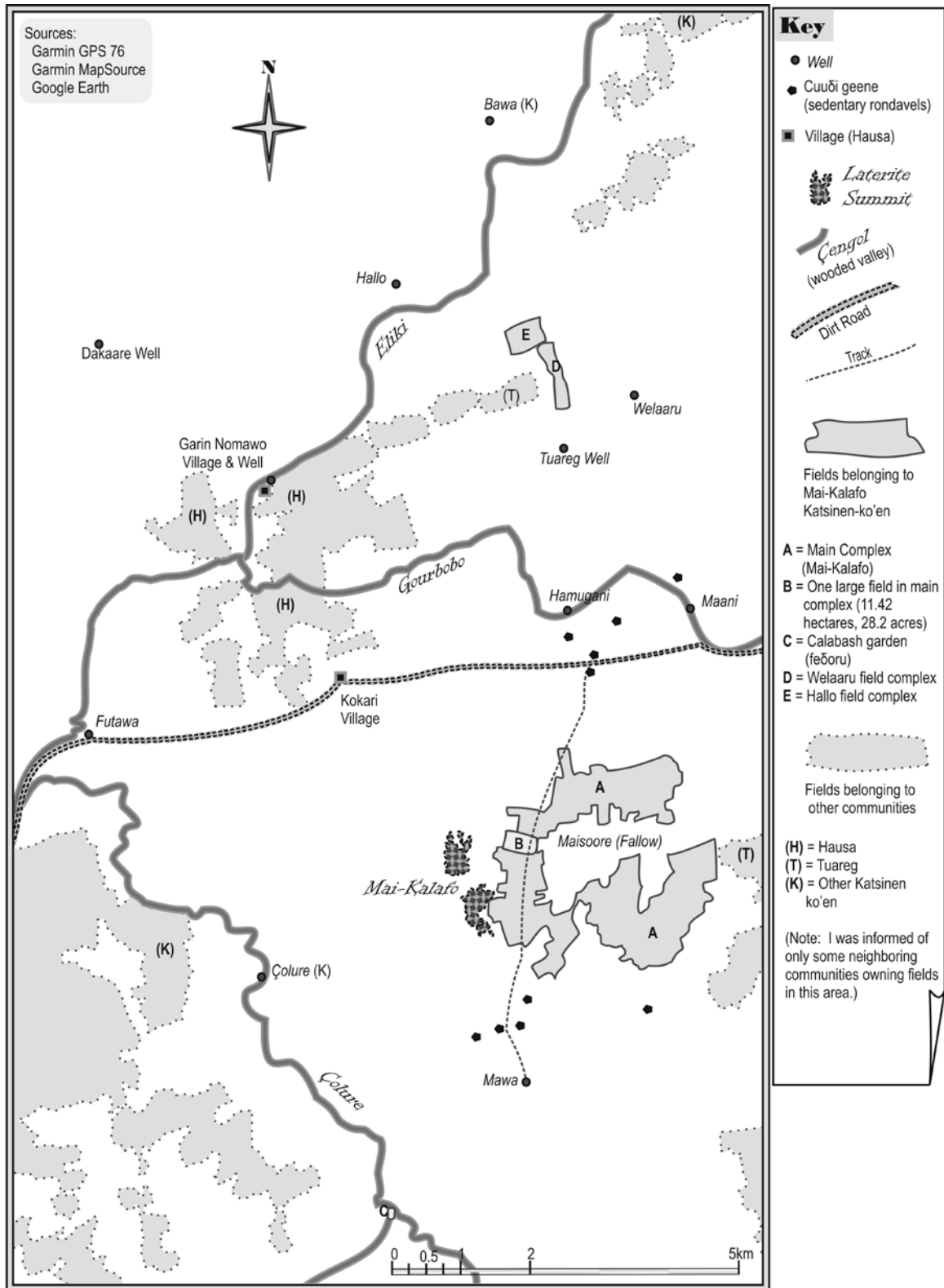
field. Daji, Manzo and I tracked three different fields in three different complexes, all belonging to cultivators from Mai-Kalafo (see Table 1.2). The largest belonged to the ardo and his youngest son and, as one of the original fields, is also one of the largest at 11.4 hectares. Another at the Welaaru complex, north of Hamugani, belonged to one of the ardo's nephews. A second field after his main field at Mai-Kalafo, also recently cleared, it covered only 3.1 hectares. Another of the ardo's nephews had been given space in the Bangaji complex where he and his sons cleared a very long, narrow field, covering 5.9 hectares. This was also a second field after their first at Mai-Kalafo. Almost everyone weeds with long handled hoes, the blade<sup>6</sup> of which, worked parallel with the ground, slides under the sand to cut the roots of unwanted plants. Only one man used a small plow that his camel pulled. Because this work is less onerous than plowing heavier soils in southern fields (where men bend over to chop the soil with picks), and weeds usually grow less thickly, especially in older fields, men can cultivate larger fields in the north. Grain is planted further apart in northern fields, however, generally yielding smaller harvests per hectare.

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<sup>6</sup> Similar to a "duck foot sweep cultivator blade" but larger, and with rounder corners.



**Figure 5.10:** Showing the layout and growth of Katsinen-ko'en fields (bottom) vs. Hausa fields (top figures reference Delehanty 1988:266) over ten to twenty years.



**Figure 5.11:** Map showing the relationship of the Mai-Kalafo fields to cuuḍi, other fields and geographic features.

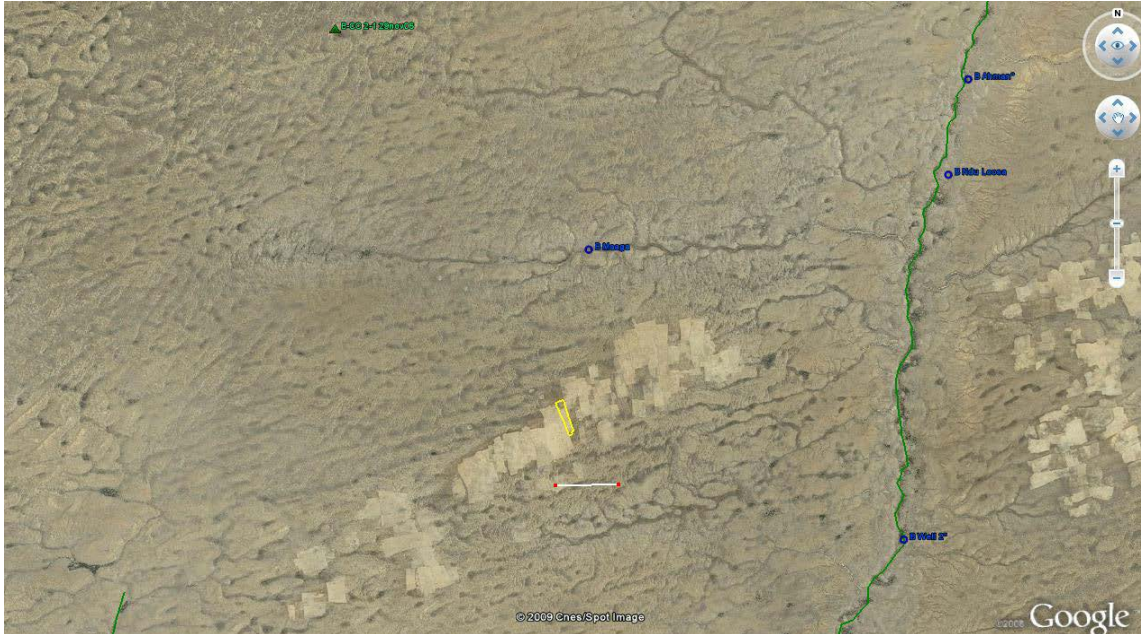
The Futawa fields (to the west, in Cingoragen Çengol) are not shown.





**Figure 5.12:** A satellite photograph of the fields at Bangaji during ceeḍu (from the view of some early ponds, possibly at the very beginning of nduungu 2008).

The photo shows the various rectangular shapes of the different fields, some seeming to overlap others. The yellow border outlines a long narrow field Daji tracked with my GPS receiver in 2006; one can see how the field has probably been reduced in two years. The white line is one kilometer in length. Source for both photos: Google Earth, copyright Cnes/Spot Image 2009.



**Figure 5.13:** A wider view of the Bangaji fields showing that they lie between çengi and ilaagi, actually at the top of one of the highest hills in the area.

The green line marks Cingoragen Çengol. The camp at the top of the photo, marked November 29, 2006, belongs to the owner of the outlined field. The household watered at Maaga well, marked in blue, between the camp and the field.





**Figure 5.14:** (Photo, October 2007) Gamba (*Andropogon gayanus*) grows in a Mai-Kalafo field. Suwaleeji, used in well construction and matting, grows in the background.



**Figure 5.15:** (Photo October 2007) Wild gunaaaji grow among cultivated beans in another field.



### ***Exploitation of Wild Plants: Construction, Fire and Food***

Besides graze and browse for livestock, nearly all of the trees and bushes, as well as some of the grasses and leaf plants, provide useful things for the people of the area. Dead branches and trunks of hardwoods become good firewood and charcoal,<sup>7</sup> though women must usually resort to the softer, smokier, but more common, bambambe and boḍaade for their cooking fires. Calabash gardeners collect or cut thorny branches from the acacias and tanne and weave them through plantings of aguwoji<sup>8</sup> to fence their gardens (*peḍi*, sing. *feḍoru*). The men fence rondavels with trunks and large branches from softwood trees, and use various types of limbs and trunks to build the rondavels themselves. Women use bambambe branches and small trunks to construct their denkiji and beds, and dig up long, lateral roots of *Acacia tortilis* (*silluki*) for tent poles. Men use tanne wood for fabrications, such as camel saddles, and women cut long, thin straight dornaaji branches to weave with rawhide into mats for their denkiji. The women also use the very thin branches of the suwaleeji, or the long, thick stems of *afasoji*<sup>9</sup> to weave into cheese strainers, and for more permanent denkiji in *cuḍi geene*. Women and men weave mats of *balli*, fronds from the dum palm, which they use for their beds, for sitting on the ground, and to cover their tents, but they buy these fronds, which come from further south, in the market.

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<sup>7</sup> While green branches are cut for fabrication, posts, etc., the Katsinen-ko'en rarely cut green wood for firewood, except wood from trees cut out of the fields.

<sup>8</sup> The euphorbia is rooted from cuttings planted before the start of the rainy season.

<sup>9</sup> I could not find the Latin name for this perennial grass. It is either an *Andropogon* or *Cymbopogon*.



**Figure 5.16:** (Photo, March 2007) A man has cut forked hardwood limbs and some flexible branches, tied with bark.

He will lash the wood together with rawhide (which he begged and pilfered from his wife) into a camel saddle. (See finished saddle in Chapter 9.)



**Figure 5.17:** (Photo, March 2007) Bundles of dornaaji branches, bound in order to straighten them, gathered by women who will lash them into mats for a denki, or sell them.





**Figure 5.18:** (Photo, February 2007) A calabash garden.

It is thickly fenced with thorny acacia branches (background) and boḍaade and hanzaaje branches (foreground). A tanne tree (center) shades a resting area and provides much fruit.



**Figure 5.19:** (Photo) Two young women weave balli in a suudu genee.

The woman on the left works a frond, kept moist in plastic wrap, into a calabash cover (*mbedu*). Her friend weaves a long strip that later will be sewn into a mat, such as that which upon the women sit. The grass wall of the suudu is woven (by men) from teeberere.

In good rainy seasons, women gather tabaade, and leaves from the small terakas tree (*Grewia spp.*) and some malohiya leaves to dry and store for sauce. Village women collect large amounts of malohiya, which grows especially well in wetter clay soils further south, to dry and sell in the marketplaces. Most Katsinen-ko'en households buy an average of two tiyas a week. When the price almost tripled after the bad rainy season of 2006, some women resorted to leaves from jigahi trees, and bean leaves from their fields. The aguwoji sprout leaves in koorsol, and some women cook them into spinach. The peppery odor of the euphorbia, however, deters many people from eating the leaves. Men rarely like to eat spinach, but the different leaves probably provide women with needed iron and vitamins.

Gunaaji vines extend everywhere across clay flats. Cultivators let them grow among the grain in their fields, and pastoralists pick the fruits on the rangeland. Women cook the blandly "sweet" variety (*C. lanatus*) into sauce for nyiiri, while the bitter variety (*C. colocynthis*), along with kotal, is fed to livestock. Gunaaji grow through çavol, with their fruits beginning to ripen after the rains stop. Filled with water, they allow smallstock to go for days in çavol dabbunde without drinking. In some drought years, with just one good storm gunaaji can proliferate, covering barren ground where their vines spread unimpeded, and the fruits, dried for storage, provide food when there is no grain.

Several trees produce fruit, but the Katsinen-ko'en only eat tanne (desert date) and jaaḡi fruits (*Ziziphus mucronata*, jujube) with some regularity. Usually only children search out other fruits (see Appendix C, Plants). One woman stored one or two grain sacks full of jaaḡi fruit gathered from her husband's calabash garden, perhaps for sale. Hanzahi fruit kernels are well-known as a "famine food," but require extensive preparation to leech out the bitter, possibly toxic elements (Kim et al 1997). Especially adept at cooking hanzahi kernels, Tuareg women gather the seeds during even average rainy seasons. When cooked with plenty of oil and spices, the leached, pounded and boiled seeds taste something like boiled beans. Besides gunaaji, women and children also collect acacia seed pods for livestock fodder, and many herbal medicines (*maagani*) are made from local vegetation. I often met one woman, a *bokaajo* (traditional healer, pl. *boka'en*), out collecting barks and roots which she pounded into powders. Most people know healing properties of some barks and leaves, however, besides specialized boka'en of all ethnicities, the Woḡaaḡe know far more about herbal medicines (and magical charms) than the average Katsinen-kejo, who might go to a Boḡaaḡo for maagani.

## SEASONS AND MOBILITY PATTERNS

Different types of households—from those with less livestock and less mobility to those with more livestock and more mobility—follow different mobility patterns during different years. Figure 5.3, below, shows the seasonal distribution of mobility for households segregated into three rough groupings: cultivating households with some mobility, cultivating households with more mobility and exclusively pastoralist households. Cultivating households, tied to their fields, tend to move less than exclusive pastoralists. Some Mai-Kalafo households move only reluctantly away from their home wells. Other cultivating households, related to the Siogari pastoralists, joined that group in 2007 on their northward migration into Aderbissinat département. As mentioned above, during an iffy *koorsol*, cultivating households may split household and herd, but once rain has fallen on the field, the household will join together again to cultivate. During drought years, households may also split household and herd, to leave smallstock in the north with one wife, while the husband and other wife take the cattle south into a refuge pasture. During a drought year such as 2004-05, even sedentary households trek south into refuge pastures, leaving only the *arḏo*<sup>10</sup> and perhaps one or two others.

The maps of Figures 5.21 and 5.22, following the mobility chart (Figure 5.20), show the movements for four Katsinen-ko'en households and two Woḏaaḓe households. See also the larger [Appended Map B](#) that shows the full range of the Gojen-ko'en migrations and placements of Katsinen-ko'en and Gojen-ko'en 2004-05 refuge pastures. Note how constricted the movements of the less mobile Katsinen-kejo cousin (purple) are compared to his more mobile cousin (blue). The less mobile cousin cultivates at Mai-Kalafo and Welaaru. The more mobile cousin cultivates at Mai-Kalafo and Bangaji (the most northerly of the field complexes). The father of the exclusive pastoralist Katsinen-ko'en family also follows a more restricted migration pattern as his eldest wife moves her camp with difficulty. In 2007, his son joined the largest group of the Siogari, Bangaji and Veḏo Katsinen-ko'en, who migrated north to pastures east of Aderbissinat. His brother, father and two cattle traders stayed near Incera. The Siogari households usually spend *ceeḏu* near or just north of Siogari Well. In 2004, most of the Siogari and Mai-Kalafo households trekked south to Yagaji and Ḑan Barko. The Siogari father left his oldest wife and adult grandson with the smallstock at Siogari. Most of the Gojen-ko'en prefer to spend *ceeḏu* at

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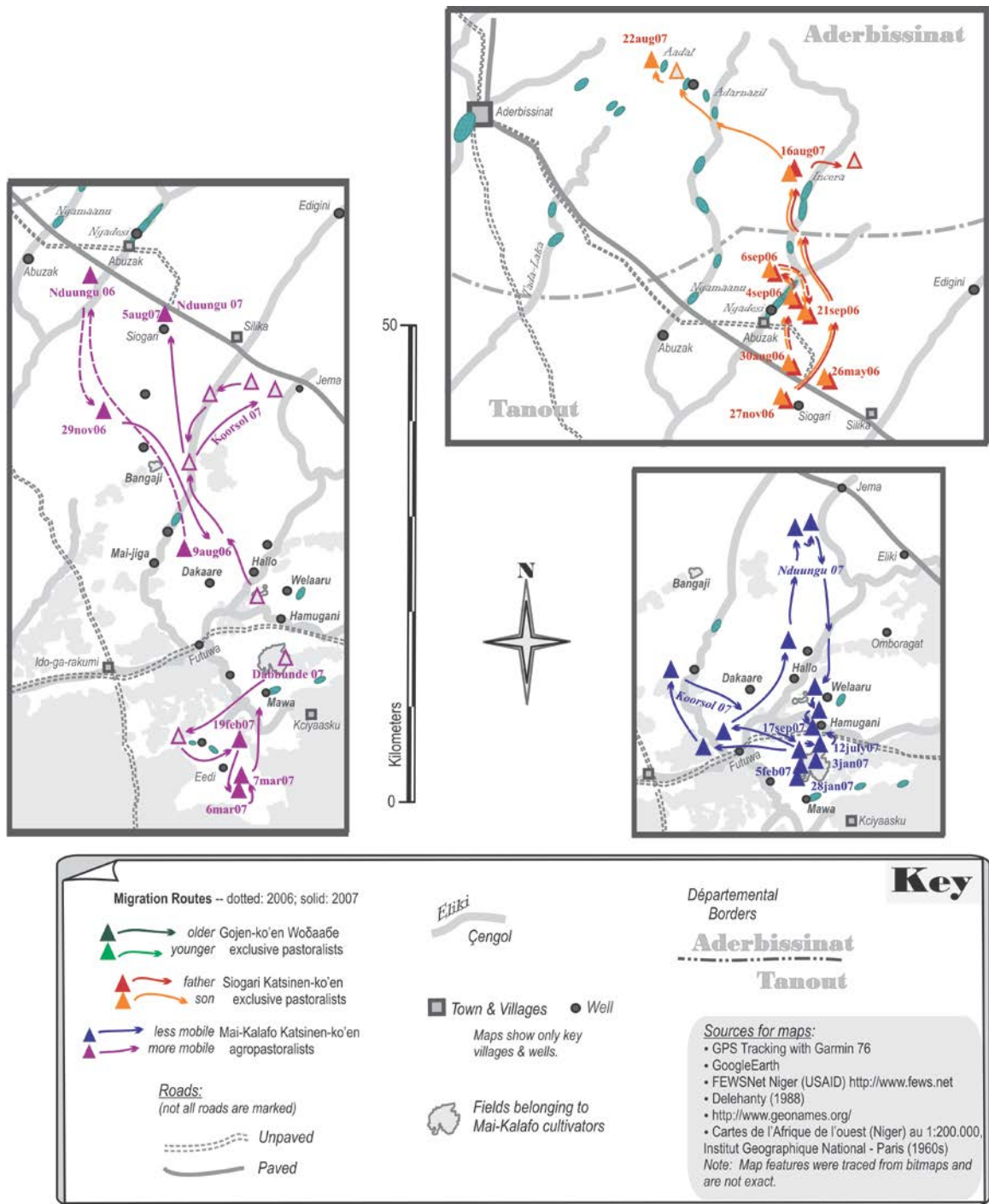
<sup>10</sup> *In such a situation the arḏo truly becomes the administrative “chef” (chief) who maintains the residence locale of his “tribu” rather than leading the migration in the true meaning of arḏo.*

Surutu, or Garari where grain is cheaper, nduungu north of Aderbissinat, and çavol near Edigini where one of the elders owns a well. They often must vary this pattern, however.

Note that seasonal migrations take most of the mobile households across the borders of communes rurales, where householders should vote for their local representatives (conseillers). For much of the year, many Woðaaɓe live outside the commune, and perhaps even the département, where they, through their arɗo'en, are registered. (The commune borders in this map were outlined from the canton borders on maps drawn about 1988, and only suggest current borders.)



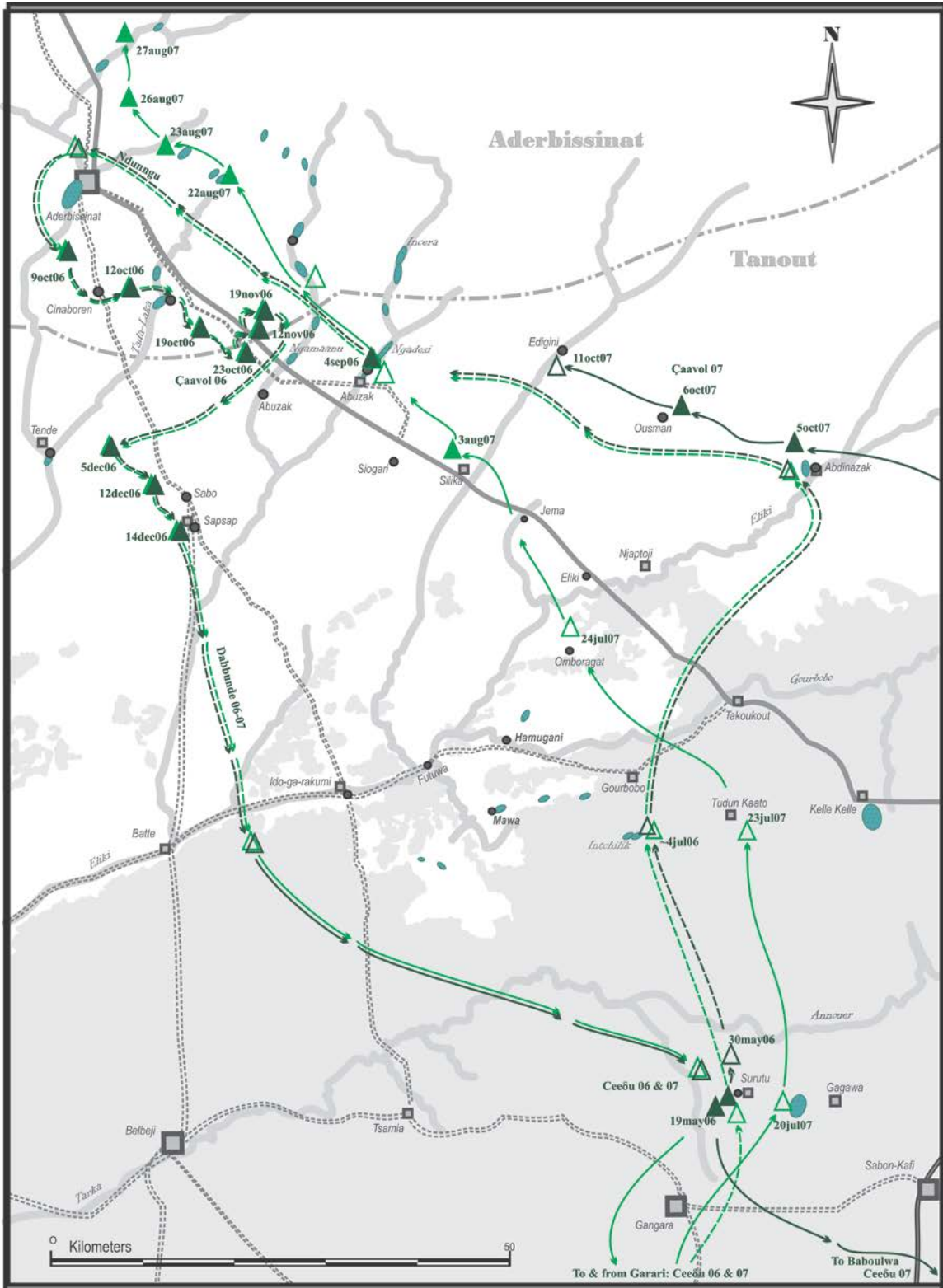




**Figure 5.21:** Map showing seasonal migrations from Koorsol 2006 through Çavol 2007 of four Katsinen-ko'en households (exclusive pastoralists, father and son; agropastoralists, cousins).

The key above refers to both maps, as well as the [Appended Migration Map](#) (Map B), which shows the all migration patterns together, including the entire routes of the Gojen-ko'en, plus refuge areas for the drought year of 2004-05.





**Figure 5.22:** Map showing seasonal migrations from Koorsol 2006 through Çavol 2007 of two exclusive pastoralist Gojen-ko'en households (brothers).



**Figure 5.23:** (Photo, koorsol, May 2006) Pasture south of Gourbobo with thick kebbe grass left from the good year of 2005. Manzo and Daji ride in the right center of the photo.



**Figure 5.24:** (Photo, nduungu, September 2006) A storm skirts the range north of Ngadesi (Abuzak) as livestock graze on very short grass in the background.

## **A TIMELINE OF DISEQUILIBRIUM: MICROCLIMATES AND MOBILITY**

### ***Koorsol and Nduungu 2006: Frustration and Disappointment***

When I arrived at Tanout in April, 2006, signs of the coming rainy season—smells of wet soil and grass—had already arrived on the changing wind. One day the wind would gust from the southwest, on another it swept hot and dusty again from the northeast, and the next would switch back to bring us fresh aromas of southern storms. We heard news of rain in Niamey. In May, at my Woḍaaḅe family's camp near Surutu, a strong storm wind passed through, with thunder overhead but no rain, a premonition of the fickle winds that would rage and bluster for the next two and a half months. The year before, good rains commenced in May; a blessing from God, everyone said, a relief from the drought of 2004. This year, from the end of May through August, hints of nduungu teased us: sweet winds, lightning in southern clouds, and distant thunder. Thunderclouds would build in our west, then terrifically dusty, southern gales dissolved them away. Some storms showered narrow stretches of ground, but in most places tremendous winds carried only a few drops of rain. Sometimes, the setting sun shone under clouds through the sparkling darkness of rain; more often, dust hid the sky.

In July, people began to worry. The Katsinen-ko'en had stayed around their home wells as last year's nduungu provided them with abundant grain and grass. That grass began to disappear, though, eaten and trampled by the livestock, and blown away by the windstorms. In some places around the département people had sown grain, but only a few villages just northwest of Tanout would harvest this first sowing. Ponds south of Gourbobobo filled with water from a storm, and the Gojen-ko'en, with other Woḍaaḅe, migrated here from Garari and Surutu, their usual ceeḍu pastures (See Figure 5.22). Near the end of July, our Dagara hosts in Gourbobobo no longer disguised their concern. In sharp contrast to their optimism of a few weeks before—"Nduungu will come; it's just not time yet"—now one woman asked, "How can we stay in this town with no water and no food?" She remembered ceeḍu 2004-5, when some people went slightly mad with hunger and anxiety.

At the end of July, the Mai-Kalafo arḍo's sister met us in Gourbobobo and said that the small Siogari ponds and Mawa pond had water. Enough rain fell on her brothers' southern Mai-Kalafo fields for sowing, but wind blew the rain away from the northern fields. Her elder son took their cattle north, to where rain had fallen. "As long as we don't lose the cattle we'll be okay. We can sell cattle to buy grain." At Hamugani, the men told us that the Welaaru fields had received enough rain for sowing, and they had started weeding. Grass



had begun to grow in the *çengol* near the well, but stopped at about an inch tall, waiting for more rain. On July 31<sup>st</sup>, Mai-Kalafo finally received enough rain to finish sowing all of the fields. The next week we heard that Tanout town still had not received much rain. The season had come very late, and the rainstorms did not last long enough to provide sufficient water to most fields or much of the rangeland. Drought especially affected an east-west band of rangeland from just north of Tanout town to just south of Abuzak Hamlet.

Only cultivators who were fortunate enough to sow successfully early in July, such as a few men in the southern end of the Mai-Kalafo complex, those at Omboragat, and some villagers northeast of Tanout, received good harvests. In the northern Mai-Kalafo fields, millet plants produced heads with grains sprinkled thinly through the chaff. Then mice chewed on those grains and ate any nascent bean pods. The rains had been too weak to kill mice breeding in their burrows, and in *çavol* their population exploded. Mice ran over us all night when we slept outside on the ground. They ate the grass seed, and their urine and feces ruined much of the pasture.

In the rangeland, storms arrived as late as they had in the cultivation zone. The wind-driven rain flowed off the dry ground into ponds without soaking the soil enough for good grass. Though some places in Abuzak *Çengol* filled with water, one pond merging into another, in its upper northeast end, I saw young *Acacia nilotica* dying for lack of water. Where grass grew, it produced seed heads at about four inches tall, then dried.

The Gojen-ko'en spent the beginning of *nduungu* at Abdinazak, southeast of Njaptoji (see Figure 5.22). Though the pond filled, no more rain fell and little grass grew. In the beginning of September, most of the families migrated north to Ngadesi pond, neighboring the Siogari Katsinen-ko'en. After a week they moved further north to Ngamaanu pond in the northern branch of Abuzak *Çengol*, and then northeast attempting to migrate into their habitual rainy season pastures north of Aderbissinat. The Siogari Katsinen-ko'en moved their camps from one side of Abuzak *Çengol* to the other, never completely satisfied with the pasture. The patchiness of the range concentrated waynaaḡe—Fulḡe and Tuareg—into a few adequate pastures. The pastoralists I traveled with camped with many other pastoralists of other ethnicities and lineages in a small area from the two branches of the Abuzak *Çengol* in the south to Aderbissinat in the northwest. During *nduungu* and *çavol*, families had trouble finding places to camp with enough grass for the livestock, but also not too much manure and litter from previous camps.<sup>11</sup> *Nduungu* wound down in the middle of

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<sup>11</sup> *The Woḡaaḡe camp very reluctantly in site recently occupied; this constitutes one of their taboos.*

September. The Siogari and Veðo Katsinen-ko'en moved back to the southeastern banks Abuzak Çengol, and then returned to Siogari for ceeðu.



**Figure 5.25:** (Photo nduungu, September 2006) The rangeland east of Abuzak hamlet with Ngadesi pond among the trees of the luggere in the background.



**Figure 5.26:** (Photo nduungu, September 2006) Migration across Abuzak Çengol. The husband has marked the new campsite with his gear hanging in a silluki (*Acacia tortilis*).

### ***Çavol, Dabbunde and Ceeðu 2006-2007: Livestock Hunger***

Though the Gojen-ko'en found grass north of Aderbissinat, livestock of a multitude of pastoralists soon depleted the pasture. The Gojen-ko'en quickly returned south through very sparse grass, and spent çavol watering at Ngamaanu pond and Abuzak well. The cattle grazed restlessly, unhappy with pasture damaged by mice. The hungry goats and ewes aborted their young, or bore them prematurely, too weak to survive. When visiting relatives told the Gojen-ko'en that Ader had much better pasture, a few households trekked west where they would stay for over a year. Most men feared losing animals, however; they argued that they could not control their livestock in unfamiliar rangeland. Dabbunde arrive quite early, in the beginning of November, and the weather turned bitterly cold. Daji's brothers traveled with other households a short distance west to hills overlooking Tende where they watered at the pond. The pasture disappointed them and they headed south to a well near Ido-ga-rakumi. They eventually trekked far south, leaving Tanout département for ceeðu, koorsool and, for half the lineage, most of nduungu (green routes on Migration Maps).

In dabbunde (November-December), Daji and I toured among families whom I had interviewed during koorsool and nduungu. We tried to find bushes, where we slept, that would break the harsh wind, that raced across the hills and seemed to drop night temperatures ten degrees from somewhere in the 50s to 40s Fahrenheit. We found the exclusive pastoralist Katsinen-ko'en camped around Siogari where they would spend the rest of ceeðu. Like those of the Gojen-ko'en, many of their lambs and kids that survived birth died from cold and hunger, unable to suckle enough milk from their hungry mothers.

The Katsinen-ko'en at Mai-Kalafo harvested not only the scant grain their fields produced, but also the grain stalks, which they stacked in the fields against the day when the grass would disappear and they would have to find something to feed their livestock. The women harvested bean leaves to use for sauce; the malohiya had not grown well that year and the market price doubled, then tripled over ceeðu. No one harvested beans. The Welaaru fields had received more rain, but the men realized too late that they should have concentrated more on weeding the northern fields. The majority of households harvested enough grain for an average of two to three months. Only some households with fields in the southern part of the Mai-Kalafo complex were able to combine this years' grain with that remaining from 2005 to last the entire year. Pasture south of the field complex also had better grass. At Futawa, cultivators harvested even less those at Mai-Kalafo. The arðo

and his wife told us they had harvested enough millet "for çavol," perhaps one or two months. Fields west of Ido, though, had had a much better season. There cultivators energetically tried to bring in their grain and beans before livestock descended into the cultivation zone. The early cold may have helped the beans ripen in these western fields. On our way to Batte, Daji and I spent the night near some Katsinen-ko'en who brought us, besides bowls of suutam, three large dishes of boiled beans with butter.

The hot season of 2007 seemed to begin in early February, as it would in an "average" year, but then the cold returned with the dusty east wind that prevented the sun from warming the air. The days gradually grew warmer throughout the month, but the wind and haze kept the nights very cool. The long cold season, almost two months longer than what seemed normal, defied conventional wisdom. Over the years, I have heard various people say that a nduungu with plenty of good rain will produced a very cold dabbunde, or that a cold dabbunde predicts a good nduungu. One premise of conventional wisdom bore true: without good grass cover the dust and haze of dabbunde seemed worse than normal.





**Figure 5.27:** (Photo, dabbunde, November 2006) A recent campsite (vindi) in the range north of Abuzak well.

The dead wood in between the Acacia bushes backed the suudu and the cattle rested in the right foreground, marked by their manure. Note the lack of grass and foliage.



**Figure 5.28:** (Photo, November 2006) A small heap of sorghum and millet heads in this field at Bangaji waits to be loaded into the granary.

In February and March we found some Mai-Kalafo Katsinen-ko'en households ten or so kilometers south of the field complex. A family who had camped south of Siogari during dabbunde moved down to Hamugani and then, with brothers' households, south around Mai-Cigifa to Eheddi well (blue on Figure 5.21). Other households (affines) camped near Wodaa well. Mice had ruined the pasture here, however, and the cattle wanted to return north. Other households stayed on hills north of Gourbobo Çengol, even with very little pasture. One Mai-Kalafo sedentary household trekked, with their two young children, smallstock and donkeys, to Ðan Barko, west of Yagaji. The wife took her suudu daagi to house the small family, and her husband pulled village well water for cash.

Finally in mid-March the days began to turn hot, until by the end of the month we all suffered from the change in the weather. The Katsinen-ko'en, my assistants and I all complained of *zahi*, a general term, literally meaning heat in Hausa, that covers everything from sunstroke to indigestion. We traveled to Futawa to begin interviews among households camped there. Little pasture remained near the camps, and, with few cattle watering at the well, the men watered only in the morning; the horses could neither eat well, nor drink twice a day as they should in the heat. Fearing for their health, I returned to Tanout with them. On March 31<sup>st</sup>, Daji heard in Tanout market that rain had recently fallen in a large area from south of Belbeji north to Sabon Kafi, leaving puddles on the ground. April first, was the last morning that turned cool about 3:00 a.m. Daji headed south to his family at Garari, and Manzo headed home to ready his fields for planting.

### ***Koorsol 2007: Teasing Rains***

In April we heard more news of rain in different locations around the département. Light rains fell in Tanout town and a few nearby villages received enough rain to sow their fields. South of Tanout département, near Garari, Gaowuna and Babul where the three different Gojen-ko'en groups spent ceeðu, rain began to fill the ponds and cultivators sowed their fields. In Tanout, the wind "danced," coming from the south or north or west, then back from the east again. Finally on April 24<sup>th</sup> the wind seemed to turn for good to blow toward the east. In May, on my way to Takoukout, I saw light green grass in the two valleys west of Tanout. Good rain had fallen in that area in early May, enough to fill the ponds and allow farmers there to sow their fields. Throughout June rain fell once heavily in Tanout and lightly a few more times. Some people planted after the one heavy rain. Very little grass grew in a vast east-west swath, however, from north of Tanout town to Bakin Birgi. I could find neither new green grass nor dried hay for sale in Tanout and took the horses up

to Veli's camp at Sabon Gari north of Tanout town where some pasture had begun to grow. On the first of July, the wind switched suddenly to blow furiously from the northwest for four days. It dried and buried some of the new grass and millet.

***Nduungu and Çavol, 2007: Beautiful Rangeland, Ambivalent Fields***

In Tanout market, we heard that on July 6<sup>th</sup>, a huge storm dumped rain on Silika, Njaptoji, Siogari, Eliko and Haydo. This became the "Juma'a (Friday) Storm." Water flowed in the wadis so strongly that it killed livestock. This storm, another about a month before, and other northerly storms started the northern pastures growing well. Between Tanout and Bakin Birji, however, only some fields sprouted grain. Moreover, in the barren band about a hundred kilometers wide across the département, whatever little grass had grown the previous nduungu had been grazed or raked into bales to feed village animals, or to sell in marketplaces, and now no new grass grew. This seemed very strange to many of us as grass usually grows before grain. Some of us speculated that raking the grass removed the seed, though others rejected this explanation. Eventually grass would grow, but now Woðaaße, including the Gojen-ko'en, became trapped in the southern pastures where they had spent ceeðu. The Gojen-ko'en avoided conflict with cultivators, though some households were refused well water (the livestock watered at ponds). Other Fulóe instigated or were caught in fights; at least one resulted in deaths. As they grew desperate, some Woðaaße literally ran their herds across the stretch of desert, "throwing away" (*hiibini*) sick and starving cattle along the way or selling them for a pittance to any butcher they could find (e.g. 5000fCFA [\$10] for a cow). Even after they reached the well-watered, grassy rangeland, other cattle died, too weak from hunger, or from eating dirt, to survive.

The Gojen-ko'en waited. Daji's group came north from Garari to a large luggere between Gagawa and Surutu, where they found a little grass. They sent a scout north to make certain of the rumored good rangeland pasture. He made the return trip overnight and the next day at Gagawa market, the men bought grain for their cattle so that they could make the run over the barren ground. They moved early the next morning to Tudun Kaato, where some men bought empty granaries to feed the old stalks and grass to their cattle. The next morning they set off again, stopping only when they reached pasture near Omboragat. Over the next weeks, they made their way more slowly north, up into the Abuzak Çengol and finally to çengi north of Aderbissinat. The rest of the Gojen-ko'en gathered southeast of Bakin Birji where one group had spent ceeðu. They waited until grass grew to the northeast and made their way slowly and carefully in a long curving arc through

Goure département, and back west into Tanout. Nduungu was over and the grass dry by the time they reached Abdinazak. The two groups finally joined at the end of çavol when this group moved north to their lineage well near Edigini, and the Daji's group came south from Aderbissinat.<sup>12</sup>

When I visited Mai-Kalafo in mid-July, I learned that after a largely unsuccessful planting a month before, mobile households had begun to migrate west and north. Having fed their cattle all the stored stalks, millet chaff that men and women collected from threshing grounds, thatching from some granary roofs, and purchased bran and grain, they had no fodder left. Some households migrated west of Futawa, returned just before the torrential Juma'a Storm (which did not reach Mai-Kalafo), then headed north. The purple symbols on Figure 5.21 show one household's migration west and return, after which the household split. One wife remained near the Mai-Kalafo fields with her married son, while her husband and co-wife took the livestock north to pastures and ponds west of Jema. Other men with two wives split their households in the same way. One extended family sent their cattle north to Veðo with three young, unmarried men who joined relatives among the Siogari and Veðo Katsinen-ko'en until rain fell at Mai-Kalafo. Sedentary elders sent their cattle north with mobile sons. Only a few cattle herds, of households reluctant to leave their fields, remained.

At the arðo's house, we watched the eastern horizon every afternoon and evening for a week as storms towered in the east and then either dissolved or drifted north or south of us. The new grass and millet sprouts gradually dried and the wind either blew them away or buried them. Again the Welaaru fields and the very southern fields (and oddly the most northerly field) in the Mai-Kalafo complex received early rain and grew well. Back in Tanout town, at the end of July, we heard no news of rain in Sabon Gari and I began to fear for my horses. Finally, almost at the end of July, three large storms converged on Tanout from the north and the south. While Daji and I waited in Takoukout for Veli to bring our mounts, a huge storm flooded the market, and the compound where we stayed became a pond. These storms also allowed the Mai-Kalafo cultivators to resow their fields.

In the rangeland we traveled over land transformed from desert to beautiful, grassy steppe, lined with green, watered-filled valleys. Storms rained around or on us. We found two Mai-Kalafo households north of Silika (blue on Figure 5.21), not far from the Gojen-

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<sup>12</sup> *In 2009-10, after a nduungu with very little rain, they never left the area between Aderbissinat and Edigini, as they found no better pasture further south. They lost much livestock.*

ko'en group on their way north (light green on Figure 5.22), two Silika households belonging to cattle traders south of Incera, then a large group of Silika, Veḍo and Bangaji exclusive pastoralists and agropastoralists on hills east of the long Incera ponds (orange on Figure 5.21). The latter (like the Gojen-ko'en) were chasing nduungu, migrating from young, green grass to young, green grass. Our elder host remained near Incera with his cultivator son, but we followed his nephew and a few others who migrated north to join the elder's son east of Aderbissinat (light orange on Figure 5.21). Milk was so plentiful that we drank calabashes of fresh milk, and suutam contained just enough sobbal in the buttermilk to call it suutam. Women spent most of every other day or so gathering tabaade, terakas and malohiya in the luggeji. They had not been able to find much of these leaves last year. A few lame sheep and goats gave the only sadness to the camps; they had been burnt in night fires when the herders tried to warm them during the first cold storms.





**Figure 5.29:** (Photo, nduungu 2007) Carcasses of cattle that died near Abuzak hamlet on their way into the northern rangelands rot in the growing grass.



**Figure 5.30:** (Photo, nduungu 2007) The herd of an exclusively pastoral household moves north to east of Aderbissinat.





**Figure 5.31:** (Photo, August 2007) A satisfied bull chews his cud in tall kebbe on a hill above Incera.



**Figure 5.32:** (Photo, August 2007) Terakas leaves dry on a mat, and cheese dries on a high rack outside a suudu at Incera. An aguwa bush shades the suudu.



On a trip, by truck, from Aderbissinat to Tanout we saw that in areas south of Abuzak the rain seemed to have quit early, experiencing a mid-season *koorsol*. The grass had not grown as well and was drier than in northern pastures. In Mai-Kalafo, though storms had finally reached the fields, in the middle of September they had almost given out, with only brief and light scattered showers. The day I arrived at Hamugani, just before the start of *Sumaayru*, the men prepared a *sadaka* to keep birds out of their fields. They collected donations of eight chickens and headed through the thick *kebbe* up to *Welaaru* to hold the ceremony. The grass had grown 18 to 24 inches, and was beginning to dry, especially the *kebbe* whose burrs inhibited travel anywhere until the men hoed paths between the *cuuḍi*.

The small millet in the center fields at Mai-Kalafo was red and weak. “*Ndiyam nanngi ndi, ammaa ḍam yofe*”—too much “water caught it, but it will let go” and the millet grow again, the *arḍo*’s son told me. As in the northern range, the ground here was still wet to his shoulder, he added, but Mai-Kalafo never received the strong rains that Tanout and *Gourbobobo* had. The ponds, however, were fuller than last year; and *sabeeji* burrs irritated everyone. Then a plague (*masifa*) of tiny, stinging caterpillars worried us more than the *sabeeji*. While we dealt with the hunger and thirst of *Sumaayru*, they invaded much of Niger. Borne by the wind on silken threads, millions the worms infested huts, awnings and tents. In the *luggeji*, they prevented the women from gathering sauce and spinach leaves.

I headed north to meet the other half of the *Gojen-ko’en* west of *Abdinazak* as they returned from their long trek. The pasture here appeared to have received less than half the rain that had fallen further north, but the caterpillar plague finally ended. Back at Mai-Kalafo, most of the cattle-herding households returned with their livestock and the men worked in the fields while the children herded nearby. *Suutam* once again contained plenty of milk. In the center fields, where flooding had weakened the millet, the rains stopped too early and the stalks began to dry before the heads could produce grain. Locusts damaged much of the millet, even though the agriculture extension agent, who came from Tanout to assess the situation, had sent a plane to spray the fields. The heads contained half-eaten grain, from which the women could not remove the bran without pounding the grain to flour. This “whole grain” millet flour would make very bitter *suutam* or *nyiiri*. The locusts had not damaged the sorghum, beans or *polle*, however. Many fields, especially those in the southern half of the Mai-Kalafo complex, produced a bounty of these crops, as well as some millet. *Gunaaji* and thatching grasses grew in and around the fields. A few men grew calabashes and a few watermelons in gardens or in their fields. Some sedentary households

grew gourds on the roofs of their rondavels (see photo, Figure 8.19). The women gathered tabaade and sauce leaves, and we ate fresh string beans from the fields, as well as spinach and guna with our nyiiri.

The new agricultural year did not recompense everyone for the previous year, but most livestock recovered from a long year of hunger and this year's grass stood a good chance of lasting until the next rains fell. With their livestock, the Katsinen-ko'en could buy grain to round out insufficient harvests. The balance of livestock with grain is only one of the strategies employed by the Katsinen-ko'en, however. Their year is replete with decisions over various strategies made and carried out by various members of the household, with the assistance from the larger family and other social networks.



**Figure 5.33:** (Photo, çavol 2007) Millet plants, in the middle fields of the Mai-Kalafo complex, headed on short stalks but were ravaged by locusts.

Plants in the northern fields of the complex dried before heading. The gray patches on the ground are locust droppings.

**Figure 5.34:** (Photo, bottom, çavol 2007) Sorghum and beans grow in Mai-Kalafo fields.







**Figure 5.35:** (Photo, left, nduungu 2007) A rainbow floats in the middle of storm clouds over tall, maturing kebbe northeast of Aderbissinat.

**Figure 5.36:** (Photo, bottom, çavol 2007) The pond at Kelle Kelle.

It filled with so much water that it became a small lake complete with water lilies. Egrets hunt for frogs among them.

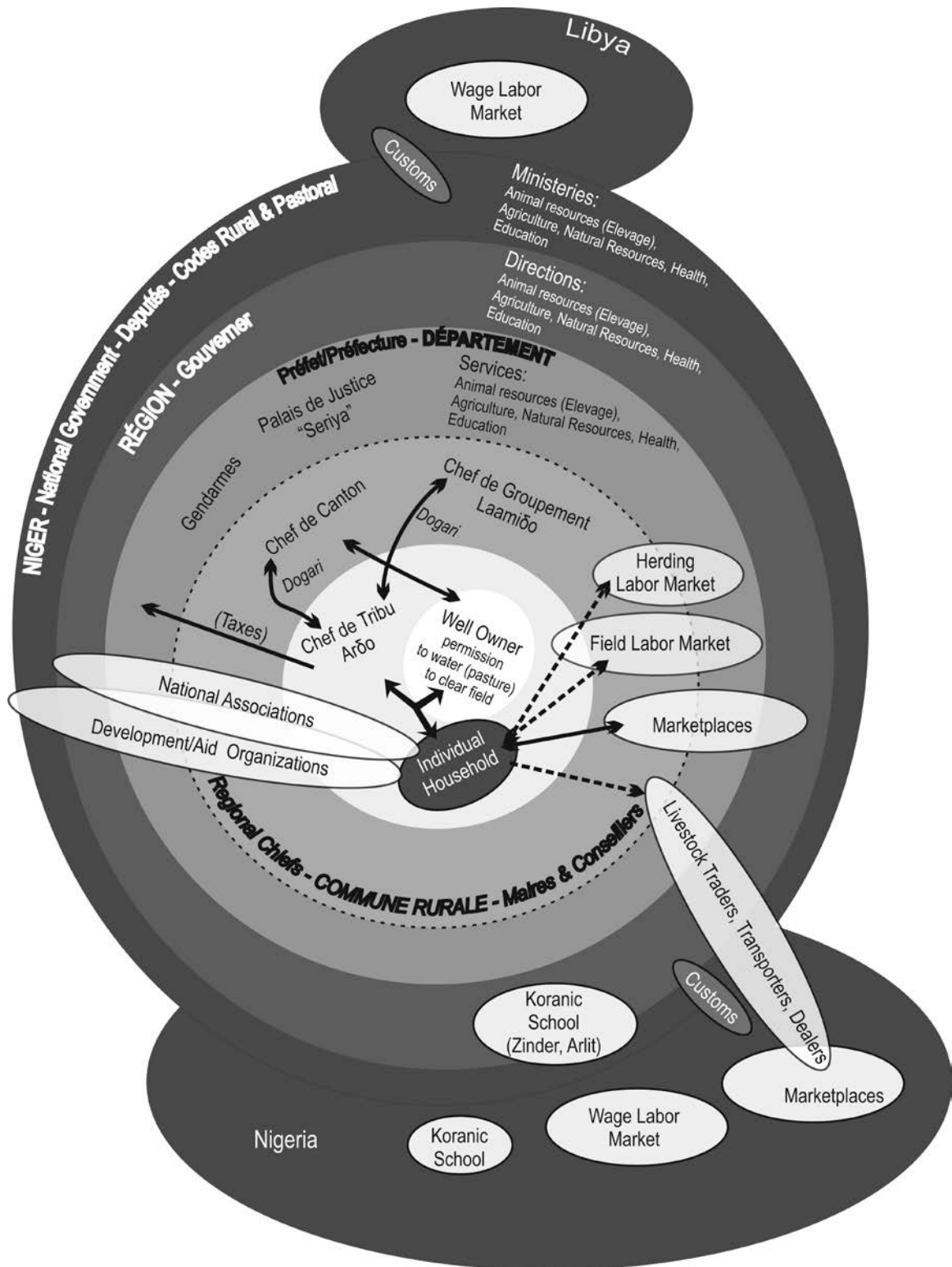


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## **CHAPTER 6: POLITICAL ENVIRONMENT— GOVERNMENT AND RESOURCE ACCESS**

A Katsinen-kejo obtains access to many different resources from household members, extended kin and networks of friends, but markets, government administration and agencies, and aid and development organizations all affect different aspects of access to resources. Remembering that agropastoral resources depend vitally on the natural environment, one can easily see how intimately Fulbe economy and local politics entwine with ecology. For example, local market prices for grain depend first upon the harvest which depends upon the rainy season. The national government also affects prices, though, when it releases national stores of grain into local markets or allows an aid organization to distribute grain to local populations. When drought forces pastoralists to sell part of their herd to buy feed for the remaining animals, the oversupply of livestock, often not in the best condition, depresses the market prices of livestock. When the Nigerian government closed the international border during their national elections in April 2007, the lack of livestock purchasers from Nigeria, an important contingent in both Tanout and Bakin Birji marketplaces, also drove down prices.

The political ecology within which Katsinen-ko'en households live and work can be diagrammed as a circle within concentric ovals symbolizing the graduating levels of government, overlaid with Venn diagram circles symbolizing various economic resources to which different individuals in the household might obtain access (see Figure 6.1 below).



**Figure 6.1:** Venn diagram showing the various overlapping political-economic elements surrounding and interconnecting with a rural Fulbe household in Tanout département.

## **GOVERNMENT: “MODERN” AND “CUSTOMARY”**

Sullivan and Homewood (Sullivan and Homewood 2003) emphasize the importance of understanding the dynamic relationships between the central state and settled communities, on the one hand, and peripheral, mobile communities on the other. These relationships involve critical economic and political negotiations between mobile and settled communities that affect household ecologies. At the most local level of government, Katsinen-ko'en and Woδaa6e follow arδo'en, for a combination of different reasons: social (e.g. kinship), economic (e.g. access to resources such as fields or aid) and political reasons (e.g. policy on forced schooling). With European colonization and now the independent Nigerien government, each Ful6e rural head of household pays his annual poll taxes to his arδo,<sup>1</sup> who at one time took the money to the Laamiδo, but with decentralization now deposits it at the préfecture. The Laamiδo belongs to the next level of government that includes the regional chiefs or “*chefs traditionnels*” as part of the “customary” government. In this same level of government, along with the “traditional” regional chiefs, the new, elected *maires* and *conseillers* administer the *communes rurales* that take the place of the cantons.

The préfecture, local administration of the département and the next level of government, oversees both regional chiefs and commune administrations. The local government agencies (e.g. *Service des Ressources animales* and *Service de l'Agriculture*), which employ extension agents and administer schools and clinics, as well as the court (*Palais de Justice*) and *gendarmes* (rural police), are based at the prefecture, which gives this level of government the most direct or potential influence, in terms of policy implementation, over the lives of (agro)pastoralists. Within the national and regional governments, equivalent ministries and *directions* supervise the departmental level services, but have much less direct impact on rural households. The legislators (*députés*) in the national government, however, develop the policy that will ultimately affect cultivator in the field, the pastoralist on the range, and hearthholder in her suudu.

### ***Decentralization: Chefs Traditionnels, Maires and Conseillers***

When I arrived in April 2006, I found that the long planned decentralization and localization of government administration had finally begun. The country's geographic divisions were reorganized, the planning of which had been in discussion since the 1980s.

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<sup>1</sup> *These are the only taxes householders pay now. People who conduct market or other business pay business taxes. Pastoralists selling in the large livestock markets pay fees when they buy stock.*



Before 2004, Tanout had been an *arrondissement*, headed by an appointed *sous-préfet*, and part of the *département* of Zinder, one of seven first-level divisions in the country. Tanout had previously been divided into three cantons (Tanout, Olelewa and Gangara), a *poste administratif* (Belbeji, with an appointed administrator), the independent area of Falenko, and the pastoral zone. The land of the latter came under national administration through the *sous-préfecture*. Each canton and Belbeji were headed by a *chef de canton* (*sarki* in Hausa), while the “nomadic” population could choose to follow a *chef de groupement*, either the Laamiḏo in Gourbobou, or the Tuareg chiefs in Belbeji (also *chef de canton*) or Tenehiya, north of Tanout town. All of these positions, as well as local *chefs de village* and *chefs de tribu*, if not created by the colonial government, were elaborated and formalized by the French for tax collection and a front line of politico-judicial procedure (Coquery-Vidrovitch 1988:93).

The process of decentralization was initiated in 1993 after the adoption of a new democratic constitution (Lund 2001), then interrupted by two military coups in 1996 and 1999. Later in 1999, democratic elections put a new government in power which resumed the decentralization process. In July 2004, local elections were held all over Niger for rural commune councils and mayors (*maires*), who were installed in December of that year.<sup>2</sup> Sometime in 2004, the seven *départements* of Niger became *régions* headed by *gouverneurs*, and the *arrondissements* became *départements*, headed by *préfets*. These administrative heads are still appointed at the level of the national government.

In the most important local change, the new *département* was divided into *communes rurales* to be administered, at least partly, by a *maire* (mayor) and bodies of *conseillers* (counselors), all elected by the people registered, through their local chiefs, in those communes, whether or not they actually reside there. The borders of cantons and *poste administratif* did not change; each simply became communes, as did Falenko. The pastoral zone was divided between the new communes of Tenehiya and Belbeji. Residents in my research area told me that the two Tuareg *chefs de groupement* disputed the border between their two areas of land.<sup>3</sup> When I asked at the *préfecture* if there was any map of the new administrative boundaries, I was told no, the jurisdiction of each commune depended on which administration each village decided to follow. Though such a policy may seem strange to Westerners, the convention is not at all unusual in Niger where one’s

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<sup>2</sup> *Personal communication with Thomas Sommerhalter, November 10, 2009.*

<sup>3</sup> *I heard rumors that Belbeji claimed a historical border on the east side of the highway, far into what many people in the area considered to be either Tenehiya or Gangara land.*

chief is less determined by where one lives than by whom one agrees to follow (to whom one pays taxes). In the town of Gourbobob, some non-Fulɓe villagers follow the Gourbobob village chief, while others follow a chief who resides in another village. Most Fulɓe residents follow the Laamiɗo.

With decentralization, the regional chiefs keep their positions, though their power has been officially restricted with the installation of maires and conseillers. In actuality, however, at least in the cases which concern my research population, the “elected” maires were close relatives of the chefs, who still seemed to keep tight control over the policies and goings-on within their administrations. The only regional chief who has never officially administered land and land-based resources is the Laamiɗo of Gourbobob, primarily because he administers mobile Fulɓe throughout the département.<sup>4</sup>

The “traditional” positions of chefs de groupement and canton remain partly hereditary<sup>5</sup> and partly elected, as demonstrated by the succession of the Laamiɗo of Gourbobob in 2006. The elderly laamiɗo died on the 27<sup>th</sup> of June, 2006, soon after my arrival. As the only member of the extended family who had been to school, and the only one living in the village, his much younger half-brother seemed to have taken over most of the laamiɗo’s administrative duties during his long illness. When the old laamiɗo died, his position fell into dispute between this half-brother and the Laamiɗo’s younger son (the elder son did not wish to leave the rangeland). Though the half-brother was older, educated, and had experience working with the préfecture, his mother was Uda’en, rather than Boɗaaɗo, and his wife was a Kaaɗo. Both Woɗaaɓe and Katsinen-ko’en explained to me that not only would they refuse to follow an Udaajo, but that his children, raised in a village by a Kaaɗo mother, would be Haaɓe. If the laamiɗo’s position fell into Haaɓe hands, the Fulɓe would lose all legitimacy. After several months of dispute, including reconciliation attempts on the part of the préfecture, and an election declared invalid because too few arɗo’en came to vote, the son won a second election by a landslide and was finally installed as Laamiɗo on the 26<sup>th</sup> of January, 2007.

The research communities live in an ambiguous area in regards to the geographical division between Gangara, Tenehiya, and Belbeji, but this did not seem to affect them during the research period. They pay their taxes through their arɗo’en directly to the département,

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<sup>4</sup> In 2008, after my departure, the Degerewol Woɗaaɓe finally, after many years of dispute among the different lineages, and campaigning for an official position within the arrondissement/département, elected and installed their own chef de groupement.

<sup>5</sup> At least in Tanout. Lund (2001) indicates that canton chiefs in his area of research (south of Zinder) are entirely elected by village chiefs, but with strong influence from the national government.

though an accountant at the tax office told me that taxes should soon go to the commune councils. They still refer both to Laamiɗo Gourbobobu and Sarkin Gangara for different reasons. The canton chief has charge of a certain area of land and the *chefs du village* who follow him. Because the wells of Hamugani, Maani and Mawa are located just south of the northern border of Gangara, permission to dig wells or clear fields in that area is referred through the arɗo to Sarkin Gangara who regulates most land disputes. Futawa and Çolure may have come geographically under Sarkin Belbeji. Most Katsinen-ko'en, however, because they are Fulɓe with generations of social and economic ties to Woɗaaɓe in the area, especially the Bii-Ute'en, regard the Laamiɗo in Gourbobobu as their political and moral leader. A few men told me that they followed the chief of Belbeji. One arɗo explained that several Fulɓe left (politically) the Laamiɗo during the days when arrondissement agents would seize children for school (about the 1970s). Though the Laamiɗo did not put his own children in school (except for the son of his Udaajo wife), he discouraged resistance to the recruitment program. The chief at Belbeji encouraged resistance and would not support the sous-préfecture's policy. Today, though most Fulɓe arɗo'en are registered under the laamiɗo, and refer various disputes (marriage, livestock theft) to him and his court, they also rely on the influence of the canton chiefs such as Sarkin Gangara, especially in issues land tenure and well registration. Sometimes the Laamiɗo assists in land disputes as well.

The arɗo told us how he had been involved in a dispute with some Hausa who had come from Sabon Kafi to clear fields in the pastures north of Gourbobobu Çengol. He had traveled to ask Sarkin Gangara for help, but was referred back to the Laamiɗo, who gave him an *erewol* (paper). He carried this erewol and his complaint to the préfecture. He was able to chase the Haaɓe away for the moment. He said that when he dug his well here about forty years ago, "Min mbaɗi keral e Pe'eli" (we made a border with the Tuaregs) between his and their areas of land. "We don't own land here. The Laamiɗo doesn't own land. The land belongs to the government." [*Field notes: May 22, 2006*]

### ***Préfecture: le Département***

To one who does not frequent the government offices on the hill east of Tanout town, little seems changed, except for a title or two, from the days when Tanout was an arrondissement. The préfecture, headed by the préfet and his secrétaire général (SG), still includes the various services that ostensibly assist the population of the département with various development activities, as well as health and education. The justice sector includes the gendarmes and the recently established (in Tanout) Palais de Justice. All these government entities, as everywhere in Niger, are severely under-financed and understaffed, a situation that depresses the morale and wears away at the work ethic of most extension agents, clinicians, teachers and other government professionals. Many directors

and agents have little understanding of or patience with the rural people they should be helping, especially mobile (agro)pastoralists. Usually their Western-style education has removed them for many years from the rural milieu and taught them that these “backward” life ways should be “modernized.” A few agents, teachers and clinicians posted in villages, however, learn about and come to understand rural people, and work with them admirably under substandard conditions.

### **Services: Local Manifestations of the Ministries**

Extension agents carry out préfecture-level grunt work of various Ministries. They include *Agriculture, Ressources animales* (animal husbandry, commonly called *Elevage*), *Environnement* (natural resources, including non-domesticated plants and animals), *Hydraulique* (deep bore holes), *Génie rurale* (rural engineering, including non-mechanized wells), and *Alphabétisation* (literacy). *Inspection des écoles* supervises the elementary and middle schools in the department,<sup>6</sup> and the *Direction départementale de la Santé publique* under the *Médecin chef de District*<sup>7</sup> administers the hospital in Tanout and the various clinics and pharmacies throughout the département. During my research, I heard different Katsinen-ko'en individuals of Mai-Kalafo and Futawa speak of contact with agents from Agriculture and Environnement. The Mai-Kalafo men expressed fear that the Environnement agent based at Takoukout would fine them for cutting euphorbia out of their fields, but during nduungu 2007, they asked Agriculture for help against locusts. The ardo's nephews told me that they could negotiate with the Environnement agent for a 10,000f permit (about \$20) to clear bush ahead of their fields. The Futawa ardo's son had received an appointment, through a Belbeji Environnement agent, as a sort of deputy forestry agent. Commissioned to prevent people from cutting live trees, he was much too young and too little respected for the job. He complained that some older men blamed him for turning them in though he had reported nothing about them. The men at Mai-Kalafo saw his appointment as meddling, on the part of his father, in government affairs.

Many Woḍaaḍe have their livestock vaccinated during annual campaigns when the Service des Ressources animales (Elevage) tours different wells in the rangeland, or even ask agents to come out to their wells when they perceive a particular disease threat. The Katsinen-ko'en of my research communities, however, never mentioned Elevage. When I

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<sup>6</sup> Collèges are located in Tanout and Belbeji. If one obtains a certificate and entrance into a higher school, such as lycée or école normale (teacher's college) one must go to Zinder or one of the other cities.

<sup>7</sup> Personal communication with Ibrahim Abdoulaye, November 11, 2009.

asked if their cattle had ever been vaccinated, they did not seem to realize that they had such an option.

Schools and clinics, both with potential impacts on household economies, are differently accepted by the Katsinen-ko'en. Though the ardo's sons at Mai-Kalafo told me that they would like their children to attend school, under the right conditions, no one in the research communities has been to school since the days when government agents forcibly took children to board at village schools. In 1993, I saw a school for the Katsinen-ko'en community at Kasawsawa village in the Eliki Çengol north of Belbeji, but none of the households in the research area considered sending their children there, if it was even still in operation. Some years ago, the Kasawsawa (Woðaaḅe) lineage started a school at their centre, north of Abuzak Hamlet, but the school closed after a year or two because it could not attract enough students.

People at Mai-Kalafo will go to the clinic in Gourbobobo when they are very ill, and when other remedies have failed. The exclusive pastoralists at Siogari seemed much more reluctant to go to clinics, either at Gourbobobo or at Takoukout. This may have been because they lived further away, or it may have been due to what seemed to be their characteristic avoidance of towns and villages (except marketplaces), and anything to do with the government. I take up the subject of health in the next chapter because of its importance to household demography, labor and expenses.

In the 1980s, the services provided many resources for free, from insecticides to medications, and the agents had vehicle fuel for travel. Since that time, political-economic changes—structural adjustment, and the desire that citizens take on more of their own expenses—have pushed the government to charge for resources and services, if they are available at all. Woðaaḅe pastoralists understand that they must now pay, not only for livestock vaccinations (still subsidized), but also for the fuel to transport the agents to their wells. Gendarmes require money for fuel to investigate crimes. When the Mai-Kalafo ardo's nephew decided to ask Agriculture to spray for locusts, he knew that the households would have to collect gas money for the agents, but he was sure that the insecticide would be provided for free. In the end, planes sprayed in different areas of the département, including north of Tanout and west of Gourbobobo, but the spraying killed only some of the locusts. Others soon invaded from unsprayed areas to eat the most of the millet.

## Justice

Justice through traditional and départemental proceedings involves various means and routes through different ardo'en, village chiefs, regional chiefs with their dogaris, gendarmes, the préfet or SG, or the Palais de Justice in Tanout. Two categories of infractions that may send a pastoralist to the préfecture include fines for livestock damage to fields and theft of livestock. The Katsinen-ko'en of my research communities do not fine people<sup>8</sup> for field damage and seem to pay fines, even if they think them unfair, without complaining to authorities. As mentioned above, disputes over fields, wells and livestock also enter the justice system. One Boδaaδo ardo took his dispute over well digging rights to the préfecture, and the cases of the Sabon Kafi Hausa encroaching on Katsinen-ko'en pastures, and that of the young Katsinen-ko'en man who sold the stolen camel went all the way to the préfecture. The Mai-Kalafo ardo's son was called to the Palais de Justice to testify in a case of stolen sheep. Most cases, though, are handled with in towns or villages closer to the site of the offense or dispute. Gendarmes deliver summary justice in outlying markets and dogaris, the regulatory agents of regional chiefs, do the same among residents in the land under their chief's jurisdiction.

### ***Codes Rural and Pastoral***

After years of debate and delays, Niger's parliament finally passed an amended version of its Code Rural in 1997 (Comité National du Code Rural 1993, 1997), a body of law that regulates tenure and usufructuary access to land and water resources. Lund (1993, 1998) has described the confusion and litigation the delay caused as people tried to either solidify tenuous claims or purchase fields in the liminal period between a regime of "traditional" tenure (where the chef du village gives access to fields) and a "modern" regime of titled ownership to land. Even now the transition between tenure regimes causes conflict and confusion. People now buy and sell fields near Tanout town, and one hears of litigation over claims to field ownership in Tanout and other places in Zinder région, which come before chefs de canton, préfectures and the Palais de Justice. In the research area, however, the old tenure regime still holds. A group of men asks permission to clear fields from the chef de canton (Gangara, in this case), basing their request on their ownership (or caretaker-ship) of a nearby well. The men who hold original rights to land know who possesses usufructuary rights to each field. The major trouble over land in the area, as perceived by

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<sup>8</sup> Only one man admitted that he fined someone once, and then said the man was a friend and implied that he was frustrated with the many times the man's livestock had entered his field.

the Katsinen-ko'en, involves keeping Hausa from clearing new fields in pastoral rangeland. Individuals or groups of pastoralists do have title to private wells, registered at the préfecture. Permission to dig new wells comes from the chef de canton, though this responsibility may devolve to the commune counsel or the as yet to be completed *Commissions fonciers* (land tenure commissions).

During the years that the *Comité national du Code rural* wrote and rewrote the Code Rural, advocates of mobile pastoralism, including Nigerien pastoral organizations and several Europeans (and possibly Americans), realized that the Code Rural did not sufficiently address the tenure and usufruct concerns of pastoralists. With their help the Comité wrote the Code Pastoral (Comité National du Code Rural 2010), which closely follows recommendations outlined in a Challenge Paper on pastoralism and mobility from the Global Drylands Initiative of the United Nations Development Program (2007). This new body of law admirably supports the mobility of pastoralists by allowing them access to all land in the cultivation zone during the major part of the year when fields are not under cultivation, by easing pastoralists' access to village wells and boreholes (*forages*, deep wells with diesel-powered pumps), by regulating villagers' control of these water sources, and by prohibiting field expansion over trekking roads and areas of pasture set aside for herds trekking north at the beginning of the rainy season. Political disruptions in 2009 once again interrupted the enactment of this law, which was finally signed in May 2010. Whether or not the government has the resources to promote understanding of the law and enforce it is another question.<sup>9</sup>

## **LOCAL POLITICAL ECOLOGY**

### ***Access to Land: Pasture and Fields***

A Katsinen-kejo (or Tuareg) obtains access to land—pasture and fields—through access to a well: a well-owner has priority usufructuary rights to land around his well with no set measure of area, though the Code Pastoral codifies distances between wells.<sup>10</sup> As I discussed in Chapter 2, most pastoralists graze in the relatively open access of the Nigerien rangeland under the moral imperative that one should leave something for others who come after. Range use is also restrained by permission to access well water. By restricting watering rights at his well, a pastoralist can control to some extent the use of pasture near

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<sup>9</sup> E-mail correspondence, August 5, 2010: Eric van Sprundel, technical assistant, Projet de gestion des conflits / ressources naturelles liés au pastoralisme (ZFD).

<sup>10</sup> Article 15: "normes de maillage" (network norms): 15 km for traditional (private, hand dug) wells ; 20 km for cement (large, public) wells; 30 km for boreholes.



his well, depending on how many other wells permit access to the area. In the Abuzak, Cingoragen and Elikı Çengi such control would be almost impossible because so many wells line the three valleys. Though a well owner will limit the number of ropes at his well, that is the number of herds watering at a time, not many pastoralists will refuse another pastoralist watering rights, at least for a day or two, especially a man of the same ethnicity. Long term use must be negotiated, however, and men usually use the wells belonging to relatives or long established friends, or “government” cement wells, considered public by convention.<sup>11</sup> I experienced a couple of situations in which Tuareg well owners refused some Gojen-ko’en families use of their wells, but they had reasons for their refusal: the disrepair of one well, and limiting the number of users to a reasonable amount on another well. Because they can more easily obtain water at pastoral wells, the Katsinen-ko’en of my research communities prefer not to migrate very far south into the cultivation zone. Except for the family who returned to Yagaji (see Chapter 5), no one in my research communities migrated further south than Eehedi and Woodaa wells, both Fulóe owned.

As discussed in earlier chapters, Ibrahim’s sons have inherited and passed on the original Mai-Kalafo fields, and the grandsons, as well as their Galen-ko’en relatives at Maani, dug and bought three northern wells and established small field complexes near them. The Mai-Kalafo arđo explained that he assigned the job of field distribution for the large Mai-Kalafo complex to his younger brother, so that he (the arđo) would not become too big-headed. Besides giving fields to other close relatives, such as nephews and a cousin’s brother-in-law who came to Mai-Kalafo much later, this brother also allowed more distant relatives or even a few non-related Katsinen-ko’en to clear fields alongside the complex or cultivate in the maysoore. The Katsinen-ko’en who cultivate at Bangaji have been given their fields by a Tuareg well owner, and a few Mai-Kalafo men borrowed fields from a Tuareg to the west of the Hamugani households. One man, however, after cultivating his borrowed field in 2006, had it taken away for the 2007 season. Although men have no legal title to their fields, once they have cleared a field (not simply borrowed it), the maysoore “behind” it and the bush in “front” of it belong to them *de facto*, and they can loan part or all of it to another man, allow someone else to cultivate the fallow behind their field, or simply leave the field with the expectation that they may come back some day to cultivate that land.

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<sup>11</sup> *Few private wells are lined with cement, primarily because of the expense, but also because some well-owners believe if they cement their wells, the wells will be considered “public” and open to anyone. This is also not at all clear in the Code Pastoral’s distinction between “puits traditionels” and “puits cimentés” that fall into separate categories.*

The Mai-Kalafo arɗo told me that they still “own” fields that they left at Mai-Salka when they moved to Mai-Kalafo around 1960, though they would probably have to fight to regain them. The elder at Siogari still claimed a maysore at Futawa, though he had left it after the drought of 1984.

Every other year or so, a man clears a few meters of new bush in “front” of his field and leaves maysore behind, “moving” in the direction which seemed best when the fields were first established. Thus, the original Mai-Kalafo fields began moving west up towards the laterite hills, and those of the Galenko’en based at Maani move east, away from the original maysore. (Figure 5.11 does not distinguish between the two sections, but one can see how they are divided by the maysore in the middle.) The two sets of fields leave maysore between them, and both will eventually run into obstacles: Mai-Kalafo in the west and Tuareg fields in the east. The owner of a field that had reached the laterite told me that he would soon start clearing a new field west of the rocks: it will still be some years before the first maysore will be fertile enough to sow again. The maysore, however, constitutes an important resource for mobile households, several of which camp there during ceeɗu. The livestock graze on grain stalks and the dried grass of the maysore, mostly uneaten during nduungu and çavol because livestock is kept away as much as possible.

### ***Access to Wells***

Private wells, hand dug either by the well owner or by hired professionals (usually Hausa or Tuareg),<sup>12</sup> may be inherited from father to son, such as Hamugani, or purchased as in the case of Dakaare. Owning a well does not always mean that one keeps one’s perceived usufructuary rights without conflict, as shown in Duuna’s case below, and the case of Hausa farmers surrounding a Katsinen-ko’en well (Chapter 4). Such conflicts over land rights contributed to Katsinen-ko’en northern migration.

Ibrahim and two of his sons dug Hamugani themselves, a relatively shallow well at 48 meters. Wells average 60-70 meters with a maximum limit (depending on soil type and the skill of the diggers) of about 100 meters. Even machine-dug, cement lined wells descend no more than 120 meters. Private wells have smaller mouths than the public wells and usually accommodate 3-6 ropes—one rope per household/herd taking turns—on one or two *sigitaji* (sing. *sigitahi*, the forked post that holds the pulley). Public wells have about six metal *sigitaji* and can accommodate many more ropes and herds. Most pastoralists desiring

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<sup>12</sup> *As far as I know, only international development organizations have financed machine dug wells. The wells dug by the colonial or early independent governments may also have been dug by machine.*

a new well hire professional well diggers whom they pay cash and provide with grain and a few buck goats for food during the digging. Not long before I left, three of the Mai-Kalafo brothers (sister's sons) who frequented Mawa had begun negotiations with Hausa well diggers to sink a new well in Çolure Çengol. Sometimes, as with Siogari and Maani, a group of men will take over responsibility for care of a well whose owner has moved elsewhere. The men who use Siogari, for example, rebuilt the mouth of the well in the winter of 2006. When a man has negotiated for a week or more of well access, he and/or his son will help to clean and maintain the well, often relieving the owner of this job. All habitual users of private wells help to rebuild the well mouths every two or three years (see Chapter 8).

The management of many public, so-called "government wells" in the rangeland (*buli gomme*) was transferred sometime in the 1990s to particular pastoralists, usually an influential leader who habituates the area of the well. The wells are cleaned by well users. The management of project- and government-constructed boreholes<sup>13</sup> has been transferred to the villages in which they are located (even those constructed originally as "pastoralist boreholes"), and the village holds the right to charge fees for water to buy fuel and pay repair costs. Borehole management incurred remarkable difficulties for villagers and pastoralists when some village committees could not keep enough funds to keep the borehole pumps in good repair. When Gourbobo's pump broke, people waited hours every day for weeks for their turn to pull water from the insufficient village well. Sometime before or during my research period, private parties were allowed to purchase the boreholes with the stipulation that they provide water at a regulated price. Wealthy individuals invested money to repair the boreholes, including that at Gourbobo, and then kept them running.

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<sup>13</sup> *There are, as yet, no privately constructed boreholes, as far as I know.*



**Figure 6.2:** (Photo, May 2006) Woɗaaɓe water their livestock at Bunndu Bawa north of Eliko ɓengel.



**Figure 6.3:** (Photo, April 2006) Manzo waters our horse at the Gagawa village borehole (forage) in May 2006.

## ***Cases: Arɗo'en, Regional Chiefs and Disputes***

### **Wells and fields**

Though a man owns a well, he must still obtain permission from a regional chief to clear a field near it, unlike in the past when fewer people lived in the area. Welaaru's owners obtained permission from Sarkin Gangara to clear fields northwest of the well.

Duuna told us that, at Gourbobobo market yesterday, a Tuareg whom he did not know, lodged a complaint against him with Sarkin Gangara because Duuna's Welaaru field encroached on "their land" near the Tuaregs' well. Duuna explained how he and his cousins had dug their well first, and then Abdurazak (a Tuareg) dug his well to the southwest. The Katsinen-ko'en and Abdurazak agreed on a border between their fields. Duuna traced lines in the sand to show how the Katsinen-ko'en fields advanced from the border toward Welaaru well. His field, the southernmost, abutted euphorbia that they and Abdurazak had agreed would mark the land around Abdurazak's well. The Hamugani brothers and cousins planned to meet with the dogari from Gangara at Kekeni market, but since they had sown their fields, any judgment would wait until after harvest. [*Field notes: July 29, 2006, Mai-Kalafa*]

### **Lost and stolen livestock**

When a herder finds lost animals, by convention if not law, he should inform his arɗo or laamiɗo. This protects him from an accusation of theft, but not everyone adheres to this rule. Because most followers of each arɗo are mobile (as are some arɗo'en), and often camp at some distance away, this communication does not always pass easily from herder to chief. The herder may also hope that the owner of the lost stock will never come looking for it, or fear that the chief will keep the stock for himself. Of course, some herders do hide lost or stolen livestock among their animals deliberately.

After some strangers drove off in their SUV, the arɗo told me that a dispute brought them. An Udaajo from Agadez département had seen a donkey in last Gourbobobo market that he claimed as one that he lost last year. People told him that Garba's wife had ridden the donkey to market; he should go see Garba's arɗo. Now the arɗo sent a message to Garba: he must take the donkey to market tomorrow to settle the matter. If he had bought the donkey, they would look for the dilali who had mediated the sale. The arɗo was upset that Garba had not told him of the donkey. He hinted at something underhanded, but the arɗo's son told his father that he had known when the donkey arrived at Garba's camp last year. Garba had not meant to hide it.

On Saturday morning the arɗo's son told me with that everything went smoothly yesterday at the market with Garba and the donkey. Some of the laamiɗo's men wanted to fine Garba, but the donkey owner refused. The Udaajo told everyone that he was just happy to find his donkey, that Garba had simply kept it safe, he hadn't stolen it. [*Field notes: Thursday, September 13 & 15, 2007, Mai-Kalafa*]

But taking found livestock to one's chief can cause more problems for the owner:

Daji told me that one of the Katsinen-ko'en men here found a cow belonging to a Boɗaaɗo whom we both know. The cow spent a couple of months in the Katsinen-kejo's herd and gave birth. Then he took cow and calf to the Belbeji chief, whom he followed, without telling the local arɗo, his neighbor. Daji condemned this action, reflecting some of the arɗo's indignation. Only when the Boɗaaɗo came by looking for his cow, did the

arɔ find out what had happened. The Boɔaaɔ had to travel on to Belbeji, and we never found out if he retrieved his cow and calf. [*Field notes: March 28, 2007, Futawa*]

If person finds lost or stolen livestock with someone who believes he or she purchased the animal legally, the laamiɔ or canton chief (or a dogari or gendarme in a marketplace) will call for the dilali who mediated the sale. The dilali must explain the transaction—how he came to sell a stolen animal—and help to find the man who sold the animal. In disputes, a man may be called to swear on the Koran that he did not steal the animal. Such disputes can cause all sorts of difficulties even for men only tangentially involved. The young man who sold the stolen camel (Chapter 4) was involved in legal trouble for over a year with both the Belbeji chief and the Tanout gendarmes. He lost his own cows and those he herded for his father-in-law to the chief as recompense for the camel and a fine. Later the gendarmes caught him, fined him another 70,000fCFA, and he spent some months in jail.

Most of the above “political” encounters also include economic transactions; one can only separate them heuristically to try and make some sense of the complexity of the different but interconnecting environments that surround rural households. The next chapter describes the various markets, concrete and abstract, found in the region, as well as infrastructure and health.



## **CHAPTER 7: ECONOMIC ENVIRONMENT— MARKET EXCHANGE, INFRASTRUCTURE AND HEALTH**

As part of the strategies to maintain household security, the Katsinen-ko'en participate in various markets. Men sell and buy livestock and grain and women sell dairy in marketplaces. Men trade in large livestock, men and women participate in different labor markets, and they buy and sell different foods and commodities outside the marketplaces. In order to carry on much of this commerce, they depend on travel and access to information through an infrastructure in diverse states of disrepair or improvement.

### **VILLAGE AND TOWN MARKETPLACES**

Larger towns and some villages in Niger hold weekly markets throughout the year (see Appendix E). Vendors set up their wares on tables or boxes, or spread them on tarps on the ground, under a collection of awnings, constructed of tree limbs and millet stalk mats. Tanout marketplace and a few other, larger markets contain some mudbrick buildings built by vendors, and large awnings of cement posts and corrugated metal roofs built with outside funding. During the week of non-market days, most markets are empty; in some, a few local vendors sell food or other small commodities. Each market presents different options for sale or purchase and different people attend markets for different reasons—to sell or to buy livestock, dairy products or grain, cloth or clothing, or other food stuffs and commodities. Only four large marketplaces in the département, Tanout, Bakin Birji, Tsamia, and Belbeji, have the personnel, including dilali and government agents, who register sales and collect fees, for large livestock exchange (cattle, camels, donkeys and horses). The walled livestock sections in the four larger markets control government fee collection from livestock purchasers, which pastoralists often perceive as abusive. A man might try to sell a cow or camel in Gourbobo smallstock market, but would probably find few if any buyers. Most other marketplaces contain a smallstock market in which local butchers (almost always Hausa), among other purchasers, buy the goats and sheep that they will slaughter during the week. Though most members of the research communities attend markets close to their homes, or Tanout, some cattle traders mentioned that they had sold bulls as far as south as Koundoumawa, west of Zinder, and one trader drives his cattle semi-annually all the way to Mai-Aduwa, just south of the Nigerian border, where he buys grain for his return trip to sell to his neighbors at Mai-Kalafo.



Town and village marketplaces differentiate not only in size, but also in their access to either the highway or dirt roads followed by vans, small pickups, large trucks, livestock drovers and other market goers on foot or mounted on donkeys, camels or horses. The smaller the market and the worse the road that leads to it (see Infrastructure below), the fewer commodities arrive from outside and the higher the prices rise for items such as grain, sugar, dried tomatoes and cloth. With the growth of Tanout town, more than double in size since the 1980s, and the paving of the highway between Zinder and Tanout (1985-87), its marketplace increased three or four times in size, with the corresponding augmentation in the variety of imported foods, commodities, clothing and house wares. It was moved in 1986 from the center of town to its southwestern edge to allow for its expansion. In the Gourbobobo market we could find fruits and vegetables which appealed to “country folk” imported from southern Niger and Nigeria, such as sweet potatoes, mangoes, sugar cane, and local cucumber (*kotal*), and the onions, dried tomatoes and peppers that women used for sauce. In Tanout, though, a much wider variety of fresh vegetables and fruits arrived, in season, from the gardens near Zinder and in Nigeria, including cabbages, lettuce, fresh tomatoes and oranges. Beds with metal frames, beds carpentered from lumber, beds made from palm frond ribs, and beds carved by Tuareg smiths (most prized by the *Woɗaaɓe* and *Katsinen-ko'en*) can only be found in Tanout, so parents purchasing items for their daughter’s dowry must make a trip to Tanout.

While grain is generally less expensive in Tanout than Gourbobobo by 25-50 francs a *tiyawol* (see Appendix D, Measurements), an (agro)pastoralist must also consider the expense of transporting his purchased grain. If he sells a bull or camel in Tanout, he must decide whether to buy grain in Tanout, or in a market closer to home. He considers the amount he will buy, the difference in price between the two markets, and the price he can negotiate with the driver of a market truck. The price for transporting a bag of grain averages about half the fare of a person, but also depends on the size of the bag, the type of vehicle (van or truck), and the distance traveled. The grain purchaser might also contemplate the convenience of attending the other market. For instance if he sells his bull in Tanout’s Saturday market, will he be able to hold onto the 300,000f in cash (about \$600) until the next Gourbobobo market on Friday?

The research area lies amidst six market villages. Gourbobobo, Takoukout and Batté hold the largest markets and function as intermediary markets, for different geographic populations, to and from Tanout. Ido-ga-rakumi, a smaller market, lies west of Futawa and

east of Batté, and Kekeni and Mahaka lie south of Mai-Kalafo and Futawa. People from Mai-Kalafo and Omboragat usually attend the Gourbobobo market, whereas people from Siogari have easier access to Takoukout by market truck or van, but women from Siogari and Bangaji also travel to Ido-ga-rakumi on donkeys with their dairy products. Batté also south of Siogari and Bangaji offers a larger, though more distant, option to Ido-ga-rakumi. People at Futawa usually attend Ido-ga-rakumi, though they also may go as far as Batté or Gourbobobo. Both larger markets have better prices than the smaller markets—higher prices for selling smallstock, and lower prices for purchasing grain and commodities from the outside. When they migrate south of Mai-Kalafo, women sell dairy products in Kekeni or Mahaka.

When they migrated that far north, the Siogari pastoralists went to Aderbissinat, where the daily “market” is dispersed among three or four alleys lined with shops. Though a rumor proliferated that Silika would soon have a market, the only other rangeland market in this area is at Abdinazak, northwest of Tanout, recently established by local Tuaregs. A sign near the highway, authorized Silika as a firewood market, where licensed woodcutters (non-Fulbe) brought logs from the Cingoragen Çengol for transport to cities. Sometime in 2006, the company paving the new highway sank a borehole for their road work. The pastoralists thought that after the highway was finished, the borehole would be redirected to a new pastoral marketplace.



**Figure 7.1:** (Photo, left, ceeɗu 2007) A Katsinen-kejo woman sends some milk to market with her neighbor.

**Figure 7.2:** (Photo, below, dabbunde 2006) Two Woɗaaɓe men head to market with two goats and a sheep.







**Figure 7.3:** (Photo, left taken by Veli 6ii Laabi, 2003) Men buy and sell sheep in Tanout's livestock market.



**Figure 7.4:** (Photo, below, nduungu 2007) Katsinen-ko'en and Hausa men pose in Tanout's cattle market,.

## CATTLE AND CAMEL TRADE

Among Bii-Ute'en Woɗaaɓe, a Katsinen-ko'en trader exchanged two heifers, one big and one small, plus 30,000 fCFA (about \$60) for a large bull; two heifers, large and small, plus 60,000f for another large bull. He gave Bii-Hadaali Woɗaaɓe three heifers for a large bull. They wanted money also—it was a big bull—but the trader refused. Three heifers were enough, he said. He bought another bull for 100,000f, not very large. His nephew, the drover, will drive the bulls to Tanout for him and other traders, for 2000f to 2500f a head. The trader's young cousin had taken some very small, thin heifers on loan from Haaɓe traders. No one would buy them, so the trader combined them with his larger heifers to try to sell them. He admonished his cousin never to take such skinny heifers again. [*Field notes: September 4, 2006, Ngadesi, as told by Daji, from a conversation he was party to*]

I don't know how much money I got from livestock trading last year; we buy on loan from the pastoralists, then when we've sold the bulls, we pay them. On the range, we buy bulls from 150,000f to about 80,000f, and cows from 100,000f to 75,000f. We buy heifers in the market from 120,000f to 70,000f. But we get a profit on the bull of about 10,000f to 15,000f. Sometimes we give two heifers and we add money, and we take the bull. Or three heifers, if they are small. [*Interview: September 11, 2006*]

Livestock trading is a relatively new practice among the Katsinen-ko'en; the trader referred to in the first selection above, and the man who sold bulls in Mai-Aduwa, both probably in their early sixties, are the first generation of men to engage in the business. A skilled and fortunate man can make a good profit from the trade. Some men lost everything, however, when they speculated on livestock they could not sell, especially if they obtained that stock on loan, or sold their own livestock to finance their trade just before cattle prices plummeted for one reason or another. The prices in every livestock market depend on supply and demand, and neither buyers nor sellers can predict what the demand or supply will be in any particular market, on any particular day. Drought, of course, can increase supply and lower prices, but politics can also affect the livestock market, plainly illustrated when Nigeria closed its border during the weeks of its national elections. When the CFA was devalued in 1992, the value of exported livestock rose (Bolwig 2009:14). Then when Nigeria opened the large Mai-Aduwa livestock market in the late 1990s, Nigerian buyers began coming to Tanout market, further pushing up livestock prices. This was a boon to local pastoralists who could now sell less livestock to buy the grain they needed.

The traders often take heifers on loan from Hausa traders in Tanout or other markets, which they turn over to Hausa drovers, who drive them north to the rangeland. The Katsinen-ko'en men then negotiate exchanges with pastoralist men, primarily Woɗaaɓe, for bulls (or cows). Any cash offered for the bull is also often an advance, paid after the bull's sale. After the trader exchanges his heifers, collecting the bulls into his own household herd, he arranges for a drover to drive the bulls south to Tanout, Tsamia or Mai-Aduwa

where he sells them. Then he must pay his drovers, the Hausa traders who loaned him the heifers, and carry his proceeds back to the bull sellers with whom he negotiated cash advances. The trader cited above had a reputation as an irascible man, but was wily enough to keep his transactions straight and his business going through strong and weak market cycles. Other men, less experienced, clever or determined, succeeded only when they could acquire capital and time, or they failed miserably. Some men had traded for a few years and then ran out of capital. When livestock prices rose with the opening of Mai-Aduwa market, they may have found purchasing heifers too difficult. The man who deserted his wife lost all his livestock in mismanaged cattle trade.

Men's riding camels at first glance seem an extravagance for households living on the edge of survival. In dabbunde of 2006-07, however, two men sold their large, bull racing camels for almost 300,000f each, the price of a well-fed seven-year-old bull. Both camels had become famous for winning, and Tuaregs coveted them, so much so that the men feared they might be stolen. With the sales, the men bought household grain for the year, and yearling camels to train anew. Katsinen-ko'en men in the département have built reputations (at least among Woɗaaɓe) as skilled camel trainers,<sup>1</sup> though camel owning is also relatively new; an elder told us that men owned no camels when he was young. Generally only Tuaregs breed camels, an operation that takes skill, and most men buy young camels from Tuaregs.

#### **COMMODITY, FOOD AND OTHER TRANSACTIONS OUTSIDE MARKETPLACES**

From the rangeland, women sold their dairy products in Silika and Abuzak; though these hamlets have no true marketplaces, their autoparks<sup>2</sup> present (as any autopark does) a place to vend foodstuffs. Every autopark is also bordered with shops selling various commodities, and Abuzak and Silika act as meeting places for pastoralists who come to find a ride to town or buy tea, batteries, soap or cookies for their children. A butcher in Abuzak buys smallstock from pastoralists and sells roasted meat, and hamlet women sell *houra* (suutam) and fried cakes. Pastoralist women sell buttermilk to the hamlets' *houra* vendors, and cheese and butter to passing motorists and their passengers. They and the *houra* seller and butcher at Abuzak also sold food to the crew working on the new highway.

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<sup>1</sup> *A couple of Gojen-ko'en men left young camels they bought in Bakin Birji with southern Katsinen-ko'en men to train.*

<sup>2</sup> *Where market trucks and vans, and other vehicles, stop to pick up passengers and cargo.*

Pastoralists often purchase wooden tools and furniture directly from the Tuareg smiths who manufacture them, either at the smiths' homes or from itinerant craftsmen. One can buy mortars and pestles in the Tanout marketplace, but the best pestles in the area are carved by smiths who lived north of Tanout, among the acacia trees from which they cut their wood. One Mai-Kalafo man carves tool handles and pulleys from tanne wood, which he sells from home, or in Dagara villages.

Katsinen-ko'en men who grow and carve calabashes also take them to market to sell; one of the older men I interviewed used to travel to Aderbissinat as well as follow a long market circuit that took him southeast of Bakin Birji and to markets in Gouré département. Now he sells his and his brother's calabashes in the Ido-ga-rakumi marketplace, but people also come to him, especially if they want specially carved bowls.

Other women and men sold particular items or services from their homes. Women often sell grain bran, if they did not need it for household livestock. They also sell buttermilk from their homes to passersby. Two Mai-Kalafo men retail small commodities from their homes, buying in bulk from Gourbobo market. A few women tried cooking and selling fry bread to their neighbors, a nascent small business. One Mai-Kalafo woman sold traditional medicines and also treated ill people who lived in her guest suudu during their treatment.

Two men from families at Mai-Kalafo worked as clerics in cities, one in Zinder and one in Arlit. Both lived with their own families in their respective cities and seldom visited Mai-Kalafo, but they taught Koranic lessons to Mai-Kalafo boys who lived with them. Two men work as clerics at Mai-Kalafo, and are paid to conduct marriages and naming ceremonies for the Mai-Kalafo households in neighboring communities. A third, who may not have officially completed his training, is sometimes called upon to conduct naming ceremonies at Mai-Kalafo. The clerics receive cash for the rituals they officiate, sell Koranic writings for cash, and the former two, as official community clerics, receive cash and grain as tithes (*zakat*) from their congregations. One cleric traveling west to Oli to visit his mother, sold Koranic writings for traveling money. The Siogari community had no clerics of their own. When I asked who officiated one naming ceremony, they told me that they hired a nearby Tuareg cleric.

A village tailor lived for a season or two near the house of one of the Katsinen-ko'en elders, probably as his guest. He sewed clothes for grain from the bountiful 2005 harvest. Most tailors work in towns and villages, however, with pedal sewing machines, often in or



near marketplaces. An accomplished Tuareg tailor lived and worked on the edge of Gourbobobo market. Many men and women I interviewed included the sewing of clothes in their expense accounts; usually one buys cloth in the market and gives it to the tailor the same day. Men and women also sewed clothing by hand at home, though none sewed clothing as a business.



**Figure 7.5:** (Photo, above left) Inside a shop in Abuzak, similar to any small shop in a village autopark.

Sauce leaves, dried peppers and tomatoes in plastic sacks are piled in the foreground.



**Figure 7.6:** (Photo, above right) The awning outside a small shop in the rangeland, on a dirt truck road south of Aderbissinat.

The enamel bowl on the ground in the lower right corner is a standard tiyawol (see Appendix D). Blocks of either natron (*kanhwa*) or livestock salt (*belma*) are stacked in the foreground.



**Figure 7.7:** (Photo, left, koorsol 2003) Near their camps on the range, Woɗaaɓe women bargain with itinerant Tuareg smiths for suudu furniture poles.

## LABOR MARKET

### *Field Labor*

None of his fields had been weeded, yet, and Duuna was ambivalent about the fact that they needed weeding: happy that the grain had grown a few inches, but despairing over whether he could weed the whole field with only his young son. He would need to hire someone and he had nothing to pay him with. His wife urged him to call his older son back from Koranic school, but he didn't want to do that. [*Field notes: July 18, 2006*]

Our host returned from his field, and his brother from herding cows, and they discussed hiring *çan barema*; there was too much weeding for each to finish alone. For the going rate—1000f (about \$2) per day, plus food—our host complained, the laborers should work until *la'asar* (4:00 p.m.), but they leave at *azafar* (2:00). [*Field notes: August 11-12, 2006, Bangaji*]

*Çan barema*<sup>3</sup> (field laborers) constitute the labor market most important to the Katsinen-ko'en men of cultivating households. Only men (usually young) work as *çan barema* and perform different tasks at different times: field preparation, weeding and harvest. Field preparation and weeding are paid in cash and by the day; harvesting is paid in grain. Men both hired out as laborers, to relatives and in Dagara villages to the east, and hired laborers from among their kin or villagers intrepid or desperate enough to travel north from their homes. Older men with too few sons to help them both cultivate and herd ("one-handed" men) hire laborers to help them weed. In Mai-Kalafo, I only heard of a few relatives hired to help with harvests; in both years few harvests were substantial enough to hire outside labor.

As in any free market (there is no outside regulation as far as I know), the payment of *çan barema* depends on the demand and supply of field labor, which depends on the quality of the rainy season, usually localized. In a season with plenty of rain and the subsequent healthy growth of both crops and weeds, the demand for laborers will force up the price for a day's labor. Distance from the labor supply will also increase the price (the 1000f quoted for Bangaji above was 125-150f above the rate at Mai-Kalafo. The patchiness of the climate and rainy season also affects the labor market. When groups of men do not receive enough rain for good cultivation, they will finish the little work necessary in their own fields and then find work from more fortunate farmers. Earlier rains in the south mean that southern cultivators can finish their weeding and head north to look for work.

On our way to one of the Mai-Kalafo households, I asked my young Katsinen-kejo guide how he is paid for harvesting. In *çavol* of 2006, he travelled to the Dagara villages east of

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<sup>3</sup> *The Fulbe have borrowed this Hausa version of a Kanuri word. The Hausa prefix çan (sing. ðan) literally means children, but also subordinates or followers; the Kanuri word barema has something to do with fields and cultivation.*

Takoukout with two cousins. He explained that they usually *loova samfooji* (lift and pour bushels) of grain heads into the granaries from the piles which the family harvesters have made. They might also cut the heads if the field owner has not been able to finish that task. Field owner and laborers do not discuss payment before the work is finished, unless they are working for money, but harvesters are usually paid in grain. He found it difficult to calculate exactly how much they were paid for each field, but said at the end of the day they might receive a bushel of grain heads, which they would divide among themselves. Depending on how many men were dividing, how much threshed grain the bushel basket yielded (between 30 and 40 tiyas), each would get between 10 and 13 tiyas.<sup>4</sup> If he worked alone, he might work for three days before he received a whole bushel.

In the villages north of Tanout, the Katsinen-ko'en men will work for anyone, whether they know them or not. A hard worker will be referred to other field owners. They might stay in the field owner's house if they work for him for some time, but usually they sleep at the mosque and village women bring them food in the evenings. They may or may not receive food during the day, if not, then *munyaal* (patience). My young informant had worked for most of a month and had collected fifty tiyas in two grain sacks. He sold a tiya for travel provisions for the trip home and brought the rest of the grain back to his mother.

On the next to last day I spent at Mai-Kalafo one of the southern women called a *gayya* (a work party), asking her neighbors (daughters and husband's nieces) to help her harvest a bountiful sorrel crop. She spent the morning under an awning near the field, cooking nyiiri and suutam for the seven or eight women who picked sorrel leaves for her. Besides the large lunch, she may have given a share of sorrel to each helper, but she would not have paid them cash.

### ***Threshing***

I bought millet for the horses, four tiyas from Zara and three tiyas from the ardo's wife. I asked if they had harvested it from their gayamnaaji. They said no, they hadn't cultivated gayamnaaji this year. The ardo's wife received her grain as sadaka from the young men and Zara received hers as payment for threshing. [*Field notes: November 30, 2006, Mai-Kalafo*]

The Katsinen-ko'en women from cultivating households thresh grain for their own cooking every few days as long as the harvested grain lasts, but at harvest time a man (or woman) may want to sell some grain and therefore need a large amount of grain threshed at one time. He will hire neighbor women to thresh for him, paying them one samfoore of

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<sup>4</sup> At about 250f to 350f a tiya, the harvesters made between 2500 and 4500 a day, much more than the weeders. My young informant, however, suffered physically from the very hard work of harvesting.

grain heads for every ten threshed. Some of the Gojen-ko'en women will also look for threshing work at harvest time, if they are camped near or are able to travel to village fields.





**Figure 7.8:** (Photo, left, çavol 2006) A Katsinen-kejo woman carries a load of grain heads to the threshing ground.

A pile of chaff lies behind her. This chaff will become valuable in the dry season as emergency fodder for cattle when the grass has all been eaten.

**Figure 7.9:** (Photo, below) Four women thresh millet and sorghum on a threshing ground, a hard patch of clay swept clean of sand, in the maysoore between fields.

As two women pound the grain heads with a special threshing mortar, one winnows the grain in the wind, which blows away the chaff while the grain (and some sand) falls into the bushel basket. A husband stands behind them; he has just carried a bushel of grain heads from the granary.



### ***Herding Labor***

While Woḍaaḅe, depending on their livestock wealth, often herd for livestock-wealthy villagers and urbanites, mixing the owner's animals with their own household livestock, the Katsinen-ko'en whom I interviewed did not herd non-wuro animals. Only the dilali included cows belonging to a Hausa friend in his household herd. Nor did these Katsinen-ko'en hire herders, or herd for villages, as do some southern Fulḅe. Several sons, however, herded and watered for pastoralists in the Ajiri rangeland. The men work throughout the year and perhaps for more than one year. Some young men worked for Woḍaaḅe; others probably for Katsinen-ko'en. Most are paid in livestock, but at least one man received cash. I learned few details of the Katsinen-ko'en's work, but from past conversations I understand that a herder is usually paid a heifer each year that he works.

### ***Wage Labor***

Ever since the 1984 drought, when so many Woḍaaḅe lost their livestock and took on all sorts of different work to restock their herds, most young men from the Tanout Gojen-ko'en travel to Nigerien or Nigerian cities to engage in menial wage labor: security guards, bearers, water carriers, or tea peddlers (see Loftsdóttir 2002; 2008, for Woḍaaḅe labor migration in western Niger). They usually work throughout the year and often for several years, taking their wives and young children with them. Many Hausa, Kanuri and Tuareg villages empty of men during the dry season as young and old head south to look for work in various cities in Niger and Nigeria (see e.g. Rain 1999). Those who leave for longer than a season travel as far as Libya, Algeria and Ivory Coast.<sup>5</sup> They leave their wives and children at home and send remittances if they can. Before the rainy season, large trucks descend south across the Sahara carrying men and the goods they have bought. In Tanout, men reload their packages on trucks that will take them to their villages.

A very few Katsinen-ko'en men from the research communities had left the area to look for wage labor. Most of these spent years working in Nigeria; one man worked in Kaduna as a "*lebura*" for eight years and returned home to be married. Another man remarked that he would go to Libya if he did not have to care for his mother. A few young sons had run away from home and their parents did not know where they were; they may have been working as wage laborers. The men of other ethnicities, such as the Woḍaaḅe, have networks of relatives working in strange cities (see also Hampshire and Randall 1999). These Katsinen-

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<sup>5</sup> *There is a human trafficking route leading from Nigeria through Agadez (a hub) and Libiya to Europe. I know of no Tanout residents who take part, but I may simply not have heard about them. Farmers and pastoralists are probably too poor to pay the high costs associated with such migration.*



ko'en may or may not have had urban relatives whom they could rely on for help in finding work, but few took advantage of any possible networks. The practice may also have social stigma attached to it—perhaps as a “Haaɓe thing to do”—as the one man engaged in wage labor during my research seemed to have earned some contempt for leaving his wife and children.

### **INFRASTRUCTURE: ROADS AND COMMUNICATION**

Regional infrastructure, such as roads and communication networks, if well maintained, can reduce transaction costs for household members who go to market. The highway that runs through Tanout, between, ultimately, Nigeria and Algeria/Libya, allows (agro)pastoralists in the area to maintain some access to resources such as kin networks and wage labor that are not available to rangeland residents without such infrastructure. A voyager needs cash for fare and food, however and patience to deal with the travails of road travel. As discussed above, with structural adjustment, Niger reduced government services considerably, eliminating some services and privatizing of others. While transaction costs for rural residents would be much higher in labor and time without the existing infrastructure, its current state of repair leaves much to be desired.

The government's withdrawal from free services has coincided with the privatization of some services, such as pharmacies for human and livestock medications, private clinics and private schools. Most such services are located in cities like Zinder, but a few pharmacies, one specializing in veterinary medicines operate in Tanout. After years of fighting government prohibition against inoculating one's own livestock, pastoralists can finally purchase syringes and vaccines at veterinary pharmacies. Private cell phones companies have begun to fill the tremendous communication gap left by the national phone service (Tanout has had very limited landline service since the late 1980s), though the research communities all reside outside the “réseau” of cell service, and no one owned a phone. I have already described how some boreholes have been privatized, but most services which the government might provide, for example road maintenance, are much too expensive for the rural population to pay for. Boreholes, some larger clinics and a few private buildings run their own generators for electricity, but in the département only Tanout town provides electricity to most houses and businesses. Very few residents (and no one I know) would be wealthy enough to own and operate a generator. That said, Tanout town's electricity and piped water is relatively dependable, except when a water pump breaks.

## **Roads**

Eliminated departments, following structural adjustment, included *Travaux publics* (Public Works), which, among other functions, maintained the national system of three major highways, some minor paved roads, and several laterite dirt roads. Now the government can only solicit funds once in a while to finance road repair or paving projects carried out by foreign companies. In between these projects, the roads fall into serious and dangerous disrepair (see also Rain 1999). Only the practiced skill of van, truck and bus drivers prevents more accidents from happening than actually do. During the 1980s, Travaux Publics vehicles would sweep the highway somewhat regularly of sand; without this service, dunes drift across the pavement during the dry season. Now boys from nearby villages try to shovel the sand away, hoping drivers will throw coins to them for their efforts. Often in both 2006 and 2007, vans or trucks had to drive through stubble fields to avoid huge dunes blocking the road.

Besides dunes, the pavement on the highway from Takoukout through Tanout to Zinder disintegrated during those two years. When I first arrived in 2006, a morning trip from Tanout to Zinder took a couple of hours at most in a newish, fast Toyota van, and I made the round trip to Zinder and back comfortably in one day. After nduungu, and then the cold, the road grew progressively worse, taking more and more of a toll on the aging vans. Long sections of pavement wore away to the laterite base or were so corroded with large, deep potholes that large trucks followed sections of the old laterite road that paralleled the highway. Smaller pickups and vans drove half on the shoulder and half on the pavement, or wove back and forth across the road. The trip to Zinder and back grew longer and longer.

Formerly hard-packed laterite gravel, the road from Takoukout to Gourbobo has eroded so much over years of neglect that trucks and vans follow the road part way and make their way through the çengol or through fields for the rest of the way. In this way they can avoid the gullies that cut deeply through the road, but during ceeðu only heavier four-wheel drive trucks risk the deep sand. When the first rains fall, the sand becomes packed with moisture and the lighter, more comfortable vans navigate the makeshift road, but must now avoid the newly planted fields. When storms wash gullies through the road, once again only four-wheel drive vehicles attempt the navigation to Gourbobo. At a gully, the passengers in a small truck all dismount while the driver's assistant turns the front wheel hubs to 4-wheel drive. The driver shifts into lowest gear and maneuvers carefully down the

two-meter high embankment, across the gully bed and then up the other side. The men push the truck if it needs some extra help. Only hills of deep sand impede trucks on the road from Gourbobobo to Batte which had never been “paved” with laterite.

Most of the highway from Zinder to Agadez was paved in the mid-1980s, but something happened to the funding before the road was completed. The road for almost 100 kilometers from just north of Silika to about 40 km north of Aderbissinat was left unpaved for twenty years. A French company had begun laying the bed for the remainder of the highway when I arrived in 2006. Sometimes the road crew worked near where we camped, but usually we saw only the effects of their work. On every trip to the rangeland, we saw more bed laid and then more layers of gravel and tar. Meanwhile trucks and vans followed the old laterite and dirt road. During the rainy season of 2007, storms flooded the old road with numerous ponds that the smaller pickups skirted easily. Several large trucks and buses, though, were caught, sometimes for days, in the muddy sand of the road. Just before I left Niger, in October 2007, the highway was finished and trucks, vans and cars began traveling on it on their way to and from Agadez. On my last trip south from Aderbissinat, however, (before the road was entirely open) we noticed spots where the edge of the pavement had already begun to crumble away down the bank of the new road.



**Figure 7.10:** (Photo, October 2007) The truck road into Gourbobbo from Batte, Ido-ga-Rakumi, Futawa and Mai-Kalafo.



**Figure 7.11:** (Photo, October 2007) The Zinder-Agadez highway coming into Tanout from the north.





**Figure 7.12:** (Photo, koorsol 2003) Market goes at the autopark of Takoukout, waiting to load their purchases.



**Figure 7.13:** (Photo 2007) In the Tanout market, a Landrover is loaded for the trip to Gourbobo. The driver (on the right) and his assistants stand in front.

### ***Travel and Transport***

Several roads, besides the paved highway serve marketplaces west of Tanout. The dirt road from Takoukout west through Gourbobo, Ido-ga-rakumi and Batte heads eventually to Dakoro.<sup>6</sup> Two or three particular market trucks, Landrover and Toyota pickups, make the market run from Tanout to Batte, approximately 130 kilometers, every week or so, depending on the condition of the trucks, which take tremendous beatings between the loads that they carry and the rough roads they travel.

The truck in which I usually rode (see photo above) was owned by a taciturn merchant who usually made the market run. His driver and the driver's assistants needed to bring all their mechanical skills into play to keep the truck on the road every week. The merchant, an Udaajo, had a wife and family in Gourbobo, while the Hausa driver's family lived in Batte. Both my Dagara hosts in Gourbobo and the arɗo's family at Mai-Kalafo knew and loved the driver, a kind and patient man, who took them in "his" truck at no charge. The truck would leave Tanout for Gourbobo on Saturday, in the late afternoon or evening of market day, arriving sometimes well after dark. On Monday, the driver and his assistants drove people to and from Takoukout's market. Wednesday morning they headed west to Ido-ga-rakumi's market with the merchant-owner, sometimes dropping off items that Mai-Kalafo residents had ordered, or left with the driver in Tanout or Gourbobo. Then the truck traveled on to Batte's Thursday market. Thursday evening they traveled back to Gourbobo, stopping in Mai-Kalafo when necessary. On some Friday mornings they drove to Takoukout to pick up people heading to Gourbobo market, or they headed straight to Tanout. After Tanout's Saturday market, during which a welder or mechanic often worked on the truck, they started their weekly round over again.

Two other familiar small trucks made such weekly runs, but we would see few other trucks on the road all week. Everyone at the Hamugani households wondered about any anomalous truck or SUV passing by, especially on a non-market day: who did it belong to? where it was heading and why? Sometimes a large truck would follow the road heading west to the Ido-ga-rakumi or Batte markets or east to Gourbobo. Large trucks can navigate the dirt roads somewhat more easily; some of these trucks transport market goods and people from Maradi to Aderbissinat following the dirt roads through Belbeji and Batte.

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<sup>6</sup> *I have not followed the road from Batte to Gandou (nor have I been to Dakoro), and the road is hidden in the trees of Elikɪ Çengol and cannot be seen on Google Earth. For this reason I have not included it on my maps.*

Vans, buses and trucks, small and large, followed the highway between Zinder and Agadez. Market trucks, mostly Peugeot 404s (see photo, Figure 7.12 above), nicknamed “*bâchés*” for the high tarps that often tent their beds, and 19-passenger vans pick up market-goers in Abuzak, Silika and Eliko on Friday and Sunday afternoons before Tanout and Takoukout markets, and return on the afternoons or evenings of market day. One or two vehicles appear each week at the autopark of each hamlet. The Siogari pastoralists and we knew that if we entered Abuzak by 2:30 or 3:00 on Friday afternoon we would find a van driver waiting until he collected enough passengers to make the run to Tanout. The vehicle assistants load goats and sheep onto the vans’ roof-racks or atop the frames over the pickup beds, tying the animals skillfully (usually) so that they arrive alive and uninjured at the marketplace. In the truck beds, the animals’ urine might leak onto passengers and cargo. Once in a while, a pastoralist will try to load a calf in a half empty van or pickup truck, but the driver usually tries to avoid such a load. Only if he has not found enough human passengers, whom he charges more money and packs into small places, will he load livestock inside his vehicle. Even then he negotiates such a high price that only a pastoralist with ready cash, and desperate to get the animal to market, will pay the fare (very rarely will a driver allow a pastoralist to travel on credit). Once in a while we saw a real cattle truck traveling from Agadez (or from further north) south to Zinder or Nigeria, but nothing of the like stops along the highway. Cattle, donkeys and camels purchased in Tanout for resale are driven on the hoof further south by professional drovers.

Vehicles only make market runs from the northern hamlets in *nduungu* and *çavol* when more pastoralists reside in the north. On non-market days, or if the regular vehicle has already left, a traveler might flag down a vehicle traveling from Aderbissinat or Agadez. Like Tanout, Aderbissinat attracts vehicles every day to its autopark, including large trucks, but even there a traveler hoping to travel to Tanout might wait half a day or more for a truck either to arrive with space for passengers, or to finish loading enough cargo and passengers to make the trip worthwhile. Large buses, belonging to private companies and a government service, also run regularly between towns and cities, but these vehicles charge higher fares, do not normally stop along the highway, and do not transport livestock.

Traveling to Hamugani from Gourbobo on an oxcart, Friday night after market, I saw a couple of drovers some distance off the road driving a good-sized flock of goats and sheep. The men with the ox-cart said the drovers drive them from Gandou market to Tanout. Perhaps they also picked up animals at Batté. [*Field notes: December 30, 2006*]



Except for the smallstock trucked along the highway from northern hamlets to Tanout and Takoukout markets, and from Tanout south, all other livestock is driven on the hoof from the pastoralist's camp or villager's house to market, and from village market to Tanout. Tanout dilali hire professional drovers, as a free service to the pastoralists who patronize them, to collect livestock on Friday morning at Takoukout and drive the animals the final leg of the journey to Tanout. From Edigini well, northeast of Takoukout, the Gojen-ko'en women ride donkeys and the men drive livestock for sale in Tanout to Takoukout, spending Thursday night in the çengol to the east. After rising at dawn to arrive early in Takoukout, the men first turn their cattle and smallstock over to their Tanout dilali's drovers. They leave their donkeys in a villager's compound (with the risk that they will not be fed even if money is left for hay), and then find a van to Tanout. The drovers walk beside the highway, the fastest route through the laterite hills, and where the highway climbs through cliffs they herd the animals on the pavement, a safer tactic with a larger, more visible herd than for a pastoralist driving a few animals.

Almost every Tanout market draws several large Nigerian trucks, with their wooden-slatted sides painted in colorful flowers and animals, to haul smallstock to Nigeria. Some of the older market vans, emptied of their seats, are also packed with goats and sheep for the trek south, either to Bakin Birji, Zinder, Koundoumawa or Mai-Aduwa.

Passenger fares remain fairly stable, unless the price of fuel rises. We could usually count on fares of 1500f between Zinder and Tanout, 750-1000f between Tanout and Gourbobou, and 1250f between Tanout and Abuzak. Each size of grain sack and type of livestock also has its standard fare, but these can be negotiated (or at least protested against) somewhat more easily than passenger fares. In January 2007, the fares almost tripled, reflecting both a rise in the price of fuel, imported from Nigeria, and a crackdown by customs agents on black-market gasoline. After January, the prices subsided again to normal levels.

### ***Radios and Miscellaneous Innovations***

While neither Katsinen-ko'en nor Gojen-ko'en owned cell phones, the men in both groups invest in short wave radios (as do many Nigeriens) with which they receive national (government) and international broadcasts in Hausa. This news gives the men at least an idea of the larger world outside the département. Takoukout also had a small FM radio station, but its range did not reach very far outside the village. Katsinen-ko'en women complained that their men wasted too much money and time buying and repairing radios.

As an example of Nigerien ingenuity, new LED lights had been reverse-engineered from more expensive plastic models, probably Chinese imports. They provide a distinctive blue light in a few *cuuḍi*, which before only cooking fires and flashlights lit, with kerosene unavailable outside larger villages. New LED flashlight bulbs also save a great deal of money expended on batteries.

Zara and Mariya were trying to repair one of the new lights that I had seen for sale in the market: an old CD or DVD with five LEDs punched through holes around it, wired together and then through a switch to a wooden box of four batteries. The light would not work, but after some effort Mariya succeeded rewiring the light and gave it to the *suudu* owner who hung it over her *denki*. I supposed they learned something about wiring from watching their men repair radios.

Zara and Mariya explained to the older women that they could buy such lights in the market for 1000f and then take the batteries from their sons' radios. "Your sons have radios, don't they?" Mariya asked a visitor.

"Our granary is full of radios," she replied. "I looked in there—no grain, just radios!"

We joked that one could not pound radios into flour. I suggested she sell them to buy grain, but she laughed that none of them worked; they were all worthless.

The women complained about the time their men waste fixing their radios, plus the money for flashlight batteries when they worked on them at night—flashlight between chin and shoulder (Mariya demonstrated) as they worked with both hands—and sacks of charcoal, a fire full of knives heating to repair plastic and solder. "Young and old!" they protested. Even an old man, if he comes on a man with a radio opened to its wiring, will bend over to comment: it works here; it doesn't work here. [*Field notes: January 26, 2007*]

Such disputes as these over batteries and radios and the money spent on them comprise part of the household negotiations of the conjugal contract discussed in the next chapter, which examines the gendered and generational transfer of resources.

## HEALTH

In terms of categorization, health belongs to economics as well as government, because people not only obtain medicines and services from government clinics, but also buy imported medicines in the marketplace, and patronize local and itinerant healers (*boka'en*) and clerics for various ailments. The people I know and work with in Tanout are little affected by HIV/AIDS. Malaria, the other major international concern for Africa strikes individuals during the short rainy season, but does not seem to affect the (agro)pastoralists as badly as it does villagers further south. Other illnesses such as rashes, colds, and an outbreak of whooping cough, affected children during the research period. I recorded one difficult childbirth.

## ***Maagani***

When a household member becomes ill, the Katsinen-ko'en try traditional remedies first, economizing by using local cures they know, then when necessary consulting a local healer or cleric for herbal or spiritual maagani.

In the late morning, Maani stopped by to say that he would take Barkeeki and her baby to Tanout hospital. We watched them walk over the hill west of us. In the late afternoon, though, Idrissa's wives said Barkeeki had returned home. At her camp later, Barkeeki told me that they'd found a Βοδaaδο healer who had *bosoi* (prayed over) the baby. [*Field notes: September 10, 2006*]

Many people also buy imported medicines (most from Nigeria, China and India) in marketplaces and shops. Some of these medicines, especially the balms, are effective; others are questionable to dangerous. All, however, are less expensive and more easily accessed than those in official pharmacies, located only in Tanout town and perhaps a few larger villages in the département. The government tries to fight against fraudulent medicines, including "vitamins" and other "medicines" for livestock, and encourage people to buy only at pharmacies, but with little result among rural residents. Injuries, especially broken limbs, dislocated joints and sprains, are almost always treated traditionally, often at home. When I asked a father if he had considered taking his child who had broken an arm to the clinic, he looked surprised and answered that he did not know that *likita* (Western-educated health workers) treated broken bones.<sup>7</sup> Usually only as a last resort will the Katsinen-ko'en travel to a clinic. The option seems very chancy to them: one may expend money, effort and time for a treatment that will only aggravate the illness or cause new distress, or be rebuffed by the health workers. The amount of money that rural Fulbe spend on traditional maagani (tens of thousands of francs) compared with that they are willing to spend on Western medicine (hundreds to a few thousand francs) also indicates their greater faith in the maagani that they know and the respect they receive from traditional healers.

## ***Clinics***

The ardo's elderly sisters and their sister-in-law and I discuss the hospital and clinic at Tanout, and the clinic in Gourbobob. One sister related how she had been to the Tanout hospital once and thought maybe she would return because her legs pained her so much. "But last time," she said, "we had no luck at all." She had taken a young, ill child with her. When they disembarked in Tanout, Haaε told her to go to the hospital far from the autopark on the northern edge of town. When they arrived there, they were told they had to obtain *ereji* (papers) at the maternité by the market (about 1.5 km from the hospital). "This was at night!" she exclaimed. So they returned to the smaller clinic

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<sup>7</sup> As the only exception I know for injuries, *Wodaaεε men badly cut in sword fights will go to the hospital in Tanout or Zinder for treatment.*

where a nurse “measured” (*awna*) the child all over, pulled its arms, and then said that the hospital would keep the child for two nights. So they stayed two nights at the hospital.

Her sister-in-law asked how much it cost now to travel to Tanout, and complained that men in Gourbobob had quoted her a fare of 2000f (in January). She said she was used to paying 750f to Tanout and 750f from there to Guezawa where home is. Now I imagined both of them, with their hurting bodies, in the bed of a big truck, the only transportation out of Gourbobob with the road so bad. “With people stepping and sitting on you!” the woman exclaimed. [*Field notes: March 21, 2007, Mai-Kalafo*]

The Tanout clinic of the 1980s, located at the top of a tall stable dune, became a hospital in the late 1990s, and the government built a clinic devoted to maternal health near the marketplace across town. Small dispensaries in larger villages like Sabon Kafi and Bakin Birji, staffed with a female midwife and a male nurse, were enlarged into clinics with maternities. Other villages such as Takoukout and Kelle-Kelle received small dispensaries. Abdinazak, with its new market hamlet, received staff for a clinic in 2007, and a nurse working with CARE confirmed the rumor that Eliki hamlet would probably soon receive a small dispensary, the first small clinics to serve the pastoral zone. During the time of my research the Katsinen-ko'en traveled to Gourbobob or Tanout for Western medical care. Gourbobob's clinic, still small in 2006-7, was staffed with only one or two health workers at a time. During my research, the Gourbobob nurse died after a motorcycle accident and the clinic was open only irregularly for some time afterwards. Mai-Kalafo women told me that the new nurse believed the clinic was haunted and refused to stay there at night.

Ineffectual visits to clinics and the hospital, and their perceptions of discrimination by health workers, discourage Fulbe from attending more often than they do. The journey to Gourbobob, by donkey or oxcart (very few people own the latter), is not easy, especially if one is ill. Even a ride to town in a vehicle usually means that one is packed tightly among people, mostly men, and cargo, so that movement is practically impossible. Once at the clinic or hospital, care is not guaranteed, sometimes through the fault of the healthcare workers (at least in the eyes of the Katsinen-ko'en and Woɗaaɓe) and sometimes because healthcare workers lack the necessary equipment or knowledge.

The arɗo's daughter-in-law described her daughter's unfortunate injection at the clinic. She showed us how the nurse jabbed the needle straight into the girl's thin thigh and hit the bone. “Even I know better than that!” the woman exclaimed, demonstrating how one should carefully slide the needle at an angle into the thigh. She complained that the clinic workers think “we're just stupid bush people who don't know anything.” The girl limped for more than a week. [*Field notes: June 24, 2006*]

Of the people I interviewed, and including the Woɗaaɓe, the Siogari Katsinen-ko'en were least likely to seek Western medicine. Daji remarked that they would not even buy

medicine in the marketplace. When Maani and Barkeeji finally took their very sick child to Tanout, the journey ended in disaster, though not at the hands of the hospital staff. The boy, about three or four years old, had not been able to eat for a long time before I first met the family. Over the weeks of my stay in the area I tried to convince the mother and father to take the boy to the hospital at Tanout. Unlike most of the rest of the Katsinen-ko'en children he was malnourished, listless and weak, unable to swallow well and could not keep food down when he did. The Boδaaδo told Barkeeji that the boy had hepatitis, but both she and I doubted that diagnosis, because he showed none of the symptoms. Later the father's relatives told me that Maani and Barkeeji finally took the boy to the hospital and received some medicine, but nothing that helped him. On their way home they stopped in Takoukout to see a barber-surgeon, convinced that the boy's uvula kept him from eating.<sup>8</sup> The barber cut out the uvula, and the boy quickly bled to death, probably because his weak body could not support this normally simple operation.

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<sup>8</sup> *I have heard of numerous ailments in Tanout for which the common remedy is the removal of the uvula by a barber-surgeon, almost as common as tonsillectomies used to be in the States, if not as hygienic. As in an earlier era in Europe, barbers perform various types of surgeries, including blood-letting, cupping and circumcisions.*

## **CHAPTER 8: HOUSEHOLD FRAMEWORK— GENDERED RELATIONS AND RESOURCE TRANSFERS**

[T]he distribution of resources, and the ways in which people organize the transfer of resources from one individual or group to another, are crucial for understanding people's strategies for coping with ecological insecurity. (de Bruijn and van Dijk 1995:301)

In the previous chapters, I have discussed how households interconnect into surrounding political, economic and ecological environments. In these last chapters, I extend Wilk's idea of household ecology to examine economics (resources) and politics (agencies and power over decisions) within the household, and how household members organize and combine resources and decisions into strategies to cope with the stochastic nature of the ecology and other environments. Each individual within the household fits into a particular position within a flexible, interacting system of rights and obligations (Giddens 1979:86), a framework of resource access and transfer, and decision-making agency and responsibility depending on his or her gender and generation, i.e., age and stage in the life cycle. The framework adjusts as children grow and parents age through the lifecycle of the household, but it also shifts to accommodate households with too few sons or two few daughters (see also Crawford 2008:67). Normative sanctions within the framework, such as the obligation to provide for the household, or to feed one's husband and children, confer capabilities and responsibilities on decision-makers and bargaining power to persons negotiating with a decision-maker.

In this chapter, I explore gendered and generational resource transfers. The following two chapters focus on interests and goals of individuals, households and communities, the processes of decision-making used to realize those goals, and the ways in which decisions become strategies. The final chapter discusses adaptations that households and household members have made in the past, and possible future changes introduced by government or development agencies.

### **GENDER RELATIONS AND THE MARRIAGE CONTRACT**

One day while I stayed with a Woδaa6e family, I noticed to my horror, up the hill in their neighboring camp, Deگو beating his wife, Mariama, with his heavy herding staff (Greenough 2006:150; see also Loftsdóttir 2008:103-4). When I spoke with Mariama later, she told me that Deگو had taken one of her rams to sell at market, and now he wanted to

take her cash, which she had saved in a pouch around her neck. He needed money to pay back a long overdue loan. The next day, as we packed the camps for a move, Dego uncharacteristically left the livestock to come help Mariama rig her gear and lift it onto the donkeys' backs. Only when he had collected and secured all of the gear—a task most husbands leave to their wives and daughters—and his wife had mounted with her youngest child in her lap, did he return to the livestock. Though he said nothing, only his contrition over yesterday's beating, and concern for his wife, could have prompted him to help Mariama in this unconventional way. Sometime later, I visited Mariama at her camp and asked her how everything was going. She laughed a bit and told me that of course she had forgiven her husband. She needed him; he herded her sheep for her.

As violent as the negotiation over Dego's loan repayment became, such interactions between husband and wife provide illustrations of conjugal performance over a conjugal contract, the continual maneuvering between husband and wife over their separate and joint interests (Jackson 2008). Through customary rules, Mariama's money and livestock belong to her and she should be able to give them to Dego, or not, as she wishes. But her institutionalized right over her property collided with Dego's obligation to his household and his institutionalized right as head decision-maker for the household. As head of household, with the responsibility to keep his children fed, he had borrowed money to buy grain for his family. Mariama might have been persuaded to contribute her wealth for the good of her children, but perhaps Dego had broken too many promises to pay her back. Though I never saw such discord among the Katsinen-ko'en—in fact, quite to the contrary, wives sometimes scolded and often joked with their husbands—wives and husbands have similar rights and responsibilities as those among the Woḍaaḍe. Wives and husbands together create households.

As introduced in Chapter 4, when a man marries, he gains not only a wife and the children whom she will bear him, but a suudu in which to live, and eventually his own wuro. A Boḍaaḍo or Katsinen-kejo man without a wife literally has no home (see also Riesman 1998 [1974]:31; Loftsdóttir 2008:61). He may command a sort of half-home if he has a daughter or daughter-in-law to cook his meals, but without such dependants, a divorced or widowed man must depend on other women (and their husbands) to care for his children until he can marry again. He has no place to live.

Nomawo is a guest who came to live with Tankari, an elderly man, and his wife Altine. He is perhaps ten years younger than Tankari. Altine insinuated that he just showed up one day a couple of years ago and stayed. She said she just takes him his daily suutam. He cultivates a field here. Tankari told me that Nomawo simply arrived here. He only



knew that he was related to a man who had once lived north of here. Nomawo helps the elderly couple quite a bit by fetching water, buying things at market for them, and contributing grain from his field. Today, he brought back water for Altine, but before he went to the well, he helped Tankari get a couple of bushels of millet out of the granary for Altine to thresh. [*Field notes: March 1 & 3, 2007*]

Through Islam, the male head of household is obligated to provision the household with food (Turner 2000:1016; Moritz 2003:304),<sup>1</sup> which entitles a wife to long-term food security. In Katsinen-ko'en households (and most Woɗaaɓe households today), the husband supplies grain, through livestock sales, cultivation, or another form of income generation. The inverse of the conjugal contract entitles the husband to every day food security, as his wife is obligated to prepare meals, besides creating the home. A wife gains not only a grain provider, however, but also, as Mariama suggested, a laborer. To provide means for his wife to obtain milk, he cares for the livestock, his own and those of his wife and children. He negotiates for land resources, including wells and fields, and fabricates and repairs work gear, such as ropes and well bucket-bags. Besides food and his own labor, he gives his wife children,<sup>2</sup> who (if she is fortunate) will contribute labor to her hearthhold and care for her in her old age. An (agro)pastoralist woman who has lost her husband through death, divorce or separation keeps her suudu intact with difficulty. To do so, she must join a wuro, headed by her father or brother, or a new husband, who will take care of food provision and her and her children's livestock. The marriage in an (agro)pastoralist household operates as a partnership, by no means always serene, of course, and more often than not inequitable, but the household enterprise risks failure and its members destitution without the sharing and exchange of gendered labor and other resources, and the negotiation of decisions into strategies of sustainability.

Cecile Jackson would like to dispel the "myth" that "marriage is largely a mechanism of subordination" (2008:105), and though marriage in patrilineal, patriarchal societies cannot be generalized as equitable, gender relations prove rather more complex and dynamic than that of dominant husband and subordinate wife (Hodgson 2000a:4). Jackson points out that "conjugalities are a more historically changing dynamic and open field for contestation of the terms of marital co-operation" in which women's agency (as well as men's) might be

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<sup>1</sup> Moritz (2003) notes a shift in this responsibility from wives to husbands as his Fulɓe research communities in Northern Cameroon settle into peri-urban agropastoralism. During, the 1950s, Dupire (1963:81) remarked that, except during *koorsol* ("soudure") when men sold livestock to buy grain, Woɗaaɓe women bartered dairy products for household grain. I noticed this as well among livestock-wealthy Woɗaaɓe households during a good *nduungu* in the 1990s: a wife, asking to barter her milk for my grain, told me that her husband would not buy grain in *nduungu*.

<sup>2</sup> Fathers generate children, while mothers give them a place to develop and nourish them.

“directed ... towards reforming the terms of such co-operation” (2008:114). Moreover, most men surely want to provide for their children, agonizing when they have too little grain to feed them. I have often heard Woḍaaḅe elders remark about an irresponsible young man, “Oh, he’ll settle down when he begins to have children. He’ll have to.” It is also in the husband’s interest to have a wife with the material means and a will toward collaboration in the household enterprise. His wife must transform the milk and grain he provides into meals for her hearthhold, after which any income she derives from her sales of surpluses belongs to her. Though she decides what she will spend it on, she often uses the money for her *suudu*, including her children’s care. Her husband’s income entails rather more restrictions because of his obligation to provide long-term security for his family. Within these interacting rights and obligations, both husband and wife must negotiate over separate and joint interests and goals, which I take up in the next chapter. First, I describe more fully the exchanges of labor and other resources and assets that take place within the household.

#### **WORKING WITH EACH OTHER: HOUSEHOLD LABOR AND SOCIAL NETWORKS**

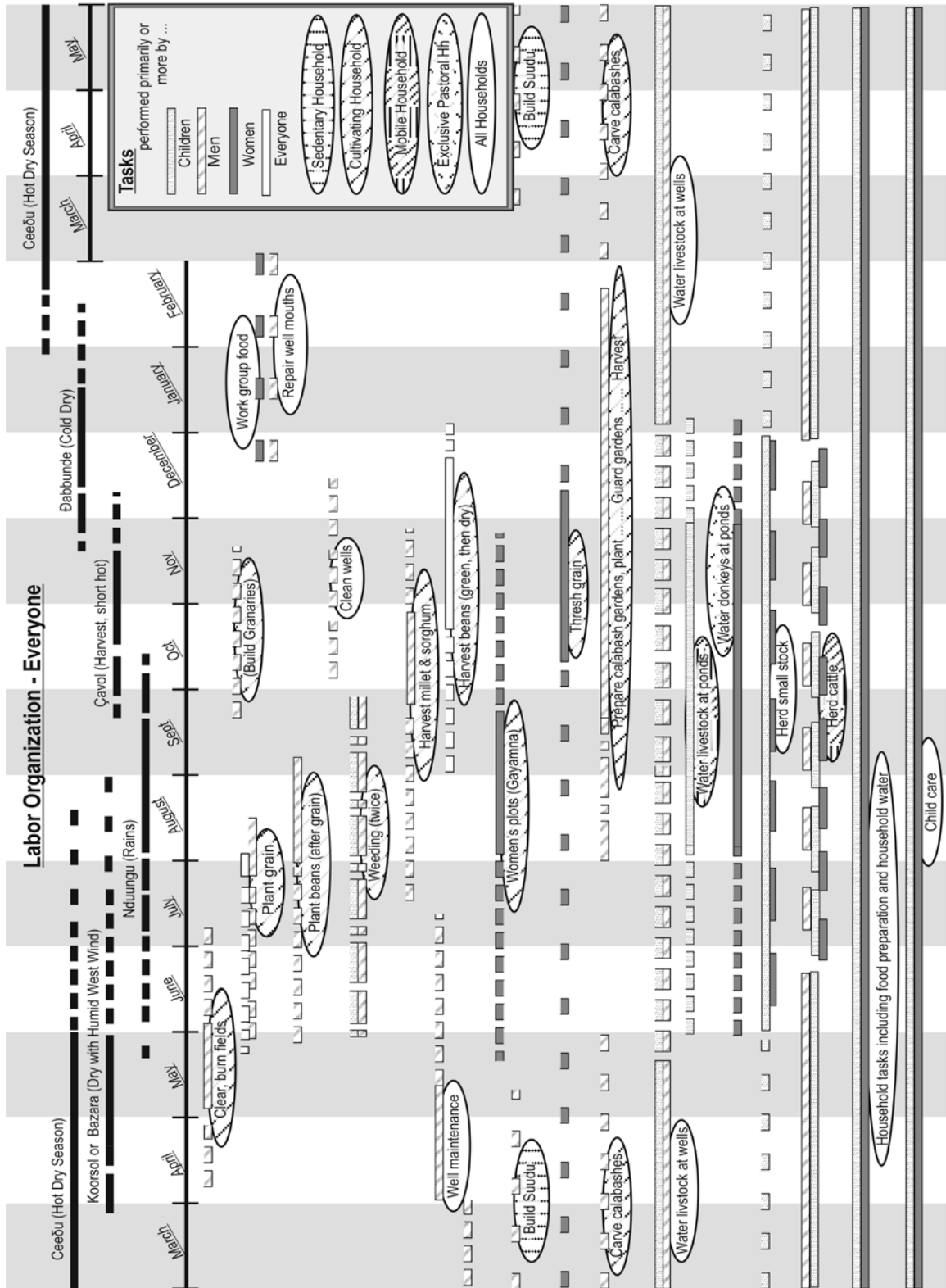
Human resources, labor and knowledges, in (agro)pastoralist communities manifest in different aspects: as household and family, organized by gender and age, and as social networks, organized by relationship and geographic locale. Both aspects also entail transfers of material resources in communal exchange, for example food and endowments within household and family, and livestock loans and gifts among social networks.

##### ***Gendered Labor***

When a young woman has been given to her husband after her *biki* and her parents have helped her to set up her *suudu*, she becomes *jawm suudu*, owner or master of the hearthhold. Her husband, with someone to manage a *suudu*, becomes *jawm wuro*, owner or master of the household. Though Katsinen-ko’*en* and most rural Fulḅe divide labor somewhat simply by gender and age (Dupire 1960:76; de Bruijn and van Dijk 1995:150; Riesman 1998 [1974]:63-4; Moritz 2003:286), the divisions are not rigorously upheld. In general, Katsinen-ko’*en* women work within the *suudu*, milk cows and goats, and prepare all dairy products and meals. They care for, discipline and educate household children of their hearthholds: girls until they have been given to their husbands, and boys until about eight or nine years old when, as neophyte herders and cultivators, they come under the purview of their fathers. Men generally work outside the *suudu*, supervising fieldwork, herding and livestock watering if they have older sons (or daughters), or tackling these

chores themselves if their sons are too young. Women and girls help with livestock, however, and boys pound grain when necessary. Though men never cook meals, they roast celebration meat and cook sadaka nyiiri. They milk difficult cows, and give the milk to their wives.

Figure 8.1, below, illustrates the seasonal distribution of household tasks, segregated by age and gender. As with the broken lines for the seasons in Figure 6.1, broken lines for each task represent either a task's uncertain start (sowing and harvesting fields, for example) or its intermittent nature, such as threshing grain. Figure 8.2, following, shows the seasonal distribution of women's household tasks in more detail, segregated by age and livelihood. Migration, also involves the gendered tasks of moving livestock (men) and moving camp (women), briefly noted in Figure 8.2 (see also Figure 5.20). Both Figures, and Figure 8.3, provide references for the rest of this section, which describes the particulars of these tasks by category: household work, cultivation, livestock care, and watering and well work.



**Figure 8.1:** A calendar shows approximate seasons when tasks are carried out. “Mobile Household” means both mobile cultivating and exclusively pastoral households.

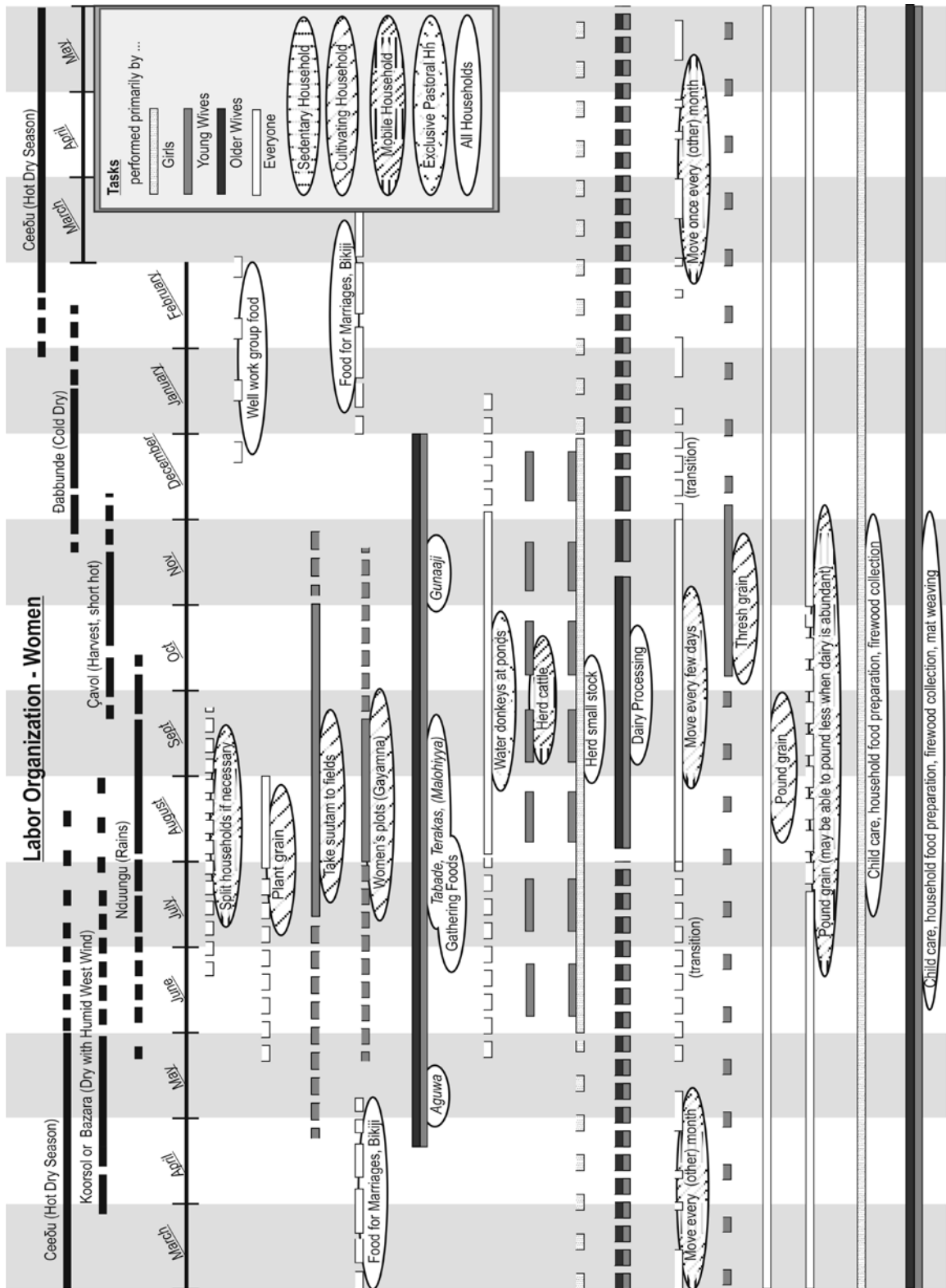


Figure 8.2: A calendar showing approximate seasons and timing of women's tasks.

## Household work

In the morning, she pounds sobbal, takes the suutam to the fields, comes back, looks for the donkeys, goes to the well, comes back, looks for the small stock, *to di boni*—so that they won't cause damage. [*Field notes: March 6, 2007, Mai-Kalafo*]

While we sat in the shade, where her brother-in-law's wife braided her co-wife's hair, we watched Zeyna return to her suudu riding her donkey and leading two camels—her husband's and his brother's. As she approached her suudu, we could see that one camel's saddle had slipped forward. Her brother-in-law's wife called to her to stop and fix the saddle. Before she could dismount, though, the saddle slipped all the way forward and under the camel. She uncinched the saddle and took it off. After she hobbled the camels and put the gear away she walked over to join her co-wife and brother-in-law's wife. As she walked she wove a mat strip. [*Field notes: July 1, 2006, Mai-Kalafo*]

At the elders' camp, I waited while Nana and her older co-wife, Nayejo, helped each other to pound grain and cook and pound sobbal. Their husband lay in the shade at our camp and called over that the granddaughters should look for the goats. The girls weren't there, though. Earlier, Nayejo's granddaughter brought in the donkeys, loaded them with water bags, and rode to a neighbor's camp to wait for her friends to go to the well for water. The women and their husband argued back and forth about what Nana's granddaughter should be doing. The women could see her in the distance, sitting in her aunt's suudu. They told each other that she'd gone there to escape pounding grain: "*O huuli unki* (she's afraid of pounding)." The women watered the kid goats and calves with water they had used to wash the millet. [*Field notes: August 17, 2006, Siogari*]

If a young wife lives with or near her mother-in-law, she will prepare meals for both her husband and her mother-in-law's suudu (see also de Bruijn and van Dijk 1995:302). If her husband has moved away from his father, she still has plenty of work to fill her days, especially if she helps her husband with the livestock. Before she has children old enough to help her, she must pound grain to flour for suutam and nyiiri, milk her allotted cows and/or goats,<sup>3</sup> prepare dairy products, cook meals, and keep her suudu clean and organized. When she establishes a suudu independent of her mother-in-law, she must decide how much millet or sorghum she needs to pound each day for suutam and nyiiri flour, and how much milk to take from the cow while leaving enough for the calf.

Women living near household fields thresh grain every few days. If her mobile household moves far from the granary, a woman will visit her affinal family living near the fields for several days to thresh enough grain for a few months. After threshing, she pounds grain almost every day in two separate stages. The first pounding disengages the bran, followed by winnowing and washing the bran from the kernels. The women save the bran for livestock that need supplementary feed. During the rainy season, when the livestock

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<sup>3</sup> No Katsinen-kejo I interviewed milked sheep, though one woman remembered her Udaajo mother milking sheep. Uda-en (usually men) and some Woδaaɓe women milk sheep, and Tuareg women are known for their sheep's milk cheese.

have plenty of grass and browse, the wives might steam their bran into *dambu*, a dark porridge served with milk and butter, a relatively easy food that requires neither pounding nor sauce (but not a “real” meal, see Chapter 4). Women with no need for bran (or a stronger need for cash) sell their bran to neighbors. The second pounding grinds the grain to flour. The woman sifts the flour between several poundings, removing fine from coarse flour, which she pounds again. She cooks the flour into *sobbal*, and then pounds the *sobbal* into a large, somewhat rubbery ball, ready to be mixed with milk. Her *sobbal* rests in a calabash bowl on her *denki* until she mixes bowls of *suutam* for her husband, her children and herself, or a guest. When her husband works in the field, his wife takes *suutam* to him, then she or her daughter fetches water from the well, waters any livestock unable to walk to the well, and collects firewood. In the afternoon, she pounds more grain (often sorghum) into flour to cook into *nyiiri*.

Some women pound all their flour in the morning, but most women pound only *suutam* flour in the morning. They pound flour daily or every other day, for a few to several hours, depending on the number of people they cook for. At first, I wondered why the Katsinen-ko'en women often cooked dinner long after dark. In Woḍaaḅe households, wives always try to have their cooking pots boiling water for *nyiiri* well before sunset, and hate to cook in the dark. They or their daughters start pounding about two o'clock, but they usually prepare only a light midday meal, if anything. Children snack on leftover *nyiiri* and milk. After a few months with the Katsinen-ko'en, I realized that pounding *sobbal* all morning took so much time and effort that, with their other tasks, the Katsinen-ko'en women could not start very early on the evening meal.

In between pounding grain and cooking meals, a wife milks the cows and/or goats, usually morning and evening. She churns her milk every morning to extract the butter. She mixes the buttermilk (*finndiḍam*) with *sobbal* for *suutam*, and uses the butter to cook sauce for *nyiiri*, or clarifies it, by cooking out any water and milk solids, into ghee (*nebbam*). When she has enough milk, she will curdle whole milk into cheese. Once she has a few children, and her marriage has gained stability, social convention allows her to take her dairy products to market.

The extent of a woman's tasks depends on the household's morphology. A young woman with only her husband and small children to cook for may have less household work than other women, who pound and cook either for both their mothers-in-law and their own *cuuḍi*, or for their own larger *cuuḍi* with working sons. Co-wives cook only every other two



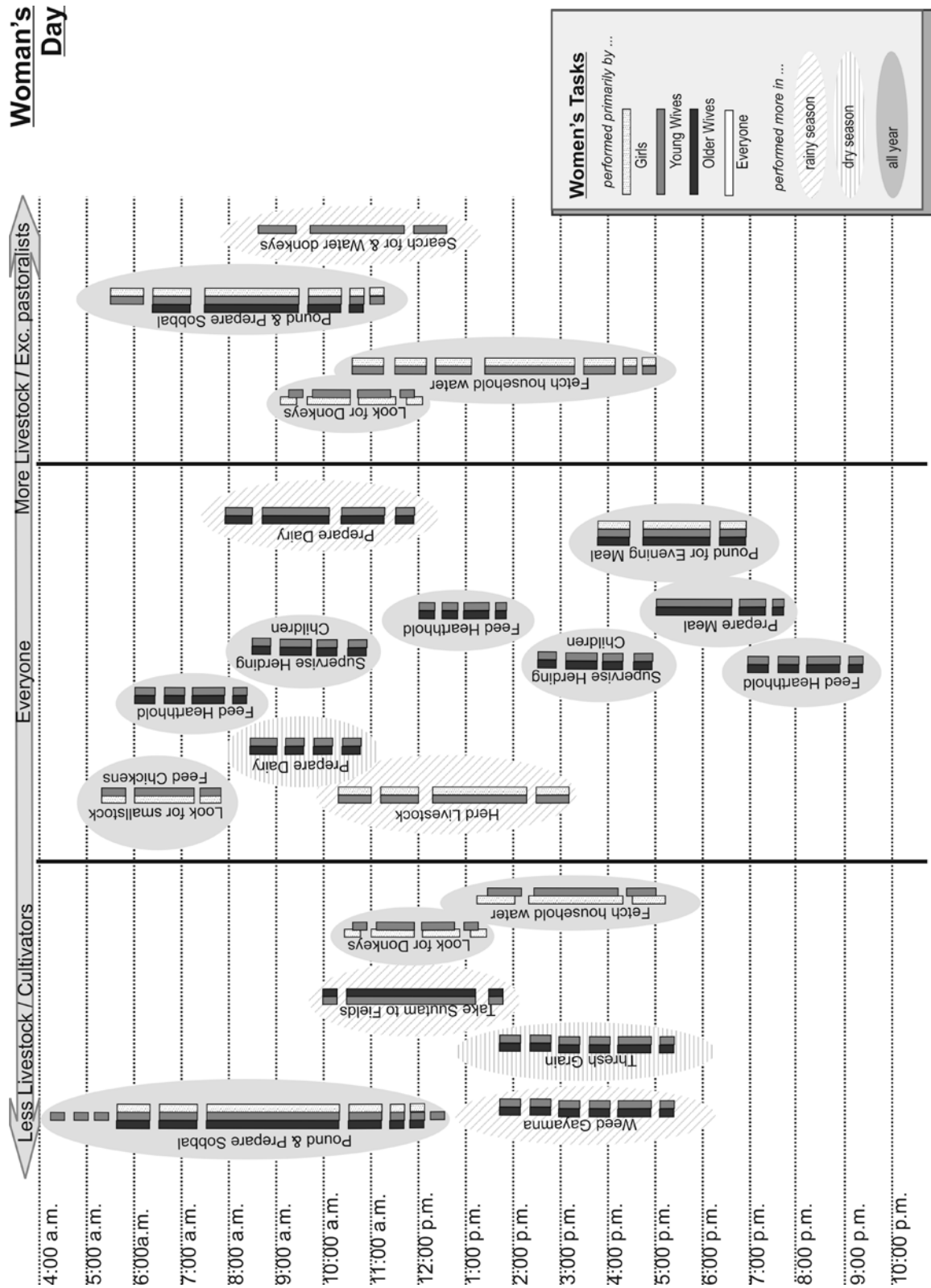
days for their husband, and have someone with whom to share childcare duties. If her husband travels, a wife acquires more leeway with meal preparation. She may avoid pounding, if she has enough milk, by serving her children dambu and leftover suutam.

Saoude said she wouldn't pound today: there was too much wind and she had no water yet in her suudu. She mentioned working on her denki mat, but later said that she was too tired to even start that. She just needed a day off. Her husband left to visit relatives and she has enough sobbal for her children's suutam. [*Field notes: March 14, 2007*]

As soon as a girl grows strong enough to pound grain—as young as seven or eight—she will begin to help her mother. Older women with working daughters find themselves with more time for other pursuits, such as craftwork for their cuudi. A little girl begins to play at pounding sticks in the dirt until her mother feels she can trust her with a real pestle, a heavy instrument that takes strength and some skill to aim it into the mortar without spilling grain or flour on the ground. Once her daughters take over the pounding and sifting, a mother will visit with neighbors, dress hair, weave mats or take up another crafts. As discussed in Chapter 4, a mother welcomes her daughter's return as mboofiḍo, for the extra hands to help her, though her mother-in-law, of course, is sorry to see her go.

Adamu's mother calls Adamu's new wife, Hwatsu, her "unoḍo"—her millet pounder—and complains because now that Hwatsu left, she has no one to pound for her. Hwatsu was angry. She fought with Adamu and left with just a water jug, walking ten kilometers back to her mother's suudu. The long watering days kept Adamu's mother from going to bring her back. "Kunçuḍo (an angry person) wants someone to come right away for them," she sighed. I asked if Hwatsu milked Adamu's cows when she was here. No, "o seendaaka tawo"—she hasn't been assigned them yet. She won't milk them until she gets her own suudu with denki and calabash bowls (*tumuude*). [*Field notes: March 10-11, 2007*]

Figure 8.3, below, shows most tasks which women and their daughters perform throughout a day. It indicates tasks undertaken during dry and rainy seasons, and the differences between tasks of women with less livestock, and those with more. Women with more livestock to milk may be able to pound less millet because they can use more milk in their suutam. In a mobile household, however, they are more likely to live further from the well, by a few to several kilometers, and spend more time traveling for water, and more time at the well waiting until the livestock have been watered. Older women tend to spend less time pounding than younger women because they either have younger women to help them or their households are much smaller.



**Figure 8.3:** Schedule showing approximate times during a day that women perform different tasks, specified by age and livelihood.



**Figures 8.4 (above) and 8.5 (left):**  
(Photos, ceeɗu, March, 2007) A small girl pounds skillfully while her mother sifts the flour.





**Figure 8.6:** (Photo, left, nduungu 2006) A woman checks her churning gourd to see if the butter has separated from the milk.



**Figure 8.7:** (Photo, right) She whisks the churned milk, adding water, to further separate butter from milk.

**Figure 8.8:** (Photo, below) She scoops the butter into another calabash.

Later she will add the butter to her sauce, or cook it with a bit of onion until water and milk solids burn off and it clarifies into ghee.







**Figure 8.9:** (Photo above, Ngadesi, nduungu 2006) The woman has curdled cheese with rennet (made from a piece of ruminant's stomach) in the early morning.

Now she forms it into a flat square on a mat of afasoji grass. Once the whey has drained, she will dry the cheese on a rack or on top of her suudu tent.



**Figure 8.10:** (Photo left, Ngadesi, nduungu 2006) Two squares of cheese dry on mats made of suwaleeji stems, on an improvised rack of hanzaaje and boḍaade branches.

The calabash holding the rennet hangs from one branch; a donkey pad is slung over the top of another; and a water bag, made of a truck tire, is tied underneath.

## Cultivation

Household heads take full responsibility for the fieldwork (*demal*) that supports the household. They negotiate for field space if they need more than they inherit, and prepare and cultivate the *gandu* (household field) and often an additional field. As sons grow older, they work with their fathers in the fields until they begin to cultivate independently for their own households.<sup>4</sup> A son might also cultivate a *gayamna* of his own.

Early in my research I asked the women if they work in the fields: “*On kuhe e gese?*” They answered “*Min gadani be suutam.*” (We bring them [husbands] suutam.) When I asked men if their wives cultivated, they also answered that women’s “cultivation” consists of bringing suutam to the fields. Some wives in cultivating households do plant *gayamnaaji* in the *maysoore* behind their husbands’ fields, but most women told me that they have no time to cultivate. Even if a woman decides to cultivate a *gayamna*, because she plants in the least fertile soil, and usually has less time for weeding, her grain plants might grow raggedly, overrun with grass. Some women obtain harvests in good years, such as 2005, which they usually sell to buy personal items. A few women planted okra in 2007 (as do village women in clay flats) but with little luck. Most women told me that okra would not grow in their area or that, because okra must be sown in the deep clay soil of a *luggere*, they could not keep livestock out of the gardens.<sup>5</sup> Unmarried girls do not work with their fathers in the fields, nor do they thresh, though two young wives told me that they had cultivated *gayamnaaji* behind their father’s and brother’s fields before they were married.

In *koorsol*, to clear their fields, the men cut, hoe and rake the field bare of almost all vegetation, and pile and burn grass, leftover grain stalks and any wood not used for firewood. Villagers burn birds’ nests they find in trees near their fields to keep grain-eating birds out of their fields, but I never saw this practice among the *Katsinen-ko’en*. Leftover grain stalks must be raked and burned in the late dry season, to destroy worms that grow in them. Along with the old stalks, the cultivators burn any manure: because too little rain falls on the fields to compost the manure, it will be too “hot” for the young plants (see also de Bruijn and van Dijk 1995:150; Thébaud 2002:29).<sup>6</sup>

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<sup>4</sup> *C.f. de Bruijn and van Dijk (1995:303) where Fulbe fathers do not work with sons.*

<sup>5</sup> *There was no thought that okra might be planted in the calabash gardens, perhaps because okra and calabashes grow in different soils or because planting okra had not been fully adopted by the Katsinen-ko’en women, and few men planted calabashes.*

<sup>6</sup> *Far from engaging in manure contracts in this northern region, villagers complain that manure reduces a field’s yield. Unfortunately there seems to be no economical way to transport manure south where it is in great demand.*

In the morning, immediately after a rain storm has soaked the ground deep enough, almost everyone in the household helps to sow as much of the *gandu* as possible. A woman may sow her *gayamna* on that first day, or wait until she has a break from household work. A week or so after sowing all the millet, when both grain and weeds begin to sprout, the cultivator finishes sowing sorghum and sows beans, intercropping them among the grain. Meanwhile he begins the first weeding. Many men and some women plant sorrel (*polle*), the leaves of which are used in *nyiiri* sauce. Sometimes people plant a few rows of corn, but only with very good rains will corn produce. One man claimed that he harvested several *tiyaaji* of corn in 2005.

When Duuna's wife and I arrived at Welaaru, we found Duuna weeding with their young son. We sat down with him in the middle of the field, on a mound of earth amidst the stumps of bushes. He drank his wife's *suutam*. A pile of branches that had been a *boḍaahi* tree lay behind us, but otherwise the field contained only a few stumps of small trees. Duuna's hoe had roughened all the dirt around us, and little, dark green clumps of grain leaves poked through uprooted, dead, dried grass. Outside this weeded patch, the blades of grain sprouted through thinner, light green grass. He remarked that, because the field was newly cleared this year, the growing grass is tough to weed. He had no money or he would hire a *ḍan barema* to help him weed. He didn't think he would be able to weed the whole field, at least not this one and the one at Mai-Kalafo. Before we left, his wife tied some of the *boḍaahi* branches into a bundle to take home for firewood. [*Field notes: August 5, 2006*]

A few weeks after the first weeding, the cultivator begins a second. His sons help him and may help their mother in her *gayamna*. A newly cleared field takes an especially concentrated effort besides its preparation, because it grows more weeds than an older field. After about two months of good rain, the cultivator begins harvesting his millet<sup>7</sup> and then sorghum. As the men cut the grain heads, they pile them on the ground, then carry some in bushel baskets to their wives at the hard clay (natural soil) threshing grounds near the fields. During *ḥavol*, women rise long before dawn to finish their *suutam* early before they spend much of the day threshing. The men carry the rest of the grain heads to the granaries: huge, roofed baskets in the middle of the fields.<sup>8</sup> A few sedentary households had granaries near their *cuuḍi geene*. Because I did not see a bean harvest, I did not observe bean threshing, but in villages men usually thresh beans, flogging the dry pods with batons on the threshing ground. After harvest, the men leave their grain stalks in the fields for the livestock to eat, or cut and stack them for fodder later in *ceeḍu*.

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<sup>7</sup> A quickly maturing strain developed locally for northern fields.

<sup>8</sup> An indication of relatively little theft in the north; southern granaries stand within the village and even inside family compounds.



A few Mai-Kalafo men cultivate calabashes, a profitable, but very labor intensive undertaking. The calabash plants need a well fenced garden (*feḍoru*) and the gourds need trellises. Besides weeding, each calabash must be turned to keep it from rotting on one side. Even if fenced, the planter guards his garden all day to keep livestock away while the vines grow. One of the arḍo's brothers established a large *feḍoru* southwest of his house in the Çolure Çengol (see Figure 5.11). His older brother planted there with him, but also planted a smaller, unfenced plot in the *maysore* behind the Mai-Kalafo fields. A nephew intercropped calabashes in his grain field. Both the arḍo's youngest brother and the arḍo planted in unfenced gardens, but livestock destroyed their plants. Some men and women planted gourds on top of their *cuuḍi* geene and awnings, hoping for something to harvest and sell in *dabbunde*.



**Figure 8.11:** (Photo, above, December 2006) Brothers discuss what they will do about the flat tire of their donkey cart.

They need to haul harvested millet from the northern fields here to the granaries in the southern fields.



**Figure 8.12:** (Photo, left, October 2007) Locusts have eaten the tops off the grain in the millet plant head.

The half-eaten grain cannot be pounded to remove the bran without breaking the grain into flour. The gray patches in the sand below are locust droppings.





**Figure 8.13:** (Photo, left, October 2007) A woman harvests sorrel leaves intercropped among already harvested grain.

**Figure 8.14:** (Photo, below, October 2007) A gayamna planted in the middle of the maysoore

The fields of the main complex lie across the background and the Mai-Kalafo laterite hills stand on the western horizon.







**Figure 8.15:** (Photo, above, çavol 2007) A man harvests gunaaaji, which he avoided weeding, to take home to his wife who will cook them into sauce.



**Figures 8.16 and 8.17:** (Photos, above, çavol 2007) A young man harvests for his great uncle. He will receive some of the grain that he harvests.





**Figure 8.18:** (Photo, above, February 2007) Gourds hang from a trellis of dead branches in a feḍoru, and large calabashes ripen in the background.



**Figure 8.19:** (Photo, left, çavol 2007) Gourds grow on top of a suudu geene, surrounded by spiny boḍaade branches to keep livestock away.

## Livestock care

The household head takes responsibility for the care of the livestock belonging to household members. He either takes the livestock to pasture, or assigns smallstock and perhaps cattle herding to sons. As soon as a boy is eight or nine, he begins to herd the smallstock.<sup>9</sup> During the dry season, goats and sheep are often left to graze at will, but cattle may need guidance to find pasture far from home. All livestock need watering during ceeɗu. A man without sons old enough to work must balance livestock care with cultivation, unless he decides to give up cultivation (see Chapter 9). As noted earlier, some men foster a boy who takes on herding tasks, but a man may also assign smallstock or cattle herding tasks to a daughter. While the father cultivates, one son may herd the cattle, while a daughter looks after the smallstock, or vice versa.

Aysa showed me sores on her daughter's legs almost a centimeter in diameter. Her brother-in-law remarked that sabeeji caused them. Aysa told me that this daughter was *ngaynaako na'i* (cattle herder) since her older brother ran away after Eid al Fitr. The sores prevented the girl from herding. [Field notes: October 18, 2007]

Several wives also look after livestock while their husbands are preoccupied with other tasks, especially cultivation. Between pounding and cooking, they walk to the top of a hill to check on the cattle or smallstock. Sometimes they spend much of their day looking for lost stock, leaving suudu tasks to their children.

Mariya worried about their goats when she found her son, who should have been herding them, playing with her youngest brother at her mother's suudu. The boy insisted the goats were at the well, but she did not believe him. She asked her mother if her father had gone to speak with the Kaaɗo who had a field northwest of their camp. The man had found goats in his field and kept asking her father to come see the damage. Mariya worried that their goats were now in his field.<sup>10</sup> She yelled at her son, but he ignored her, then took off. Mariya walked with me to a neighbor's camp, hoping to see her goats. She called to her oldest daughter from a hill above her suudu. She had not see the goats. Then the neighbor told us that he had seen their goats near the Kaaɗo's field. [Field notes: October 22, 2007]

Though mothers may try to persuade or compel their sons to finish their herding jobs, they prefer to leave that discipline to the boys' fathers. If livestock do not come home in the evening, someone must go find them, especially milk cows.

Well after nightfall, after her younger sons had helped their sister pound flour, Laame walked over to our fire where her husband, Koyni, sat. She complained that the cows hadn't come home. "We've got all these boys and not one can go look for the cows?"

Koyni yelled at their second oldest son, who lay on a mat near Laame's tent, to go look for the cows. Laame began to cook sauce while her daughter rested near her

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<sup>9</sup> Many Katsinen-ko'en seemed to start their sons working a year or two later than the *Wodaabe*.

<sup>10</sup> Besides fines, which cannot always be enforced this far north, the Katsinen-ko'en risk their smallstock being killed or having their legs broken if found in Hausa or Tuareg fields.

father. Koyni yelled at his son again. The boy headed north to look for the cows, and eventually brought them home so his mother could milk them. [*Field notes: February 5, 2007*]

The head of the household also cares for ill or injured livestock. The most dangerous time for smallstock is koorsol when the first hard storms knock over animals weakened by hunger. They may die outright, or die slowly in the cold if the herder does not find them. Some downed smallstock are blinded when crows peck out the animals' eyes. We saw a few injured goats and sheep that had been burned when the men (probably running between suudu and herd in the dark of the storm) lay them near a fire to warm them.





**Figure 8.20:** (Photo, above, ceeɗu, March 2007) A man sends his sons out for a day of herding.



**Figure 8.21:** (Photo, left, dabbunde 2006) Daji splints a lamb's broken leg with his nephews' help.

## Watering and well work

As soon as a son in his late teens is strong enough, he begins helping his father to water household livestock. Filling a well bucket-bag (*waasikiwal*) to first water the herd and then fill household water bags (*saḍkiji*) and jerry cans is strenuous work.<sup>11</sup> Many wells descend 70 meters or more, requiring half a day for a small herd and all day for a large cattle herd to water in the hot dry season. At the well's mouth, a man allows the *waasikiwal* to fall into the well, its rope running over a notch in the *sigitahi* or one of the logs of the well mouth. He places the rope over the pulley, then pulls back, jerking hard on the rope. He lets the bag fall again into the water, pulls again, leaning back, and lets the bag fall again until he can tell from its weight that it has filled with water. He calls to a young boy or girl (sometimes a wife) who attaches the rope's knotted end to the simple rope harness of a donkey team (or, rarely these days, an ox) and drives the team down the well path. When the *waasikiwal* rises to the well mouth, the man and a partner lift and carry it together to the watering trough where another boy keeps the livestock under control, hitting restless cattle on their horns see Figures 8.24-8.29 below. The man returns to the well with the empty bag. Because usually more than one herd waters at one time, he will wait for another man to finish pulling water before he begins all over again. Each *sigitahi* often has as many as three ropes and *waasikiji* taking turns in the well. He and his partners work until all the livestock are satiated, then pull water for the women and girls to take home to the *suudu*. He takes a break at mid-day and then waters the cattle again. During *ceeḍu*, the livestock are watered every other day.<sup>12</sup> Some men alternate watering days for smallstock and cattle, and some water both herds on the same day, depending on their available labor and the size of their herds. The cattle spend most of watering day (*degoḷ*) at the well, drinking twice and grazing on the way home.

In *nduungu* and much of *çavol*, depending on how long surface water lasts where they herd, the men rest from watering as the livestock drink from ponds. A boy or two will drive the herds to water if the household has camped some distance from the ponds. In the northern rangeland, away from the fields, herding in the rainy season becomes easier,

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<sup>11</sup> A man fabricates the *waasikiwal* from heavy plasticized canvas tarp. The *waasikiwal* contains 30-50 gallons of water (a third to half of an oil drum). The *saḍkiji* (sing. *saḍku*) are sewn by artisans, either from goat or sheepskins, or, more often these days, from truck inner tubes. Women cinch the bags under the donkeys' bellies. Jerry cans (*jerikaaji*) are large plastic jugs (4-5 gallons) that originally held imported cooking oil. People buy them empty, as well as small plastic jugs (often used motor oil containers), in the marketplace.

<sup>12</sup> Excepting horses, which drink twice every day, and camels, which can go four days without drinking.

though the men (and women) must watch carefully when other households migrate through, so that their livestock do not follow another herd. In nduungu, women in households that migrate north into the rangeland become responsible for watering the donkeys at ponds, as well as pulling household water from the wells. Sometimes they will take household water from a pond, but they often worry that the pond water is not clean enough, and they do not like the taste of the livestock urine that collects in the ponds as time goes by.<sup>13</sup> The best water in nduungu is taken from pools that collect in the grass or on mudflats during a rainstorm.

I haven't seen the women worrying about watering the donkeys or even fetching water. There appears to be enough surface water for the livestock. Even though the mudflats are dry, at least one pond not far to the west holds water, though it's red with clay silt (*boḍeejam*). [Field notes: August 18, 2007, Insera]

The women wanted well water instead of pond water—the ponds here are small and easily dirtied. They mounted donkeys and rode almost five kilometers east to Adarnazil well. Idrissa's wife carried the waasikiwal and rope on her donkey, and Idrissa followed on foot. His wife had forgotten the watering pan (the concave lid of an oil drum) and asked him to borrow a pan from his cousin's camp nearby. When Idrissa and his wife hauled water from the well, it stank of sulfur and was full of small pieces of wood, dead insects, an almost dead frog, and *bikon ndiyam* (lit. water children)—live, squiggly, green larvae of something. [Field notes: August 23, 2007, Aadal]

Well water may be worse than pond water, if the well has gone some months without use.<sup>14</sup> Besides the taste of urine in pond water, though, the women dislike that *boḍeejam* turns their *finndiḍam* pink. Therefore, after finishing their *suutam* preparation, they load their donkeys with well rope, bucket-bags, and jerry cans. Three or four women and girls travel to the well together so that they can help each other fill the *waasikiwal*, drive the donkey team, and carry the water to the trough where they fill their containers (see Figures 8.31-8.34 below). Sometimes they might convince a husband to help them. Then they help each other balance and tie the jugs to the donkeys' backs, sling the water bags under their bellies, and head back home. These latter tasks they perform throughout the year.

Inna Garba told me a horrible story of how a few years ago her grandson fell into a well and died. While they herded together, his younger brother went to look for wandering smallstock. When he returned, all he saw was his older brother's staff and water jug lying near the well. The boy ran to find the adults, all gathered at a naming celebration. The men had to draw water from the well until they could see the boy's feet. He had drowned headfirst in the well, probably after leaning on the *sigitahi* which broke and

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<sup>13</sup> They fear contamination from human waste if people (strangers) bathe in it or defecate nearby. They do not consider livestock waste as contamination; they just do not like the taste, which burns as it becomes more concentrated as the ponds dry.

<sup>14</sup> Daji hated drinking well water in nduungu, and his mother attributed the increase in bad rainy seasons partially to women's refusal to drink pond water, a refusal of Allah's bounty during nduungu.

fell with him into the well. The men told her not to go see him, she said, but she went. "What do I have to be afraid of?" [*Field notes: February 28, 2007*]

Wells are full of potential danger. If a well rope breaks, the full bucket-bag falls back into the well, whipping the rope across the ground and through the air. If the rope catches a man unawares, it can pull him into the well, or it might catch his fingers and crush them. I've seen several hands disfigured by well rope accidents. Collapsing wells will bury any man who happens to be cleaning them at the time. A few men tell how they fell into a well and survived, but more families tell stories of sons and brothers falling to their deaths.

Men must help each other to clean and maintain the wells they use, whether their own, those belonging to kinsmen, or wells at which they have negotiated usage rights. All wells need periodic cleaning; if they are too shallow or constantly running out of water, they need to be cleaned every other day to improve the refill rate. Once the well is emptied (often a daily occurrence during the dry season), a man will descend into the well and fill a bucket with mud which is raised and emptied by men at the top until the bottom of the well is clean. Every two or three years, the rotted or broken logs and branches that support the mouth of a dirt well need to be replaced, with a fresh green branches layered below and between new logs (see Figures 8.35-8.38 below). Repairing the well mouth is a tremendous job requiring many men for a full day's work. Wives and daughters bring food for a big noon meal, and the men spend the morning digging out and taking apart the old mouth. In the afternoon they lay the fresh logs and branches (with not a little argument as to how the logs should be laid), replace the sigitahi, and rebury the new mouth. Participating in well upkeep, besides recompensing a well owner for access to water, helps maintain and strengthen social networks, the second aspect of human resources.





**Figure 8.22:** (Photo, February 2007) A young Katsinen-kejo man at the well fills a waasikiwal for household water.

The yellow jerry cans sit at right, rigged for loading on either side of a donkey's back. To their left, another young man carries his water jug and a saḍku to tie under his waiting donkey.



**Figure 8.23:** (Photo, nduungu 2003) Woḍaaḅe children fetch water from a large pond in the northern branch of Abuzak çengol.

They fill saḍkiji tied under the donkeys' bellies. Yellow pollen and blossoms from the *Acacia nilotica* growing in the water float, with other detritus, at edge of the pond).





**Figure 8.24:** (Photo, above left, dabbunde 2003) A young Boḡaaḡo lashes forked branches and the pulley axle to the broken metal sigitahi of a large public well.

**Figure 8.25:** (Photo above right) The Boḡaaḡo in the red shirt pulls back on the rope to fill his wasikiwal, in the bottom of the well, with water.

The man in the background waits as his blue wasikiwal comes to the top of the well.



**Photo 8.26:** (above, dabbunde 2003) A young Boḡaaḡo wife attaches the rope end to the donkey harness.

She will drive the donkeys down the well path to pull the wasikiwal to the top of the well. As this well in Cingoragen Çengol is not as deep as the well rope is long, the rope is knotted to shorten its length.





**Figures 8.27 and 8.28:** (Photos, above, dabbunde 2003) The young Woḍaaḅe men lift the waasikiwal out of the well and then carry it to the trough.

The man in the blue shirt braces himself against his partner with his left hand all the way to the trough, a method called paltol. In the right hand photo, the man in the red shirt guides the rope as his donkey team pulls the waasikiwal to the top of the well.

**Figure 8.29:** (Photo, left, dabbunde 2003) Two young men pour water into a concrete trough as a donkeys wait to drink.





**Figure 8.30:** (Photo, dabbunde 2003) A man repairs the ring and bindings that support the mouth of the wasikiwal.

(Photos 8.24-8.30 were taken in December 2003; everyone carries out all well work in the same way).



**Figure 8.31:** (Photo, nduungu 2006) Katsinen-ko'en women and girls help each other pull water from a cement well.

The woman at the sigitahi has filled the wasikiwal. The girls will drive the donkeys down the well path.





**Figures 8.32 & 8.33:** (Photos, nduungu 2006) The women pour the water into the trough (the bottom of an oil drum) so that they and their daughters can fill the water bags and jugs.



**Figure 8.34:** (Photo, nduungu 2006) The women head home with the saḍkiji cinched under the donkeys bellies.

The waasikiwal, partially filled with water, balances the heavy well rope tied to the other side of the donkey.





**Figure 8.35:** (Photo, January 2007) As they prepare to repair it, Katsinen-ko'en men dig away the earth from the mouth of Mawa well while young men pull water to empty the well.



**Figure 8.36:** After removing all the old wood from the well mouth, the men cushion the new supports with green hanzahi branches.





**Figure 8.37:** (Photo, January 2007) Women and girls bring lunch for the men working on the well.



**Figure 8.38:** (Photo, January 2007) With the new supports in place, the men position the sigitahi.

It will support the pulley and rope. Then they will bury all the wood so that only the sigitahi will show above the mouth.

## **Social Networks**

Daji and the arɗo's son grazed the camels in a field belonging to a Hausa friend who gave them a bushel of sorghum heads for the camels to eat. [*Field notes: December 5, 2006*]

While I interviewed the young wife, someone brought her about a liter of finndiɗam for her sobbal. [*Field notes: January 27, 2007*]

The arɗo's brother couldn't tell us how long his grain would last because he's selling it, and has given much to his nephews who harvested very little. [*Field notes: February 7, 2007*]

The densest social networks are knitted among kin, and maintained and strengthened through gifts and loans of grain, dairy products, cloth and clothing, and sometimes cash. Endogamous marriages further reinforce kin networks. Marriages between cousins in different geographic locales may provide access to other resources, especially refuge pasture during drought. In 2004-05, one young man and his brother took their households and livestock to Seloum to spend *ceeɗu* among his affines and cross cousins. He told me that he would have borrowed a field there if he had not returned to Mai-Kalafo to cultivate. Field loans also build networks between non-kin, such as a few between Mai-Kalafo men and Tuareg neighbors. Slightly different from accessing land to clear one's own field, a man borrows a field already cleared by the owner, who may ask him to return it in *ceeɗu*. Relationships with well-owning friends for access to land resources are sustained through the labor men put into well maintenance, and sometimes strengthened with livestock loans (c.f. Thébaud 2002:87). No interviewee paid for water outside the cultivation zone.<sup>15</sup> Non-kin friends and even strangers, as well as kin, build and maintain social networks through livestock loans, especially of cattle and smallstock. *Haɓɓanayi* (pl. *kaɓɓanaaji*) or *nannganayi*<sup>16</sup> redistributes livestock among pastoralists, and offers a method to reciprocate favors (see also Dupire 1962:136-8; Starr 1987; Thébaud 1988:69; for an East African example, Bollig 2000).

Yes, he had *kaɓɓanaaji*; his cousins gave him a cow. Another Katsinen-kejo—someone he didn't know—found a lost cow near his camp, and asked him to care for her until he found the rest. When the stranger found his cows, he gave BCV3-1 one birth from the cow he had cared for. [*Interview: March 14, 2007, BCV3-1, mobile cultivator, about 21 years old*].

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<sup>15</sup> Thébaud (2002) writes of watering contracts (*contrats d'abreuvement*), but I saw no evidence among the Katsinen-ko'en of contracts, and everyone answered that they paid nothing for water in the rangeland.

<sup>16</sup> From *haɓɓa*, to tie, or *nannga* to catch, and *na'i*, cows. The same words are used for livestock other than cows.



Kaḅḅanaaji got me going. If I hadn't gotten kaḅḅanaaji, I wouldn't have what I do today. [Interview: October 28, 2007, BCE2-1, mobile cultivator, about 48 years old]

Two of the three cows that the latter man held were loaned to him by kin at Maani and Çolure. Other Katsinen-ko'en had lent him smallstock, including a man from Omboragat and an aunt at Maani who lent him a goat. A Bii-Utejo (Boḅaaḅo) friend loaned him a sheep.

A person wishing to help, or thank a friend or relative for a service or gift, loans him or her a young female animal that has never given birth. The borrower cares for her for the duration of the loan: one, two or three births depending on the strength of the relationship and type of animal (donkeys are usually loaned for one birth). The borrower keeps the young from those births, or accepts the loss if the baby dies, and also milks the mother animal, if a cow or goat. Often when borrowers return a loaned mother, they will include the loan of another young female (*ḅokorde*, lit. tail), especially if they want to strengthen the relationship. Both men and women give and receive *kaḅḅanaaji*, men more than women, though, and people in mobile households more than those in settled households. Because fewer women own cattle, they participate less in cattle loans, but they give and receive loans of smallstock. Cattle wealthy women loan heifers, especially, it seems, to their nephews. People in settled households tend not only to have less livestock to offer, but also have less access to optimal herding conditions. A person living in a cattle-less household who receives a heifer must combine her with a neighbor's or relative's cattle, as one cow will refuse to stay alone. This increases the number of people and the risk of loss involved in the loan, and decreases the lender's willingness to make the loan.

He had a brief conversation with Giḅe, his wife, about haḅḅanayi. It seemed that her neighbor had done something for Giḅe for which she felt she deserved a ewe, but her husband wasn't convinced it was a good idea. He declared that he wouldn't give the neighbor a ewe just to have her ruined or lost. [Field notes: September 16, 2006]

Both borrower and lender take on risks with *kaḅḅanaaji*. If the animal dies in the hands of the borrower, both resign themselves to the loss. Of course, an unscrupulous borrower might sell the animal and claim that it died. Any livestock owner would lend an animal only very reluctantly to someone whom he perceives as a bad herder or dishonest. Because the men herd women's animals, the lender's husband may advise his wife against loaning an animal to a household with a disreputable herder.

Searching for maagani, a man came by Idrissa's camp to say that his bull had been gored. "That's why," Idrissa told us, "you want your own bull and not have to borrow someone else's, and then have something happen to it." [Field notes: August 23, 2007]

Other livestock loans include stud males, especially bulls, or milk cows to a household without milk (Bonfiglioli 1981; de Bruijn and van Dijk 1995:323). Idrissa's warning about borrowing cattle, however, reflects the Katsinen-ko'en's general reluctance to herd other people's livestock, besides those belonging to immediate family members. No one would reject haḅḅanayi, though, and some people actively seek them, especially from cross-cousins.

Mobile households, especially exclusive pastoralists, need storage for purchased grain if they buy more than a bag or two, which can be carried by donkeys or camels, at a time.<sup>17</sup>

Idrissa's wife said that the men buy grain in ḅavol, either at the market, or, from among their relatives if they have a surplus. Then they store it in straw huts on log pallets (perhaps at Futawa among their sedentary kin). [*Field notes: August 31, 2006, Siogari*]

Most mobile cultivators have settled kin with whom they store purchased grain, as do the men at Siogari. After the Mai-Kalafo arḅo's nephew built an adobe rondavel to store the project grain, a few other men began to store purchased grain there. Once the project grain was all sold and lent, people filled the storage hut with grain and cuuḅi gear. If women from mobile households traveled to visit relatives, they store their cuuḅi—tents, furniture and utensils—with sedentary relatives who have extra room in or near a suudu genee.

When the Mai-Kalafo women established their asusu through the CARE project, they loaned both money and grain to members of their community, mostly men. The quote below illustrates the intersection of traditional judiciary proceedings with the new availability of accumulated cash through the project and social/kin networks. As the arḅo's wife headed the asusu, he could easily ask her (though not demand) to extend a loan to the man in need of money.

The arḅo told me about a Katsinen-kejo man who bought a cow from a Boḅaaḅo for 130,000. Before he could pay the man, his money was stolen from him. The Katsinen-kejo was brought to the arḅo to resolve the problem. The women loaned him 40,000f so he could pay the Boḅaaḅo part of his debt. At present he has paid back the half of the women's money. [*Field notes: September 12, 2007*]

Though social networks fall in the category of human resources, they inevitably involve transfers of material resources, communal exchanges that thicken the ties between borrower and lender, donor and recipient. *Kaḅḅanaaji*, and gifts of cloth, harvest products and milk occur much more between kin than non-kin friends, though a surprising number of women at Mai-Kalafo reported giving milk to Tuareg neighbors. Cash gifts and loans, neither very common, seem to occur exclusively between close kin. Most loans and gifts call

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<sup>17</sup> I heard of no one keeping bags of grain in their granaries, and considering that one accesses the granary through the top, storing heavy sacks of grain in them does not seem practical.

for some sort of reciprocity, sometimes with a due date agreed upon between lender and borrower, or even if, as often happens between kin, delayed a year or so. Hosting seems to be the one gift that requires no reciprocity, though someone who has been a guest all the more willingly accepts his one-time host within his own household. Men, much more than women, build relationships through hosting, as women rarely travel without men in a situation where they would need to stay overnight, including the market. Women who stayed overnight at the Mai-Kalafo arɔ's house, came with husbands or fathers.

Market transactions help to form additional social networks, or link into community networks. Some elder women—such as the arɔ's sister, known in Gourbobo as *Sarauniya* ("queen" in Hausa), build friendships with village or townswomen in market towns where they might stay the night, and from whose house they will sell dairy products. The Mai-Kalafo dilali (an anomaly in several ways) had married a third wife, a Katsinen-kejo, who lived in Gourbobo. She often sold dairy products for some of the Mai-Kalafo women, and when the men came to market her husband hosted them at his village house. The cattle traders build networks among pastoralists, especially (it seemed from their visitors) among the Woɗaaɓe, as well as among dilali, drovers and southern traders. Men who did business, either labor or trade, among the villages north of Tanout doubtless built social networks among these farmers.

## **TRANSFERS OF LIVESTOCK, LAND AND MATERIAL GOODS**

### ***Endowments through Inheritance and Marriage***

Among us, the head of a household, if he has cows, when his son starts to grow [begins to be adult] he will "show" (*holla*) him a cow that will be his. If she births a bull calf, the father will sell him for household provisions. If she births a heifer, he will leave her for his son. Me now, all these cows are those that my father gave me; I haven't bought a single one. My grown children, I will give them all livestock. [Interview: June 28, 2006, BCN2-3, man about 25 years old; mobile cultivating household]

Like most Fulɓe (Dupire 1970:111; de Bruijn and van Dijk 1995:320; Turner 1999b:285; Moritz 2003:326-7), Katsinen-ko'en children, especially sons receive livestock from their fathers and mothers though pre-inheritance (though the above authors describe how this institution is changing, especially as households become less mobile and/or livestock resources decline). While Woɗaaɓe fathers, if they have the means, give their sons heifers at birth and then more as they grow into more and more difficult labor, most Katsinen-ko'en fathers give their sons only a female goat or sheep as they begin to herd livestock. As they take on more work, the boys receive another goat or two and are perhaps "shown" their heifer. The bulk of a Katsinen-kejo son's herd will be given to him (*seendana*

*mo*) after his household has been well-established and he decides to move away from his father. Two of the exclusively pastoralist men told us that they had built their herds themselves, one with no help from his father. While a few elders at Mai-Kalafo had given all their livestock to their sons, the Siogari elder still had a large herd, while his adult sons' herds were also not small. His exclusively pastoralist son (PBA2-1; see Table 8.3 and Appendix H) told us that "*Baaba am seendani mi jawdi. Goδδi jawdi boo, mi tefi e hoore am.*" (My father gave me my share of livestock. As for the others, I got them for myself.)

While the sons, both Woδaaḡe and Katsinen-ko'en, live with their fathers, their livestock remains within their father's herd. Their father has the right to sell any of the animals, though ideally he sells only males, and only for the good of the household. Fathers will also give their daughter a goat or ewe, and mothers, if they have livestock, may also give young female animals to their children, though mostly to sons (who will care for them in old age). Aunts and uncles give kaḡḡanaaji animals, usually smallstock to both nephews and nieces. Many of the young wives owned livestock, but could not tell me how many because the animals still lived in their fathers' herds. A daughter often leaves her inherited livestock with her father or brother until her husband has established their household and proven his trustworthiness. The following tables illustrate the livestock wealths of the members of various Katsinen-ko'en households, plus, for comparison, two Woδaaḡe households.

**Table 8.1:** Showing the approximate livestock ownership of a large, livestock-poor, settled cultivating family.

| <i>VCJ</i> | <i>Husband</i> | <i>Wife</i> | <i>Eldest son (~20)</i> | <i>Husband's mother</i> |
|------------|----------------|-------------|-------------------------|-------------------------|
| Goat       | 5              | 1 ha66anayi | 2                       | 7                       |
| Sheep      | 12             |             | 2                       |                         |
| Donkey     | 2              | 2           |                         |                         |

Only the eldest son, of six children, had been shown any livestock. He was not yet married.

**Table 8.2:** Showing the approximate livestock ownership of a large, relatively livestock-wealthy, mobile cultivating family.

| <i>BCE</i> | <i>Husband</i> | <i>Wife</i> | <i>Eldest son (~22)</i> | <i>Second son (~19)</i> | <i>Second daughter (~14)</i> | <i>Third son (~12)</i> | <i>Fourth son (~6)</i> |
|------------|----------------|-------------|-------------------------|-------------------------|------------------------------|------------------------|------------------------|
| Goat       | 15             | 10          | 5                       | 3                       | 3                            | 3                      | 1                      |
| Sheep      | 10             | 10          | 5                       | 2                       | 2                            | 4                      | 1                      |
| Cow        | 8              | 3           | 1                       |                         |                              |                        |                        |
| Bull       | 1              | 0           |                         |                         |                              |                        |                        |
| Donkey     | 3              | 2           |                         |                         |                              |                        |                        |

The family included one married daughter whose livestock endowment was not reported. The eldest son, newly married, is the only child to have been “shown” a heifer. The younger third son’s smallstock may have birthed more females, or the second son sold some of his smallstock. The rest of the younger children (4) do not yet own livestock.

**Table 8.3:** Showing the approximate livestock ownership of a medium-sized, livestock-wealthy exclusively pastoralist household.

| <i>PBA</i> | <i>Husband</i> | <i>1st wife</i> | <i>2nd wife</i> | <i>Eldest son (~15)</i> |
|------------|----------------|-----------------|-----------------|-------------------------|
| Goat       | >30            |                 | 1               | 1                       |
| Sheep      | >30            | 3               | 1               | 2                       |
| Cow        | 34             |                 | 1               |                         |
| Bull       | 1              |                 | 0               |                         |
| Donkey     | 4              | 1               | 0               | 2                       |
| Camel      | 1              |                 |                 |                         |

This household is not as old as the other two households cited (we interviewed no comparable exclusively pastoralist household willing to detail their livestock holdings); the wives are younger and have not been able to build their own herds, yet, though the second wife (about 25 years old) has been endowed with a heifer. Only the eldest son, the ngaynaako, has been given some smallstock. The family has four other, younger children. (See also Appendix H.)

**Table 8.4:** Showing the approximate livestock ownership of a young, exclusively pastoralist Woḍaaḅe household, medium-poor.

| <i>PWA</i> | <i>Husband</i> | <i>Wife</i> | <i>Oldest daughter (~15)</i> | <i>Youngest daughter (~12)</i> | <i>Eldest son (~8)</i> | <i>Youngest son (~5)</i> |
|------------|----------------|-------------|------------------------------|--------------------------------|------------------------|--------------------------|
| Goat       | 4              | 4           | 2                            | 1                              | 0                      | 1                        |
| Sheep      | 2+ram          | 0           | 1                            | 1                              | 2                      | 0                        |
| Cow        | 7              | 0           | 0                            | calf                           | 3                      | 2                        |
| Bull       | 1              | 0           | 0                            | 0                              | 0                      | 0                        |
| Donkey     | 2+colt         | 5           | filly                        | filly                          | 0                      | filly                    |

The wife was orphaned at an early age and married by relatives. Like most Woḍaaḅe women (in contrast to the Katsinen-ko'en women) she owns more donkeys than her husband. All children have some livestock. Except for the donkey fillies, the father has given his sons all of their livestock; their mother gave two donkey fillies and an uncle another. An aunt, an uncle, and a grandparent gave the daughters goats and sheep. The youngest daughter is blind and gaining a reputation as a bringer of good fortune. Most of her animals, including the calf from her father, come to her as a result of luck that she has brought people, or that people hope she will bring them.

**Table 8.5:** Showing the approximate livestock ownership of a poor Woḍaaḅe household that cultivated in 2006 and 2007.

| <i>PWV</i> | <i>Husband</i> | <i>Wife</i> | <i>Eldest son (~7)</i> | <i>Eldest daughter</i> | <i>2<sup>nd</sup> daughter</i> |
|------------|----------------|-------------|------------------------|------------------------|--------------------------------|
| Goat       | 4              | 2           | 2                      | 1                      | 1                              |
| Sheep      | 6              | 2           | 1                      | 0                      | 0                              |
| Cow        | 4              | 0           | 2                      | 1                      | 1                              |
| Bull       | 0              | 0           | 0                      | 0                      | 0                              |
| Donkey     | 4              | 1           | 1                      | 0                      | 1+colt                         |

In this case the father has given his children, including daughters, all of their livestock, except one sheep from an uncle to the son. Only two very young daughters have no livestock.



As described in Chapter 10, the most important material endowment from parents to a daughter is her *suudu*—bed, calabashes, dishes, mortar and pestle, and denki poles; and tent mats and poles if she marries into a mobile household—all of the gear that creates the home she makes for her husband. Now a true wife and mother, beside field access, she also receives her most important transfer from her husband: her share of the milk stock.

Children inherit livestock and other belongings upon the death of their parents, though daughters receive only one half that of sons. At least three older wives owned much livestock, some progeny from their dowries, some inherited and some purchased. A cow or two may be inherited jointly by siblings, until they are sold and the money divided. Such an inheritance left one woman with only goats, after the cow and bull were sold and the money divided with her siblings. Sons inherit fields and wells from their fathers. As a well cannot be divided, it also becomes the joint property of surviving brothers.<sup>18</sup> Parents also pass on non-material wealth such as social network connections and knowledge throughout the maturation of their children and into adulthood. Children learn through experience by accomplishing their assigned tasks, through stories, and by watching their elders.

### ***Earned Entitlements through Production***

All members of the household earn entitlements of subsistence products through their labor. They may sell this produce for cash, if their conjugal contract does not obligate them to store their produce for household use (men), or prepare dairy products for meals (women). Katsinen-ko'en children earn their livestock pre-inheritance, as their fathers give them smallstock only once they have begun to work, but everyone earns entitlement to their livestock offspring through their own labor. One might argue that wife or daughter earns her livestock young indirectly through her husband or father: she provides him with meals while he ensures that her livestock are fed and watered. Women and girls do care for livestock, though. As described in the previous section, they tend animals too young or ill to leave the *suudu*, feed supplements to certain livestock, herd while men cultivate, and search for lost livestock. As most livestock that she helps care for belongs to her husband or father, we see the intertwining of cooperative labor working toward joint interests.

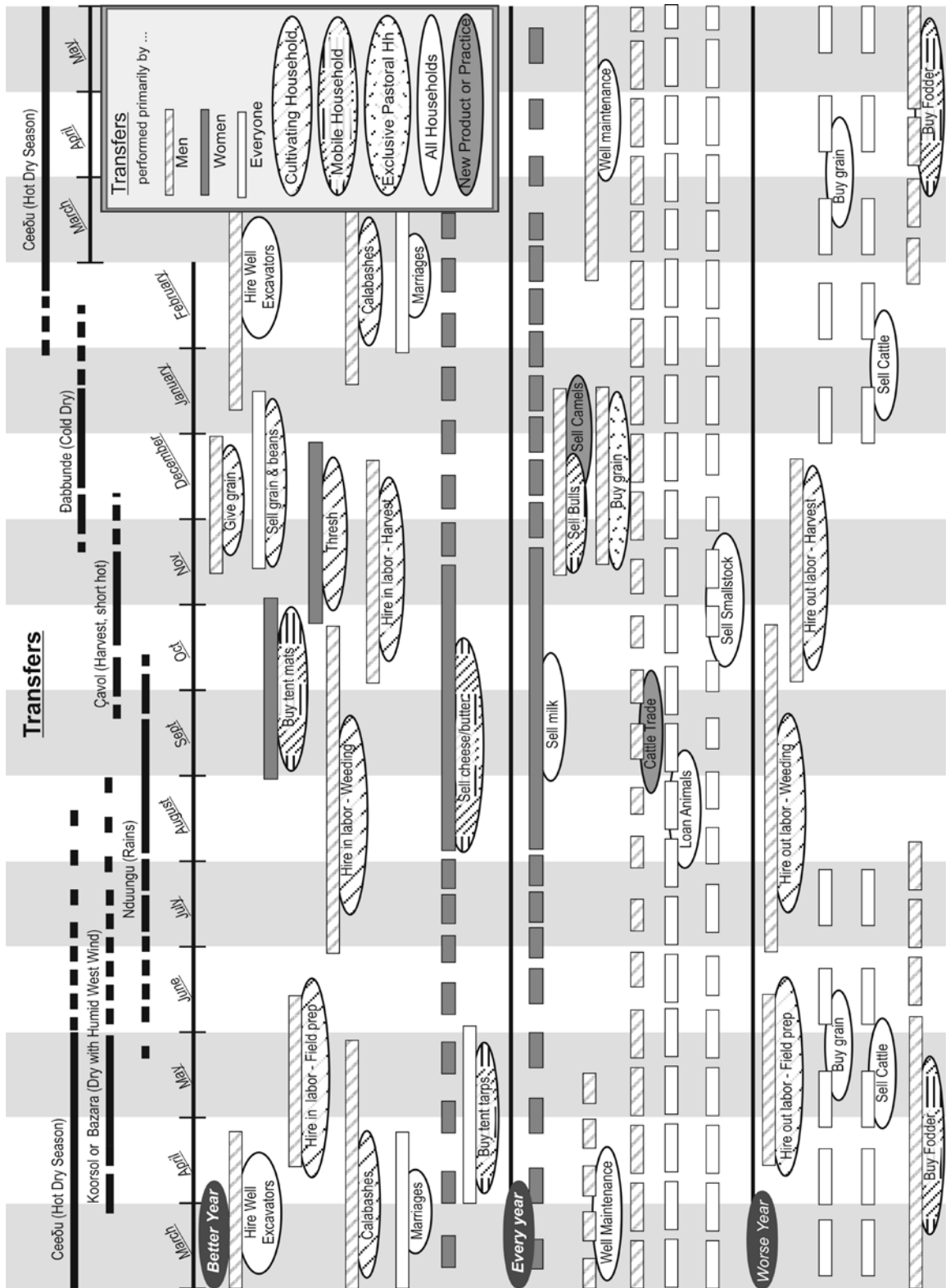
Men earn rights to new fields through maintenance of network relationships and their labor in clearing bush. Women earn their dairy products through their labor after the initial

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<sup>18</sup> *In the Mai-Kalafo community, brothers pooled money to buy wells and the titled properties belong to them jointly. I did not ask how the title would be passed down to their several sons. Hamugani well seemed to belong de facto to the ardo, though his father dug the well with his sons' help, and should have passed it on to all of his sons.*

transfer of milking usufruct rights to their husbands' cattle. Women also earn grain bran through the pounding of grain; they may sell surplus, but the bran they feed to cows (or goats) increases milk production, and bran they cook into dambu reduces their (or their daughter's) labor. Besides the products of herd and field, both men and women also earn items they craft through their own labor: ropes, mats, calabashes, jewelry, clothing, etc. Many of these items become part of household tools and utensils, but male producers sell some items, such as calabashes and their covers, and wooden tools for personal income.

Figure 8.39, below, shows the seasons when various communal and market transfers take place, and which types of households make these transfers. I have also indicated during which types of years, those with better rainy seasons and those with worse, that different transactions will take place. Thus, in a good year, cultivating men tend to hire field labor from outside the community during nduungu and çavol, men and women sell grain and beans, and women in mobile households (with more livestock) will sell more cheese and butter. All households sell smallstock all year round, but perhaps less in nduungu when women with more milk need less grain for suutam, or in the çavol of a good harvest. Cattle trade takes place year-round, but some men trade more in ceeðu than in nduungu. Well construction and most well maintenance take place only during the dry season. Certain exchanges and purchases require surplus incomes from better years, for example, purchasing wells or refurbishing a suudu with mats and tarps. In a bad year, families may also postpone marriages until the following year. In a drought-famine year, men (and women) must sell more livestock, including cows, to buy grain for their households and fodder for the rest of their livestock.

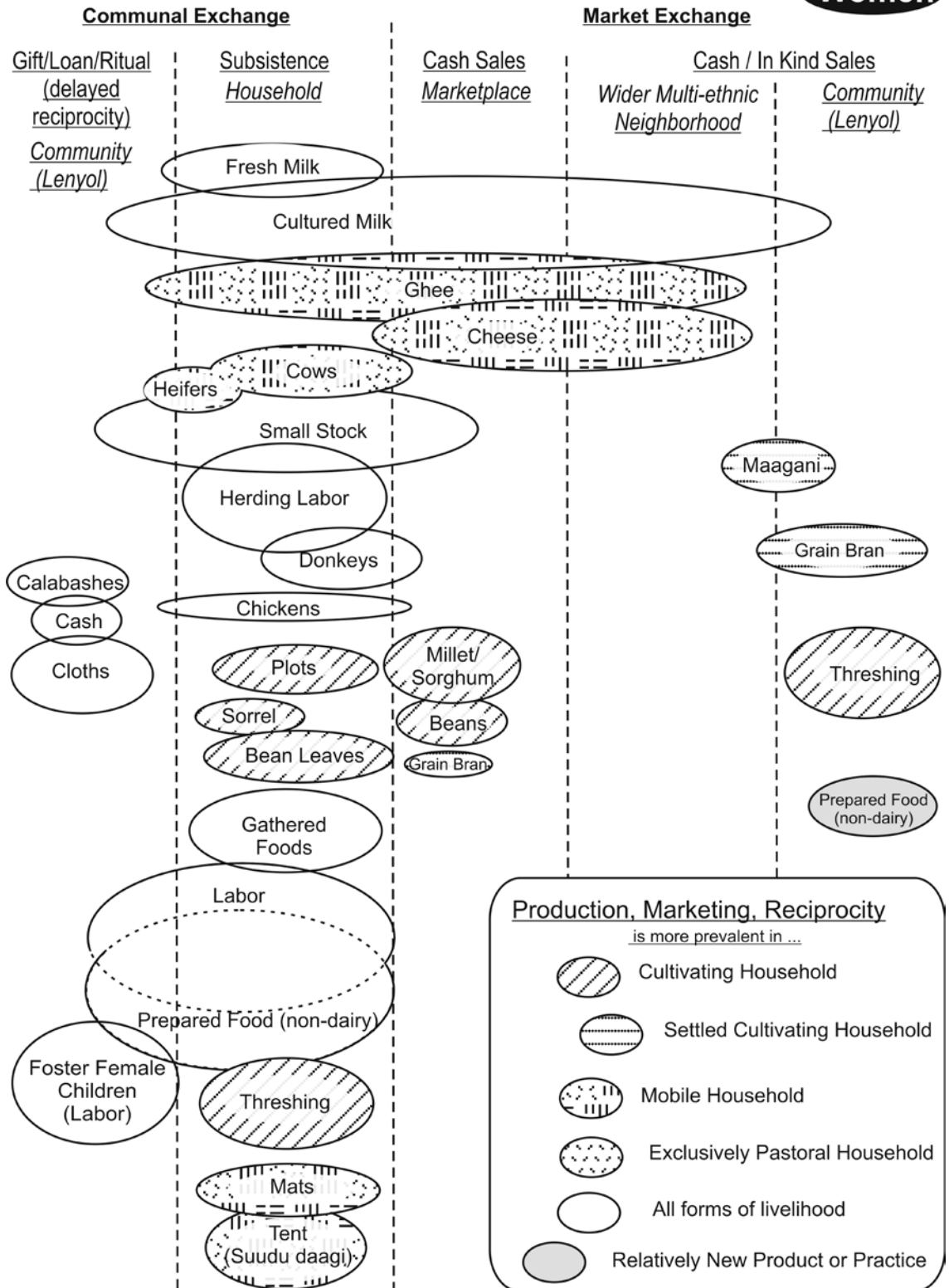


**Figure 8.39:** A calendar shows approximate seasons when different exchanges are made.

In all charts, "Mobile Household" means both mobile cultivating and mobile exclusively pastoral households.

Figures 8.40 and 8.41, below, show the various commodities and resources which women and men produce and exchange within household, community and market venues and acts as a reference for the following sections. I have disaggregated cultivating and exclusive, settled and mobile households to show which households take part more often in which type of production and exchange. Some activities are undertaken in all households: all households raise smallstock and own donkeys; all men work on the wells where they obtain water. Most women have some milk for their households, but the women in mobile households, because they usually have more access to cattle, and usually have more milk to sell and give away. Although mobile households possess, market and loan more cattle, a few elderly settled couples owned cattle that their mobile sons herded. All women in cultivating households thresh grain until harvested grain runs out, and some thresh for their neighbors, but usually only sedentary women, in households with less livestock, sold grain bran and then only within the community. All men twined mats, and neither livelihood nor mobility determined whether or not a man wove mats, but I saw only settled men craft items such as calabashes and calabash covers for sale. Although household livelihood should not influence whether or not a young man engaged in field or herding labor, only I recorded only men from cultivating families hiring out for field labor, and only men from mobile households hiring out as herder/waterers.

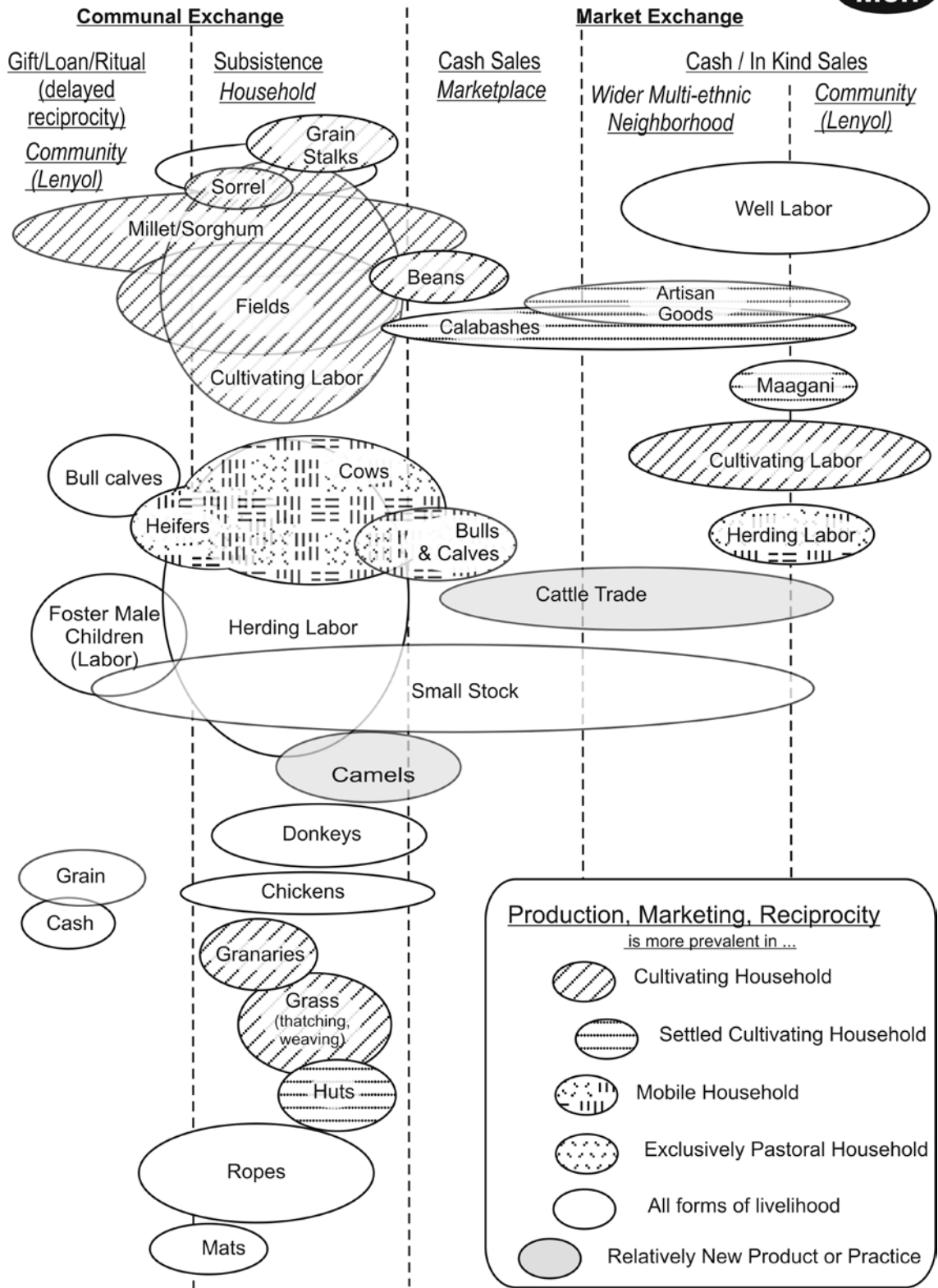
**Entitlements & Transfers: Reciprocity, Production, Marketing** **Women**



**Figure 8.40:** Women's entitlements and transfers through production, reciprocity and marketing.

**Entitlements & Transfers: Reciprocity, Production, Marketing**

**Men**



**Figure 8.41:** Men's entitlements and transfers through production, reciprocity and marketing.



### ***Earned Entitlements through Communal and Market Exchanges***

As explained in Chapter 2, community transfers comprise all commodities and services exchanged through more or less delayed reciprocity, and include the gifts given during ceremonies. I have already discussed many such transfers previously, such as kaɓɓanaaji and, at ceremonies, ritual transfers of livestock and gifts of cloth and food. Both men and women give grain from their harvests as sadaka, usually to elder women, one tiya for every ten. Men with bountiful harvests give grain to their kin, either as loans or as gifts. Within the community, most milk transferred to kin, and even non-kin neighbors, is given as sadaka gifts, though some women reported buying some milk from neighbors. Women with no milk cows often receive milk from kin neighbors; perhaps they reciprocate with bran. One woman who received milk from her cattle-wealthy neighbor often spent time in the neighbor's suudu helping her with various tasks. Brothers give gifts of cash and livestock to their sisters. Community transfers also include foster children's labor and endowments.

The gandu harvest yields food for the household, but if he has a surplus, the household head may sell some grain, usually in the marketplace. More quickly damaged by insects, beans uneaten soon after harvest are usually sold to buy clothing, blankets and other household items. Decisions about sales from the gandu fall ultimately to the household head. He will buy household tools and equipment, clothing, or supplements for livestock, but he may also buy personal items. Products from a gayamna, if the cultivator obtains a harvest, belong to the gayamna owner, who usually sells the produce.

Young Katsinen-ko'en wives do not attend market; part of the institutional convention that makes them "good wives" and deserving of the endowments and entitlements they receive through marriage (Jackson 2008):116), but the income from sales of their dairy products still belongs to them. Their mothers-in-law, their husbands or perhaps a neighbor sells their dairy products and buys them any requested items, or returns the cash to them. An elder woman, who sent her milk with me to Gourbobo, told me that if she had sent the milk with a niece, the niece would have taken a commission. While women older than mid-twenties sell dairy products and perhaps small amounts of grain in the market, only men sell and buy livestock and larger amounts of grain. A woman gives her livestock to her husband, or another male family member, to sell, or money for him to buy her an animal. I met one exceptional young woman, however, in the small Gourbobo livestock market, where she bought a goat for herself with her dilali brother's help. This strong-minded wife, though, often stepped up to take on roles her husband was less able to fill. A few women

told me that their husbands used money from sales of their livestock to buy household grain, but more often the wife received cash from her livestock sales with which she bought household utensils, cloth, or another animal. Very few women expressed dissatisfaction in how their earned money (from dairy or livestock sales) had been spent.

Mariya's things were strewn all around her tent, which was covered only in plastic, with part of a ragged taarewol and a couple of mats around the base. She had a couple new supports for her denki, but no bed, just mats on the ground. She asked me if her uncle's wife was weaving a mat for her; she couldn't weave mats.

"I don't think so," I answered. "You'll have to go to market to buy what you need."

"Be kaḏe (they forbid it)," she said. "They say they'll buy what I need."

I feel a sense of desperation—of not having enough resources to make a good home.

[*Field notes: January 4, 2007*]

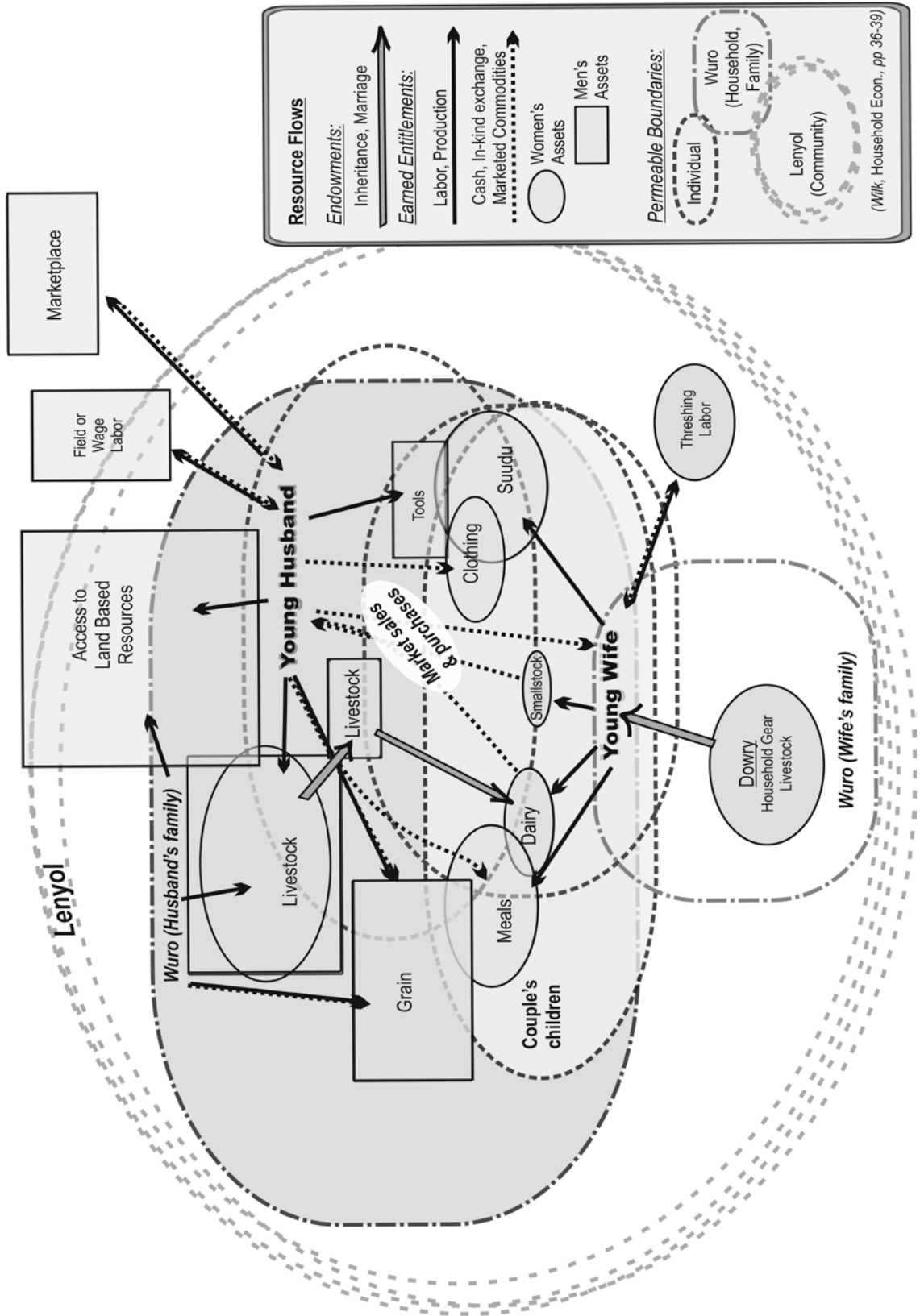
The money a woman earns is hers to spend and she must decide how she will spend it. Her husband may borrow it (as Mariya's did), but he should pay it back (as he did later by buying her a bed). With small amounts of cash she will buy little things that make her life more pleasant: soap, perfume and pomade. Many women, once they earn more money, buy the non-grain food for their suudu, such as sauce, condiments and their own sugar and tea. During difficult times, a man may sell his wife's livestock for grain with or without her permission, but she might also make such a decision herself. In better times, a few women might earn enough money to buy livestock: one woman sold chickens to buy a goat; another sold smallstock and bought a heifer.

### **CHANGE IN HOUSEHOLD RESOURCE TRANSFER PATTERNS**

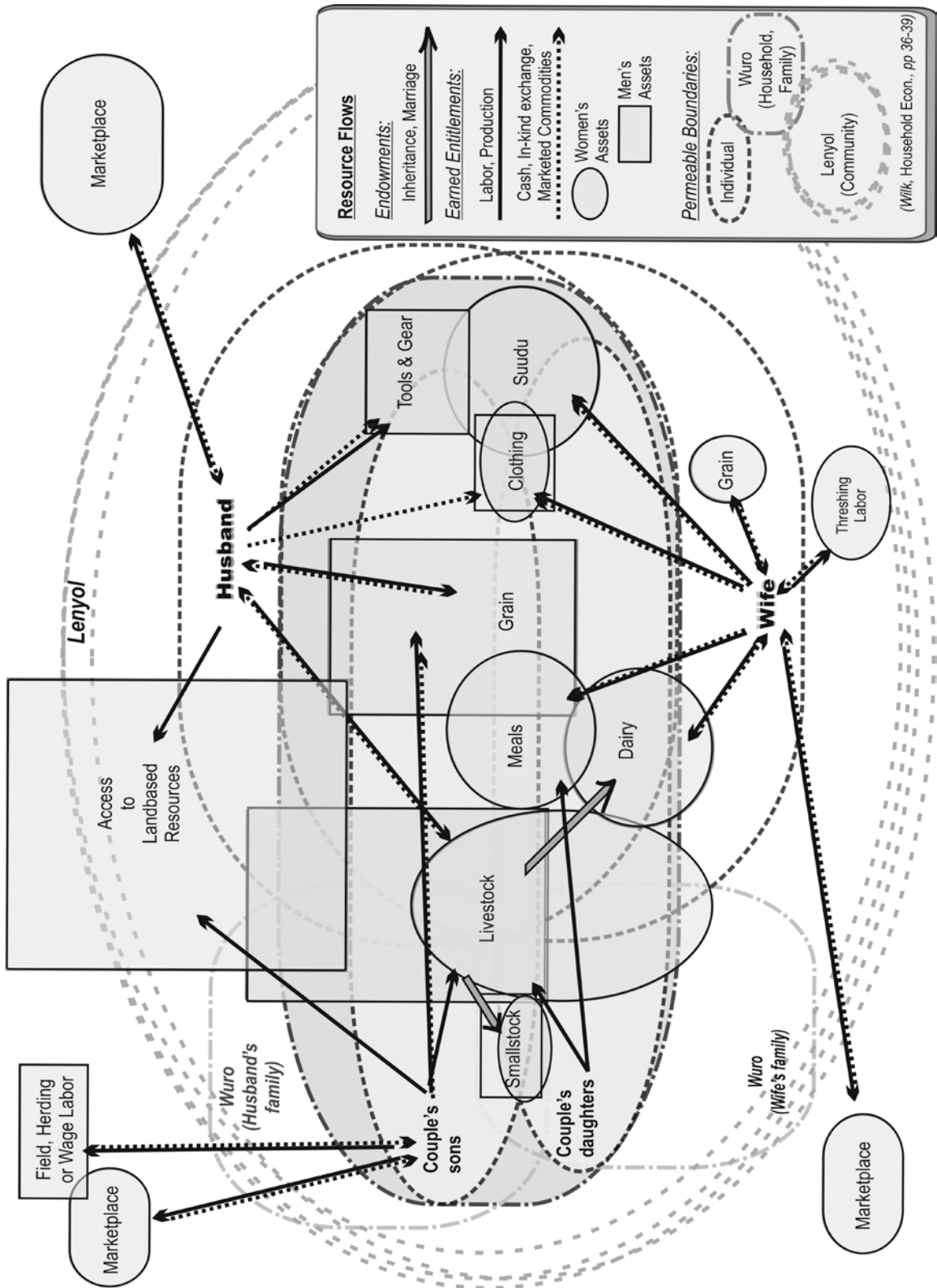
The pattern of household resource transfers changes as the household ages, gains members, and possibly wealth, and becomes a wuro. When men sold grain (not often) they usually bought items for the household: blankets, clothing, or tools. Rarely did they report particular instances of buying livestock with money earned from grain sales, though many men referred to grain sales as a possible way of restocking herds. Much more often, they sold livestock to buy grain, but also other supplies for the household. If they wanted a personal item, such as a radio or their own clothing, men usually sold one of their own goats or sheep. The husband provides a young wife and her children with clothing and necessities that her parents have not dowered her with, but as she (and the household herd) matures and she gains income, she begins to buy her own clothing, utensils, suudu furnishings, and her children's clothing, besides purchased foodstuffs. Women keep their cuuḏi in good repair as much as they are able. Some wealthier, older women bought all of their own and their children's clothing. Many couples reported that they both bought sauce: whoever

went to market to sell produce brought back sauce leaves, onions, salt and spices. Some livestock-wealthy women bought livestock salt for the household herd.

Figure 8.42, below, summarizes transfers to and between a young husband and wife still living within his father's wuro. Figure 8.43 illustrates transfers to and between an older husband and wife and their transfers to their children. In Figure 8.42, young husband still depends on his father for field and livestock access, and grain (earned through his labor) to feed his wife and children. The young wife receives her dowry from her parents, but her husband assigns her the livestock that she milks, and she may sow a gayamna plot behind his (father's) field. She receives cash from sales which her husband (or mother-in-law) makes for her, or the market purchases that she requests. The older couple in Figure 8.43 has begun to endow their children with livestock in exchange for their children's labor. They still provide them with food, shelter and clothing, but husband and wife have become more equal economic partners. The wife gains in wealth as the household herd reproduces and grows, her access to milk increases, and her own livestock multiplies. She markets her products herself and contributes more to the household budget. The increase in household (and the wife's) wealth shown here assumes a best case scenario, of course. Husband and wife cooperate in a stable marriage toward the collective goals of household and livelihood security and endowments for their children. Moreover, through their cooperation and collaboration over livelihood decisions, they have been able to manage the risks that the natural and political-economic environments cast in their way.



**Figure 8.42:** Resource flows of a young dependent household, still living within the patriarch's wuro.



**Figure 8.43:** Resource flows of an older household with adult children.

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## CHAPTER 9: LIVELIHOOD SECURITY— GOALS, DECISIONS AND STRATEGIES

### GOALS OF HOUSEHOLD AND COMMUNITY

As they walked to his cousin's marriage celebration, Duuna told Daji how his wife had had several miscarriages and births of children who died as newborns. But the couple had three sons and he was thankful. "Be keçi lenyol"—they are enough for a lenyol.

[Field notes: February 28, 2007]

Before analyzing the decisions of Katsinen-ko'en households, I would like first to reflect on the *purpose* of the household. What is the greatest goal of the rural household in Niger? These rural Katsinen-ko'en have no access to banks in which to accumulate money. As discussed in chapter 5, land itself has little value as property far from town. Access to land and wells carries more value, and constitutes a goal essential to livelihood security, but wells collapse, run dry or are sold, and usufruct tenure adjusts with household mobility and shifting social networks. Of all forms of material wealth, pastoralists try to accumulate livestock as capital (Chang and Koster 1994a:2). Livestock may be devastated by the next drought, however, and the ultimate reason to accumulate livestock is to have something to leave one's children. "The constitution and preservation of a herd for future generations are, above all, essential to assure the viability of new domestic units" (Thébaud 2002:89, my translation). Women speak of children and grandchildren as the reason for marriage. Men speak of lenyol, of having children and grandchildren who will survive not only to assist them, but to remember them after they have died and perhaps become the beginnings of a new lineage segment. Children are highly valued for their labor, from the first handfuls of firewood sticks they carry into the suudu to the last days during which they care for their aged parents. More than their labor, however, they perpetuate the lineage, and the memories of those who came before them.

Cheal and Wilk both examine how flows of resources interact with interests and goals in the household—individual, joint or collective—and the articulation of moral with political economies within the household. Cheal (1989:13) cites "the cooperative management of resources for the improvement of members' collective quality of life" in the moral economy, but goes on to note possible conflictual interactions, violence and subjugation when interests collide in the political economy. Some individual interests will



correspond with and work into joint goals, while others clash. Competing interests vary as much as the varied personalities of the individuals within the group. Moral economy, however, and household political economy work in a dialectal relationship, the former comprising the ideological ideal that regulates and restrains the self-interests of the latter (Wilk 1989:25). In order to maintain children, parents marshal resources that will keep them alive and growing. To that end, as described in the previous chapter, the household as an institution organizes “social relations and practices that integrate a number of functions and activities, distributing the products of labor, and allocating work and resources” (Wilk 1989:27). As noted earlier, the household does not operate in isolation, but as a node within family and community, its first resources the endowments given husband and wife by parents and kin. Husband and wife obtain other resources through strategic investments their personal resources. While men and women possess differential accesses to resources, they also have different responsibilities in maintaining household security. Ideally they pool these resources for optimal household sustainability, and the best development of their children and their children’s endowments. Note that in Figure 9.1, below, children and livestock take center place between the husband’s and wife’s resources and responsibilities. Both play key roles in household and family security. The figure also illustrates the importance of maintaining the integral whole of the household, with all of its members and its herd. Even for cultivating families, livestock remains the ideal form of food security: when the grain runs out, they sell livestock to purchase grain. Of course, households with too little livestock must to rely on other sources of income.

Ideally, the different individuals’ management of resources—land, livestock, labor, time, knowledge and social networks—will converge into the joint and collective goals of household, family and lineage. In this best case scenario, little negotiation is necessary: spouses share decisions that facilitate the smooth running of the household enterprise. When interests conflict, negotiation leads to compromise, grudging concession, or forced acceptance of the decisions of the dominant member of the household, usually the patriarch. Livestock’s importance to the household and the husband’s responsibility for livestock care, with the ultimate objective of food provision, give the husband the dominant decision-making role. In fact, however, in not all households I interviewed did the husband predominate; a few wives took more control of household security, though no one in the community would have called them heads of household.

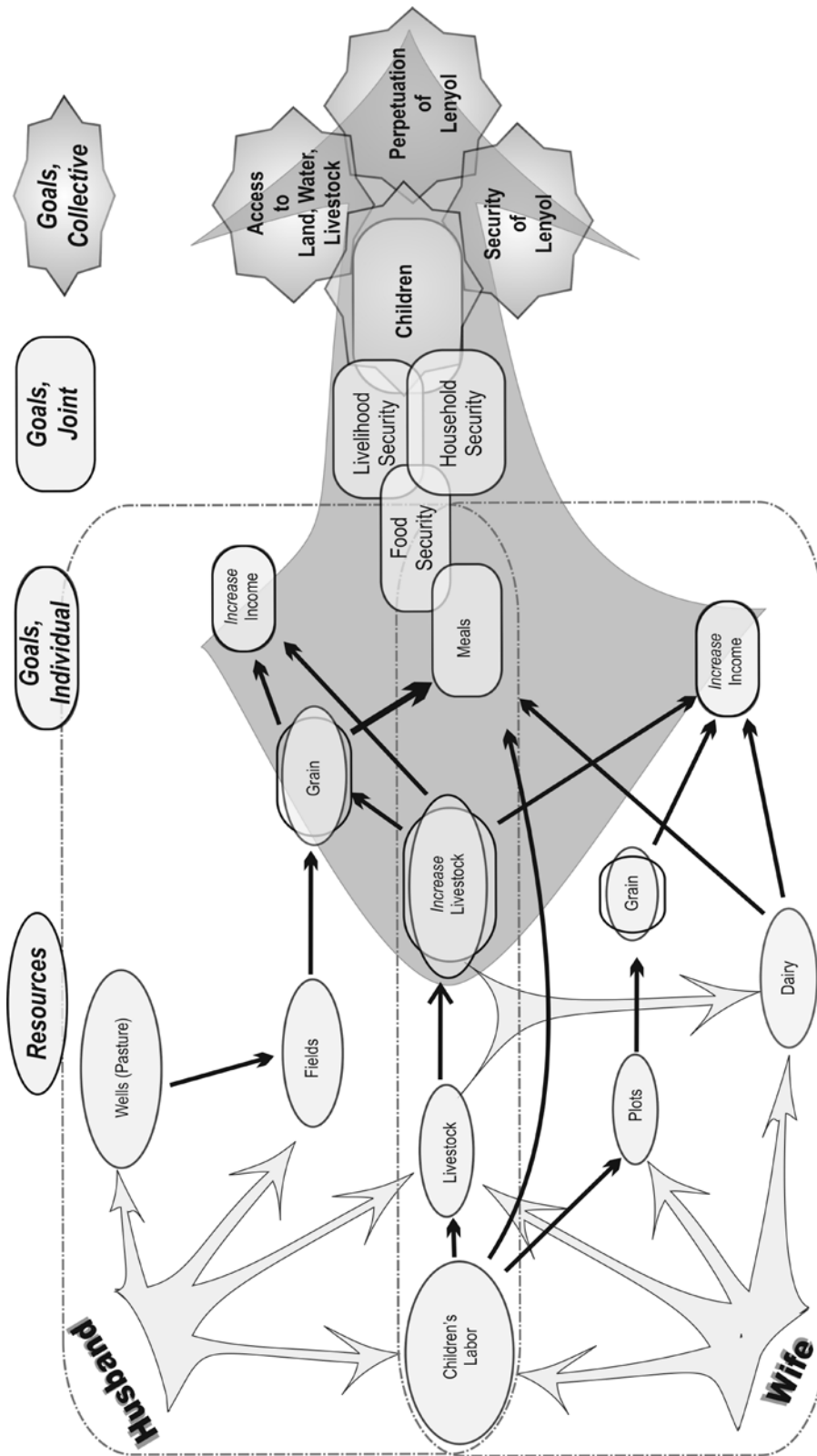


Figure 9.1: Resources and goals of wife, husband, household and community.

## LIVELIHOOD SECURITY AND DECISIONS

*Kul mi yeve, so'i mi demal.* (When I'm broke [with no livestock] I return to cultivation.)  
[Interview: January 28, 2007, BCR2-1, a mobile cultivator]

[How is your situation with these fields? Do you benefit from them?] Benefit ... just if you get something. Now we are in darkness; it's a gamble until rain falls. But we don't give up. [Interview: March 26, 2007, BDA2-8, middle-aged woman, somewhat mobile household]

Amidst the insecurity of their unpredictable environments, what does it mean for a Katsinen-ko'en household to have a "secure" or "sustainable" livelihood? Chambers and Conway (1992:1; see also Scoones 1998:5; Stone 2003:3) write that "[a] livelihood comprises people, their capabilities and their means of living, including food, income and assets." Two categories for "sustainable" livelihoods include: environmentally sustainable, in which the "livelihood maintains or enhances ... assets on which livelihoods depend, and has net beneficial effects on other livelihoods"; and socially sustainable, in which the livelihood "can cope with and recover from stress and shocks, and provide for future generations" (Chambers and Conway 1992:1). In the West African Sahel, with its one rainy season, food security usually involves only a season or year, while a secure or sustainable livelihood provides not only food for a year, but maintains "capital"—land resources, crop seed, fertile female livestock or cash—for coming years, as well as endowments for children. The Katsinen-ko'en attempt to balance cultivation, marketing and livestock husbandry—often successfully, sometimes failing—to achieve and maintain sustainability throughout the evolution of the household into the next generation. Success in sustainability depends on decisions of various household members, especially on those of the household head. As I gained more knowledge of the range of Katsinen-ko'en life ways, I began to understand the various broad options that the continuum of mobility patterns presents to households and families. The options depend not only on household members' asset holdings (e.g. livestock), skill sets and experience (e.g. with cultivation, herding or marketing), but also on their personal inclinations toward either cultivation or herding, or even toward an occupation based on trade or artisan fabrication.

### ***Decisions and Agency***

Decisions made by individuals within the household interlink into the entwined social, economic, political and ecological environments (Thébaud 2002:83). Within these environments, people analyze decisions rationally, according to their knowledge of the various options available to them, to come up with a solution that provides the best possible outcome, or more value gained than lost (Ensminger 1996:15). The researcher might

organize options and decisions into a four-square grid, as 1) clear choice, easy decision; 2) clear choice, big decision; 3) various options, easy decision; and 4) many options, major decision (Bentley 1989:75-77). Everyone faces small decisions every day that need little contemplation and no negotiation, and some choices are made for one through customary convention, such as the decision to offer suutam to a guest. Determining how much suutam, or bran for the guest's horse, or whether or not to slaughter a buck, takes more consideration. What return—prestige, network contacts, spiritual reward—or reciprocation of past favors may be gained or repaid against material loss to the household? When she buys cloth at the market, a woman faces an array of materials—cotton, rayon, polyester, prints, batiks, wide bolts and narrow—with a corresponding range of prices. She considers the cloth's purpose—her own or her children's clothing, a celebration gift—and the amount of money she can spend, before she makes a relatively easy decision with various options. In contrast, fostering children engenders major decisions for both biological and foster parents. Though most Nigeriens never seem to consider the cost of feeding an extra child, fostering also means the obligation of arranging a marriage and endowment. If a sibling dies leaving orphaned children, the foster parents' decision may be straightforward. Giving up or taking in other children, however, may entail more deliberation or negotiation.

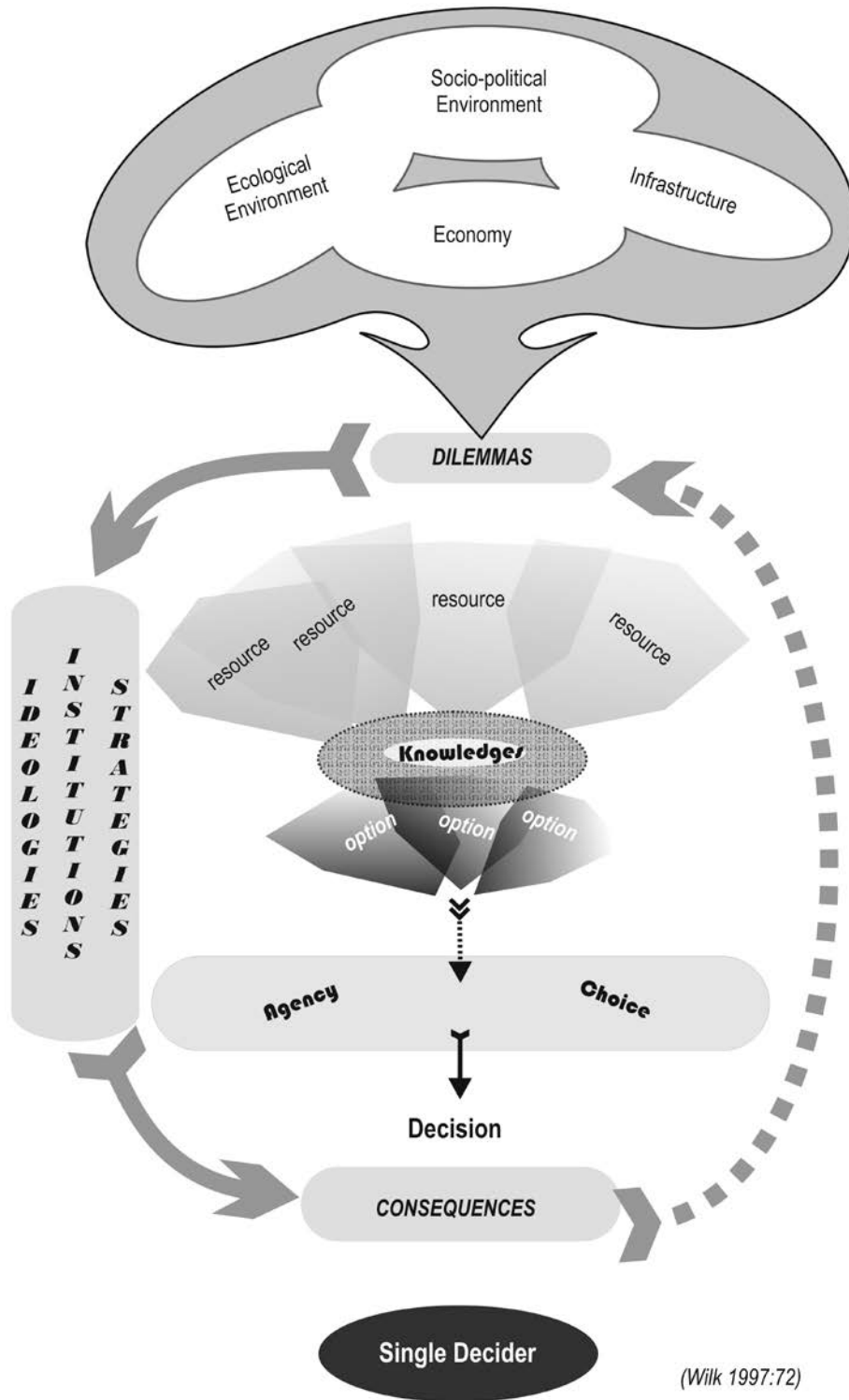
Nayejo has a great-grandchild with her, a two-year-old. He's going home, though, she said. The extra grain pounding is too much for her. [*Field notes: November 27, 2007*]

Hawa and her father's wife, Saoude, discussed Hawa's daughter, about seven years old. The girl's father's parents wanted to keep her during her father's absence, but somehow Saoude and her husband managed to convince them to let Hawa bring her to Saoude's suudu. [*Field notes: January 3, 2007*]

Decisions involving multiple participants present different possible configurations of conflict or solidarity between individuals (Bentley 1989). In a disagreement, the husband might coerce into wife compliance, or the reverse, depending on the resources, or perception of resources, which each individual commands and can bring into the bargaining, and the agency allowed each individual by cultural values or ideology (Sen 1990; Hart 1992). Because the male household head is perceived as bringing livelihood security to the household, he is usually the dominant decision maker. If his wife owns more livestock than he, however, and through livestock and dairy sales provides more grain, she may actually make more household and even wuro decisions, depending on her age, wealth and influence over her sons. In a new marriage, the husband (though still ruled by his father) usually possesses more material resources and ideologically derived agency than his

young wife, who unlike him is more restricted to her suudu and the wuro. His agency may be constrained, though, by the as yet instability of the marriage; if his wife feels mistreated, she may leave temporarily or forever. In a polygynous marriage, co-wives may clash with each other, or construct a firm front against a decision that their husband wishes to force upon them. Siblings may agree with each other against a decision an elder wishes to impose upon them. If members of different households quarrel, however, household mobility allows the two to part ways with relative ease.

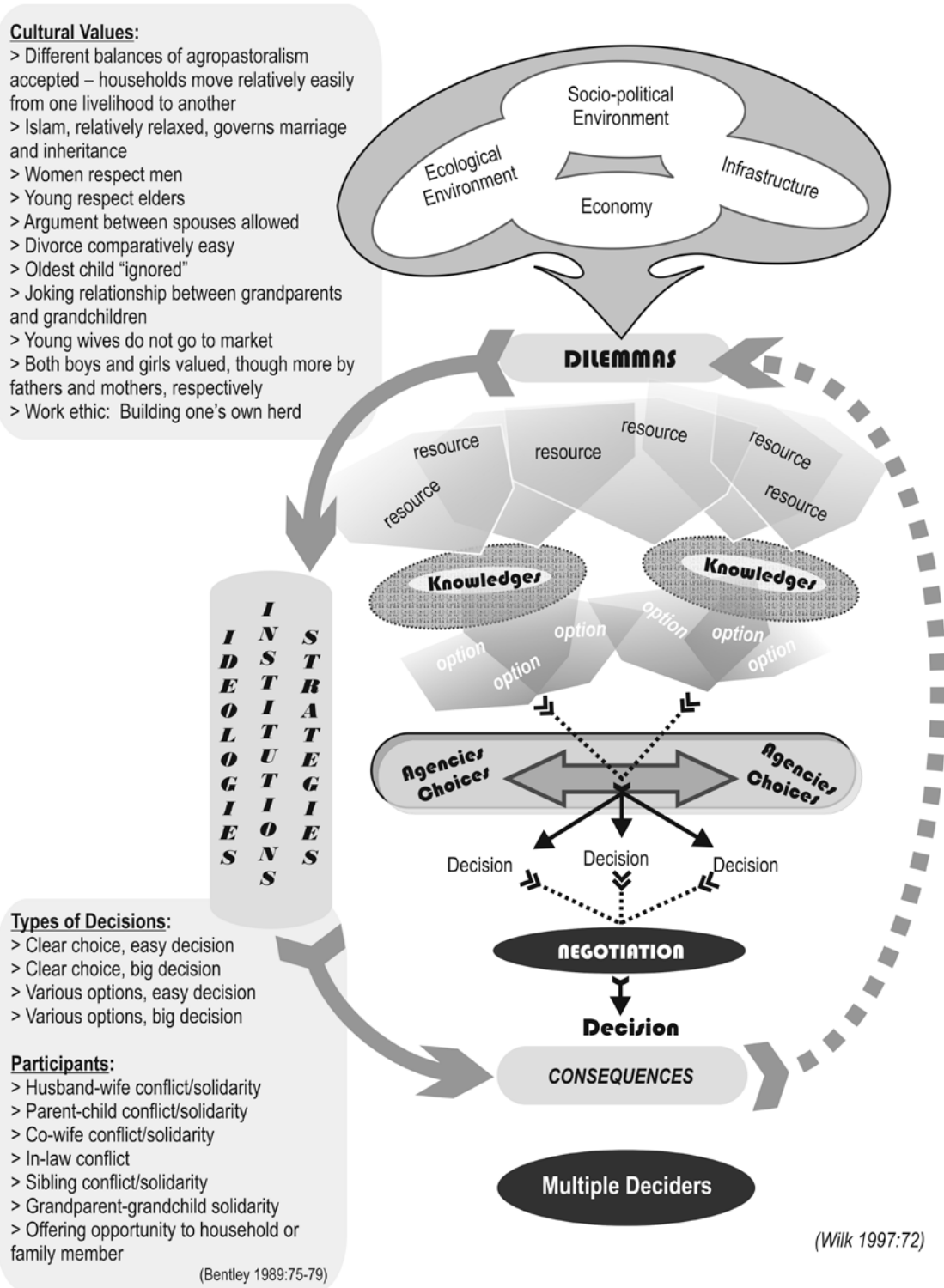
Figures 9.2 and 9.3 (from Wilk 1997:72) give graphic representations of decisions made by single or multiple individuals. When presented with dilemmas from the environments that surround them, they draw on available resources, and consider options these resources provide. Resources, options and agency are all influenced if not dominated by customary rules and strategies utilized over and over by the community. One individual makes her decision and, according to the agency that she commands, her power of choice, acts upon her decision, the consequences of which could lead to a new dilemma. In decisions negotiated between two or more individuals, more resources and knowledge come into play, freely or forced depending on the dominant decision-maker's approach.



**Figure 9.2:** A single decider.

Against a dilemma presented by surrounding environments, a single decider brings together resources and knowledges to choose between various options offered. Ideologies and institutions influence resources, knowledges, options and agency which are informed by and make up customary strategies.





**Figure 9.3:** Multiple deciders.

Multiple deciders marshal multiple resources and knowledges, which may introduce more options to be negotiated among the individuals, or a dominant individual may seize the others’ resources and force a decision upon them. Cultural values, ideologies, institutions and customary strategies constrain or facilitate negotiations and decisions.

### ***Gendered and Generational Decisions***

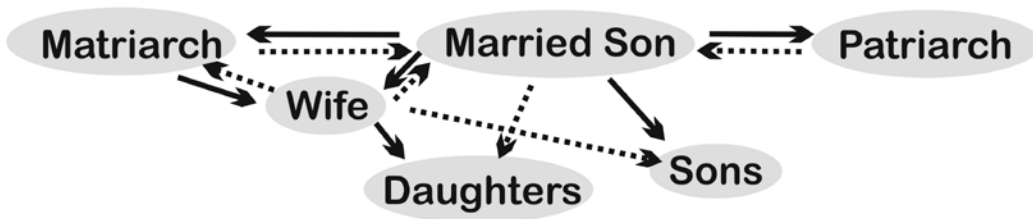
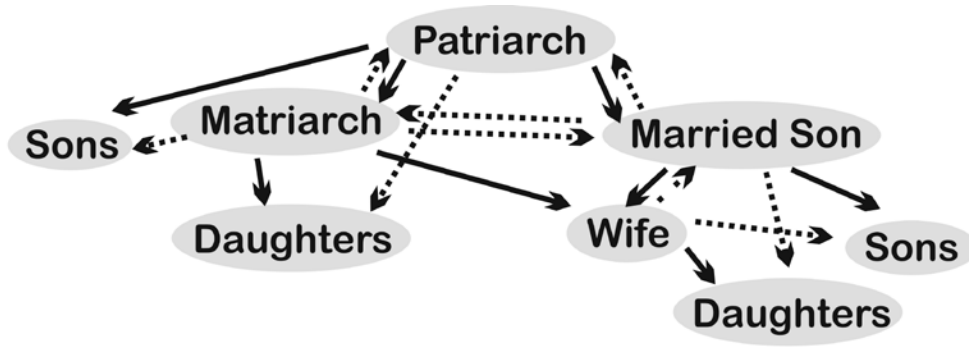
As garso, or experienced scout, the patriarch of the pastoral wuro makes decisions about and take responsibility for the well-being of the livestock, from which his wife or wives derive sustenance for the whole household. Through livestock, the immediate and ultimate goals of the pastoralist household and lineage are fulfilled. Of course, in many Katsinen-ko'en families, especially in those that depend primarily on cultivation, this idea may be more symbolic than real. But the traditional, institutionalized importance of livestock to Fulbe culture over *longue durée*, and the modified role of male head of household as provider of grain, give the patriarch not only responsibility over livestock and field, but also the right to make decisions regarding them and household sustenance in general. The age difference between husband and wife, often five to ten years and sometimes more, also gives the husband more weight in the sphere of experience. The wives' important roles, however, as milkers, food preparers and child bearers and carers, gives them input in household decisions, more as they grow older and more experienced within their *cuuḍi*. On the other hand, as he matures, and his own experience and livestock wealth increases, the husband's decision-making agency may become even more reinforced. A wife who has been able to increase her contribution to the household income, through her dairy sales, livestock ownership, or another source of income, and proves the worth of her insight and prudence, will gain more decision-making agency. In one striking contrast between co-wives (an anomalous household), a wealthy wife seemed more the partner of her husband, while the second, poorer wife seemed almost as if she did not belong to the household.

The husband interacts much more with his first wife and her children than even with his second wife's children, almost as if they weren't his, though he says they are. The first wife has many more cows than the second wife, and can participate much more economically—this due to her inheritance from her deceased parents. The second wife's tent is very small, little more than a Boḍaaḍo's tukkuru, though her bed and denki are inside. She doesn't have the eight forked supports that hold up the tent poles and cross bars that enlarge the tent and make it taller. [*Field notes: March 10, 2007*]

In a few research households, wives seemed to have more authority over decisions than their husbands. The Mai-Kalafo bokaaajo, much wealthier in livestock and through maagani sales than her aged husband, married her sons, bought them camels, and fostered at least three grandchildren. Her niece, a very intelligent woman, had been married to a man with a slight mental disability. Before we interviewed them, her elders advised us that she could answer our questions more capably than her husband. The dilali's first wife also seemed to run the household in her husband's absence, with the help of her co-wife, also

older and somewhat independent. Though because he went to market, her husband bought and sold both grain and livestock for the household, the first wife (unlike many wives) knew everything about the fields and livestock, what had been harvested and what had been bought and sold. She could hardly avoid making everyday decisions, and even some major ones with her co-wife, such as the decision to settle near her parents (see below).

Once again, I argue, though, that the household best able to manage environmental risks is one in which husband and wife become near equal partners, collaborating with each other from within his and her own labor sphere, over strategic decisions. Figure 9.4, below, shows the change in decision-making roles and agency as the household ages. At first the patriarch makes decisions for the whole household, with input from his wife and adult son. As his parents age, the son also matures, gains experience and takes more responsibility for not only his own household, but the whole wuro. He begins to take on major decisions, with input from his parents and the growing influence of wife. Though this figure diagrams an ideal household, many of the older Katsinen-ko'en households evidenced a growing equality to the partnership between husband and wife. Settled elders left livestock decisions to their herding sons, and in other families the adult sons had taken over most, if not all, of the cultivating and purchasing decisions for their parents (See Appendix H: VCA1- and BCA2-3).



**Figure 9.4:** As the household ages, major responsibility for decisions devolves from patriarch to adult son.

### ***Livelihoods and Options***

*[Which livelihood is stronger in this household?]*

Now we give cultivation strength. If the fields get a harvest, we give that our strength; if not, we follow the cattle. *[Interview: July 2, 2006, BCI1-2, an elder woman, mobile cultivating household]*

Herding is stronger because it has no difficulty. If rain falls we just go, we don't stop for anything. A field, though, you have to wait to sow. *[Interview: July 6, 2006, BBA2-1, man, about 28 years old, mobile cultivating household]*

As one of the first major decisions in its life-cycle, a household must determine what kind of livelihood on which to concentrate: cultivation? mobile or settled? exclusive pastoralism? As indicated in Chapter 4, a young household usually develops into the livelihood chosen for it by the husband's father, but as the household grows away from the patriarch's influence, the husband, with more or less of his wife's or wives' input, and depending on his livestock holdings, will follow his own inclination to settle into cultivation, move away into the rangeland with his household livestock, or manage a mobile cultivating and herding livelihood somewhere in between the two poles of the (agro)pastoral continuum. The young man above, BBA2-1, herded exclusively until his wife returned to him with his child after her biki; then he began to cultivate with his father. His elder brothers are exclusive pastoralists, to the chagrin of their mobile cultivator father. Perhaps he, too, would prefer to leave cultivation, but as the youngest married son his father prevailed upon him to stay nearby to help with cultivation.

Most households change the degree of pastoralism, cultivation or mobility at least once during the course of their life-cycle, but a few household heads make this decision every few years, if not yearly. I have already described households on the threshold between settlement and mobility, and cultivation and exclusive pastoralism. They determine their state of livelihood by the timeliness and quality of the rainy season, and the livestock that they must care for, and can rely on to carry them through the year. Men's mobility decisions for household and herd comprise a major factor in risk management strategies and I take them up, with more discussion of livelihoods, in the next chapter. Other major yearly decisions, within each particular household, include the supply of grain necessary to feed the household: whether or not, and which, livestock must be sold to buy grain; and whether or not grain or other field produce might be sold to purchase household necessities or even livestock.

### **Women's Suudu Decisions**

A wife, with her responsibility over her suudu, must make decisions about food, about the furnishings of the suudu, and about her children's tasks, especially her those of her daughters. She decides the amounts of grain, dairy products and condiments (salt, red pepper, onion, dried tomato) will make up each meal. Mothers and grandmothers usually make health decision for their young children and daughters, until expenses or travel necessitates their husband's involvement. If, as a young wife, she still lives under her mother-in-law's purview, she has little agency over the daily tasks set for her by her mother-in-law. Her husband may be able to give her a cow or two to milk, but, as I discussed earlier, he or her mother-in-law will do her marketing for her. During koorsol and nduungu a wife must decide, depending on her available time, whether or not to forage for wild foods; she will know whether or not her husband will eat spinach, or whether she must cook a separate sauce for him. At harvest, she will decide whether or not to dry bean leaves<sup>1</sup> or guna for future sauces, instead of purchasing sauce leaves.

I asked the arðo's wife if she milked her cow. She answered, yes, a little in the evening. She goes to her son's camp to milk. I asked why just in the evening. She said that there isn't enough pasture, yet, so there's not enough milk. [*Field notes: August 2, 2006*]

A wife decides how much milk she must reserve for the calf (perhaps with her husband's advice), and how much she can reserve for market. No woman ever seemed to stint on milk for her suutam, however, or hoard milk for sale.<sup>2</sup> In nduungu and çavol, when the cows produce abundant milk with plenty of cream, a woman in a cattle wealthy household must decide whether to churn all her cultured milk into butter and finndiðam, or make cheese from her surplus whole milk. She weighs the value of the cheese not only against the price of butter and finndiðam, but against the possibility of transporting and selling the liquids rather than the cheese. The flat, square pieces of cheese, once dried for a few days, transport more easily than finndiðam. Ghee keeps well for at least a year, but needs a costly glass bottle or jar (see Appendix D) for storage and transport.<sup>3</sup>

### **Cultivation Decisions**

In the fields, a man might decide to "bury" some seed, that is plant a small part of his field before the rain falls, but he chances the seed being eaten by birds, mice or termites, or

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<sup>1</sup> The leaves are pounded with a bit of water and then dried in patties on the tops of the cuuði. To cook their sauce the women break up the patties and pound them again into a powder that they stir into boiling water.

<sup>2</sup> I have often observed such rationing when village women sell the milk from their goats.

<sup>3</sup> I do not know how (or if) women transported ghee before bottles and jars were available. Dupire only mentions selling raw balls of butter, which Woðaaþe women still do if they live close to a village.



just enough rain falling to germinate the seed but not enough for it to sprout and grow. After a storm, men determine whether or not enough rain fell for sowing. Any cultivator, whether of gandu or gayamna, decides what he or she will plant, and where and how: millet and/or sorghum, and intercropped beans and polle. Because the Katsinen-ko'en usually plant on hillsides and tops, they do not have the option of planting sorghum in wetter bottom land as village cultivators do. During the two weeding periods, the cultivator also decides what wild plants, such as gunaaji, to leave in the field.

When a man reaps a good harvest he must decide where he will put his grain, and how to use it. If he harvests only a few months worth, he may store it in his granary until the next cultivation season, and sell livestock to buy grain until then.

Duuna and his cousins discussed a flat tire on their donkey cart beside one cousin's granary (see Photo 8.8). They had patched two holes in the inner tube, but it still leaked. Both tire and tube are old and it will be expensive to buy a new one of each. They need the cart to bring in the grain from the northern fields where none of the men have built granaries yet. The eldest cousin didn't know what to do; perhaps he could borrow a cart, though few men in the area own carts. Later, Duuna told me that he will probably hire women to thresh his northern grain. Then he will bring it back in sacks loaded on donkeys. The men must act soon because those fields, in the middle of ladde, will be damaged by livestock. [*Field notes: December 2 & 3, 2006*]

The cultivator must make sure that his granary will hold his grain for another year. If, during the previous ceeðu, he broke up his granary to feed his starving cattle, he will call together a work party to help him build a new one. He will assemble the parts—mats of teebere grass, mats of millet stalks, logs for the base and branches for the roof—during harvest, then call his friends together to put it together in one work day.

### ***Livestock Sales Decisions***

Livestock sales entail a range of decisions made primarily, but not exclusively, by the household head. Exclusive pastoralists rely on livestock sales to provide all of their non-dairy food, while for cultivating households livestock sales provide a backup for mediocre or failed harvests. Only when he reaps an exceptional harvest—perhaps once in four or five years—will a cultivator be able to store enough grain to supply his household for a year or more, plus have grain to sell. When I asked people in my surveys what they did for money, most men and some women answered “*Nokka nder bisaaji*”—take from my smallstock [for sale]. Though the livestock-wealthy, including most exclusive pastoralists, may be able to sell a good sized bull to provision their households with a year's worth of grain, the majority of men sell smallstock every few weeks to purchase a bag or two at a time. Smallstock are also conveniently sold to buy sauce leaves, oil, salt, sugar and tea. Most men and some

women must decide when to sell which smallstock: a buck this week, a ram a few weeks later. Selling a buck goat to buy a sack of grain is often an easy decision for a household head, unless that buck belongs to his wife or son (wives recounted trading a buck of their own for a husband's goat; see also Moritz 2003:325-6). A woman might resolve to sell some smallstock to buy a young heifer, but if household food needs outweigh this earlier decision, her husband may convince her to contribute that smallstock, perhaps as a loan, to buy grain. Selling cows or heifers becomes a more difficult decision, usually taken only in grave circumstances.

I asked why he sold two cows last year—they were old—and two heifers this year—he needed cash to buy grain. He said he bought his oxcart a few years ago for 70,000 fCFA, but he had to sell the ox this year to buy grain. [*Field notes: March 24, 2007*]

During a drought year, expenses increase not only with rising grain prices, but also when a man buys livestock fodder. He then must decide which livestock to sell in order to save the rest. Bulls and old or weak cows are discretionary sales; often young female calves are sold before fertile cows. More than one man complained that his calf rope (i.e. the calves tied to the rope) had been “eaten” by the rest of his livestock during 2004-05.

### ***Children's Agency and Decisions***

Before they have established their own households, children have little say in household decisions, and can only rebel, like many teenagers everywhere, if they disagree with their parents' decisions. A son must decide, before and after he sets up his own household, whether or not to stay within his father's wuro. If he becomes dissatisfied before he marries, he may run away, even though this may mean forfeiting his share of his father's livestock and field. A few families reported missing sons, who sometimes returned home briefly and left again. Their parents did not know where or how they were living. Sons, who decide they want more livestock than their fathers can provide them, may look for herding work, which takes them away from their family for at least a year. Other young men decide to contribute to their family's grain supplies by hiring out as a field laborer. One man who told me that he had built his own herd implied a little resentment that his father had not provided him with much livestock.

Daughters have less say and fewer options than sons, though some went visiting to avoid household tasks. A reluctant bride might run away to a relative's suudu until she is persuaded to obey, or the situation is otherwise resolved. Once a woman has married her parents' choice, however, she becomes a bit more free to leave that husband and marry

someone more to her liking. Kin and affines will first try to convince her to return to her husband, but if she holds fast, she will secure her divorce.

### ***Economizing vs. Market***

Both men and women must decide whether to buy furniture, tools and utensils in the market, or make their own. On the one hand, every item crafted is one that need not be paid for in cash; on the other hand, buying goods in the market saves time and effort, and one may obtain a more skillfully crafted tool or piece of furniture, such as a pestle or bed, that only an expert craftsman can produce. Will a woman learn to weave mats or buy her own? Will a man fabricate his camel saddle, or buy one in the market? Men and women repair torn clothing, add embellishments, and craft beaded necklaces and earrings. All men spend much of their “idle” time twining ropes: hobbles, tethers for smallstock, calf ropes, and even the thick, cabled well ropes. Gathered foods allow women to avoid buying sauce (malohiya and okra) in the market. With the few exceptions of fried cakes, the bokaajo’s maagani, and perhaps some dornahi sticks and tree fruit, I neither observed nor heard of woman selling gathered or crafted items.

With a late or bad rainy season, both men and women make economizing decisions. The bran, stalks and chaff that men and women save and gather become fodder for the livestock when the grass runs out, circumventing costly purchases. Some men broke up first the roofs, and then the baskets of their granaries to feed to their cattle.

Mobile families have been breaking up their granaries to feed the cattle, and buying bran and chaff in Gourbobo. The women at Gourbobo told me, and Duuna confirmed it at Mai-Kalafo, that the price of millet bran had gone up to 200f per tiyawol (from 75f) and that the Mai-Kalafo folk were buying chaff in town. Mariya came by with her mother, carrying a big tarp sewn together, full of millet chaff. I remember her father telling us that they had dug some up chaff in a field west of Gourbobo and that his wife had brought it home on a donkey. She spent the night on the road because the donkey, weakened with hunger was too tired to make the trip all at one time. [*Field notes: July 11 & 14, 2007, Mai-Kalafo*]

Of course, as discussed above, households with larger herds could not carry them through with only gathered fodder. Several men purchased straw, bran and grain that year to keep their livestock alive (see Appendix H).



**Figure 9.5:** (Photo, left) A young man sews his dress shirt.

**Figure 9.6:** (Photo, below, ceeðu 2007) A young man twists the plastic threads of a grain sack.

He has taken the sack apart to twist the cord that he will twine into a rope. Before grain sacks were imported from Nigeria to be purchased new in the market, men stripped bark from the barkahi tree to twine or braid into ropes.







**Figure 9.7:** (Photo, above, ceeḍu 2007) The man twines the cords he has twisted into a rope.

He may twine several such ropes together to make a long, thick well rope. The same ropes, or those made of balli, are netted into calabash carriers such as the one in the background.



**Figure 9.8:** (Photo, left, ceeḍu 2007) A man has almost finished his homemade camel saddle.

He fabricated it of hardwood forked limbs, flexible branches, bark and rawhide thongs that he coaxed from his wife (see also Chapter 5).





**Figure 9.9:** (Photo left, ceeðu 2007) A woman weaves the band of a mat, while she waits for water at the well.

The bali (palm frond strips) stay damp in the plastic and cloth that she has wrapped them in.

**Figure 9.10:** (Photo, below, nduungu 2006) Using the same bali, a man sews woven bands together into a rectangular mat.



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## **CHAPTER 10: STRATEGIC MANAGEMENT OF RISK**

Decisions concerning livelihood security work from and into strategies, many of which have been practiced over and over through history so as to become institutionalized practices (Giddens 1979:65). Much has been written about strategies which different (agro)pastoral households and communities utilize to manage risk and unpredictability in their lives, especially in disequilibrium environments (see, among others, Bovin and Manger 1990; Chang and Koster 1994b; de Bruijn and van Dijk 1995; Bollig 2006). As I do in this dissertation, authors specify mobility as a major adaptive response to stochastic environments. Thébaud (2002) discusses mobility first in a list that includes control of wells, diversification of livestock species, animal loans and cultivation. As other authors do, she identifies strategies used during crisis years, such as migration to refuge areas and conserving a core of reproductive livestock. The Katsinen-ko'en use all of these strategies, but I organize them somewhat differently for heuristic purposes. Firstly, as discussed in Chapter 8, individuals, households and communities manage risk by maintaining resource access through interacting processes of resource and asset exchange, and maintenance of social networks. Secondly, they preserve options of livelihood diversification, especially between pastoralism and cultivation, but also tap alternative sources of income such as field labor, trade or craftwork. They also diversify livelihood components, for instance by raising different types of livestock and crops. Thirdly, but by no means of any less importance, they use mobility of households, herds and fields, and tactical divisions of each, to access dispersed and shifting natural resources. Strategies called upon during crisis years manifest as amplifications of strategies used in less dire circumstances. In drought-famine years, mobility expands as even sedentary households move into refuge areas; household members appeal to more distant social network contacts; exclusive pastoralists may resort to cultivation, and marketing increases as household heads sell more livestock, men hire out in different labor markets, and even women may seek employment in villages and towns.

### **ASPECTS OF STRATEGIC DECISIONS**

Several survey questions (see Appendix A) addressed different aspects of decisions made about the strategies of livelihood diversification and mobility patterns. I use the answers to these questions here to illustrate how households shift flexibly between

strategies. One will also see how resource transfers, especially labor, intertwine with other strategies. I first give some rough estimates, calculated from survey answers, of grain and livestock amounts necessary for sustainable livelihoods. I go on to describe the different manifestations of diversification of livelihoods and mobility. In the final sections of the chapter, I show different decisions households and their members might make about strategies to navigate through various environmental risks presented in a year's seasons.

### ***Cultivation vs. Herding: Requirements***

Unless the members of the household own only some smallstock and therefore concentrate on cultivation, or they own enough livestock to become exclusive pastoralists, the Katsinen-ko'en household, with its heritage of cultivation and pastoralism, must balance the two livelihoods. Those with moderate cattle herds (five to ten head of cattle plus smallstock for a very small family with little labor, to twenty-five head of cattle for a larger family with two adult sons) might decide in some years whether or not expending labor on cultivation is in the best interests of the household. When I asked people from cultivating households which was stronger in their household, cultivation or herding, most men and women answered "cultivation," but many answered "both." People from households with larger herds, or a strong inclination toward pastoralism, answered herding: their livestock carried them through the year, and cultivation supplied them with only a little to eat.

They spent about ten years, the wife said, in cuudi gene near Maani. I asked her husband how they were able to become mobile. He simply said, "When you get more livestock you begin to have to go look for grass and you move out." [*Field notes: March 10, 2007*]

When Mace (1993) presented her hypothetical model of households transitioning between sedentary cultivation and exclusive pastoralism (without considering an intermediate scenario), she based criteria for settlement on the amount of stored grain that a household might hold. In the reality of the northern Sahel, harvests are ephemeral, more often than not lasting only a few to several months after harvest. One cannot base a decision to become sedentary on the amount of grain stored in a granary; rather a decision to become mobile is based on livestock needs. If a household with cattle has no desire to be mobile, members must either reduce their livestock holdings—for example, by dividing livestock among sons—or arrange for a son or a brother to herd their livestock. In a livestock-wealthy household, however, usually both husband and wife appreciate not only the importance of moving with and caring well for their own livestock, but also the benefits of living with their milk cows (see also Haaland 1969; Pedersen and Benjaminsen 2008).

I asked each woman how many tiyaaji of grain she pounds each day for her hearthhold, and each man how many sacks or bushels his household needs for the year. My questions were too blunt and the answers too varied, even between husband and wife, to produce a quantifiable analysis,<sup>1</sup> but a rough estimate extracted from the answers gives about three-fourths of a tiyawol<sup>2</sup> per day for two adults and two or three young children. The wife in this household might pound one tiyawol one day and a half the next, using leftover sobbal for her suutam on the second day. Some grain is spilt during pounding, and some flour is winnowed away with the bran. Women feed some nyiiri to the dogs, and uneaten food to the livestock.

During the research period, I recorded millet prices from 325-375fCFA per tiyawol at harvest to 450-500f in koorsol.<sup>3</sup> Sorghum prices usually trail those of millet by 25-50 francs per tiyawol. Without harvested grain, the small family described above will spend between 100,000f and 120,000f in a year (\$200-\$240), or sell a buck or ram or two every month at 9000f to 15,000f (\$18-\$30) to buy just over a small sack (20 tiyaaji) of grain, plus other food and household necessities. Even a harvest that provides a few months worth of grain will keep some smallstock out of the market. On the other hand, if this household can sell a two- or three-year-old bull, it can buy grain for the year and sell a young buck or ram every so often to buy sauce, sugar, tea and *kwalti* (clothing and blankets). A larger household needs more grain, of course, usually leading households with more children, but not substantially more livestock, toward becoming more and more tied to their fields and cultivation.<sup>4</sup>

Table 1.3 showed the ranges and averages of livestock ownership for households following different livelihoods. In survey interviews we also asked household members how many livestock they thought a household like their own needed to live well and (with less regularity) how many such a household would need to become exclusively pastoralist.<sup>5</sup> I received various subjective answers that depended not only on the respondent's present livelihood and amount of labor the household commanded, but also on their attitude toward their present life, and toward the question itself.

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<sup>1</sup> Limiting issues included the number of tiyaaji that the cultivator's bushel basket or purchaser's grain sack held; whether or not a woman used a standard tiyawol bowl, or approximated the measure in a calabash; and whether or not the male respondent answered for a suudu or a wuro.

<sup>2</sup> Just under 4.5 pounds; see Appendix D, Measurements.

<sup>3</sup> Gourbobo's prices usually exceeded Tanout's by about 25-50 francs. Prices climbed over 1000f in koorsol 2005.

<sup>4</sup> Manzo reminded me of this fact more than once in the beginning of the research.

<sup>5</sup> Questions difficult for all of us, interviewers to explain, and interviewees to understand.

[How much livestock does a family like yours need to live well, not rich, not poor?] Ten cows would be enough for us to drink (milk).

[How much livestock does a household need before they can become exclusively pastoralist?] If they [the ten cows] give birth and the young give birth [30-40 cows], then you'd have to give up cultivation to find somewhere for them to graze. One couldn't deal with that [herd all that livestock and cultivate]; it would be too much for one. [Interview: September 20, 2007, BCC2-4, wife, about 27 years old, small, mobile cultivating household.]

[How much livestock does a household need before they can become exclusively pastoralist?] If we had thirty, we wouldn't leave cultivation, but they would be too many, we wouldn't stay [*darataako*, i.e. would have to become mobile]. [Interview: August 6, 2006, VCD2-2, woman, about 40 years old, sedentary household]

I received very imprecise answers to the above questions. Some people thought that I wanted to know how many livestock they wanted to own (or be given). Often a member of a cultivating household responded with only a small number of cattle, explaining that if they owned more they would not have enough labor to herd them. Other cultivators numbered a few cows and smallstock, remarking optimistically that the stock would *besda* (increase). When I asked how many livestock a household needed to become exclusively pastoralist, some men told me that, even with a hundred head of cattle, they would never give up cultivation.

Even if we got livestock we wouldn't leave cultivation, because that's our heritage and we can't leave it. [Interview: February 23, 2007, BCE3-1, man, about 25 years old, living in his father's mobile household]

After many discussions, observations and livestock counts, I finally concluded that, if a small household (two adults and 2-3 young children) desired to leave cultivation, they would need about ten fertile cows, plus about twenty head each of smallstock. One young man, with three small children in his household, left cultivation in 2005-06 with only six cows (one belonged to his wife), twelve goats (two of his wife's) and eight sheep. He had taken up livestock trading seriously, however, and though he had little skill yet, he counted on his trading income to supplement household livestock sales. In 2007, he planted again, but as we met him in the rangeland during *nduungu*, he seemed to be concentrating on his cattle trade more than his field (see PDA3-1 in Table 1.3 and Appendix H). A young wife, in a mobile cultivating household with four young children, said that forty head of cattle would force them to leave cultivation. Another young woman, in a sedentary household with one child, thought that twenty cows would oblige her husband to leave cultivation. Both women thought that the herding work involved with so many cows would not allow for other work. The latter said that, with that many cattle, if they sold one cow (or bull) they could supply the household with grain for a whole year. Though Dahl and Hjort (1976) give different

figures for the amount of livestock necessary to sustain a household, they base their analysis on households living entirely off meat, milk and blood taken from their livestock, and do not consider the conversion of livestock into grain through market sales. De Bruijn and van Dijk (1995) also show a different (and seemingly poorer) situation in Mali, where their Fulbe household hold very few smallstock and have much fewer marketing options.

***Cultivation vs. Exclusive Pastoralism and Settlement vs. Mobility***

The type of livelihood and mobility pattern a household follows depends not only on the penchant of household members and the balance of livestock and labor assets it holds, but also on their knowledge gained from parents and through life experience. Each livelihood holds different advantages and constraints. An exclusively pastoralist household must own enough livestock to be able to sell the surplus to buy grain, other food, clothing and gear. A settled household must focus on cultivation with least one member engaging temporarily in another income-generating activity to supplement mediocre harvests.

*[Has your household livelihood ever changed? Why did your livelihood change?]* Her father's household increased cultivation. Before Amboosa (1984 drought) they cultivated only a little. Her father would leave a son to cultivate while the rest of the household took the livestock out to the rangeland. Since Amboosa, they have cultivated more seriously. [Drought probably reduced livestock holdings.]

*[Which livelihood is stronger in this HH?]* Pastoralism is stronger; where the grass is better, that's where we go. If there is rain, then we cultivate, if no rain, we follow the grass with our livestock. [Interview: March 10, 2007, BCB2-2, woman, about 36 years old, livestock-wealthy, mobile cultivating household]

Several interviewed households, or the households of women's fathers, shifted livelihood emphases or mobility patterns over the years. Some households settled because of drought, or at least increased their cultivation. When I first met the Omboragat community twelve years previously, many households lived in *cuuḍi gene*, but in 2006, all lived in *cuuḍi daagi*. The women told me that a year when no grass grew forced them into *cuuḍi daagi* and they never rebuilt the *rondavels*. A household becomes mobile when an increase in their cattle herd necessitates searching for pasture. Some households give up cultivation when they have enough cattle and smallstock, and too little labor to combine them with cultivation. Others, such as the elder at Siogari give up cultivation because of drought and frustration with meager harvests.

BCB2-2's father-in-law as well as she and her husband settled into *cuuḍi gene* for a time after the 1984 drought until they could build their cattle herds back and they had to become mobile again. She and her younger brother, who lived in the household, inherited their parents' livestock; when added to her husband's and co-wife's livestock, the household

owned about 30 head of cattle (see Table 1.3 and Appendix H). The husband said that his household would need 40 head plus 100 smallstock before he gave up cultivation.

The varied responses to the most subjective of survey questions—“How do you feel about cultivation and your fields?” (asked of cultivators) and “How do you feel about the rangeland and pasture?” (asked primarily of exclusive pastoralists)—are striking. Cultivators gave widely disparate answers, from “terrible” to “very good,” but most replied that they benefit if they get enough rain. Almost all exclusive pastoralists, however, replied (in 2006-07) that they felt very good about the rangeland and benefited well from the pasture. Only one elderly woman, very tired of migrating, answered negatively. Women, despite the extra work involved in moving their *cuudi*, value the milk they received from well-fed cows. Women in mobile cultivating households also acknowledge merit in migration. Though many replied that a *suudu geene* would be “easier on their bodies,” they also know that the cows must move to find pasture and they must follow the cows in order to obtain milk.

I found Amina pounding grain at her mother-in-law’s *suudu geene*. When she finished, she prepared some quick, cold porridge (*gappal*) for me with *kosam*. I said her mother-in-law told me that her brothers-in-law had taken all of the family’s cows north to the rangeland. She remarked that her brothers-in-law’s wives were drinking all the milk.

“Is your father’s family mobile?” I asked.

“Yes, they move all over. We know how to set up a *suudu daagi*.” She seemed a bit jealous of the wives of her brothers-in-law. [*Field notes: October 23, 2007*]

In a sedentary household, the wife has less responsibility for the *suudu geene*, constructed and maintained by her husband. She does not worry about packing tent and gear onto donkeys every so often, but she will probably have less access to milk, even if her husband is able to keep cows, and she milks the household’s goats. As discussed in previous chapters, wives in all cultivating households thresh every few days, until the harvested grain runs out, and they may have more herding work during the rainy season. Most wives in exclusively pastoralist households will have more milk, and thus more income, but usually live further from a village with market and clinic, and further from close kin. All the Siogari women had left kinfolk at Mai-Jiga, Futawa, Omboragat and Jema; visiting meant a donkey ride of a day or more.

The young men of exclusively pastoralist households can rest during the rainy season, and though elders scout new pasture every other day or so, this task is usually less tedious than weeding fields. During the dry season, however, these men have more livestock to water—an arduous chore in *dabbunde*, when hands and feet chap in the cold mud and wind, and bodies are exhausted in the stifling heat of *koorsol*. Men of livestock-wealthy, mobile,



cultivating households work hard all year round, weeding during *nduungu* and watering during the dry season. These households must possess enough labor assets in children and wives, or the means to hire labor, to accomplish everything well. Because they stay closer to their fields, though, they tend less to *tokka nduungu* and may not exploit the best dry season pastures. Their households spend less effort on migration, but their livestock may not be as well fed. As Pedersen and Benjaminsen (2008) explain, mixing cultivation and pastoralism can be a risky option in itself, but the long, cumulative experience of the Katsinen-ko'en give them the local knowledge to carry out this balance more successfully than others.

### ***Mobility***

#### **Pasture, ceeḍu**

In the morning, at breakfast, Koyni told us that he had accompanied his evening guest southwest, almost to his camp. After a brief argument with his wife, something about feeding the cows bran, Koyni declared that the grass near his friend's camp appears much better than here. They will have to move there, perhaps all the way to Mai-Cigifa. He went into a near tirade, almost as if he were arguing against his wife's refusal to move, though she did not contradict him at all. It seemed he was actually trying to convince himself. He had to find better grass for these cows! [*Field notes: February 8, 2007, Mai-Kalafo*]

In ceeḍu, the household head must sometimes make very difficult decisions about pasture. Though he knew that he should, Koyni did not want to move—perhaps he did not want to leave his field. The grass where he had spent *dabbunde* was almost gone. After the above scene, however, he heard from his nephews that the southern grass was not as good as it appeared.

I asked Abdu [Koyni's nephew] why they would return north. He said the cows want to go north. The sheep, I commented, are still skinny. Abdu's brother agreed, and suggested they ask the women if the cows are giving more milk here. [*Field notes: March 5, Eheddi well*]

In the dry season, scouts look for nutritious grass that, though dry, has some pith in the stem and seeds left in the heads. In *dabbunde* and ceeḍu of 2007, the households that migrated south into what seemed good grass were deceived. Their cattle refused to stay and graze there, and the men believed that mice had destroyed the pasture. The livestock will let the herder know where they wish to go; I often hear both men and women, Katsinen-ko'en and Woḍaaḅe, say, "The cows want to go north," or "The goats won't stay here; they want to go south." A household will end up following livestock that refuse to remain in a particular place. Cattle also develop habits of grazing in certain areas at certain times of the year, and they become restless if their humans do not follow the migration

patterns they know. Households, Katsinen-ko'en and Woδaa6e, only reluctantly deviate from habitual routes and territories because they fear their livestock will run away and become lost.

Finally, in late koorsol—after his nephews had all migrated north to Dakaare and Jema; when his cattle had become so weak he had to lift them with his staff—finally, Koyni made plans to move north. His older brother berated him for his lateness.

### **Pasture, koorsol and nduungu**

Mobile cultivators must consider not only pasture, especially during a koorsol with little to no grass, and iffy rains, but the labor and time that they and their sons put into their fields. Most mobile cultivators remain near their fields from koorsol through nduungu, or least until they've finished the first weeding. In 2006, dried grass remained around the fields from the abundant rains of 2005, and the cultivating households migrated very little in that year. In 2007, besides cultivating households from Bangaji, Mai-Jiga and Jema, one of the Mai-Kalafo men accompanied the Siogari exclusive pastoralist to Aderbissinat while his sons cultivated the gandu, and two other brothers from Mai-Kalafo migrated towards Abuzak, leaving their fields in the south. One did not cultivate that year; the other left a son at their fields with hired field labor. The rest of the Mai-Kalafo households, though they migrated west and north to find grass during koorsol, traveled no further than 25 km from Hamugani well in 2007, and that only before rain fell on their fields. Once they began cultivating and the grass sprouted near their fields, they moved back home (see Chapter 4).

Idrissa's wives discussed a possible move north in the near future. They and their neighbors wouldn't move, though, until one of the men, who had gone to his field, returned. Plus, the men still needed to scout for pasture. I asked the elder if he and his wives would move with the rest of the Siogari households if they went further north. He said no, it would be too difficult. His older wife isn't feeling well. [*Field notes: August 31, 2006, south of Ngadesi*]

When rains begin to fall, the heads of exclusively pastoralist households consider pasture quality and surface water above anything else. In the mediocre 2006 nduungu, when the Siogari pastoralists tried to find the best of a bad situation on either side of Abuzak Çengol, two dissatisfied men returned southwest with their households, returning towards Siogari and Bangaji. In the very good season of 2007, many more agropastoralists joined the Siogari group, following green pasture north toward Aderbissinat (see Chapter 4). The elder men scout for new pasture, though they do not seem to confer as much as the Gojen-ko'en in their *kinnal*, where a group of men from the group of camps (*wuvre*) gather in the evening or morning before a move to finalize plans. One or two Katsinen-ko'en men

would scout and then return, telling their neighbors that they would move the next day to such-and-such a place. The other households would follow or not as they desired or felt advisable.

### **Apportioning labor and splitting the household in koorsol and nduungu**

The agropastoral household must decide how and when to apportion herding and cultivating labor. In the most common labor division strategy practiced by cultivating households, younger children, supervised or assisted by at least one wife, herd the livestock, keeping them out of the fields, while the men and older boys cultivate. In a polygynous household, the wife whose day it is to cook prepares and takes her husband's suutam to him, while the other wife, with the children, concentrates on the livestock. Most households, however, must rely on the inconsistent skills of their children. At Mai-Kalafo many people complained that their neighbors' livestock caused field damage because the children either could or would not herd them well (like Mariya's son in Chapter 8).

*[How does your HH divide the work of cultivation and herding?] The wives divide herding and cultivation; one herds for two days while the other takes suutam to the fields, then they switch. If rain falls in the north, one wife herds there while the husband and one wife return to cultivate [the wife bringing her husband suutam].*

*[Which livelihood is stronger in this HH?] If the rainy season is good, then cultivation is stronger; if the rainy season is bad then we follow the livestock. [Interview: June 26, 2006, BCA2-8, woman, about 27 years old, polygynous, mobile cultivating household]*

As noted in previous chapters, in a season of dispersed natural resources, the Katsinen-ko'en will temporarily split their herds, their families and their households in order to facilitate labor distribution and resource access. Especially in koorsol when the rains have just begun to fall in some places but not yet in others, the mobility of the herd allows it to be driven from a still dry area to an area with new pastures. If the rains come later to the fields than the rangeland, as happened in 2007, a polygynous household will split. The husband takes one wife, her children and most of the livestock (especially the cattle) to find new grass in the rangeland. The other wife, with perhaps an older son, will stay near the gandu to begin sowing as soon as rain falls. Then the husband returns to finish sowing and begin weeding. In BCA2-8's household, when rain fell on the fields her husband left one wife with the herd, and returned to his other wife to finish sowing the fields.

Some settled families send their livestock with young sons or brothers, who usually have their own small mobile households. These young men always accompany more experienced relatives, often uncles. The knowledge for finding the best pasture and browse for livestock is acquired over years of herding experience and young men are not expected to be able to discern good pasture from mediocre. Among both Katsinen-ko'en and

Woδaa6e, the elder men (*ndotiyen*) scout; only in exceptional circumstances will a *kayejo* (young man) be sent to assess pasture quality.

If a man moves his household north after the first weeding, he will return, perhaps with a son or two to carry out the second weeding, while he leaves his livestock with his wife, a perhaps a son. I met one such wife among the Siogari group at Incera in 2007, who acted as head of household while her husband spent several days weeding his field far at Bangaji.

### **Where to water**

When Daji's cousin and I went to Ngamaanu pond to water my horse and his livestock, I saw that the pond was greatly shrunken. The next Thursday, the Gojen-ko'en started watering the cattle at Abuzak well to the north. [*Field notes: November 25, 2006*]

As *çavol* wanes into *dabbunde*, even the largest ponds dry to cracked mud, and pastoralists must find a well at which they will water until the fields open for grazing (sometime in December or January, depending on the harvest). The Katsinen-ko'en head back to their home wells; Siogari was far enough north that the exclusive pastoralists did not worry about their livestock causing field damage. The Gojen-ko'en move to a well belonging to one of their lineage members, or, as in 2006, shift to a "government" well after the livestock refuse to drink anymore from the increasingly muddy ponds.

When I asked why they didn't water at May-Aduwa, a large, deep well, Abdu and his sons answered that all the nearby wells had too many livestock and none had enough water. They tried watering at three or four different wells; at one well, they watered far into the night. The well where they water now keeps emptying. It was sunset before they finished watering and could fill the household jerry cans. In the afternoon, I gave our hostess the rest of our water so they could wash for prayers and finish some of the pounding for dinner. The sheep and jerry cans returned home after dark, and dinner was very late. [*Field notes: November 28, Bangaji*]

During the dry season, if a man moves his household away from his home well, he, perhaps with his sons' advice, decides at which well they will obtain water for livestock and household, depending on how and with whom he will negotiate for access. With the concentration of pastoralists on the very patchy range of 2006-07, livestock crowded the wells. Abdu returned to Bangaji to harvest what he could from his field, and store the grain stalks, but the relatively good pasture in that area had attracted too many pastoralists. Though they seemed to have a large choice of four or five wells in the watercourses (*ilaagi*) that ran into Cingoragen Çengol, crowds of men and livestock pushed Abdu and his sons toward a well further from their camp than convenient (though between camp and field, see Figure 5.13).

When pastoralists trek south into the cultivation zone, they must deal with tenacity to agree on a well access contract with villagers. They usually pay a certain fee for each well

rope that they use<sup>6</sup> for the length of their stay, either a day or the whole season. They usually also have to wait until the villagers finish watering in the morning, and clean the well every other afternoon to keep the water flowing well. Such difficulties with village wells, plus possible conflicts over fields, keep the Katsinen-ko'en, at least those of my research population, from migrating south unless a bad drought forces them on such a trek.

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<sup>6</sup> *The household head pays cash and/or smallstock for each rope that pulls water for his herd and household. If he and his sons use two or more ropes for a larger herd, they pay the same amount for each rope.*



**Figure 10.1:** (Photo, dabbunde 2006) Livestock drink from Ngamaanu pond, almost completely dried.



**Figure 10.2:** (Photo, nduungu 2007) Cattle graze in a grassy pond on a hill above Incera.



## **Women's knowledge and agency**

Women have little overt influence on their husbands' mobility decisions. As noted above, however, the women will know something about the cows' nutrition from the amount of milk they obtain each morning and evening (see also Thébaud 2002:78-9). I have often heard Gojen-ko'en women either praise or complain about a particular pasture because of milk it gives. The men seem to ignore their complaints, but often start scouting for new pasture. When Abdu's brother asked Abdu's wife about the milk at Eheddi well, she gave him a rather vague answer. Perhaps later she replied more unambiguously to her husband in private, as the households soon moved north. The previous nduungu the Siogari women resorted to more drastic action:

At Seede's suudu, I remarked with surprise, that they were living like Woδaaḅe, with no tents. She answered that the women were angry ("min kunçi") at having to move north of the çengol where the cows have no milk. [Field notes: September 6, 2006, Ngadesi]

In the nduungu of 2006, the men had little choice over where to move, and must have convinced their wives of that, because the women put up their tents the next day. The dilali's wives took matters into their own hands.

The dilali's first wife told me that, after returning from ceeḅu spent at Tsamia in 2004-05, they moved so little that the wives decided to settle in cuuḅi geene. Her tent was all worn out, she said, indicating the old, tattered taarewol that hung on the inside of her suudu geene. Later, I asked her co-wife if the women or men decided to settle. Right away she answered, "The women." [Field notes: February 14 and March 19, 2007]

The dilali followed the market circuit for most of the week leaving his two wives as *de facto* household heads. Though his household had two sons in their late teens and possessed a cattle herd of more than twenty head, the women decided to settle near the first wife's parents (and the husband's uncle; the second wife came from a different community). The dilali's younger brother and his wife (sister to the dilali's first wife) settled near them. When I asked the younger brother's wife which type of life she preferred, she told me that she was happy living in a suudu gene. She said that she kept her tent mats and poles, though, ready to move. When the rains began falling in the north in koorsol 2007, this wife loaded up her suudu daagi and followed her husband and the dilali's son as they herded the cattle of both households, leaving the dilali's wives in their cuuḅi geene.

## **Hindrances**

Daji and I discussed his brothers' and cousins' probable move north. They may have started on the fourth day of the moon month, he said. They would not move on the fifth day, but they may reach this far today, the sixth. [Field notes: August 31, 2006, Ngadesi]

Besides ecological and geographic considerations, certain events or restrictions check or restrain movements. Each Woḍaaḍe lineage observes a range of particular taboo days when a household may not move without risking misfortune to herd and family (see also Bonfiglioli 1981:95; Loftsdóttir 2001:71). Though the Katsinen-ko'en do not follow these proscriptions as rigorously as the Woḍaaḍe, they keep some general taboo days.

At her suudu, Laame welcomed me effusively. She said they had planned to move today, but the donkeys had scattered and she couldn't do anything because she was feverish with a cold. She couldn't even pound sobbal. [*Field notes: January 30, 2007*]

Lost livestock keeps any household from moving very far, while the men or women search for the missing animals. Illness, injury or the birth of a child may also keep a household in one place until the affected household member can travel. As noted earlier, the Siogari elders moved less than their son because they found continuous movements too fatiguing. Men also move their livestock only reluctantly into strange territory, fearing that the animals will stray and become lost or stolen

#### ***Perol: Trekking outside habitual migration patterns***

The decision to trek south during a drought year, or to any new residence base, is one of the most difficult a household will make. The trek takes livestock out of habitual pastures, and in villages men must drive hard bargains for water—sometimes they are refused outright. In the south, livestock must be guarded day and night against thieves. In 2006-07, people also worried that they would find no grass in the south; rumors ran rife that villagers had raked it all up, anticipating sales to southward migrating pastoralists. However, though lack of pasture may drive a household south, less expensive grain also pulls them there. Because people more often harvest a surplus in the south, they often have more grain to market than northern cultivators. Moreover, grain from Nigeria or other regions in Niger is transported more easily along the southern highway. As another advantage, once the pastoralists pass Gangara in the south of Tanout département, they enter a region in which cultivators desire manure for their fields. Though I have never heard of anyone entering into actual manure contracts with field owners south of Tanout, I have heard that some southern cultivators will bring gifts of food and grain to the pastoralists who camp in their fields. Most villagers show much less hospitality, however, even in the south, once farmers begin to sow their fields. Then they demand that pastoralists, ready or not, leave with their herds. At this time conflicts erupt, sometimes resulting in property destruction, injuries and loss of life.

In 2004-05, when almost all households migrated to the south of the department, a few polygynous households left one wife in the north with the smallstock, while the husband and other wife took the cattle south. Many Mai-Kalafo men returned alone to sow their fields with the early May rains, leaving their households in southern refuge pastures until they finished. Those households that did not make the first sowing, reaped a meager harvest from a late sowing. A few households abandoned cultivation all together that year and made their way slowly back north to their home wells.

### **“Mobility” of Fields**

After sowing and before or after weeding, the cultivator will decide whether or not to cut and sow bush ahead of his field, adding fresh, fertile soil. Some of the men first sow a few meters of bush in front of their fields and then weed that strip along with the rest of their fields. Other men hoe the grass and cut the trees from larger parcels either after they had finished weeding, or during the dry season. The first method appears easier, but a late planting in weed-prone bush risks producing mediocre grain, good only for livestock. Some men planted sorrel in these pioneer strips, which seemed to better tolerate the weeds.

If a cultivator feels he can handle the extra labor, he will cultivate two fields in different areas, hoping that if one field doesn't receive enough rain, the other will.

When I asked Saoude why her husband had cleared a second field so far north, she told me that they herded there and just cleared the field where they were living. That was about three years ago when they bought their well to the south. I asked if they weren't afraid that livestock would get in the field. She answered, yes, they were. “They said [on the radio], that everyone in Niger should watch their livestock and not let them get in the fields.” [*Field notes: August 9, 2006, Bangaji*]

When a man decides that he needs an additional field, unless he gains permission to dig a new well in open *ladde*, an option becoming more and more difficult with the increase in population, he approaches contacts within his social network to access land adjacent to an established field complex. Ideally, the cultivator will sow and weed both fields at the right times in order to obtain the best possible outcome, a good harvest from both fields. The constraining factor here, as discussed in Chapter 8, is labor, either sons or cash to hire men. Neither hired labor nor sons guarantee the best results, though. In 2007, the Bangaji field of Saoude's household went neglected when the son in charge of it spent more time with the livestock, and left the hired laborers, who should have weeded, unsupervised.



**Figure 10.3:** (Photo, October 2007) A man hoes the dried grass in front of his field, clearing new space for next year.

He will chop down and burn the bushes in the left of the picture with the rest of the grass that he has cleared.

## EXAMPLES OF STRATEGIC DECISIONS

The next three diagrams illustrate examples of decision-making processes. Figures 10.4 and 10.5 show how four different households with different resources and knowledges utilize different options to come to different decisions of how to spend a nduungu in which, like that of 2007, the rains fall on the northern rangeland, with some on northern fields, before southern fields receive any rain. All households cultivate, but each has a different morphology and different sets of resources and skills. Household A comprises a large family with two wives and older sons who can take on both cultivating and herding tasks. The husband and one wife prefer cultivation, but the second wife appreciates the livestock and dairy production. She buys household necessities with income from her dairy sales. The family possesses a large herd of both cattle and smallstock, but has no bull to sell for grain. They need a grain harvest to feed their large family and save their cows from sale and their smallstock for other purchases. They have a large southern field, but have not yet cleared a second field in the north. Household B is smaller, with only one wife, and one herder son. The husband's younger brother, head of Household D, plans to take his household and livestock north where the range has received good rain. He has contacts among exclusive pastoralists with whom they can migrate and tokku nduungu to find the best pastures. Household B's herder son accompanies his uncle with the household's livestock. With no bull to sell for grain, husband and wife B cultivate in their southern field, gandu and gayamna, with their younger children. The wife uses some of the money she receives from selling her harvest to purchase foodstuffs for the household.

Household C, another small family with only one wife and younger children, possesses only smallstock but two fields. They are sedentary, but worry very little about finding pasture for their small herd. They do need a good harvest to feed their family. In the past, the wife has used some money from her harvest to contribute to the household income. Both husband and wife cultivate and their children herd the smallstock. The husband sows the northern field first, and sells some smallstock to hire field labor to help him weed both fields. Household D, headed by Household B's younger brother is a small family with only young children. The husband considers himself "one-handed" with a relatively large herd, but no second field. Both husband and wife value pastoralism and mobility; with Household B's herding son, they can take both herds north to the rangeland. Both husband and wife have exclusive pastoral relatives in the north. The household will give up cultivation, at

least for this year. The wife contributes to the household income from her dairy sales, and the husband has a bull that he will sell in çavol to buy grain.



## Anatomy of a Decision: Ecological Dilemma

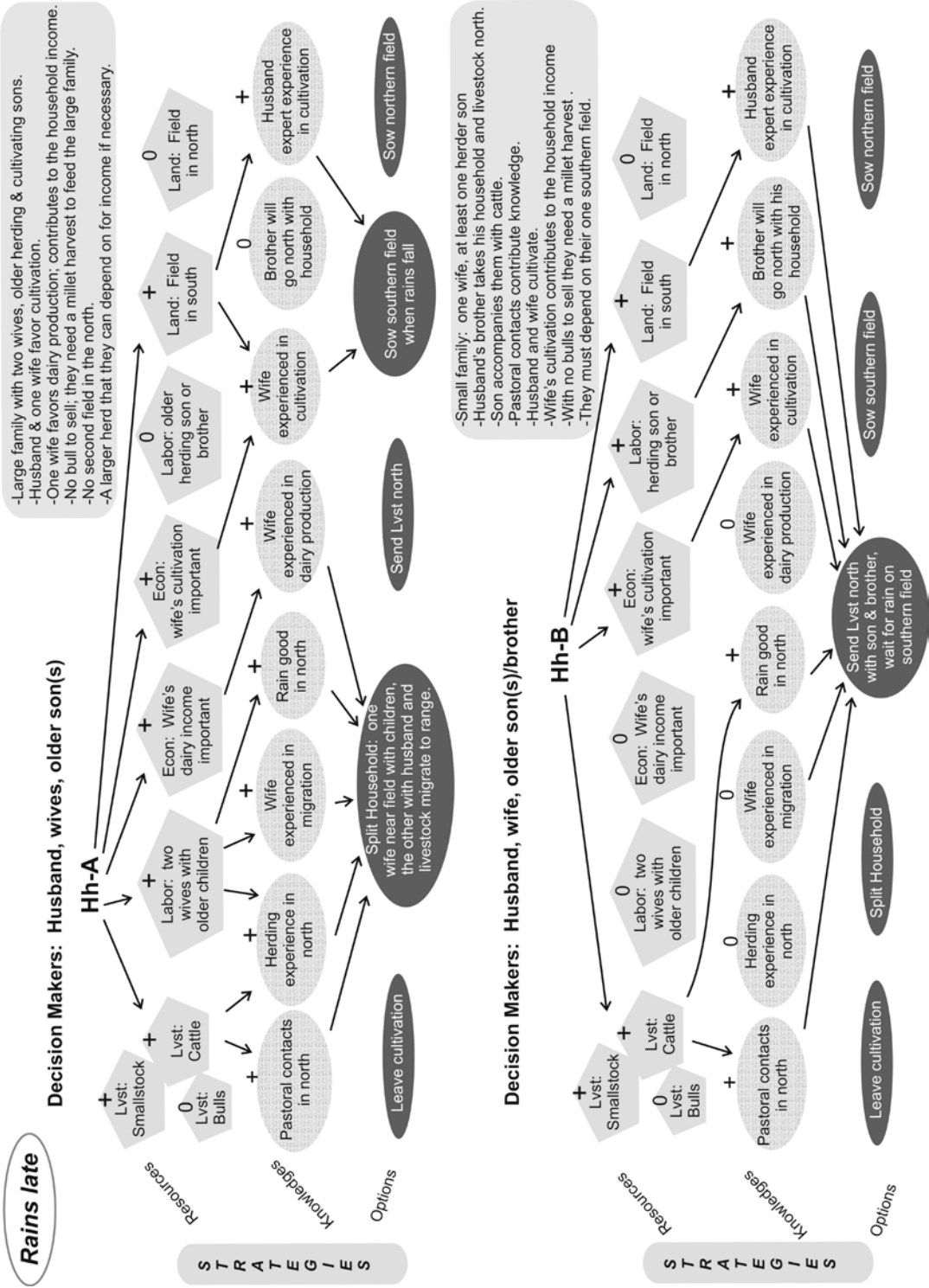


Figure 10.4: Anatomy of a Decision, Households A and B.

Different households have different options and therefore rely on different strategies to deal with the problem of late rains in the south.

## Anatomy of a Decision: Ecological Dilemma

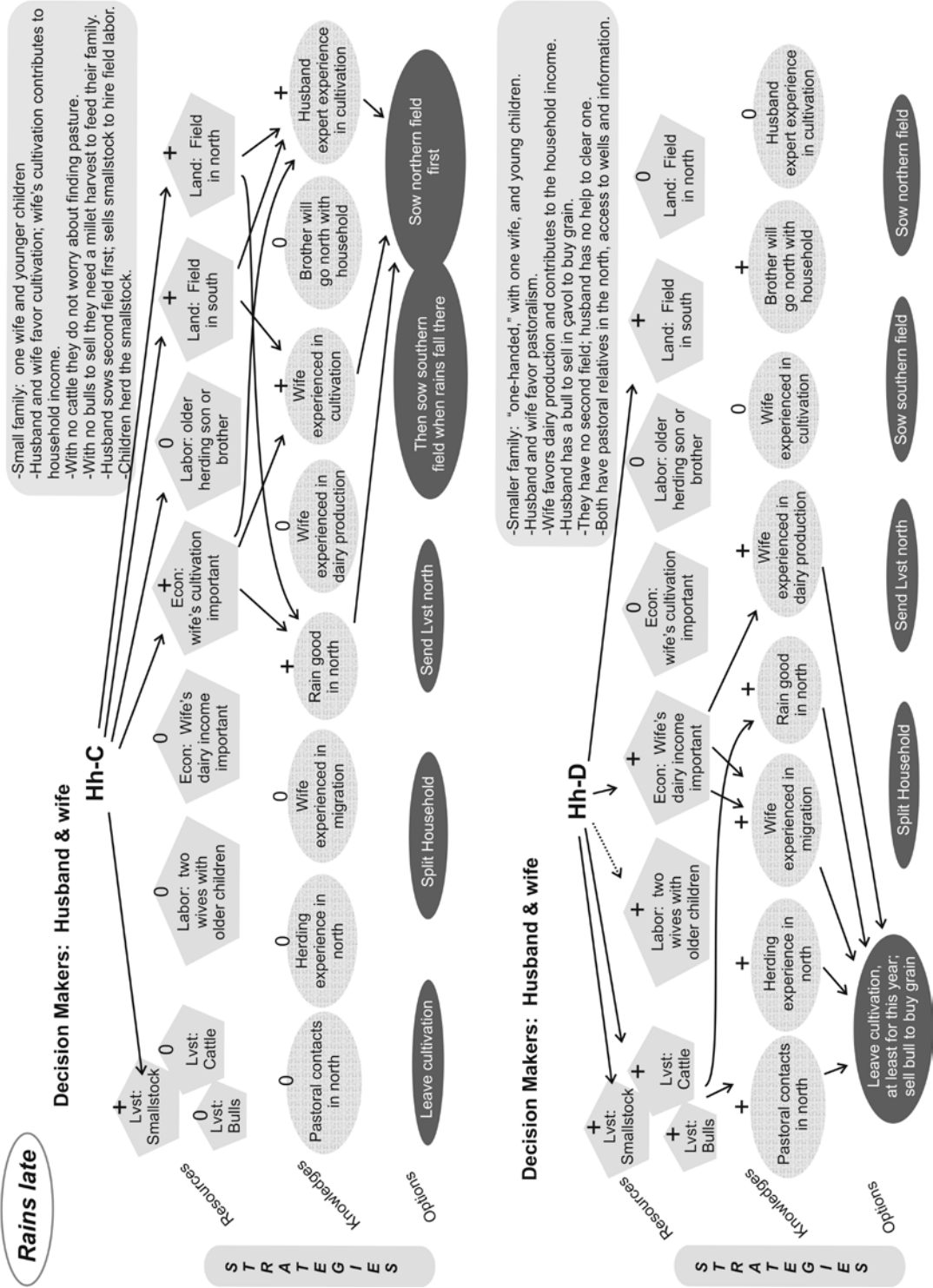


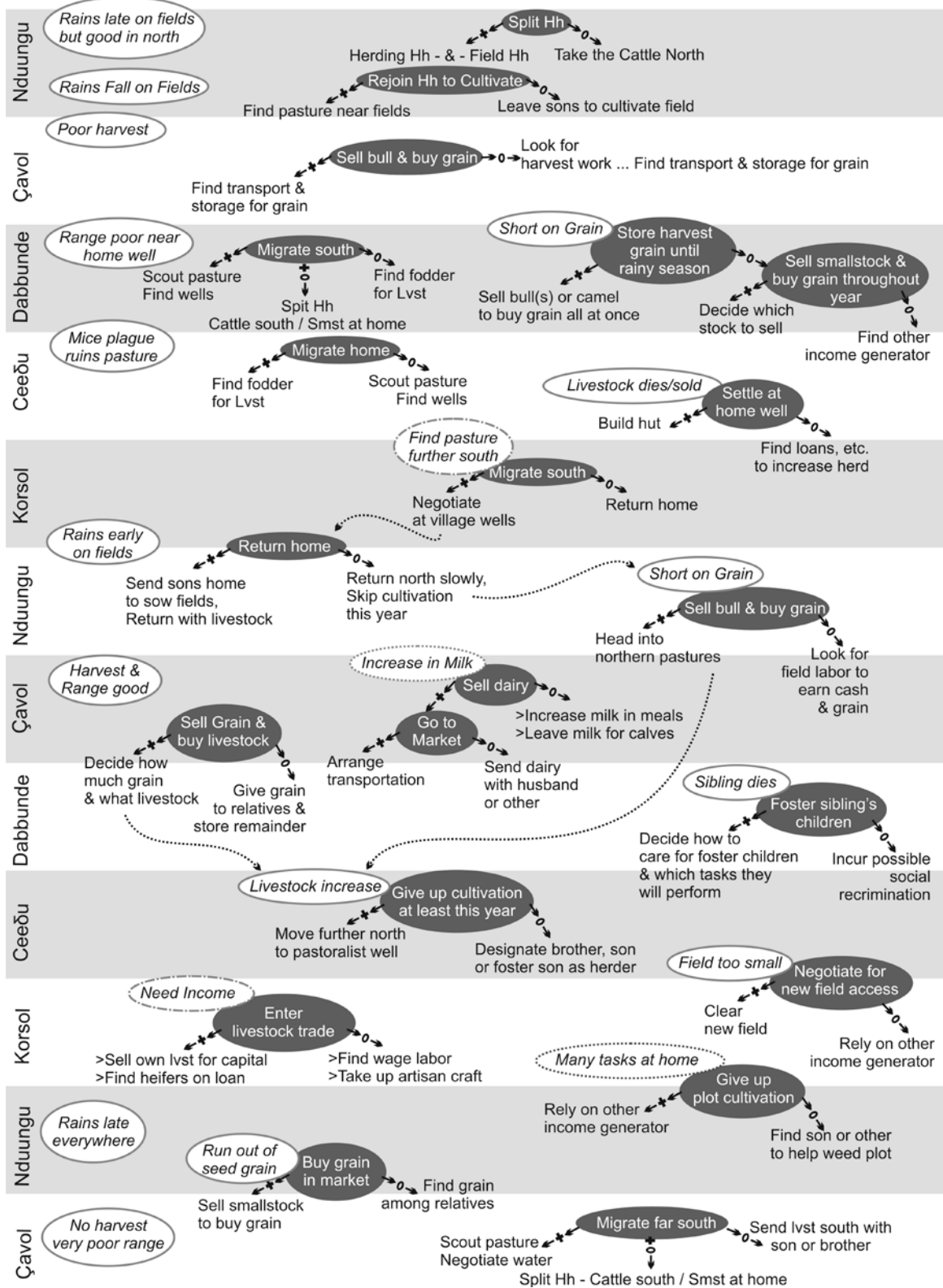
Figure 10.5: Anatomy of a Decision, Households C and D.

Different households have different options and therefore rely on different strategies to deal with the problem of late rains in the south.

These charts do not include all of the options open to the Katsinen-ko'en, for instance the husband in household A might borrow a northern field for the season. Some of the younger men will probably hire out as field laborers later in the season. One or two might engage in cattle trade, or sell artisan crafts after the harvest.

Figure 10.6 (below) shows parts of decision trees (from Ortiz 1983) for various dilemmas that manifest during different seasons of two and a half years. The chart summarizes most of the dilemmas, strategies and decisions that I have discussed in the dissertation at one time or another. It does not disaggregate the household to address gender and age except for a few dilemmas particular to women, such as "Increase in milk," and "Many tasks at home" in which the woman must decide whether or not to give up on cultivating a gayamna. Some decisions, such as "Enter livestock trade" in response to "Need income" are particular to men. Other decisions such as migrating south or splitting the household should, ideally, be negotiated between husband and wife, with possible input from older sons.

In the first dilemma, when rains are good in the north but late on the field, a household must decide whether or not to split, with one hearthhold herding the cattle and the other remaining near the fields. If they decide not to split (0) they must take or send the cattle north. Then they may decide (not shown) to eschew cultivation this year. If the household does split (+), when the rains fall on the field they must decide whether or not to rejoin the household: if so (+) they must find pasture near the fields. They might decide to remain in the rangeland (0) leaving sons at the fields. Then they would have to decide (not shown here) whether or not to hire field labor to help the sons. Later, with a poor harvest, they must decide whether or not to sell a bull to buy grain. If they do not, or cannot (0), the husband will have to find harvest work to supplement the harvested grain. The rest of the diagram summarizes many of the decisions discussed throughout the dissertation.



**Figure 10.6:** Decision trees, showing various dilemmas, strategies and options presented to a household.

By placing ideal households within different dilemmas—families that work perfectly together, collaborating on decisions to manage risks—in the interest of the argument that the household that works best together, best manages risk, I paint too pretty a picture of rural life in the northern Sahel. In actuality, not only can households cooperate only as well as the various personalities matched within them, but numerous frustrations from social, ecological and political-economic environments wear down the endurance of even the most patient. The Katsinen-ko'en, like their neighbors and other peoples residing just south of and within the Sahara, live on the edge. Every impending rainy season may allow households to increase their livestock wealth and the soundness of the household, but—much more likely—weak, patchy rains or lack of rain will thrust households into dilemmas that seem to offer no options or only bad ones from which one must choose the least detrimental. Should one take herd and household away from the fields and risk missing the optimal planting time, or stay near the fields and risk losing livestock to hunger? Should a household head south in a famine year and risk livestock loss to water fees, fines, and theft, or stay and risk losing them to hunger? Should one leave the suudu to look for the lost smallstock, leaving meal preparation in the hands of children, or send the children, much less skilled or motivated, after the smallstock? Does a father discipline a stubborn son, risking him running away, or put up patiently with his recalcitrance until he realizes the worth of working competently. Does an older son demand his livestock share from his father, risking his anger, or wait patiently until his father is ready to divide the animals among all his sons. Fatigue, illness, and psychological traumas, such as the death of a child, all compound any rifts in household stability. Political fraud and corruption, the vagaries of the market, duplicity among one's social network contacts, and the unreliability of government services add to burdens incurred by ecological stochasticity.

In the case of Mariama and Dego (Chapter 8), the generally genial couple worked together compatibly for the most part, but both have hot tempers and strong-willed children who inherited their stubborn natures. Moreover, Dego suffers from long-term depression, which he has tried to treat with herbal and spiritual methods, over the death of his eldest son. Until 2007, his wife had born many daughters, but only one other son. More fortunate with less profitable sheep than with cattle, Dego is often at a loss as to how to keep his large family fed. Seldom with enough milk to sell, Mariama has her own concerns, not least her obstinate teenage daughters and worries over the dowry for her eldest daughter. She lives far from her siblings and cousins, and has little hope of visiting them.

The Katsinen-ko'en, men and women, face similar problems: ill health, miscarriages and deaths of children, siblings and spouses; incompatibility between spouses and between co-wives; rebellious children and demanding parents; livestock decimation and harvest failures; and the torment of poverty, an apparent trap, when outsiders appear to have so much wealth.

With all of the risks that a household faces, from without and within, and the compounded dangers to individuals when the household breaks apart, government and development agencies need to help reinforce the household and the strategies the household uses to manage risk. The next chapter summarizes various changes that that the Katsinen-ko'en have made in their livelihoods as they moved into the northern Sahel, and speculates on possible future changes. I also suggest how development agencies, non-governmental and governmental, might work with the integrated household to maintain and develop sustainable (agro)pastoral livelihoods.



## CHAPTER 11: LIVELIHOOD SECURITY AND CHANGE

This dissertation has examined the interrelationships and interactions between the household economies of (agro)pastoralists and the stochastic ecology of the semi-arid natural environment in which they live. I have found that the household able to maintain and integral whole or husband, wife and children can best sustain livelihood security. Each household member fits into a flexible framework through which they exchange resources and assets, make decisions and carry out strategies. Like the women's *cuuɗi*, with their backs always to the east to provide the best shelter from the wind, and with their unchanging layout that provides constancy in an otherwise mobile lifeway, the institutions and customary practices of the (agro)pastoralist seem unchangeable in the face of changing political-economic and natural environments. Preserving fundamental strategies, especially flexible mobility patterns, in the increasingly unpredictable climate of the natural environment best ensures a sustainable (agro)pastoral livelihood. Individuals and households do alter and adopt new practices, however, to make their livelihoods more sustainable as their environments change or they move into new environments.

Stone questions the anthropologist's approach to sustainability, asking what the people themselves are trying to sustain "given the tidal wave of globalization and people's own preferences for change and modernization" (2003:95-6). She reminds us that human societies are open to an influx of diverse new inputs from material to ideational. Some inputs may be absorbed into the society causing little change, but most will cause shifts, from slight to tumultuous. The Katsinen-ko'en attempt to maintain or improve their livelihoods in order that they may raise their children and prolong their lineage. Sustainability for them does not mean, however—as much as they might invoke *ndonu* (tradition)—that they are averse to change. Any change, however, must make sense within their knowledges and experiences of their natural and socio-economic environments.

### LIVELIHOOD CHANGES

The Woɗaaɓe who found refuge from Kazauré under the Laamiɗo of Katsina, made one of the biggest changes people can make, by adopting the new identity and livelihood of Katsinen-ko'en agropastoralists. One might infer that previous generations of Katsinen-ko'en made similar changes from exclusive pastoralism to less mobile or even sedentary agropastoralism as they migrated in the Hausa States, but this more ancient history is

difficult to substantiate. As the Katsinen-ko'en households trekked into the northern Sahel, the unpredictability of their natural environment increased, and, in recent years, climate change has further altered the yearly seasonal changes. This amplified risk, plus increased contact with the more nomadic Woḏaaḅe, probably intensified cultivators' mobility and increased exclusively pastoralist households among northern Katsinen-ko'en, just as, in the south of the country, greater population and decreased pasture availability has sedentarized a greater number of their kin.

In decisions to shift livelihoods or mobility patterns, various resource constraints (reduction of livestock holdings, lack of labor, inadequate harvests) produce different effects on different individual households, though they come from the same community with an ideology of balance between herding and cultivation. With changes in resource access and yields, members of the different households give different values to the options of cultivation versus exclusive pastoralism. Because my interviewees gave no more than terse statements as to their livelihood changes, I can only surmise the negotiations (or lack thereof) associated with the changes. A woman who has lived in a mobile household and knows how to pack and set up her *suudu daagi* may be more willing to become mobile or leave cultivation, if her household possesses enough cattle. In other households, the husband gives up cultivation only reluctantly because he values his harvests—and possibly tradition—more than the labor involved in cultivation. Other political ecological changes in opportunities and resources may expedite further changes among the northern Katsinen-ko'en away from cultivation and towards exclusive pastoralism.

### **OTHER HISTORICAL CHANGES**

Besides shifting livelihoods and mobility patterns, both Woḏaaḅe and Katsinen-ko'en societies changed other practices as they came under colonial rule and migrated north. Styles of hair and clothing changed over the years, Katsinen-ko'en elders have reduced the time that a new mother spends as *mboofiḏo*, and some communities have banned the *soro* competition. By no means rejecting all change, the Katsinen-ko'en (and the Woḏaaḅe), like other rural peoples around the world, adopt new practices, commodities and tools for which they see utility and value (Gardner and Lewis 1996:15). When the French began their demand for taxes paid in cash, and facilitated the increase in village markets, all Nigerien households changed their economic practices by increasing sales of produce. Marketing produce, and even wholesale trade, was not unknown prior to colonization, as illustrated by the Mai-Kalafo elder's story of his uncles. Katsinen-ko'en men probably

bartered more livestock than they sold, however (see Dupire 1962:133, for Woḍaaḅe in the 1950s). When the droughts of the early 1970s and 1980s devastated livestock herds, pastoralist men bought smallstock to sustain their households and bred and sold them to rebuild their cattle herds. Diversifying their herds, previously composed largely of cattle, may also have seemed good insurance against possible droughts. Other phenomena, however, converged to raise the value of smallstock and the reliance of pastoralist households on their sales, including a larger demand created by the increasing proliferation of village and town markets, and the expansion of export routes to Nigeria.

With the decrease of milk in most diets due to a decrease in average cattle holdings, households buy more grain, sauce and condiments. Two or three generations ago, Woḍaaḅe households relied more on women's dairy products and exchanges for both meals and their grain supplies (Dupire 1963:81; see also Moritz 2003; for an example from the Maasai see Hodgson 2000b:101). Women gathered larger quantities of more available wild foods, and they even leached salt from certain clays for cooking. With the increase of grain in the Woḍaaḅe diet, and the growing ease of smallstock sales, responsibility for household grain provision devolved onto the shoulders of household heads. Similar changes may have occurred in Katsinen-ko'en households as their harvests and herds decreased in quantity and dependability.

In addition, "Tuareg tea"—green tea from China brewed with copious amounts of sugar—has grown in popularity among Woḍaaḅe and Katsinen-ko'en in the last 40-50 years. Elder Woḍaaḅe remember when only arḍo'en brewed tea for special occasions; now few young men travel without their teapots, most women drink tea that their husbands brew, and some women even buy and brew their own. Most Katsinen-ko'en men and some women buy tea and sugar every two or three weeks, and no celebration is complete without the hosts passing small bags of tea and sugar around to their guests, along with the more traditional cola nuts. Smallstock sales facilitate these purchases, as well as purchases of relatively new imported items, such as enamel teapots, dishes and shortwave radios. Political economic reforms, such as the devaluation of the franc CFA in January 1994, and the creation of the large new livestock market at Mai-Aduwa, Nigeria, in 1998, have also increased the necessity of livestock sales and the value of exported livestock (Bolwig 2009:14), and thus raised the market value of livestock. The devaluation occurred during ecologically and politically turbulent times, with seasons of patchy rain and drought, and

the incursion of Tuareg rebels and bandits. The debut of the Mai-Aduwa market coincided with a few years of good rains.

As both Woɗaaɓe and Katsinen-ko'en moved north, their encounters with Tuaregs taught them the utility of camels and donkeys, both animals adopted gradually over the last two or three generations. The Mai-Kalafo arɗo (in his late seventies during my research) remembers when no Katsinen-ko'en rode camels, and his wife remembers a time before they used donkeys for transport. One might assume that the droughts, which killed so many cattle, instigated the switch from oxen to donkeys, but the change actually began before the droughts. While Dupire (in central Niger) does not mention donkeys during her research in the late 1950s, Bonfiglioli (1988:132) writes that Woɗaaɓe in western Niger began acquiring donkeys when the price of oxen increased in the 1920s and into the 1930s. During the 1990s, one elder Gojen-kejo woman still loaded her pack ox during household moves, and a few Woɗaaɓe and Katsinen-ko'en men still use an ox to pull water at wells. Donkeys are easier to load, however, one can tie water bags under their bellies (not possible with an ox),<sup>1</sup> and they are less expensive to buy in the market. Women can also ride loaded donkeys, whereas in the past they would walk, leading their pack oxen which only small children rode. Donkeys have probably eased the work of women, and with donkeys, a household can sell any bulls and oxen for grain purchases.

Cattle and camel trading is also a relatively new practice among the Katsinen-ko'en; the earliest traders are in their fifties. Here I speculate because I obtained no history about the development of this change. Perhaps because of their intermediary location between range and village, and their knowledge of cattle and the rangeland, Katsinen-ko'en found that they could profit from filling a niche between Woɗaaɓe and Hausa. Calabash marketers had already filled such a niche; the cattle traders may have adapted and extended their model. Even calabash growing, carving and marketing may have been recent adoptions by the Katsinen-ko'en men of a Hausa practice. Both trades provide men new options for cash incomes in their risky environments.

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<sup>1</sup> Elder Woɗaaɓe insist that a woman used to carry one large calabash of water (two or three gallons at most) home from the well on her head, which would suffice her suudu, including the young livestock, for a whole day. I can only suppose that people and livestock drank much more milk in the mid-century days of plenty, and so needed less water.

## POLITICAL CHANGE AND (AGRO)PASTORAL STRATEGIES

### *Decentralization*

Recent and potential political changes will present both threats and opportunities to pastoral and (agro)pastoral communities (Mwangi 2009). Government decentralization should give citizens more voice in local and regional politics and more power to control their own natural resources. The influence of the new communes, mayors and councils in outlying rural areas remains limited, however, except possibly where the court of the cantonal chief has merely transformed itself into the *mairie* for the commune.<sup>2</sup> In such cases, one might doubt the actual transfer of power to local people, instead of its retention by the chief and his relatives. Part of decentralization, the establishment of *Commissions foncières* (CoFos, land tenure commissions), local and regional, intends to create forums for regulating land tenure and access to land-based resources—water, fields and pastures—and resolving disputes. Although different international organizations have instituted programs to assist new local governments learn and carry out their tasks, as of my research period, both political institutions remained, as the rest of Niger’s government, severely under-resourced.

Though the Code Rural of 1993 (Comité National du Code Rural 1993, 1997), which regulates land use and tenure primarily in the cultivation zone, gives some rights to pastoralists, the governmental regulatory and juridical situation for pastoralists, and even for cultivators, remains rather vague (Sommerhalter 2008). The new Code Pastoral (Comité National du Code Rural 2010) augments rights and responsibilities for pastoralists, and preserves their right to mobility, but even this body of law leaves much open to interpretation, and further cements *terroir d’attache* into institutional canon. The policy of *terroir d’attache*, though introduced with good intentions (Hammel 2001), threatens to restrict pastoralists’ mobility to a home base where “pastoralists habitually live during the majority of the year” (Chapter 2, Article 2, my translation).<sup>3</sup> This is a problem especially for Woḍaaḅe who spend most of the year either in the cultivation zone or in northern nduungu pastures, not at “home” wells.

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<sup>2</sup> Probably through the limited participation of the uninformed citizenry; this subject needs more research.

<sup>3</sup> Both the drafted legislation and the signed code contain a second clause: “a territorial unit to which they [pastoralists] remain tied when they move, whether during transhumance, nomadism, or migrations. The draft contains a comma between the two phrases and the signed code a semi-colon. Whether or not the new punctuation creates two alternative scenarios illustrates the vagueness that pervades the document.

The issue of mobility, though it gains more and more acceptance from organizations and some government officials, clashes with decentralization issues, from the election of *commune conseillers* to the policies of *terroir d'attache*. Other researchers have found that decentralized local politics involved in policy such as *gestion de terroir* reduce mobile households' access to customary usufruct. Communities that once permitted in-migrating households of communities such as pastoralists' and woodcutters' access to land-based resources, tend to close that access when given more comprehensive rights to manage their land (Painter et al 1994; Benjaminsen 1997; Turner 1999c; Mwangi 2009). Though mobile pastoralists elect conseillers for their "home" commune, where their ardo registered (which may be different from their terroir d'attache), they may spend some or most of the year outside this commune, relying on the questionable hospitality and political goodwill of host communes. In this case, decentralization essentially places political decisions in the hands of sedentary citizens, and further marginalizes mobile populations, from nomadic herders to seasonal wage laborers. Most sedentary Katsinen-ko'en, based around their home wells, will be little affected by the new political changes, but mobile households yearly cross commune borders from Gangara into Tenehiya, Belbeji, and even Aderbissinat.

While the CoFos, further guided by the Code Pastoral, should adjudicate fairly any disputes over resource access, I find these panels overly burdened with appointed administrators who often have little knowledge of pastoral livelihoods (Greenough 2003:99). Mwangi (2009:165) notes that the tenure commissions are "thought to be technocratic and distant from communities" but "considered effective: procedures for recognizing land rights are simple, locally done, and are affordable." Sommerhalter and *Lutte Contre la Pauvreté* (LUCOP) found that pastoralists with whom they worked had lost trust in their local CoFo, which the pastoralists alleged had been involved in a land grabbing scheme. LUCOP helped to establish a multi-stakeholder forum for regional land resource management, composed largely of community representatives. The European organization convinced forum members to invite representatives from pastoral communities based outside the land area covered by the forum, but who migrated in and through the area, using its resources. That "outside resource users had their say enriched the debate and produced sounder decisions in the common interest" (Sommerhalter 2008:171). Sommerhalter notes the forum was limited, however, by its reliance on the funding and organizational skills of LUCOP. The Takiéta Joint Forest Management Project (Vogt and



Vogt 2000) provides another possible model of decentralized, local management of natural resources that includes participation of mobile pastoralists.

Perhaps the Katsinen-ko'en, with their balance of livelihoods and intermediary position between village and range, could take a mediating role in resolving the new political discrepancies between settled cultivators and mobile pastoralists. Their triply marginal status—among cultivators, pastoralists and Fulbe—however, seems to preclude them from such a role. They remain much more detached from modern politics than many Woɗaaɓe. Moreover, their livelihood practices, often distorted and exaggerated by administrators and development agents, have already been used as inapt examples of adaptations that Woɗaaɓe should make in their mobility patterns and lifestyles.

### **Services**

Governmental services, ill equipped and disinclined to deal with household mobility, tend instead to hope that pastoralists will either settle or resign themselves to coming to sedentary buildings. Some pastoralists travel to clinics and hospitals, but only if they have the means and when alternatives, including traditional practitioners and clerics, fail them. The Service des Ressources Animales (Elevage) has come to the most compatible of compromises with pastoralists, who pay expenses for agents to travel to their wells, but are now also allowed to vaccinate their own animals. Only the wealthy can take advantage of latter privilege. Many Elevage agents extend little respect, however, for even the most basic of pastoralist knowledge.<sup>4</sup> The ambivalent relationships between the Katsinen-ko'en of the research communities and the services present examples of the divergence between government and rural, especially pastoral, communities.

Education remains the third rail of pastoral politics. As of 2007, no government or development agents, beside a few local NGO members, want to even discuss the possibility of mobile schools. After an early failed attempt, perhaps in the 1960s,<sup>5</sup> the government has little desire or motivation to try again. International organizations and agencies, though they begin to recognize the importance of mobile livestock, still have little means or enthusiasm to deal with mobile households. Even the CARE project that worked at Mai-Kalafo, and which tried to work with other pastoralist communities, had trouble dealing with mobile households. Only the *Association pour le Redynamisation de l'Elevage au Niger* (AREN), an association I previously criticized for concentrating on projects more

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<sup>4</sup> An exception was the agent at Aderbissinat, a Tuareg whom the Woɗaaɓe respected for his cordiality and knowledge.

<sup>5</sup> I have only heard government functionaries briefly describe this experiment on a couple of occasions.

appropriate for sedentary, southern agropastoral communities (see e.g. Greenough 2003), had begun an experimental literacy class for mobile pastoralists based at a pastoral well near Ajiri.

### **POSSIBLE IMPENDING CHANGES FOR HOUSEHOLDS**

As Katsinen-ko'en men adopted shortwave radios, even with the expense of upkeep and batteries, there is little question that at least a few (especially livestock traders) will buy cell phones once problems of service range and electrical power have been overcome. Once changes in government or private health services convince Katsinen-ko'en men and women of the efficacy and worth of Western medicines for livestock and humans, they will also shift their household budgets to accommodate these expenses. Both government and pastoral advocacy organizations should be careful, however, that the adoption of new land tenure regimes, possibly advantageous to wealthier, more politically powerful (agro)pastoralists, or outsiders, does not result in fragmentation of the rangeland as has happened in East Africa (Lesorogol 2008; Galvin 2009). Moritz (2003) and Little (1994) show how men can take over dairy marketing with socio-economic and geographic changes to households, while a shift in the household enterprise's emphasis from dairy production to beef production can negatively affect women's economies and their position in the household (Horowitz and Jowkar 1992:xii).

Adoption of information and communication technology by men more than women, already exemplified by radios, increased market participation by men to the exclusion of women, and intensification of men's control over land resources escalates gender inequity and threatens the well-being of the household. When combined with new opportunities for education, it can also expand wealth discrepancies into class differentiation (Goheen 1996), and augment the poverty of many already poor households. On the other hand, development programs and policies that concentrate on women without addressing the balance of labor and assets within household and community. Projects and policies that focus on livestock mobility while ignoring the household also threaten the well-being of the household enterprise sustainability, as well as the natural environment.

### **DEVELOPMENT QUESTIONS AND MOBILE PASTORAL HOUSEHOLDS**

When development or aid agencies (change agents) enter into assistance situations, ideally they would know as much as possible about the complexities and knowledges of their recipient societies and cultures (Seddon 1993; Arce 2000). In order to understand the recipients' positions, the change agent should understand how one particular practice,

event, resource, dilemma, or knowledge affects another. How does resource access interweave with labor responsibilities and decision-making agencies? Cornwall et al (Cornwall et al 2008) illustrate, with several examples, the dangers of basing policy on inadequate or limited research that produces partial or even biased conclusions. Anthropologists and other social scientists from Chambers and colleagues (1989; Chambers 1997) to Leach, Mearns and colleagues (1996), including a multitude of other researchers, have long reiterated the need to embrace indigenous knowledges when engaging in development projects and the development of policy for rural subsistence producers. The incorporation of indigenous knowledge is the basis of the various participatory research and development methods (see e.g. Waters-Bayer and Bayer 1994; Pretty et al 1995). Understanding and employing indigenous knowledges in collaboration with members of a targeted community fashions respectable work, exemplified by several and diverse research projects (e.g. Hesse and Trench 2000; Turner and Hiernaux 2002; Robbins 2003, among others).

Guèye would have participatory development become institutionalized within development organizations so that we no longer view the process “as a mechanical and routine application of techniques, tools and other methodological packages” (Guèye 1999:10). I argue that we must go a step further; the integration of indigenous knowledge into development practice is not complete, and participatory methods seem to have become locked into the cement of uninspiring institutionalization, despite Guèye’s challenge. We should not leave indigenous knowledge and the spirit of participatory practice behind us, however, but bring them along as we examine holistically the particular socio-economic systems of subject communities. Of course, anthropologists have done this since the beginnings of ethnographies, but when it comes to development, such scrutiny often seems beyond the time constraints or analytical capacity of organizations and agencies. Natural resource management endeavors have utilized a more holistic approach that other interventions might adopt and adapt (besides the Vogts, and Sommerhalter, see Arnould 1990; Banzhaf et al 2000). When working with pastoralists, however, many of these projects work from a distance and primarily, if not exclusively, with male heads of households. For other projects, especially education, the development world seems inclined toward breaking up the integrity of the pastoral family and household. Some projects may create more stress than assistance.

Katsinen-ko'en households deal with abundant stresses from the variations in their natural environment and coinciding market fluctuations. A development or aid intervention occurring within, or demanding the participation of the community can little avoid shifting or jolting the customary practices and thus the framework of resources, decisions and strategies upon which households and communities depend. It should therefore work to support household and community integrity and reinforce the bonds between household and herd. How much flex can the framework and risk management strategies take before governments or agencies break them? Below I discuss three scenarios, based on real situations, in which development or aid interventions would affect the integrity of the household/herd, and the strategies upon which it relies.

### ***A Woman Receives a Loan or Aid***

When a village woman receives a sheep or a ram, a common intervention for aid or development agencies, she ties the animal in her compound, feeds it morning and evening, and unless she keeps it at home to fatten, she arranges with the village herder to include her animal in the village herd each day. In a small village, she may just send the animal out to forage for itself or assign one of her children to watch it. When a pastoralist woman receives a sheep or goat, the animal joins the household herd managed by her husband. While this should cause little problem for most older wives, the livestock of a younger wife, even if she leaves them with her father or brother, are more easily sold by the man who takes responsibility for them. The donor (or lender) agency should take into consideration the transfer of not only responsibility, but also decision-making agency, for the livestock that enter a pastoralist herd.

When the Red Cross gave out cash to certain pastoralist *tribus* in the winter of 2006, they gave it only to women, a mandate of Niger's president, in order to increase household nutrition in what was predicted to be a very difficult year. Instead of giving money to every woman, however, only one woman in each household was permitted to receive the cash. Besides many other problems with the distribution, neither Niger's president nor the Red Cross seemed to consider that pastoralist women (at least among the Fulbe) purchase little food for their households. If the money (120,000 fCFA) would go toward grain purchases, the women must give it to their husbands. The fact that the money belonged to the women, stressed in the distributors' speech, should have deterred men from spending it on anything but their wives' desires. Several women I talked to, however, purchased household gear

with their money instead of giving it to their husbands for grain. Meanwhile men felt demeaned and frustrated because they were not trusted to feed their own households.

In the era of WID (Women in Development), policy that influenced programs promoted by USAID, the World Bank and UN agencies (Division for the Advancement of Women 1999), development and aid interventions brought women more fully into development after years of misdirected projects (Ferguson 1994; Kabeer 1994:5), a laudable goal except that interventions tended to target women to the exclusion of men. GAD (Gender and Development), WID's successor, attempts to redress the imbalance and bias toward women (Division for the Advancement of Women 1999; Cornwall 2008:161), but these programs still seem to concentrate too much on the individual woman and disregard that individual's place within the household, other than limited evidence, become conventional wisdom, that economic assistance to women "results in better nutrition and health for the household as a whole, and particularly for children" (O'Laughlin 2008:23; see also Gardner and Lewis 1996:124). When Woδaaabe and Katsinen-ko'en men face projects and aid directed at their wives while ignoring them, they repeat to each other explanations that they have learned: organizations think that women are more trustworthy; women will not waste resources given them and will pay back money, while men would abscond with it. The men accept these conditions because they hope that assistance to their wives will help the whole household, or because they know they can coax or coerce the aid from their wives, but also because they see no way of negotiating with the more powerful organization.

While empowering women and redressing unequal gender power relations are worthy goals, forgetting that those women are actively incorporated into working households, families and communities, with their own resources and strategies, risks warping the flexibility of household strategies and increasing other household members' frustration beyond a breaking point. "Assisting" women in a way that removes them from their household, social networks and/or system of endowments may do them and their families more harm than good. Before change agents plunge into gender equity projects, they should first examine how women's roles and responsibilities entwine with household and community and how women themselves strategize to redress gender equity. The Red Cross conveyed, through mixed messages, mixed goals. If they had wanted to increase women's purchasing power, then each hearthholder should have received money. If they had wanted to increase household nutrition then men should have been given money and encouraged to buy household grain, or the Red Cross should have simply distributed grain.

### ***A Child Goes to School***

She said she didn't want her children to go to school, that they would get lost. She told the story of one boy who had a lot of trouble when he was taken away to school. He escaped back home, but then ran away from home and was never heard from again. "O tokki motaji (he followed the market trucks)." [*Field notes: September 7, 2006*]

Both Katsinen-ko'en and Woɗaaɓe men and women alive in the 1960s and 1970s still remember the trauma of child abductions for government schools. Parents of children today remember hiding from strangers, especially anyone on horseback. Even so, they realize now that their children and communities are being left behind without the education that many Hausa and Kanuri children receive.<sup>6</sup> Though a few settled households might avail themselves of a nearby school, mobile households would have to send their children away to school. Removed from the household labor pool, a problem even for some families who send one son to Koranic school, children are removed from their experiential learning about the family's livelihood.<sup>7</sup> In a government village school, as they exist today, Fulɓe children would be minorities, often victimized, and almost certainly taught that their parents' way of life is backward (see also Swift et al 1990:36; Dyer 2006 :2; United Nations Development Program 2007:14). If they were not clever and fortunate enough to advance to higher education, from which they might obtain a job on graduation (as had a few relatives of the Mai-Kalafo elders), they may have little use for their previous home life and work, but be ill-prepared for any kind of life in town. A boy might find some menial work, but a girl would have little chance at all; both may forgo endowments. When one views the child in his or her place integrated within the household, one can well understand parents' fear of losing their children to the foreignness of school and whatever lies beyond.

### ***Household Settles, the Livestock Depart for the Range***

A few Woɗaaɓe communities, usually with the help of development organizations, have attempted to establish sedentary schools near their wells or *centres* (the geopolitical manifestations of terroirs d'attache; see Armstrong 2010; Hartill 2010).<sup>8</sup> In these cases, at least some households must settle to care for the schoolchildren. As they have other no way of subsisting at their northern wells, they must either keep livestock with them, risking serious land degradation and the malnutrition and death of livestock, or rely on food aid. Certain development organizations and even some local pastoral advocacy groups endorse

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<sup>6</sup> *Though most children in outlying villages also have no opportunity to go to school.*

<sup>7</sup> *Mechanized grain mills have allowed many town and village girls (who now no longer know what it is to pound grain) to attend school, but no researcher seems to have noted the dirtiness of the flour, soiled with black lumps of motor oil and grease, that comes from these mills.*

<sup>8</sup> *These cited projects educate mostly or only children from mobile pastoral homes.*



a policy of dividing the household in which elders would remain settled with schoolchildren while “young men” herd the livestock in the rangeland. While such a policy may seem a reasonable compromise, after one considers household divisions of labor, responsibility and knowledge, and the integration of the household with its livestock, one should have reservations in promoting such a policy. Though the Katsinen-ko'en and other Fulbe (see also Thébaud 2002) do divide their households and herds temporarily, as shown in previous chapters, young men who take the household herds migrate in the company of older, more experienced men. Moreover, both young and elder men are usually householders with children. Turner (1999b) shows that in Mali young men migrate without elders to the detriment of natural environment and herding quality.

Once livestock are removed from the household, household members may experience a decrease in nutrition, not only because of a reduction or lack of milk, but also because the lack of smallstock reduces a household's sales and purchasing capability. Several studies (Little, MA and Gray 1990; Shell-Duncan and Obiero 2000; Fratkin and Roth 2005) have shown that, though a complex issue, settlement of mobile pastoral households generally leads to decreased nutrition for children, unless they receive supplements through food aid. Many Katsinen-ko'en, with their customary balance of livelihoods and their geographical location at the northern limit of the cultivation zone, manage sedentarization as part of their agropastoral system. The few settled Katsinen-ko'en families, whose sons and brothers (householders with children) herd their livestock regularly in the rangeland, have other sources of income, from cultivation to field labor to sales of crafts and maagani. For other, more mobile, pastoralists with more northerly terroirs d'attache or centres, less knowledge of cultivation, or other income strategies, breaking up household and herd for more than a brief interval jeopardizes household members' wealth and health, especially that of children. Such policies may also erode the collective knowledge of specialized livestock husbandry held by exclusively pastoral households.

### **R&D WITH MOBILE PASTORALISTS: WHAT NEXT?**

What is the next step for research and development with families whose livelihoods and well-being depend on mobility? How might Millennium Development Goals such as health and education delivery be best achieved for mobile peoples? My own research and project experience as well as examples from various sources in Africa (Arnould 1990; Lewis 1995; Adriansen and Nielsen 2002; Adriansen 2008), as well as the work of U.S. fishing communities (Clay and Abbott-Jamieson 2010), suggest methodologies that might help

answer these challenges and others as yet inadequately examined. Porter and colleagues (Porter et al 2010), in a description of their ongoing collaborative project with school children, offer information on the recruitment and training of participants, as well as ethics, hazards and benefits of working with collaborators, helpful to any new collaborative projects. Reaching beyond participatory methodology, collaborative projects, also called action research, that include local people, NGO members and government extension agents as data collectors and analyzers, allow local people a more equitable opportunity to teach their collaborators about their communities, practices and knowledges. Carrying out collaborative research with local pastoralists could create an exchange of and respect for different knowledges and help the pastoralists learn how to better work with development and government extension agents. Including these agents and other functionaries in the collaboration equation would help them learn how to better work with pastoralists. Pastoralists now tend to break into narrow, competing, ethnic and lineage groupings; collaborating together on mutually advantageous research would encourage people from different lineages and ethnicities to work together in teams. Collaborative research could help local pastoralists to actively and positively influence regional development policy, and offer stimulating employment, motivating them to pursue further literacy study, while helping them to gain supplementary incomes.

New methodologies can take advantage of new devices for data collection, already in use by some development and research projects, such as GPS receivers like the CyberTracker (<http://www.cybertracker.org/>). Several anthropologists have used videotaping in various projects, some collaborative, to help local communities better understand themselves and present their situations to outsiders (see e.g. Biella 2008; Gubrium and Harper 2009; Sandles and Biella 2009). Other researchers have been investigating research and project possibilities with smartphones and other digital technology (see among others Oladosu et al 2009; Seebregts et al 2009; Tomlinson et al 2009). Though these cited papers primarily involve health workers and research, or natural resource management projects, their methodologies could be easily appropriated for a wider range of research projects. New portable, flexible solar panels should soon obviate the problem of electricity availability, and the range of cell phone companies expands yearly. Older methods may also be adapted for use by less literate local researchers. Though few pastoralists have any formal schooling, several people have learned some use of the Western alphabet, whether in classes or on their own, and Tuareg and some Fulbe men

use Tifinagh script. Most people understand written numbers and can fill out adapted survey forms. Short interviews can be taped and later transcribed, or the desired data extracted with the help of the interviewer.

I describe below a collaborative project that, while supporting the integrity of the household, helps to improve conditions for individuals and communities.

### ***Primary School for Mobile Households***

[E]ducation can never be a simple, neutral practice .... Rather, it is ideological in nature, and embedded in particular ways of thinking about human development in general, and nomadic development in particular (Krätli and Dyer 2006:9).

Some government and development officials and agents have advocated the settlement of Woḍaaḅe households around their centres, in order to put their children into school. At least one government-supported school was started at a Woḍaaḅe centre north of Tanout, but abandoned for lack of attendance as households moved away from the centre. Other groups settle at centres and attempt to establish schools for reasons other than educating their children, such as obtaining food aid delivered to school children and their families, or gaining prestige and power from government recognition and buildings placed at a lineage or personal well. Despite a long-held common belief that formal education was neither necessary nor desirable for their children, Fulḅe today begin to realize that their children need education. Collaborative research with local (agro)pastoralists, and government extension agents could help to develop mobile schools appropriate for mobile households in an era when primary school is viewed as necessary but difficult by all parties in the debate.

The biggest problem with education of children from mobile households is reaching all children, as even if boarding schools become more widely available, parents can afford to allow only one or two children to leave the household. Small mobile schools could be based at the different wells that relatively large groups of pastoralists use during ḅavol and ceeḅu. The academic year would need to be adjusted to accommodate periods of intense migration—during nduungu and between ḅavol and ceeḅu pastures. The school day and week may also be adjusted to accommodate children's household duties. Such adjustments would be negotiated through discussion with parents, school administrators and teachers. Yurts or gers, designed with input from local artisans and built by local artisans with as many local materials as possible, could accommodate class and teacher.

Collaborative data collection and analysis will help all parties to such a project acquire the knowledge necessary to create successful schools that reinforce the stability of households, families and communities. For example, based in at least two different

populations, e.g. Fulóe based in Tchintabaraden (west of Agadez) and Tanout, researchers would recruit members of the study communities and government agents to help collect data, through scheduled surveys and interviews. Research would focus on the attitudes and beliefs that different (agro)pastoralists hold toward formal education today, the different views and experiences of families settled for schooling, and the attitudes and beliefs of government administrators and agents, legislators and politicians towards education for children of mobile households. Nutritional data could be collected on settled and mobile children, as was done in the Kenyan studies (Borgerhoff Mulder and Sellen 1994). Some interviews could be videotaped for use in later workshops. Archival research and interviews of elder government administrators, elder pastoralists, and educated adults from pastoral families would address questions on the history of Nigerien schools for mobile populations. The issue of schools for mobile populations in other countries would ideally entail trips to view the effectiveness of such schools, but “conference calls” over the internet might answer many questions. Workshops would help to formulate appropriate policy toward the best, most sustainable way in which children from mobile households could receive a primary education in Niger.

## **CONCLUSION**

Jeremy Swift and colleagues in a Global Drylands Imperative Challenge Paper (United Nations Development Program 2007:8-9) lay out a possible scenario for future, sustainable, mobile pastoral households, combining elements from various existing pastoral societies around the world and modern technology such as solar panels, televisions and radios, over which might be broadcast weather reports and education courses in local languages. Services, including education, would be provided by a mix of mobile and stationary facilities, and electronic media. The advent of innovative digital media projects such as “One Laptop Per Child” (<http://laptop.org/en/>), and various satellite and cell phone internet delivery systems (Bynum 2004; Nicholson 2009)<sup>9</sup> opens an array of new possibilities for, as Bynum states, “leapfrogging” rural communities into 21<sup>st</sup> century technology.

All of these ideas from outside sources, however well researched, well-funded and/or well-intentioned, will see success only through the combined efforts of development and government administrators and agents, *and* local people to work with the integrated household. If local (agro)pastoralists have no understanding, input or ownership of

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<sup>9</sup> See also: *AMD Personal Internet Communicator*, <http://other90.cooperhewitt.org/design/amd-personal-internet-communicator/>; *Inveneo*, <http://www.inveneo.org/>

changes offered or thrust upon them, and if those changes do not make sense within their household ecologies, they stand little chance of adoption. If changes break up the household and impinge on risk management strategies, especially mobility of herd and household, they will reduce the sustainability of (agro)pastoral livelihoods. Every time I return to Niger, however, I also see new positive developments, such as more educated Nigeriens willing to work with rural people with conscientious respect, more pastoralists actively and constructively involved in the politics of their country, and more development agencies which take seriously the sustainability of mobile pastoralism. Like the sustainability of the (agro)pastoral household, appropriate development for mobile pastoralists and other mobile peoples is a negotiated process that can be accomplished only with the active involvement of local people themselves, and the collaboration of development and government agents on-the-ground, in the rangeland, that leads to their better understanding of the livelihood systems with which they have to work.

## **APPENDICES**



## APPENDIX A: QUESTIONNAIRES

According to my original (and mistaken) dichotomization of the research communities I began, and then continued to ask separate questions of cultivating households and exclusively pastoralist households for the first questionnaires. Most of the questions were the same, but I asked more questions about the rangeland and herding of the exclusively pastoralist households, and I did not ask members of these households about cultivation. Here I've listed all of the questions of the first questionnaire together. I used the same questionnaire in all households for the second round of surveys.

As I was initially more interested in households becoming exclusively pastoralist, I tended to direct household history questions towards this interest. Later I concentrated more on overall livelihood change, but the questions remained essentially the same.

I ask the question "When do you sell or buy ..." of only the first few households. The answers became too obvious and the question a waste of time.

I ask women only about their heartholds for most questions, and certain questions (e.g. those about dairy sales) were only asked of women. For household history questions, I asked women about their parents' (fathers') households.

I estimated peoples' ages by asking them if they remembered the drought of 1984, or if they had been told how many years before then or after that date they were born. I assumed through necessity (unless informed otherwise) births of first children at age fifteen for women, then two years between the births of each child and weaning at about two years. I revised these estimates with the appearance of the woman (or her children), and any other facts she (or others) told me about her life. Thus, if a woman told me that she was carrying her third child on her back during the Amboosa (the 1984-85 drought year), I estimated her age at 20 in 1984-85, and 42 in 2006. If she told me that she had just started herding goats during Amboosa, I estimated her age at 10 in 1984-85.

## FIRST QUESTIONNAIRE

|   |  |
|---|--|
| <b><u>Number</u></b><br>[Household]<br>[Person]<br>[Coordinates]  | <i>[I assigned a letter-number code to each household and person within the household. I took the coordinates of each mobile household at the different times when I encountered the household.]</i> |
| <b><u>Household Demography</u></b>  |  |
| Position in HH: household head, wife, child, grandparent  | Jawm wuro, yeerijo, biɗɗo, maama   |
| Number of females in HH   | Yeri'en noye nder wuro?  |
| Ages of females in HH   | Duuɓi maɓe noye?   |
| Number of males in HH   | Worɓe noye?  |
| Ages of males in HH   | Duuɓi maɓe noye?   |
| <b><u>Personal History</u></b>  |  |
| How long have you lived here?   | Duuɓi noye mbaɗa, an, nder ɓe'e yimɓe?   |
| Where did you grow up?  | Toye wondono wuro moɗon (wuro baaba) ko garta ɗo'o?  |
| What brought you here?  | Ko fooɗi jooɗi-ɗ-a nder ɓe'e yimɓe?  |
| <b><u>Household History</u></b>   |  |
| How long has this household been here?  | Duuɓi noye ngo'o wuro woni nder ɓe'e yimɓe?  |
| Where did this household live before?   | Ngo'o wuro, dey ngar-ɗ-on ɗo'o, toye jooɗi-ɗ-on no?  |
| Why has this household moved here?  | Ko jeye wuro moɗon no wari ɗo'o?   |
| <b><u>Livelihood History</u></b>  |  |
| Have you or your household ever lived on the rangeland to herd -/or/- How long have you lived on the rangeland to herd? | Ko an ko wuro moɗon, on meɗi jooɗago nder ladde gam durngol? -/ko/- Duuɓi noye wuro moɗon, on tokke ladde tan?   |
| When [did you change livelihoods]?  | Deye?  |
| Why did you leave the rangelands -/or/- leave cultivation)?   | Ko fooɗi ngoor-ɗon ladde? -/ko/- Ko fooɗi ngoor-ɗon demal?   |
| <b><u>Environmental History</u></b>   |  |
| How many years since 1984 have been very good?  | Gaɗa Banga-banga (Amboosa) duuɓi noye belni on?  |
| How many years since 1984 have been very bad?   | Gaɗa Banga-banga (Amboosa) duuɓi noye on belnayi?  |
| <b><u>Formal Education</u></b>  |  |
| Has anyone in your family (this HH or father's HH) been to government school or at Koranic school or some other school? | I woodi goɗo nder wuro moɗon no waɗi lokol ko Mohamedia ko wo'onde jannde?   |
| <b><u>Pastoralism, demography</u></b>   |  |
| How many HH do you know who've left cultivation for the rangelands and pastoralism?                                     | Ngureeji noye ɗe anndu-ɗ-on ngoori gese naati ladde duroyi jawdi tan?  |
| Are they relatives?   | Be banndiraaɓe moɗon no?   |
| Where do they live?   | Toye ngureeji maɓe keedani on?   |
| <b><u>Pastoralism, Household</u></b>  |  |
| How did your household leave cultivation to take up exclusive pastoralism?  | Noye wuro moɗon no woori gese tokke ladde tan?   |

|  |   |
|--|---|
| How did you obtain enough cattle and smallstock to leave cultivation?<br>Who helped you to take up exclusive pastoralism?  | Noye keβru-δ-on na'i ko bisaaji δi keçi faa on ngoori gese?<br>Moy walli on nahatol ladde?  |
| <b><u>Pastoralism, help</u></b>  |   |
| Do you combine your herd with anyone else's to help you with work?<br>Did you ever combine your herd with anyone else's to help you with work?<br>Who with?  | Jo'oni wuro moδon no hawrite jawdi i wo'ogo wuro gam mballitiron kugal?<br>Ko duuβi gaδaaji?<br><br>Um moye (i moye)?   |
| <b><u>Fields A</u></b>   |   |
| Is there someone in your household who cultivated this year or last?<br>How many fields does this HH cultivate?<br>Who cultivates them?<br>Do the women of this HH plant plots or gardens?<br>What do you yourself plant?  | I woodi goδo nder wuro moδon mo remi rowani?<br>Gese noye dema-t-on?<br>Moy reme δε?<br>I wuro moδon yeri'en no remana gayamnaaji?<br>Dumey an dema-t-a?  |
| <b><u>Fields B</u></b>   |   |
| Where are your fields located?<br>How did you obtain these fields?<br>In the past years have you increased your fields or reduced them?  | Toye gese moδon kedi?<br>Noye keβruδon gese?<br>Nder δi'i duβi, on βesdi gese na bo 'ustu?  |
| <b><u>Seed</u></b>   |   |
| How do you obtain seed for the fields?   | Noye keβru-δ-on iri gawri δi awre?  |
| <b><u>Yield</u></b>  |   |
| How is your situation with these fields?<br>Do you benefit from them?<br>In the past five years, how many years have you harvested enough grain for the whole year?<br>How is your situation with the rangeland today?<br>Do you feel good or not?<br>Have you benefited from the pasture? | Noye jo'onde moδon wontiri i δε'e gese?<br>I demal moδon a heβi amfani (areji demal)?<br>Nder δi'i duβi jowi go'ol çavol keβδon gauri δi nyamδon fa hitaande?<br>Noye jooδoriδa nder ladde?<br>An, a velni na a velnai?<br>I durngol moδon a heβi amfani (areji durngol)? |
| <b><u>Herding</u></b>  |   |
| In your household who owns animals?<br>Where do you herd your livestock?<br>Who herds your livestock?<br>Do you send your livestock north for pasture in the rainy season?<br>Where are they pastured?   | Nder wuro moδon moye jeye jawdi?<br>Toye duranton jawdi moδon?<br>Moye durata jawdi wuro moδon?<br>On lille jawdi waila gam durngol dungu?<br><br>Toye δε durata?   |
| <b><u>Herding for others</u></b>   |   |
| Does your HH herd other people's livestock?<br>Your relatives?<br>Haββanayi?<br>For payment?   | On dura jawdi goδo?<br>Banda durnu-ma?<br>Ko haββanayi ho nanngana'i?<br>Ko laada durngol?  |
| <b><u>Cultivation vs. Pastoralism</u></b>  |   |
| How does your HH divide the work of  | Noye sendir-t-on kugal demal i kugal  |

|  |   |
|--|---|
| cultivation and herding?<br>Which livelihood is stronger in this HH?   | durngol?<br>Ngale kugal ɓuri semmbe ton-ton<br>moɗon?   |
| <b><u>Migration</u></b>  |   |
| Where did you spend the dry season of 2005?<br>Did you spend the season away?  | Toye ceeɗ-on rotani?<br>On ceeɗoyi?   |
| Where did you spend the rainy season of<br>2005?   | Toye dumɗ-on rowani?  |
| Where did you spend the harvest season of<br>2005?   | Toye ɗaptu-ɗ-on rowani?   |
| Where did you spend the cold season of 2005-<br>06?  | Toye dabbunde tawi on rowani?   |
| Where did you spend the dry season of 2006?<br>How did you migrate from the dry season<br>2005 until now?                    | Toye ceeɗ-on rowani?<br>Noye dimdiroy-ɗ-on daga ceeɗu rotani<br>faa waddi bo jo'oni?                  |
| With which HH did you travel?  | I ɗeye ngureeji dilludu-ɗ-on?   |
| <b><u>Water Fees</u></b>   |   |
| Last year did you pay for water?   | Rowani on biyaaki seede ndiyam ɓunndu<br>ko foraj?  |
| Where?   | Ɗe noye?  |
| How much?  | Toye i toye?  |
| <b><u>Fines</u></b>  |   |
| Last year did you pay fines?   | Rowani on biyaaki yoɓere?   |
| Where?   | Ɗe noye?  |
| How much?  | Toye i toye?  |
| Last year did you fine anyone?   | Rowani on keɓi seede yoɓere? Ɗe noye?   |
| <b><u>Base Needs</u></b>   |   |
| M: How many bags/baskets of grain does your<br>HH need from harvest to harvest?  | Buhu gawri noye wuro kamar ngo moɗon<br>no haani heɓa gam joɗoro ɗai-ɗai, na<br>talakajo, na morisku? |
| F: How much grain do you pound each day?<br>How much grain have you had to buy grain<br>this year?                           | Tiyaaji noye un-ɗ-on e nyaande?<br>Buhu gawri noy sood-ɗ-on i hitaande<br>jaharayɗum on faa ɗavol?    |
| How much livestock does a family like yours<br>need to live well, not rich, not poor?  | Ko'e jawdi noye wuro kamar ngo moɗon<br>no haani heɓa gam joɗoro ɗai-ɗai, na<br>talakajo, na morisku? |
| How much livestock (cattle, smallstock,<br>donkeys) does a household need before they<br>can become exclusively pastoralist? | Ko'e jawdi noye wuro kamar ngo moɗon<br>no haani on ngoora demal, tokka ladde<br>tan?                 |
| If you yourself need money, what do you do?  | Kul seede pamɗiti noye mbaɗa-t-on<br>keɓru-t-on seede gam belnon zama<br>moɗon?                       |
| <b><u>Wage Labor</u></b>   |   |
| In your family (F: or your father's family) is<br>there anyone who looks for work elsewhere?<br>In fields or cities?         | Nder wuro moɗon i woodi goɗo o yehe<br>tefoyi kugal banye?  |
| When does (s)he go?  | Deye o yehi?  |
| Where does (s)he go?   | Toye o yehi?  |
| What kind of work does (s)he do?   | Ngale kugal o waɗi?   |

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**Selling**

|   |  |
|---|--|
| Do you sell artisan products in the market? | An, a soora siri kugal junngo i luumo? |
| What?                                       | 'Um iri dumey?                         |
| When?                                       | Deye soorata dum?                      |
| Where?                                      | Toye soorata dum?                      |
| Do you sell traditional medicine?           | An, a soora maagani?                   |
| When?                                       | Deye soorata dum?                      |
| Where?                                      | Toye soorata dum?                      |
| Do you sell dairy products?                 | An, a sippoyi?                         |
| What?                                       | Ko soorata?                            |
| When?                                       | Deye soorata dum?                      |
| Where?                                      | Toye soorata dum?                      |
| Do you trade in livestock?                  | An, a waɗi jula jawdi?                 |
| What?                                       | Ko soodata i soorata?                  |
| When?                                       | Deye soodata i soorata dum?            |
| Where?                                      | Toye soodata i soorata dum?            |

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**Marketing**

|   |  |
|---|--|
| Do you yourself go to market?                                 | An, njeh-t-a luumo an?                           |
| Which market(s) do you attend?                                | Deye luuɓe njeh-t-a an?                          |
| If you don't go, who sells livestock or other things for you? | Kul a yeheta, moye sorantama jawdi maɗa ko siri? |
| Which markets does your household attend?                     | Deye luuɓe wuro moɗon no yehi?                   |
| Do you receive the money?                                     | An, keɓ-t-a seede?                               |

---

**When do you sell or buy ...**

|                  |   |
|------------------|---|
|                  | <b><u>Deye soraton i sodaton dumey i dumey...</u></b> |
| Cattle           | Na'i  |
| Smallstock       | Bisaaji   |
| Chickens or eggs | Geroɗe ko bosooɗe                                     |
| Milk             | Kosam   |
| Butter           | Nebbam  |
| Cheese           | Cuku  |
| Grain            | Gawri   |
| Sauce            | Li'o  |
| Livestock salt   | Lamɗam Jawdi  |
| Tools            | Siri Kugal Junngo                                     |
| Household items  | Siri Wuro/Kuugal                                      |
| Seed grain       | Gawri Awe   |
| Medicines        | Maagani   |
| Other            | Goɗɗum  |

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**Last year what did you sell ...**

|                            |   |
|----------------------------|---|
| Household/You (personally) | <b><u>Rowani dumey i dumey soroton...</u></b> |
| How many/much?             | Wuro/An                                       |
| How much money?            | Noye?   |
| Cow                        | Seede noye?                                   |
| Bull                       | Nagge   |
| Goat (or buck)             | Ngaari  |
| Sheep (or ram)             | Mbe'a   |
| Donkey                     | Mbaalu  |
| Chicken                    | Njacuwa                                       |
| Camel                      | Jerogal                                       |
|                            | Njeeloba                                      |

---

|  |   |
|--|---|
| Milk   | Kosam   |
| Butter   | Nebbam  |
| Cheese   | Cuku  |
| Sauce  | Li'o  |
| Grain  | Gawri   |
| Seed Grain   | Gawri Awe                                     |
| Rawhide  | Laral   |
| Tools  | Siri Kugal Junngo                             |
| Medicines  | Maagani                                       |
| Other  | Goδδum  |
| <b><u>Last year what did you buy ...</u></b>   | <b><u>Rowani δumey i δumey sodoton...</u></b> |
| Household/You (personally)   | Wuro/An                                       |
| How many/much?   | Noye?   |
| How much money?  | Seede noye?                                   |
| Cow  | Nagge   |
| Bull   | Ngaari  |
| Goat (or buck)   | Mbe'a   |
| Sheep (or ram)   | Mbaalu  |
| Donkey   | Njacuwa                                       |
| Chicken  | Jerogal                                       |
| Camel  | Njeeloba                                      |
| Milk   | Kosam   |
| Butter   | Nebbam  |
| Cheese   | Cuku  |
| Sauce  | Li'o  |
| Sugar and tea  | Sukur i hako                                  |
| Livestock salt   | Gawri   |
| Grain  | Lamδam jawdi                                  |
| Seed Grain   | Gawri awe                                     |
| Tools  | Siri kugal junngo                             |
| Household gear, clothing   | Siri suudu. Kwalti                            |
| Medicines  | Maagani                                       |
| Other  | Goδδum  |
| <b><u>Remittances</u></b>  |   |
| Last year or this year, did you receive any money from someone else?                           | Rowani keβ-δ-a seede gada banye?              |
| <b><u>Celebrations, Ceremonies</u></b>   |   |
| In this past year have you had any celebrations in your household (naming ceremony, marriage)? | Rowani δiye bikiji mbaδ-on i wuro moδon?      |
| What did you buy for the celebration?  | δumey sood-δ-a gam biki δin?                  |
| What did your household slaughter?   | δiye jawdi kirsu-δ-on i biki δin?             |
| How much money and what other items did you yourself receive?                                  | Seede noye keβ-δ-on i biki δin?               |
| <b><u>Stock Loss</u></b>   |   |
| Last year or this year what kind and how many animals were lost?                               | Rowani ko hikka jawdi moδon noye kalki?       |
| Last year or this year what kind and how many animals died?                                    | Rowani ko hikka jawdi moδon noye mbaati?      |



## SECOND QUESTIONNAIRE

### **Household demographic change**

Who came to live in your household or hearthhold since the last survey?      Moi nahati ngo' o wuro ko suudu maɗa?

Who left your household or hearthhold since the last survey?      Moi dalli ngo' o wuro ko suudu maɗa?

### **Harvest this year**

How many bushels did you harvest (put in your granary)?      Samfoji gawri noi lovɗon e rumbuji hikka?

Millet      Mohori noi?

Sorghum      Mbayeri noi?

### **Household Grain**

How long did the grain from last year last?      Lebbi noi gawri moɗon neebi?

How much is left (if there is any)?      Ko ndi wodi faa jo'oni?

### **Dairy**

When did you sell milk (dairy)?      Ndey sippoyɗa?

How much milk did you sell?      Kossam noi sorɗa?

How much butter did you sell?      Nebbam noi sorɗa?

How much cheese did you sell?      Cuku noi sorɗa?

How many cows are you milking?      Na' i noye ɓirata?

### **Bought Grain**

How many bags of grain did you buy this year?      Buhuji gawri noi soɗɗon hikka?

How did you feed your household this year (how did you earn money to buy grain and other food)?      Noi nyamnaton wuro moɗon hikka?

### **Livestock, provisioning**

How did you feed your livestock this year?      Noi nyamna-t-on jawdi moɗon hikka?

How many stalk stacks did you buy?      Bucia noi soɗɗon?

How many bags of chaff did you buy?      Buhuji nyaande noi soɗɗon?

How many bags of bran did you buy?      Buhuji sa' anyo noi soɗɗon?

How many granaries (empty) you feed your livestock?      Rumbuji noye nyaamna-t-on jawdi moɗon?

How much grain did you buy for livestock?      Buhuji gawri noi soɗɗon gam jawdi?

### **Livestock Selling and Buying**

What livestock did you buy this year?      Jawdi ɗumey e ɗumey sor-ɗ-on hikka?

What livestock did you sell this year?      Jawdi ɗumey e ɗumey soɗ-ɗ-on hikka?

Livestock Lost, Dead

What livestock was lost this year?      Jawdi ɗumey e ɗumey halki hikka?

What livestock died this year?      Jawdi ɗumey e ɗumey mbaati hikka?

### **Buying clothes**

How much money did you spend on clothes this year?      Seede noi mbara-ɗ-a dow kwalte hikka?

### **Migration**

Where and where did you move this year [since the last survey]?      Toy e toy wonceton hikka?

Did you cultivate this year?      On demi hikka?

### **Who gives to you ...**

Who gave you livestock since the last survey?      Moy hokku ma jawdi gada duungu rowani?

|  |   |
|--|---|
| Who gave you grain or milk since the last survey?          | Moy hokku ma gawri ko kossam ko goδδum jarum hikka? |
| Who gave you money since the last survey?                  | Moy hokku ma seede hikka?                           |
| Who helped you with cultivation this year, for no money?   | Moy valla ma e demol hikka, seede ngala?            |
| Whose children do you care for (guardianship)?             | Lekihon moy joguδon?                                |
| Who helps you with marketing?                              | Moy valla ma e luumo?                               |
| <b><u>Who do you give to ...</u></b>                       |   |
| Who did you give livestock to since the last survey?       | Moy kokkuδa jawdi gada duungu rowani?               |
| Who did you give grain or milk to since the last survey?   | Moy kokkuδa gawri ko kossam ko goδδum jarum hikka?  |
| Who did you give money to since the last survey?           | Moy kokkuδa seede hikka?                            |
| Who did you help with cultivation this year, for no money? | Moy valla ma e demol hikka, seede ngala?            |
| Whose cares for your children (guardianship)?              | Moy jogi lekihon maδa?                              |
| Who do you help with marketing?                            | Moy valla ma e luumo?                               |

## APPENDIX B: GENERAL GLOSSARY

Besides my own research and the help of Woɗaaɓe friends, spellings and presentation of word roots have been influenced by:

--(1971). *Dictionnaire élémentaire: Fulfulde Français English: Elementary Dictionary*. Niamey, Niger, Regional Documentation Centre for Oral Tradition.

--An unpublished paper by Angelo Maliki Bonfiglioli.<sup>1</sup>

### **Pronunciation**

In addition to the commonly used ɓ (glottal “b”) and ɗ (glottal “d”), I use ç for the glottal “y”, firstly because Microsoft Word fonts offer no acceptable symbols for the glottal “y”, and secondly because this sound seems to occur much further forward in the mouth, between the middle of the tongue and hard palate, in Woɗaaɓe pronunciation (though not so much in Katsinen-ko’en pronunciation).

“c” stands for “sh” sound in Fulfulde words and “ch” in Hausa words.

General pronunciation of vowels: *a* as in father; *e* as in prey; *i* as in quiche; *o* as in host; *u* as in sue. Double vowels indicate a lengthening (in time) of the same pronunciation.

Unlike Hausa, Fulfulde is not a tonal language (except possibly for a few words); Fulfulde words are almost always accented on the first syllable.

|   |   |
|---|---|
| <i>adini</i>                                      | religion, specifically Islam (from Arabic)  |
| <i>arɗo</i> , pl. <i>arɗo’en</i> , or <i>arɓe</i> | leader (in lineage or popular terms), chief (in political terms)  |
| <i>asusu</i>                                      | a traditional savings club for women, in which women add a certain amount each week to a pool and every month, depending on the rules established by each group of women, one woman receives the money from the pool; the <i>asusu</i> has been adapted by different NGOs as a project to help women’s associations. (from Hausa) |
| <i>bisaaji</i>                                    | sheep and goats, smallstock; from the Hausa word <i>bisa</i> , for animal   |
| <i>bokaajo</i> , pl. <i>boka’en</i>               | a traditional healer or one who know <i>maagani</i> , herbal and charm remedies   |
| <i>bodeejam</i>                                   | pond water turn red from red clay soil; from <i>bod-</i> , red, and <i>-am</i> , the noun class suffix for liquids  |

<sup>1</sup> Thanks go to Brigitte Thébaud for sending me this paper.

|   |   |
|---|---|
| <i>bikon ndiyam</i>   | larvae, worms and tadpoles found in well or pond water; literally, “water children”   |
| <i>bokorde</i> , pl. <i>bokorði</i>                             | tail; also the animal which the recipient of <i>haḅḅanayi</i> gives when he or she returns a loaned animal  |
| <i>boosa</i>  | the recitation of prayed phrases, then “spitting” the words onto an ill or injured person, or on some other <i>maagani</i> intended to heal the affected person |
| <i>ḅunndu</i> , pl. <i>ḅuli</i>                                 | well (water); also hole in the ground   |
| <i>daago</i> , pl. <i>daagi</i>                                 | mat, either woven of palm fronds or of plastic  |
| <i>daangol</i> , pl. <i>daaḁi</i>                               | rope that stretches across the front of the suudu to which calves are tied. Fig.: the calves of a household   |
| <i>dabbunde</i>   | the cold season   |
| <i>defteere</i>   | book, esp. the Koran; swearing an oath on the Koran   |
| <i>denki</i> , pl. <i>denkiji</i>                               | table Katsinen-ko’en or Uda’en women use for calabashes and other gear  |
| <i>denḁiraawo</i> , pl. <i>denḁiraawḁe</i> or <i>denḁireeji</i> | cross cousin  |
| <i>entereejo</i>  | a weanling child  |
| <i>esiraawo</i> , pl. <i>esiraawḁe</i>                          | affines, but only those older than ego (parents-in-law, older siblings-in-law, etc.)  |
| <i>fatiya</i>   | blessing, the prayers said at a ritual such as a naming ceremony (from Arabic)  |
| <i>Feedujo</i> , pl. <i>Pe’eli</i>                              | Tuareg  |
| <i>feḁoru</i> , pl. <i>peḁi</i>                                 | a garden, especially for calabashes (from <i>feḁa</i> , to chop or hack, in this case the garden from the bush)   |
| <i>finndiḁam</i>  | buttermilk, milk that has cultured overnight and then had the butter churned out of it (from <i>finndina</i> , to wake up)                                      |
| <i>garso</i>  | experienced scout, knowledgeable herder, usually an elder   |
| <i>gawri</i>  | grain, usually millet   |
| <i>gayamna</i>  | a small field plot, cultivated by a woman or a son  |
| <i>gorko</i> , <i>gorjojo</i> , pl. <i>worḁe</i>                | man, husband  |
| <i>goyngal</i> , pl. <i>goyli</i>                               | naming ceremony (Katsinen-ko’en)  |
| <i>gude</i> , sing. <i>wuddere</i>                              | cloth, especially women’s wraps, also blankets  |
| <i>Haawḁe</i> , sing. <i>Kaaḁo</i>                              | cultivators, esp. Hausa, Kanuri and Dagara; probably from <i>kaa-</i> the adjectival root for bitter  |

|   |   |
|---|---|
| <i>haɓɓanayi</i> , pl.<br><i>kaɓɓanaaji</i>                 | a loan of a young female animal, from which the borrower receives one, two or three births; from <i>haɓɓa</i> to tie, and <i>na'i</i> , cows; also <i>nannganayi</i> ; <i>maanaadi</i> (pl.) is a word particular to the Katsinen-ko'en |
| <i>humtoru</i> , pl., kumtoji                               | naming ceremony (Wodaabe), the Katsinen-ko'en use this word for a woman's first naming ceremony   |
| <i>ilaagol</i> , pl. <i>ilaagi</i>                          | small treed valley (watercourse) running into a <i>çengol</i>   |
| <i>jawdi</i>  | livestock   |
| <i>kenaaji</i> , sing. <i>henaare</i>                       | shirts or blouses   |
| <i>kinnal</i>   | a conference of men, especially to make migration decisions (esp. among Wodaabe); from <i>hinna</i> , to greet  |
| <i>kobgal</i> , pl. <i>kovli</i>                            | family marriage; the first marriage (made by the parents) for Katsinen-ko'en; marriage made by the parents within the lenyol for Wodaabe;   |
| <i>koorsol</i>  | the humid season before the rainy season; a drought, often localized, during the rainy season (from the root <i>hors-</i> , to dry up)  |
| <i>kore</i>   | Katsinen-ko'en: wife; Wodaabe: spouse   |
| <i>kortojo</i>  | adulterer   |
| <i>kosam</i>  | milk in general, or buttermilk (thin yoghurt after the butter has been removed)   |
| <i>ladde</i>  | uncultivated land, rangeland or pasture; the wild bush as opposed to home and the countryside around home   |
| <i>layaaru</i> , pl. <i>layaaji</i>                         | amulets with Koranic verses folded inside them, or other charm maagani; both people and livestock wear <i>layaaji</i>   |
| <i>Lehiya</i>   | <i>Eid al Adha</i>  |
| <i>lenyol</i> , pl. <i>lenyi</i>                            | linage, somewhat more loosely defined among the Katsinen-ko'en than among the Wodaabe   |
| <i>likita</i>   | nurse, doctor or any health care worker; also clinic (from Hausa)   |
| <i>loova</i>  | to pour; to lift and pour grain heads into a granary (the Katsinen-ko'en use this word, but Wodaabe do not)   |
| <i>luggere</i> , pl. <i>luggeji</i>                         | a wooded low place (from the root <i>lugg-</i> , deep)  |
| <i>luumo</i> , pl. <i>luube</i>                             | market  |
| <i>maagani</i>  | remedy, cure; medicine, traditional or Western; chemicals for fields  |
| <i>maakaaru</i>   | cold porridge of cooked millet dough without buttermilk (see <i>suutam</i> )  |
| <i>maamirawo</i> ( <i>maama</i> ),<br>pl. <i>maamiraaɓe</i> | grandparent (no gender)   |

|  |  |
|--|--|
| <i>masifa</i>                                | plague, disaster (probably from Arabic)  |
| <i>maysoore</i> , pl. <i>maysooji</i>        | fallow fields; pastures in the cultivated zone   |
| <i>mboofiɗo</i>                              | a young woman at her parents' home for her first pregnancy and after the birth; among the Woɗaaɓe this period can last for two or three births |
| <i>moddibbo</i> , pl. <i>moddibbe</i>        | a Muslim man educated in the Koran, a cleric   |
| <i>nannganayi</i> ,                          | livestock loan; from <i>nannga</i> , to catch, and <i>na'i</i> , cows; see <i>haɓɓanayi</i>  |
| <i>ndotiijo</i> , pl. <i>ndotiyen</i>        | elder, esp. an elder man   |
| <i>Ndovi'en</i> (also <i>Ndoowi'en</i> )     | the Woɗaaɓe name for other agropastoral Fulɓe, somewhat derogatory   |
| <i>nduungu</i>                               | the rainy season (from <i>ruuma</i> to spend the rainy season); also the greenness (grass, leaves) of the rainy season                         |
| <i>ngaynaako</i> , pl. <i>waynaaɓe</i>       | herders; livestock breeders  |
| <i>nyaamri</i>                               | a special steamed millet porridge prepared for naming ceremonies and biki; from the verb <i>nyaama</i> , to eat                                |
| <i>nyiiri</i>                                | food, in particular stiff porridge made of millet, sorghum or corn flour, like polenta and served with sauce or milk                           |
| <i>paali</i> , sing. <i>faandu</i>           | calabash plants; churning gourds made of whole calabash gourds   |
| <i>paltol</i>                                | the carrying of a waasikiwal by two people with one person bracing his/herself against the other with one hand                                 |
| <i>rema</i> , pl. <i>dema</i> ; <i>demal</i> | to cultivate; cultivation  |
| <i>sa'a</i>                                  | good luck, with an implication of timing (from Hausa)  |
| <i>saga</i> , pl. <i>sagaaji</i>             | the table of a Boɗaaɗo woman which holds her milk calabashes and other household gear  |
| <i>samfoore</i> , pl. <i>samfooji</i>        | bushel basket (from Hausa, <i>sangho</i> )   |
| <i>seendana</i>                              | to divide or separate: used for dividing livestock among sons and milk stock among wives; also used for divorce                                |
| <i>semteende</i>                             | shame, respect   |
| <i>si'ire</i> , pl. <i>ci'e</i>              | town, village  |
| <i>sigitahi</i> , pl. <i>sigitaji</i>        | support (usually a tree trunk Y) for well pulley   |
| <i>Siratajo</i> , pl. <i>Sirata'en</i>       | Beri-beri, Kanuri, Dagara  |
| <i>sobbal</i>                                | dough of millet (or rarely sorghum), cooked and pounded, mixed with buttermilk to make <i>suutam</i>   |
| <i>sukaɓe</i> , sing. <i>kayejo</i>          | young men or boys  |



|   |  |
|---|--|
| <i>Sumaayru</i>   | the month of Ramadan   |
| <i>surbaaḅe</i> , sing. <i>surbaajo</i>                                   | girls, sometimes young women   |
| <i>suudu</i> , pl. <i>cuuḅi</i>   | woman's hearthhold: camp, tent, room; the children of one mother, matriline  |
| <i>suutam</i>   | cold porridge of cooked millet dough ( <i>sobbal</i> ) mixed with buttermilk   |
| <i>taanirawo</i> , pl. <i>taaniraaḅe</i>                                  | grandchild   |
| <i>taarewol</i>   | a long mat, woven of palm fronds, which surrounds the bottom of a <i>suudu daagi</i>   |
| <i>talaka</i> , pl. <i>talakawa</i> , <i>talakaaḅe</i> , <i>talakaaji</i> | commoner, with implications of poverty and servitude (from Hausa)  |
| <i>teegal</i> , pl. <i>teeli</i>  | second marriage, made by the spouses ( <i>Katsinen-ko'en</i> ); a seduction marriage made between individuals of different <i>lenyi</i> ( <i>Woḅaaḅe</i> ) |
| <i>tokka nduungu</i>  | follow the rainy season: scout and migrate every few days during <i>nduungu</i> to find the youngest, freshest grass                                       |
| <i>tukkuru</i> , pl. <i>tukkuji</i>                                       | the small tent of a <i>Boḅaaḅo</i> woman; from <i>tukka</i> , to stoop   |
| <i>turakaaru</i> , pl. <i>turakaaji</i>                                   | husband's shelter or tent, placed in front of his wife tent, or wives tents  |
| <i>worso</i>  | yearly lineage reunion of <i>Woḅaaḅe</i> in which they celebrate marriages and naming ceremonies   |
| <i>wuddere</i> , pl. <i>gude</i>  | cloth, esp. a wrap skirt; also blanket or sheet  |
| <i>wuro</i> , pl. <i>ngure</i> , <i>ngureeji</i>                          | family, household, house/camp; patriline   |
| <i>wuvre</i>  | a group of mobile camps living (and migrating) together  |

## APPENDIX C: PLANTS

Plants' Latin names were identified with the help of:

Brunken U, Schmidt M, Dressler S, Janssen T, Thiombiano A, Zizka G. 2008. *West African plants - A Photo Guide*.  
www.westafricanplants.senckenberg.de

de Fabregues, B. Peyre (1979). *Lexique des Plantes du Niger: Noms scientifiques - noms vernaculaires*. Niamey, Institut National de la Recherche Agronomique du Niger.

Maaliki, Angelo B. (1981). *Ngaynaaka--L'Elevage selon les Wodaabe*. Tahoua, Niger, USAID.

Thébaud B. 2002. *Foncier pastoral et gestion de l'espace au Sahel : Peuls du Niger oriental et du Yagha burkinabé*. Paris: Karthala. 318 pp.

USDA, NRCS. (2009). The PLANTS Database. National Plant Data Center, Baton Rouge, LA 70874-4490 USA. Retrieved 2009.  
<http://plants.usda.gov>

### TREES AND BUSHES

Note: "North" means north of, and "south" means south of, the Gourbobou Çengi.

|   |   |   |
|---|---|---|
| <i>aguwahi</i> , pl.<br><i>aguwoji</i> –or –<br>(Woδaaβe)<br><i>aliyaaru</i> , pl.<br><i>aliyaaji</i> | <i>Euphorbia</i><br><i>balsamifera</i>                          | Softwood bush with distinctive peppery odor and milky, sticky sap; grows abundantly in patches in north and south; propagated by cuttings for hedges around calabash gardens; wood used in some construction; some Katsinen-ko'en women gather leaves for spinach in koorsol. |
| <i>balahi</i> (small plant from which fronds are harvested); <i>gelehi</i> (large tree with fruit)    | <i>Hyphaene</i><br><i>thebaica</i> ;<br>dum palm                | Grows only in the south of the country, some perhaps in the very south of Tanout département. The fronds, <i>balli</i> , are sold in the market for weaving into mats and braiding into rope.   |
| <i>bambambe</i> , or<br>(Woδaaβe)<br><i>bamambe</i>   | <i>Calatropis</i><br><i>procera</i>                             | A ubiquitous soft wood tree with broad leaves and milky sap; seems to grow best in degraded areas; trunks and limbs used in all sorts of constructions.   |
| <i>barkahi</i> , pl.<br><i>barkeeki</i>   | <i>Piliostigma</i><br><i>reticulatum</i> ;<br>camel's foot leaf | Tall hardwood, thornless tree, once grew in the north, now left only in very few luggeji. The bark was used for rope before plastic sacking. The Woδaaβe honor this tree (the name comes from <i>barka</i> , blessing) and use the branches in some rituals.                  |

|  |   |  |
|--|---|--|
| <i>boḍaahi</i> , pl.<br><i>boḍaade</i>   | <i>Commiphora<br/>africana</i>                | A small soft wood tree, thornless but with sharp ends to the branches; piney odor; abundant in patches in the north; used in various constructions, cuttings will root if planted in the right season; pitch is used for various remedies.   |
| <i>dabinoohi</i> , pl.<br><i>dabinooje</i>   | <i>Phoenix<br/>dactylifera</i> ;<br>date-palm | Once found near Tanout town, now only in the south of the country, and in Saharan oases, such as Bilma. Dates are sold in every marketplace in Niger.  |
| <i>dibehi</i> , pl. <i>dibeeji</i>   | <i>Acacia laeta</i>                           | Grows in some drier luggeji in the north; with mean, hooked thorns; the pitch is used for Koranic clerics ink; Woḍaaḅe women use the inner bark to sew broken calabashes.  |
| <i>dornahi</i> , pl.<br><i>dornaaji</i>  | <i>Cordia sinensis</i>                        | Small, thornless tree that grows around ponds. The small branches are used to make denki mats, and children eat the small, juicy fruits. Village women used to cook the fruits into syrup.   |
| <i>eehedi</i> , pl. <i>eeheḍi</i><br>– or – (Woḍaaḅe)<br><i>eeheri</i> , pl. <i>eeheḍi</i>       | <i>Sclerocarya<br/>birrea</i> ; <i>Marula</i> | Grew at one time in the north, now only a few large trees left on a few hillsides; gives a small fruit.  |
| <i>firoohi</i> , <i>geeloki</i> ; pl.<br><i>firooji</i> , <i>geelooji</i>                        | <i>Guiera<br/>senegalensis</i>                | Thornless, hardwood, ubiquitous as bushes in the south of the département; grows into trees, anomalously, in Mawa luggere.   |
| <i>gabde</i> , sing.<br><i>gawari</i>  | <i>Acacia nilotica</i>                        | Grows in many large ponds in the north; pods are used for herbal medicine and as livestock feed.   |
| <i>hanzahi</i> , pl.<br><i>hanzaaje</i>  | <i>Boscia<br/>senegalensis</i>                | Thornless, hardwood bush, nearly ubiquitous on hillsides; grows into small trees in vales with high water tables. Children and some women eat the thin flesh of ripe fruits; bitter fruit kernels are used for food (usually famine food) after much preparation; green bark used to precipitate mud in water. |
| <i>jaabi</i> or <i>zaabi</i>   | <i>Ziziphus<br/>mucronata</i>                 | Hardwood bush or tree with hooked thorns; abundant around Tanout town, less so further north. Village women gather and dry the “berries” for sale.   |
| <i>jigahi</i> , pl. <i>jigaaji</i> –<br>or – (Woḍaaḅe)<br><i>senseni</i> , pl.<br><i>sensene</i> | <i>Maerua<br/>crassifolia</i>                 | Small thornless, hardwood tree, scattered nearly ubiquitously in south and north. Some women gather small leaves for sauce (preferred by Dagara women). Donkeys and other livestock love the sweet bark and wood. Small branches are used for tooth sticks.  |
| <i>kacaci</i> , pl. <i>kacace</i>  | <i>Salvadora<br/>persica</i>                  | Tall thornless, hardwood trees; once grew in luggeji north of Gourbobob-Eliki, becoming more and more rare even south of these çengi. Villagers gather small branches to sell as tooth sticks.   |

|   |   |   |
|---|---|---|
| <i>saski (caski), pl. casde</i>         | <i>Acacia albida;</i><br>gao tree           | Tall hardwood tree with small hooked thorns, and white bark; grows only in south, never in north. Bark is used for herbal medicine and orange pods are valued for livestock fodder.                                     |
| <i>silluki, cilluki, pl. sillude</i>    | <i>Acacia tortilis (raddiana)</i>           | Thorny hardwood tree or bush grows ubiquitously on hills and in luggeji throughout département; long lateral roots are used for tent poles. Woδaaδe women once used bark for <i>tukkuru</i> covering.                   |
| <i>suwaleehi, pl. suwaleeji</i>         | <i>Leptadenia pyrotechnica</i>              | Softwood, thornless bush, like an upside down broom. Women weave the thin branches into cheese strainers and denki mats.  |
| <i>tamakihi, pl. tamaaδe</i>            | <i>Acacia ehrenbergiana</i>                 | Thorny hardwood tree or bush grows almost as ubiquitously as <i>A. tortilis</i> on hills and in luggeji throughout département.   |
| <i>tanni, pl. tanne; fruit, tannere</i> | <i>Balanites aegyptiaca;</i><br>desert date | Tall thorny hardwood tree, grows ubiquitously in luggeji; fruit valued by almost everyone and used as herbal medicine; roasted kernels make a salve for chapped skin; wood is used by artisans and valued for charcoal. |
| <i>terakas or terokal</i>               | <i>Grewia spp.</i>                          | Small hardwood trees grow in some northern luggeji; leaves are collected for sauce; village women gather and sell “berries” in marketplaces.  |

## BROADLEAF PLANTS

### Uncultivated

|                             |   |  |
|-----------------------------|---|--|
| <i>gadagiri</i>             | <i>Alysicarpus ovalifolius</i>                    | Low growing broadleaf plant, with seed pods “much desired by all livestock” (Bonfiglioli 1981:67)  |
| <i>garafuni, garahuni</i>   | <i>Momordica balsamina</i><br>Southern balsampear | A vine with small, soft gourd-shaped fruit with large black seeds covered in bright red, sweet flesh; the very bitter leaves are use for different herbal remedies |
| <i>gunaaru, pl. gunaaji</i> | <i>Citrullus, sp. (Cucurbitaceae)</i>             | Both bitter, <i>colocynthis</i> , and “sweet” (actually rather bland), a variety of <i>lanatus</i> : a “melon-squash” somewhat like a round, juicy zucchini        |
| <i>kontal</i>               | probably<br><i>Cucumis sp.</i>                    | Small gourd-like (yellow) or cucumber-like (dark green) fruit from vine plants; the former edible only for livestock, esp. donkeys; the latter edible for humans   |
| <i>malohiya, laalo</i>      | <i>Corchorus olitorius</i>                        | Common green sauce found in the wild, but more often purchased in the market from village women who gather the leaves; grows mostly in deep, wet, clay bottoms.    |
| <i>tabaade</i>              | <i>Gynandropsis</i>                               | Edible “spinach” plant that grows to about 18 inches   |

|                               |                 |  |
|-------------------------------|-----------------|--|
|                               | <i>gynandra</i> | (46cm). Grows in many luggeji.   |
| <b>Cultivated</b>             |                 |  |
| <i>gawri</i>                  |                 | grain, usually millet  |
| <i>hwaru</i> (Hausa)          |                 | a variety of <i>Citrullus lanatus</i> : watermelon   |
| <i>muhuri, geero</i>          |                 | different varieties of <i>Pennisetum americanum</i> : millet   |
| <i>kore, sing. horde</i>      |                 | <i>Lagenaria siceraria</i> : bottle gourd plants   |
| <i>kuḃeeji, sing. huḃeere</i> |                 | <i>Hibiscus esculentus</i> : okra  |
| <i>mbayri</i>                 |                 | <i>Sorghum spp.</i> : sorghum  |
| <i>nyebe</i>                  |                 | <i>Vigna unguiculata</i> : beans, black-eyed pea (plants.usda.gov), often look like pinto beans or cow peas  |
| <i>paali, sing. faandu</i>    |                 | Calabash   |
| <i>polle, sing. follere</i>   |                 | <i>Hibiscus sabdariffa</i> : red sorrel, roselle (plants.usda.gov)   |
| <i>rammaaji</i> (pl.)         |                 | ( <i>Hibiscus</i> , species unknown) a taller relative of polle, with fibrous stems; the leaves are used for sauce and the fibers are twined into cords used to tie the thatching of cuuḃi roofs |

#### GRASSES

|   |   |  |
|---|---|--|
| <i>afasoji</i> (pl.)  | An <i>Andropogon</i><br>or<br><i>Cymbopogon</i>     | Perennial with long, strong stems, often over 5 feet long, that bend to arc over the ground. Women use the stems to construct tables (lashed together) and bed mats (woven with leather strips or yarn). |
| <i>gamba</i>  | <i>Andropogon</i><br><i>gayanus</i>                 | Tall, strong perennial grass used for hut roofs. It grows wild in the south; some Katsinawa pioneers sowed it and protect it in their fields.  |
| <i>gaggiljidooma</i>  |   | <i>Geene diime</i> or soft, noble grass  |
| <i>garziri</i>  | <i>Brachiaria spp.</i>                              | Geene diime or soft, noble grass   |
| <i>guḃaguḃere, pl. guḃaguḃereje</i>   | <i>Dactyloctenium</i><br><i>aegyptium</i>           | Geene diime or soft, noble grass, with a palm shaped head  |
| <i>kalafo</i> (Hausa)   | <i>Aristida</i><br><i>hordeacea</i>                 | Soft grass that grows in the laterite hills  |
| <i>kebbe, sing. hebbere, also called sabeje, sing. sabeere</i> (the name of the burr) | <i>Cenchrus</i><br><i>biflorus</i><br><br>Cram-cram | Burr grass ubiquitous on the hills   |
| <i>selḃe</i>  | <i>Schoenefeldia</i><br><i>gracilis</i>             | Grass that when dry has long thin sharp, barbed seeds that hurt animals' mouths; much like American cheatgrass, <i>Bromus tectorum</i>   |
| <i>subuuje</i> (pl.)  |   | Geene diime or soft, noble grass   |

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|                |                                    |  |
|----------------|------------------------------------|--|
| <i>teebere</i> | <i>Cymbopogon<br/>schoenanthus</i> | Short, perennial grass used for thatching and wall<br>mats |
|----------------|------------------------------------|--|

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## APPENDIX D: MEASUREMENTS

### GRAIN

#### ***Samfoore (pl. somfooji)***

The *samfoore* (or *sampoore*) is a large basket not quite a meter across at the top, though there is no standard size, used for harvesting grain. It correlates easily with the bushel in our early system of measurement. When the men measure their harvests, they count the number of samfooji, filled as full as possible with millet or sorghum heads, that they “pour” (*loova*) into the granary.<sup>1</sup> Such a measure does not tell how much grain was actually harvested, however, as the amount of grain in the millet and sorghum heads depends on the quality of the rainy season. A good season will provide heads full of grain, while a bad season (either because of bad rains or plagues of pests) produce heads with little or no grain. I was told that a good bushel of heads, when threshed, will fill a 40 tiya bag of grain.

#### ***Tiyawol (pl. tiyaaji; Hausa, tiya)***

The official tiya or tiyawol is a certain blue-green enamel bowl manufactured in Nigeria that has been standardized by the government as a legitimate market measure of grain (see Photo 7.6). I weighed a tiya of millet on a shop scale at 2.7 kilograms (just under 6 lbs.). Tiyas come in different sizes, with numbers on the bottom of the bowls which indicate their size. Smaller bowls are considered half or part tiyas (*ciyya tiyawol*; Hausa, *rabin tiya*). They are used to measure grain, salt, sugar, tea, sauce leaves, dried peppers and any other non-liquid food, including natron and bran for animals, that can be measure in a bowl. Liquids such as oil are usually measured in liter or 0.75 liter bottles (see Butter, below).

Measured correctly, the grain or other food is heaped as high as it will go, the excess spilling back onto the merchant’s pile. Then the bowl is poured into the buyer’s sack. Grain merchants will often use the bowl to scoop up the millet up out of his pile of grain quickly without making sure that it is filled up as high as possible. A careful buyer will measure his own grain, and sometimes the merchant will allow him to use his own bowl. All buyers need to keep careful count of the number of measures poured into their bags, as well as careful calculations of the money to be transacted. Grain merchants are notorious for

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<sup>1</sup> Harvest is measured differently in different parts of the country. In wetter, southern areas, where they grow millet with longer, thinner heads, the harvested heads are tied together in bundles, and the harvest is measured in these bundles.



cheating their customers, either in skimping on the amount measured, or miscalculating the transaction.

### ***Buhu (pl. buhuji) or centola***

A buhu, sometimes called a centola<sup>2</sup> is a grain sack which comes in several different sizes, but three general sizes hold 20, 25, or 40 tiyas. Before the present-day bags woven of plastic threads, manufactured in Nigeria, and the burlap bags of a few decades ago (still available sometimes in the form of used sugar sacks), the buhu was a leather bag sown of an entire cured cowhide. Pastoralists might still sow an old plasticized tarp into a very large bag which they then balance across the back of a strong male donkey or camel for transport, but I haven't seen any leather buhuji in use. When asking, in a survey, for measures of millet in buhuji, one must specify what size of buhu was used, something that we did not always do.

A pastoralist hopes to be able to buy a 20-25 tiya buhu of millet with the sale of a 1-2 year old buck goat. This livestock-to-grain conversion provides a convenient emic scale of grain prices for pastoralists. In December 2006, millet cost 375f a tiyawol, about 7500fCFA or \$15 for a 54 kg buhu (20 tiyaaji; almost 120 lbs.) that will feed a medium-sized family of two adults and four children for a couple of weeks. A yearling buck (a local standard measure of livestock to grain conversion ratio) sold at that time for about 7000f, thus buying less than a buhu of grain.

Grain is also sold by the buhu or centola by the government when they sell from government stocks or donated grain at cheaper than market price in order to control the market price. These bags usually hold around 30 tiyas, probably a standardized 70 kg of grain.

### ***Zakat***

The zakat is the tithing measure a small calabash bowl or piece of larger calabash bowl that is only used (I believe) at the festival of Ramadan (*Sumaayru*; Eid al-Fitr), to measure the grain a household will give to their local moddibbo.

### **CLOTH**

#### ***Tirimi***

A tirimi is a half bolt of printed or batik-dyed cotton cloth (*atampfa*) folded widthwise six times into three *gude* (sing. *wuddere*; *pagne* in French; *zane* in Hausa). Each *gude*

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<sup>2</sup> Perhaps from hundred-pound bags?

measures about two meters in length and varies in width, from about a meter to a meter and a quarter, with the quality and expense of the cloth. One tirimi will make a suit of blouse, wrap around skirt and head-covering, or a long dress-blouse and wrap-around skirt for a woman. Half of a gude (*gudel*, diminutive) provides enough cloth for a girl's blouse. The cheapest cloth sells at about 1000fCFA for a wuddere or 3M for a tirimi; better quality cloth sells at twice this much. The most expensive atampfa is only available in the larger cities, such as Zinder.

Women dress in other types of cloth, the pieces of which are still called gude, but are measured in meters or yards (*yaadi*) by the merchants and tailors. This cloth comes in a variety of qualities, thicknesses and prices.

***Fiyannde (pl. piyannde: from fiya, to hit)***

A turban is measured in *piyannde*, or cubits: from the tip of the middle finger to the point of the elbow. The cloth used most often for turbans is rayon shirting about a meter wide, imported from China. It comes in different colors, but most men prefer white or black, and red is considered reserved for *dogari*, the court officials of regional chiefs. If the man buying the turban thinks that his arm is longer than the merchant's he will measure his own turban.

**WELLS**

***Gaba (pl. gabaji)***

A gaba correlates with our fathom, either from finger tip to finger tip across the chest (*gaba* in Hausa) or the height of an average man with his arms raised. The former measurement comes out to about two meters, so a well of *gabaji acirin* (20 fathoms) can be estimated at 40 meters. The men measure the well by their heights when the well is being dug, then the depth of the well to the water (not necessarily the entire depth of the well) by the length of the well rope across their chest. I measured the length of the path that the donkeys made as they pulled water out of the well, by walking down and tracking the path with my GPS receiver. This was not entirely accurate, but usually came very close (when meters were divided by two) to the gaba measurement given to me by the men watering at the well.

***Boggol (pl boggi)***

The width of the well is defined by its number of sigitaji, that is, how many ropes (*boggi*) can pull water at the same time. A hand dug, dirt well (*gunndu leeydi* or *lesdi*) will

usually have just one or two sigitaji; a public cement well will have a large metal ring of perhaps six sigitaji.

At village wells, a group of pastoralist men are usually charged by each rope that they will use to water their livestock; a larger herd may need more than one rope to water it for the day. At boreholes (deep wells with mechanical pumps) men are charged by the number and species of livestock they want to water.

## **DAIRY PRODUCTS**

### ***Milk: koril (diminutive of horde, pl. kore)***

When the women sell cultured milk (*finndiɗam*) they measure the milk with a small ladle cut from a gourd, or a plastic ladle about the same size. It holds from a fourth to a third of a cup, or about 80 milliliters. Each ladle sells from for either 5f or 10f, depending on the market for milk. In Gourbobo, the milk sold for 10f a ladle, but two women at Futawa would buy milk in their area for 5f and take it to Gourbobo to sell for 10f.

### ***Butter***

Ghee (*nebbam*) is sold in glass bottles or jars and the women distinguish between full liter bottles (*litr*) and those which are only 75 centiliters.<sup>3</sup> A liter was selling for about 1500fCFA a liter in the rangeland before Ramadan, but probably more in Tanout. They also use the large empty jar of a particular pomade, that holds just under half a liter.

### ***Cheese***

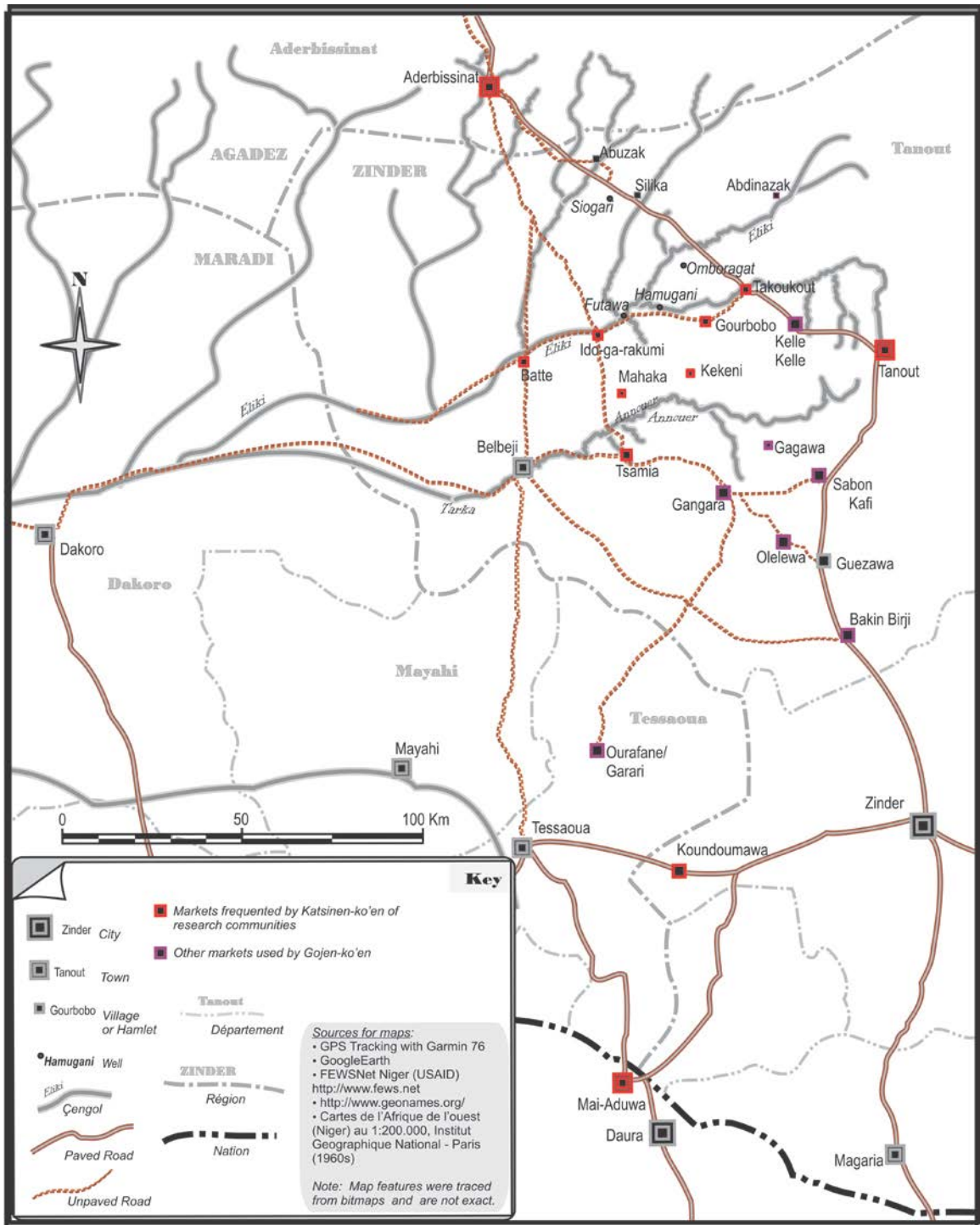
*Cuku* is sold in squares of various unmeasured sizes, varying from about 3.5 by 3.5 inches to 6 by 6 inches. Buyer and seller negotiate prices based on the size of the squares and the perceived quality of the cheese.

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<sup>3</sup> *The Hausa call the smaller bottle shegi'in litr, that is "bastard" liter.*

## APPENDIX E: MARKETPLACES

The map below show marketplaces frequented by individuals in the research communities, including the Gojen-ko'en. In the table below the map, I have listed all the major marketplaces in the department (though I am not at all familiar with Belbeji's market), and many smaller market villages, but not all of them. I have listed the markets most important to the Katsinen-ko'en in the research area first in somewhat descending order. Next come markets more important to the Gojen-ko'en, though certainly when they camp in the area of any of the above markets, they will attend that market. The Aderbissinat market was attended by both the Gojen-ko'en and the Siogari pastoralists when they migrated that far north during nduungu. The Gojen-ko'en, but not the Katsinen-ko'en, attended the Tuareg instituted market of Abdinazak. I heard rumors, that the hamlet of Silika would soon establish a market for pastoralists. Both Katsinen-ko'en and Gojen-ko'en attended Tanout market to sell livestock and make large purchases of grain. The Gojen-ko'en were more likely to attend Bakin Birji, if their livestock did not sell in Tanout, or because they had migrated more closely to that large market. The Katsinen-ko'en, especially cattle traders, would more often drive livestock directly south to Tsamia than Bakin Birji, though not as often as they would travel to Tanout. A few Katsinen-ko'en men reported driving cattle all the way to Garari, Koundoumawa or Mai-Aduwa, the large livestock market just over the border in Nigeria. One contingent of Gojen-ko'en habitually spend the dry season near Garari, when that market, or Ourafan, became their weekly market.



**Figure H.1:** Map showing market villages and towns mentioned in the dissertation and frequented by the research communities.

| <b>Town</b>         | <b>Canton or Commune, <i>Département</i>, <u>Région</u></b> | <b>Market Day</b> | <b>Group frequenting, or type of market</b> |
|---------------------|---|-------------------|---|
| Gourbobou           | Gangara, <i>Tanout</i>                                      | Friday            | Katsinen-ko'en                              |
| Takoukout           | Tanout, <i>Tanout</i>                                       | Monday            | Katsinen-ko'en                              |
| Ido-ga-rakumi       | Gangara, <i>Tanout</i>                                      | Tuesday           | Katsinen-ko'en                              |
| Kekeni              | Gangara, <i>Tanout</i>                                      | Wednesday         | Katsinen-ko'en                              |
| Mahaka (Atali Wawa) | Gangara, <i>Tanout</i>                                      | Sunday            | Katsinen-ko'en                              |
| Batté               | Belbeji, <i>Tanout</i>                                      | Thursday          | Katsinen-ko'en                              |
| Gagawa              | Gangara, <i>Tanout</i>                                      | Sunday            | Gojen-ko'en                                 |
| Gangara             | Gangara, <i>Tanout</i>                                      | Friday            | Gojen-ko'en                                 |
| Olelewa             | Olelewa, <i>Tanout</i>                                      | Saturday          | Gojen-ko'en                                 |
| Sabon Kafi          | Tanout, <i>Tanout</i>                                       | Friday            | Gojen-ko'en                                 |
| Aderbissinat        | <i>Aderbissinat</i> , <u>Agadez</u>                         | Every day         | Pastoral Zone                               |
| Abdinazak           | Tenehiya, <i>Tanout</i>                                     | Thursday          | Gojen-ko'en,<br>Pastoral Zone               |
| Silika              | (Tenehiya?), <i>Tanout</i>                                  | Pending           | Pastoral Zone                               |
| Tanout              | Tanout, <i>Tanout</i>                                       | Saturday          | Cattle, Camels                              |
| Tsamia              | Gangara, <i>Tanout</i>                                      | Thursday          | Cattle, Camels                              |
| Bakin Birji         | Olelewa, <i>Tanout</i>                                      | Monday            | Cattle, Camels                              |
| (Belbeji)           | Belbeji, <i>Tanout</i>                                      | (Monday)          | Cattle, Camels                              |
| Garari              | (Ourafane), <i>Tessaoua</i> , <u>Maradi</u> <sup>1</sup>    | Sunday            | Cattle, Camels                              |
| Mai-Aduwa           | Nigeria   | (Not sure)        | Cattle, Camels                              |
| Gandou              | Belbeji, <i>Tanout</i>                                      | Wednesday         | Other                                       |
| Kelle-Kelle         | Tanout, <i>Tanout</i>                                       | Tuesday           | Other                                       |
| Ajiri               | Tanout, <i>Tanout</i>                                       | Tuesday           | Other                                       |
| Kokwaram            | Tanout, <i>Tanout</i>                                       | Wednesday         | Other                                       |
| Yagaji              | Gangara, <i>Tanout</i>                                      | (Not sure)        | Other                                       |
| Zinder              | Zinder Commune, <u>Zinder</u>                               | Thursday          | Other                                       |

<sup>1</sup> I have never been to Garari; I have only heard that it lies near Ourafan. I am not sure to which commune or cantonal chief it belongs.

## APPENDIX F: THE BATTLE OF MOPURU

*(Taped January 20, 2007: Because the conversation was not taped clearly, and contains many incomprehensible segments, the narration has been rather loosely transcribed. I have tried to preserve the sense of the stories and some of the teller's manner.)*

Then Kazauré, it was a Woδaaábe area. Mopuru, he was the son of the laamiδo of Kazauré. Mopuru was Pullo. He was called Mopuru (he of the gray) because he rode a gray horse. He seized every kind of enjoyment. The day a young bride was asked for, he would look at the woman, and he took his pleasure with whomever he desired. The day a man asked for his bride then, the prince would come on his gray horse. He would come for about ten nights. Then he would take another bride.

Well. This one young man, of Ali-jam lineage, he told his father to ask for his bride. He went to his father and said, "Me, hey, if Mopuru lies with my wife, I'll cut his throat."

His father said, "Unh-unh, unh-unh. You're not better than anyone else. You're no better than anyone else. You are not better than anyone else. Mopuru slept with that one's wife. You, you're not better than anyone. Mopuru slept with the wife of so-and-so. He slept with the wife of so-and-so."

She, the girl, her breasts have grown and she is ready for marriage. There was no young woman like her. The young man said, "Just bring my bride."

Before noon—the sun had not begun to go down—Mopuru, the prince, arrived on his gray horse. But the husband of the woman hid to the west of the camp. The young woman there, she whom Mopuru came to, she made him nyiiri, milk. Butter. She milked the cows, made nyiiri, brought it to Mopuru. He's on the bed, lying on the blankets, lying there. He ate until he was full. The young woman lit the fire in the suudu and sat on a stool. Her husband is there, in the bush watching them through the door of the suudu. The fire is lit. Mopuru reached out his hand, felt her breast. Then, from the bush in the west, the husband said, "He dies today. You felt her breast. Today you die."

Then the husband of the woman, he walked and walked carefully, tap-tap-tap-tap-tap-tap-tap. He lay down behind the suudu. And he hears everything, right? He's just lying there. Mopuru climbed on top of the woman. The husband reached up under the tent mat and felt the neck, where the neck of his wife was. He felt here the neck of the man on top; Mopuru was on top of the woman, the woman was underneath. Then he pulled out his



sword and cut through his neck. Blood flowed down onto the woman. The woman cried, “Woyo! I’m ruined!” The husband said, “Shut your mouth, too! If you cry out, you too, I’ll cut your throat. Shut your mouth! Take some water and wash off the blood.” The woman got some water and washed herself out in the night. Then the husband buried Mopuru.

When he had buried Mopuru, he went to his father and the elders. He said, “Well. Salaam aleekum.”

“Amin, aleekum.”

He said, “Well. Today, I killed Mopuru.”

“What!!”

“Today, just now, Mopuru, I killed him.”

“What!!”

“Today I killed Mopuru.”

“What!!”

“Today, even now I killed Mopuru.”

“You killed Mopuru.”

“Yes.”

“Today we are ruined! You killed the son of the laamiḍo of Kazauré. Is that right? You killed the son of the laamiḍo of Kazauré?”

“Yes.”

Well. The old men, they got up. They called, “Well, young men, you all come.” All the young men, then they came. The elders said, “Come, spend the night dancing. You, women and elders. Come collect the cows and goats and sheep. Get up and we’ll go to Sokoto. Get up and [let’s go] to Sokoto. Get up and let’s go to Sokoto. Today, the land of Kazauré is ruined. At night, then you, there, young men, dance all night, like nothing happened.” The young men danced all night, danced all night, to make others think that nothing happened.

Well. Then the women spent the night traveling with the cattle. And the elders, they spent the night traveling. They spent the night, they spent the day, they travelled at night, they travelled at day, they spent the night, they spent the day, they travelled at night, they travelled at day. Thirst seized them. Thirst then ravaged all the people. One young woman, her father was of the herders. She herded with him when she was a child, the young woman. They said, “You, your father was a scout (*garso*). You possess the herding knowledge. Then, in the past, when thirst caught the people, your father, what did you see him do?”

She said, “Yes.” She said, “Birds. We were herding the cows; then he would tell us to watch the birds. If we saw the birds rise up high, then water was far away. But if we saw the birds go down, down, into the branches, water was close.”

“That’s what your father showed you?”

“Yes.”

Then, someone said, “Hey, a little while ago we were herding the sheep. We saw the birds fly up, but we saw they settled, down they settled. Okay, water is there, if it’s God’s will.” Then they got up, they rolled up the tents; they said, “Hurry, let’s go to the Rango River east of Sokoto.” The people went there and quenched their thirst.

Those other Woḍaaḅe, they had no news that Mopuru was killed. When the soldiers and the war guards found out, they called, “Come, this is out-and-out war! Come, here is killing galore! Kill this one, kill that one, kill them all!”

Then the Katsinen-ko’en, the Katsinen-ko’en from Katsina, then they said, “Hey! These Woḍaaḅe are part of our lenyol. We’re all one lenyol.” Then they captured the Woḍaaḅe away from the Kazauré soldiers by force. They took the Ali-jam Woḍaaḅe away, many of them! Then the laamiḍo of Katsina, Laamiḍo Katsina, then he also got up, he said, “Wherever any Woḍaaḅe are, they are welcome among us Katsinen-ko’en. Wherever any Woḍaaḅe are, those remaining, they should make for here.” Those remaining, well, they escaped; they ran, they entered the Katsinen-ko’en, they, until today they are Katsinen-ko’en, all the way here.

That’s the beginning of how they became lost among us up to today, the beginning of how the Woḍaaḅe became lost among us. Anyone else would look at us and not realize that Woḍaaḅe live among us. Many are Woḍaaḅe! Look at them here, those of Omboragat, see them there. They all are Woḍaaḅe. They all, they’ve become Katsinen -ko’en. Just we alone know the Woḍaaḅe among us. Well, you understand? We know the history of Mopuru. Our grandparent was there! The parent of our father. Well, before Mopuru was killed, they lived in the area of Ngoori. Sokoto Woḍaaḅe ruled it.

In those times, in those times, the superior woman, a woman of excellence, with long breasts—she had a better pedigree than she with short breasts. There where they fled, a child carried on the back, it cries. He cries; they are fleeing. From his mother’s back where he’s carried, he reaches the breast, he suckles. Well, she with the small, short breasts, the child doesn’t get to suckle. Also, in those days, a kovaaḍo wife, the first wife of a man, she

was better than a tee'aḁo.<sup>1</sup> She is better than she whom a person just finds anywhere and marries in a second marriage. Here, the kovaaḁo, the first one, she's a woman. When Mopuru was killed, among those who fled, the second wives they refused to follow their in-laws. They, though, the first wives, they followed, they escaped with those who fled. Well, in those days that distinguished the women. In those days, that distinguished them, showed that the wife of the first marriage was better than the wife of the second marriage.

You understand this history? Our history! We Katsinen-ko'en! Also, we here, where our laamiḁo took the Ali-jam Woḁaaḁe, they all came to Katsina; until today they are Katsinen-ko'en. They all, until today ...

[KMG: But they didn't become slaves? They just entered (among you)?]

Unh-unh, unh-unh. They didn't become slaves. They didn't become slaves. They didn't become slaves. They simply accepted to live with the Katsinen-ko'en. They simply accepted the Laamiḁo Katsina. Dikko, Dikko welcomed them. Laamiḁo Katsina, he welcomed them. And then, the Laamiḁo Kazauré, he came to Dikko. Well, he caught Dikko—hah, here he [Kazauré] met one like a genie and caught it. He put this genie in jail. Dikko—Dikko, the laamiḁo of Katsina. Okay, he put him in prison; then, in the morning he went there to the prison: nothing. Well, the room was locked, the compound locked. But, he didn't find him there, either. Hey, he saved the Woḁaaḁe. Laamiḁo Katsina. He saved the Woḁaaḁe.

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<sup>1</sup> Kovaaḁo: *a wife from a first, family marriage (kobgal)*; tee'aḁo: *a wife from a second marriage (teegal), often from a different lenyol.*

## APPENDIX G: MAI-KALAFU HISTORY

*The first part of the interview was not recorded on tape. I wrote down what I had been told, immediately after the telling.*

His grandfather Qora birthed Bargi, Gaatoru, Maman Salawo,<sup>1</sup> Douna, Delou, two girls who died, Ibrahim (their father) and Magaji. Their mother was carrying Magaji when their grandfather died. She remarried and bore two daughters and a son, eleven children in all. This all happened at Saafe, west of Katsina. The sons moved west and then west again to a place that would become Jibiya and cleared fields. The oldest started beards there and Douna and Ibrahim shaved their braids there; at that time the young men braided their hair in two braids over the head and down the back. They would do this [shave] when they were thirty to thirty-five, when they finished with soro.

A Kaaɗo called Jibiya came and asked them if they wanted a neighbor. They said, yes, they did because there was a hyena that was bothering them and a neighbor would help them chase it away. Jibiya had three wives, all with lots of sons. The first year he brought one wife with her sons and all dry season they cleared a field. In the rainy season they planted and at harvest gathered a thousand [sheaves or bushels, probably].

The next year he brought his other two wives with their sons and they spent all dry season clearing another field. During the rainy season they planted and at harvest they gathered two thousand, then four thousand.

When the white man came and saw Jibiya with all his sons and all their grain, he asked who the head of the family was. Jibiya said it was him, so the white man made him chief and called the place Jibiya.

Lots of Fulɓe waynaaɓe came to Jibiya country and when there were many of them they asked for their own Pullo chief. They didn't want to follow a Kaaɗo. The white man refused, however—he wasn't going to make two chiefs in the same place.

One of Jibiya's sons, though, called Gateri, had lived with the Fulɓe and his children grew up speaking Fulfulde, so when Jibiya grew old—he was already old when he'd first arrived at the place—the Fulɓe convinced the white man to name Gateri as chief in lieu of

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<sup>1</sup> *Maman Salawo may have been fostered to an uncle as he is not mentioned again.*

his father. Gateri is one of us, they said, he understands us and our ways. So Jibiya stepped down and his son Gateri was enturbanned in his place.

Ibrahim was the first to come to Dakoro. He came up by himself and then the next year brought his wife and two children, the oldest, a girl and VCD2-4's father, Maman Dere. Bargi and Gaatoru came up for a few years just for the rainy season with their livestock. One season Ibrahim harvested a lot of grain and said to his brothers, who go back? Stay here, I have lots of grain for everyone. Bargi's wife was pregnant, close to delivery and that helped the brothers decide to stay.

Ibrahim said that he went back south and drove Douna up "e semmbe" – forced him to come up with them. Magaji followed.

When Ibrahim first came up, he met an Adaren-kejo at Dakoro (perhaps a pastoralist, not clear) and Woɗaaɓe and a Kaaɗo named Saley. There were actually two Haaɓe, Saley and Moussa, and Ibrahim heard and then told the story of how they settled Dakoro:

The two men came up from west of Jibiya and camped one (Saley) on the east side of a pond and the other (Moussa) on the west side, both on the same day and without each other's knowledge. Moussa, the day after he arrived, started clearing a field, but Saley decided to build a house first. The next day Saley went out to clear his field and heard Moussa cutting trees on the other side of the pond. He went to see who it was and found Moussa whom he knew because they came from the same place. They were surprised that they'd come on the very same day, and Saley said, "You started clearing your field yesterday and I only started today. You're ahead of me so you will be the village head. I'll follow you. – Ni ne baranka (I am your servant—Hausa)." Moussa declined, but Saley insisted, so it became Garin Moussa. There were kururuɓai<sup>2</sup> dug there on the west side and they became "Kururuɓain Moussa" but the pond was called after Saley: "Tabkin or Veela Saley." The name Dakoro comes from the kururuɓai and the little water that one can get out of them. The name is Hausa.

Bargi and his brothers lived between Dakoro and Lalle, where the MaiBuji and the white administration had headquarters at the time. Between them and Lalle was a distance and direction similar to that between here and Kciyaasku [~15Km southeast]. They could just see the trees of Lalle. There was a similar distance between them and Dakoro to the north.

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<sup>2</sup> *Small, shallow wells, usually in a "field" of many wells, that tap into a high shallow water table, suspended in clay strata; beri in Woɗaaɓe Fulfulde.*

They followed a Jijiru arɗo. When they had all come north and became many (I'm not sure if there were more than just the brothers then) Saley and the other Hausa said told the brothers that they should have their own arɗo instead of following the Jijiru. So they went to MaiBuji and said they wanted their own arɗo. MaiBuji asked them who they wanted to follow. They told him Bargi. He asked Bargi if he knew how to take care of his people: "Ka san rukun talakawa?" Bargi said he knew but MaiBuji would also teach him. MaiBuji said that was a good answer—he could be arɗo. He, MaiBuji, was going to Maradi and when he returned, Bargi should be there at Lalle with all his people behind him. When MaiBuji returned from Dakoro they held the ceremony which installed Bargi as arɗo. At that time they used a red hat (probably a red felt fez) instead of a turban. Ibrahim was made "mai-taimakin shi".

The following interview was taped in the evening of March 20, 2007. One of Ibrahim's sons narrated the history. Bracketed phrases are unclear.

| <i>Spkr</i> | <i>Fulfulde</i>   | <i>English</i>   | <i>Notes</i>  |
|-------------|---|--|---|
| KMG         | Ɓe, ko Ɓe bappiraaƁe maɗa ko Ɓe maamaaji moɗon, Ɓe mbi'aayi non kamar dow ngartol Nasara-ko'en?   | They, or those uncles of yours or those of your grandparents, they didn't say anything about the coming of the Europeans?  |   |
| ELDER       | Ngarki Nasara'en?   | The coming of the Europeans?   |   |
| KMG         | Ii, kamar ton-to Ɓe ndimi ton gaɗa Jibiya. Saafe, ko?   | Yes, like there where they were born east of Jibiya. Saafe, right?   |   |
| ELDER       | Eeh, to! Mi nani, Ɓe mbi'a, a anndi kamƁe baabaaji amin. Ɓe ngoodi mawnere'en. To, de baaba maƁe, nde maayi, kamƁe mawneraaƁe maƁe, rimaƁe ilaa, to, kamƁe njogi Ɓe. E kamƁe fuu e minyeraaƁe maƁe, kamƁe njogi Ɓe, Ɓen don Ɓe mawneraaƁe maƁe. KamƁe ndemanta Ɓe; Ɓe taɗana Ɓe, Ɓe lovana Ɓe; e rumbuuji maƁe. Inna maƁe e unana Ɓe. Har Ɓe, har Ɓe njahari nanngugo kuugal. De Ɓe njahari nanngugo kuugal, kadin, kadin, Ɓe laati Ɓe demena ko'e maƁe, ammaan, kadin to Ɓe ngari, ɗum waɗe rumbuuji, ɗum waɗe komi, kadi mawneraaƁe ngaranta mbaɗana Ɓe. Har kadin, Ɓe jahari kadi waɗango ko'e maƁe. To kadin, den mawneraaƁe. kadin, den, den dali. | Eeh, well. I heard, they said, you know they our fathers. They had older siblings. Well, when their father died, they, their older siblings, born long before, they fostered them. And they all and their younger siblings, they fostered them, they there their older siblings. They cultivated for them; they harvested for them; they stored the grain for them; in their granaries. Their mother pounded for them. Until they, until they reached [the age when they could] take up work. When they reached [the age when they could] take up work, then, then they became so that they cultivated for themselves. But, before they arrived [to where they could] make granaries, could do everything, then the older siblings did it for them. Until they arrived so that they could do it for themselves. Well then, so their older siblings, then, then, then they left [the work to them]. | <i>mawneraaƁe:</i><br>older siblings,<br>could be<br>older cousins. |



Ayi, kamɓe, ɓen ton mawneraabe maɓe fuu e ɓe dimdaabe, fuu ɓe ngaraayi lesdi wela. Iya, kamɓe ton ɓe dali ɓe ton, ton Saafe. Ammaan, ciyya-en maɓe ngari lesdi wela. Ammaan, ɗum ciyya-en maɓe. Ɗuuɗɓe ɓen kam ngaraayi. Ɗum adune, kamɓe ma ɓen ton adune suudu wo'oru tan. Kamɓe ngari, jooɗi don gaɗa Maraɗi. Be mbaɗi gariji ɗiɗi. Ngo'ori gari e viye Bulbara; ngo'ori gari e viye Batata. Ɗon gaɗa Maraɗi. Ay, e woodi luumo ɗon, Manzo, ɗon gaɗa Maraɗi, non ngo viyete [nga...zimi]? Caɗuawa. To, Batata e ɗon, e ɗon fombina Maraɗi, keral [... fombina Ngo-ngo ... seɗɗa ...] e ɗon Batata woni. Bulba, bo, e ton, ton fombina [Ma'ari] kam, maa. [Ɗum wa'adi han Norika.] To, iyaka mawneraabe ndotiyen amin bakin ɗon tan ɓe jooɗi. To, gaɗa maɓe, to [minon kam min] ndotiyen fuu [kamar] ngar-ɗo lesdi wela, say ɓe-ɓe, ɓe amin tan. Kamɓe tan ngari ɗo lesdi wela.

Kamɓe, bo, ɗum wa-da-kane, wa-da-kane, ɓe ngalaa goɗo fuuka. Ngarɗo ɗo lesdi wela. Say ɓen ton tan, ɓe gaɗa Maraɗi; ɓen ton, ɓe gariji ɗiɗi e Batata e Bulba. Kamɓe, bo, ɓe ɗon ɓe Batata e ɓe Bulba, kamɓe maa ɗum wa-da-kane gam suudu maɓe. ɓe ɗuuɗɓe say ɓe ... ɓe sankiti, ɓe senndiri, kowa waɗi gari mon. Ɗo, onon bo ɓe, ɓe amin, say ɓe kawti ya'ire wo'ore ɗo Doqoro. Kadi, o'o tan mo-amin kanko waɗa [le ...] ɓe-

Ay, they, all their older sibling there and [some of] their siblings, none of them came to the northern country. Yes, they, there they left them, there at Saafe. But, half of them came to the northern country. But, it was half of them. Many of them, they didn't come. It was the people, they also they there were people from just one suudu [the children of one mother]. They came, settled there east of Maradi. They created two villages. Bulbara; one village was called Batata. There east of Maradi. Ay, there is a market [town], Manzo, there east of Maradi; how is it called [unclear]? Caɗuawa. To Batata is there and there south of Maradi, right near [unclear], talking to Manzo ... south That one [unclear ... a bit ... unclear] and that's where Batata is. Bulba, well, is there, there south of [unclear], also. [Today it borders with Norika.] Well, that was as far as our fathers siblings went; in that area they settled. Well, after them, well [we unclear] elders all [like] came here to the northern country; just those of ours. They alone came here to the northern country. They, well, it was, older-brother-younger-brother, they had no one else at all. They who came here to the northern country. Just them there alone, those there, they from the two villages, Batata and Bulba. They, well, they there from Batata and Bulba, they also were older-brother-younger-brother because of their suudu; they were many, but they ... they scattered, they divided, everyone made his own village. Here, they, well they, those of

*gari*: villages (Hausa); probably just areas of residence, not nucleated villages.

*wa-da-kane*: (Hausa) older-brother-younger-brother *Yawa*: Hausa exclamation

Doqoro warti do. Yawa! To, to no be ngoneri, be-be amin, baaba maɓe Qora mbiyete.

ours, they just joined in one place here at Dakoro. Then, he alone, ours, he made [*unclear*] those of Dakoro come here. That's right! There how they were, those of ours, their father was called Qora.

|       |   |  |   |
|-------|---|--|---|
| KMG   | Baaba moy?  | Whose father?  |   |
| ELDER | Baaba, maama amin. Dimmɔ ndotiyen baaba amin, Qora o viyete.  | Father, our grandfather. The birth parent of our father, Qora he was called.   | Difficult to determine whether he is saying Qora or Bora. |
| KMG   | Qora?   | Qora?  |   |
| ELDER | Qora, bah.  | That's right, Qora.  |   |
| KMG   | E Hasan.  | And Hassan.  |   |
| ELDER | <p>Hasan ɗum siwtaaɗo Qora ohan. Hasan kam siwtide e Qora. Hasan kam rimi ben ɗay be gaɗa Maraɗi e Bulbara e Batata. To, Hasan rimi ben don. Qora, siwtaaɗo mako, kam rimi ndotiyen amin. To, non nih ben ngoni. To, ammaan, e Hasan e Qora, be fuu nih be ngoni, be fuu, be fuu, don be maayi, don Saafe, gaɗa Duciyeɓ. Be fuu, don be maayi. Be fuu, baalorɗe maɓe don ya'ire wo'ore, be fuu [be kukutiri].</p> <p>Baalorɗe maɓe, min, har mi yaal mi yi'i de, de don to be mbaɗa ... bii be, o'o bappaanyo amin, mo mbiye-min Duuna. Kan wari hooɗa [kobiiji, dileeji waari], o vi'i, "Ndu'u [kobiiru] do'o e ko'e maɓe." O vi'i, "Ndu'u [kobiiru] do'o woje kocɗe maɓe." To, gorubaaɗe den di fuɗoyi. Di mawni, raa ton [... ... dow maɗa]. To, don ɗum baalorɗe maɓe. [... ta nan] den jahi mi Saafe ɗum giitol mi lenyol, ko giitol mi bappiraabe amin, ben ton ben</p> | <p>Hasan was the twin of that Qora. Hassan twinned with Qora. Hassan birthed those there who were east of Maradi at Bulbara and Batata. Right, Hassan birthed those there. Qora, his twin, birthed our parents. Well, that's how they were. Okay, but Hassan and Qora, they all are there, both of them, both of them, they died there, there at Saafe, east of Duciyeɓ. Both of them, there they died. Both of them their graves are there in one place, both of them [they are next to each other].</p> <p>Their graves, me, I even went down there to see them; there where they were made ... a child of theirs, that uncle of ours, he whom we call Duuna. He came and took [<i>unclear</i>, grave markers? ... ], he said, "This [grave marker?] here themselves." He said, "This [grave marker?] here is by their feet." Well, doum palms had sprouted there. They grew up, look there [<i>unclear</i> ... above you]. Well, there were their</p> |   |

kadi ɓen dimdaaɓe. To, den ɓe mbi'i, "To raa, raa ɗo ton ngi'i-ɗa ɗe'e gorubaaɓe, ɗum yenaande baabaaji amin. Ɗo'o maamaaji maɗa woni ɗo. E ɗon ɓe ngintoto, lees gorubaaɓe ɗon. [Ton e karakara.] Yawa. To.

To, kamɓe, maamaaji amin, minon, maamaaji amin, fuuka rimmɓe ndotiyen amin, fuuka ɓe njaaɓaayi ɗo wela ɗo fuu-fuu. Be fuu ton, ɓe fuu ton ɓe maayi. Yawa. Bakin ndotiyen amin tan, say rimmɗaaɓe maɓe tan ngari ɗo [lesdi wela]. Yawa. A nani ɗum.

graves. [*unclear*] then I went to Saafe on a visit to the lenyol; so I could see our uncles, they there, those siblings. Well, then they said, "There look, look here where you see these palm trees, it's the grave of our fathers. Here, your grandfathers are here. And here they spend the day under these palms here. [There in the countryside.] That's right. Okay.

Well, they, our grandfathers, us, our grandfather, both of the birth parents of our fathers, all of them they never stepped here in the north, here at all. All of them there, all of them, there they died. That's right. Just our fathers alone, just their siblings/cousins came here to [the northern country]. That's right. You understand this.

|       |  |  |   |
|-------|--|--|---|
| KMG   | Ben kokkaayi tarihi kamar ngarki Nasaren-ko'en? Kamar, kul ɓe koçi iko ton?  | They didn't give you history like about the coming of the Europeans? Like, when they took power there?   |   |
| ELDER | To, mi nani. On ɗon, on ndotiiɗo amin. E mo vi'a ndeen no no ɗum, ammaan mawneraaɓe maɓe. Ben ton, afɓe baabaaji maɓe. To ndeen no, to ɓe fiyanaama gangari, iɓe ngama, iɓe ngama; ɓe ngaylito har ɓe mbi'a, "Nasara ya ɗaɗe bay zo ba." E ɓe nana habaru Nasara e ware. Nasara e ware; Nasara e ware. Iɓe ngama, ɓe ngaylito, ɓe mbi'a, "Nasara ya ɗaɗe bay zo ba." To, iɓe ɗon, iɓe ɗon, iɓe ɗon, nyannde say Nasara wari. Say Nasara wari, dow pusu o wari, ɓe mbi'i. O wari, o ummanti, o woosi, o woosi nder maɓe; o woosi, o woosi nder maɓe. Cikenan, den o vittii. | Okay, I hear you. That one there, that elder of ours. He said long ago it was, but their older siblings/cousins. Them there, the first born of their fathers. Okay, long ago, when a large drum was beaten for them, they were gathering, they were gathering; they went around and they said, "The European's taken a long time to come." And they hear news that the European was coming. The European was coming; the European was coming. They were gathering, they were going around, they said, "The European's taken a long time to come." Well, they were there, they were there, they were there, and one day the European came. The European came, on a horse he came, they said. He came, he got up, he | <i>Nasara ya ɗaɗe bay zo ba:</i> Hausa, The European has taken a long time to come. |

To, ndotijjo amin, o vi'i e biki inna VCP1-1 on-ḡay. On-ḡay VCP1-1. O vi'i, de ḡum rimi inna mako, e biki mon ḡum nder Saafe, o vi'i to, e majjum, kanko, e biki ḡum, o feni yiigo ḡu'um zanwaati danejum, ḡum-ḡum, ḡum-ḡum kwalte moḡon ḡe Nasara. E majjum ḡum feni wartigo yaadi. Yaadi ndeen no, a anndi, ḡum leppi. ḡe'e gude, ḡe'e-ḡe'e ḡum senyata, ḡe'e-ḡe'e ḡum [luwata] hottollo. A anndi, ḡum kanje tan? To, o vi'i, e biki ḡum e ḡon, goḡo tago ivoynoy-ḡe fombina, ivoynoy-ḡe ton Nigeria, [fombina jum] ḡe ton birniji o wari. E mo ḡorni gapaliire [gon-goni go] zanwaati. ḡum-ḡum yaadi, ḡum-ḡum moḡon Nasara'en. ḡon o vi'i, "Emi ḡo biki ḡum, ḡe peni yi'igo ḡum." Har ḡum ware, ḡum nannga ngol, "Ngare [jo] Nasara." Kadi, har kangol woni Anasara! Sa'anan, kamḡe, ko Nasara [gam] maa ḡe ngi'aayi ḡum. Ko ḡon to o wari maa, naa kowa yi'i mo. Bakin ton, nder gariji mawḡe tan, o yi'i, o woosi. Say ḡum nana tan, "Minon, ay, min ngi'i Nasara [...ken]." To, cikenan. To, de ngon-ton, ngon gapaliiru wari, on ton, o warti, [non ḡe mbaḡi, ga] duuniyaaru ware, raari ngo, "Ngare [jo] Nasara." To, mbi'e, naa ḡum Nasara, ḡum kwalte Nasara, ḡum yaadi mako, ḡum kwalte mako, naa ḡum Nasara. [laughs] To, cikenan, no o vi'i, to, e biki on-ḡon, on inna VCP1-1, o vi'i, ḡon, ḡon— sa'anan, fuu e ḡe ḡon, nder Saafe; sa'anan, naa ḡurti-ḡo Saafe; sa'anan, ḡe ḡurtaaki, ḡe fuu e ḡe ḡon Saafe; sa'anan, ḡe bilki'en,

went around, he went around among them; he went around, he went around among them.

That's it, then he returned.

Okay, our father, he said at the biki of VCP1-1's mother, that one there. That there VCP1-1. He said, when his mother was born and her biki was there at Saafe, he said, well, at that [celebration], he, at that biki, he started to see the white cotton cloth that there, that there cloth of yours, of the Europeans. With that the cloth measured in yards first began to arrive. Cloth then, long ago [traditional cloth], you know, it was strips. That cloth, that one that's woven [by hand]; that one that's [dye?] cotton. You know, it was just that kind? Okay, he said at that biki there, this person, someone who came from the south, one who came from Nigeria, [in the south] those from the big cities he came. He was wearing a tunic [unclear] of white cotton cloth. That cloth, that of yours, the Europeans. There he said, "I was at that biki, they started to see it." They even came, they grasped it, "Come [unclear, see?] the European." Like that was a European! At that time, they, they hadn't even seen a European. Even when he came there, not everyone saw him. He stayed within the large towns of theirs, he saw, he toured around. They only heard, "We, yes, we saw the European [unclear]." Well, that's it. Well, when that there, that tunic came, that one, he came, [that's how they did, see] people came, looked at it, "Come [see] the European." Well, said, that's not a European, it's the clothing of a European; it's his cloth; it's his clothing; it's

father: could be uncle VCP1-1: a man in his 70s

famarɓe, faa. To, den kadin, cikenan, den kadin, Nasara kadin, den kadin, waɗi ga wurtowaago e natta garije, ɗe'e kadin nder ladde, pamaril-pamaril; kadin ɓe ngi'a ɗum. Ammaan, dow pusu, naa nder mota. Dow pusu ɓe ngi'ata ɗum.

not a European. [laughs] Well, that's it, that what he said, okay, at the biki of that one there, that mother of VCP1-1, he said, there, there – at that time, they were all there at Saafe; at that time, there was no one who had left Saafe; at that time they hadn't left; they all, they were there at Saafe; at that time they were just small children, you know. Okay, then, that's it, then, the European, then, kept coming out and entered into the villages, those in the bush, the little ones; in order to see them. But, on a horse, not in a motor vehicle. On a horse they saw it [the small villages].

|       |  |   |
|-------|--|---|
| KMG   | Ah, den mota walaa dey.  | Ah, then there were no motor vehicles.  |
| ELDER | Eh-heey. Ammaan, dow pusu o fena wargo; ɗe peni yi'igo dow ngu.  | Okaaay. But on a horse he started to come; they started to see [him] on it.   |
| KMG   | Mota woodi, ammaan ɗum seɗɗa tan.  | There were motor vehicles, but just a few.  |
| ELDER | Say ton nder gariji mawɗi, ton tan mota [gar]; ammaan kul ɓe ngari, ɓe natte nder ladde, lokacin nan, mota ngalaa to nga yaaɓa, say datal. Say datal, say pusu tan. ɓe [yawta ... .. ] | Just in the large towns, just there motor vehicles [came]; but when they came, they went into the bush, at that time, there wasn't anywhere for a motor vehicle to travel, just paths. Just paths, only a horse. They [spent a long time ... unclear] |
| KMG   | A'a. Ndeen, ndeen, mota waɗaayi ko duuɓi jovi, ko sappo. Mota fuu, fuu, fuu, ko e leeydi amin maa. Den mota no kesum.  | No. Then, then, motor vehicles had been around for only five or ten years. Any motor vehicles, even in our country. Then motor vehicles were new.   |
| ELDER | A nani, ko? To, kamɓe daga faa, daga majjum, ɗum-ɗum-ɗum-ɗum dey, ɗum ɓe mbiyete kamɓe lokacin nan hannde, hannde ɗum yawni cekara ɗari da daama, dey.                                 | You hear that? Okay, they from even, from that, that, that, that, that, that they said they at that time today, so [from] today it has been a hundred years, a lot.   |
| KMG   | Ah, ɗum waɗi!  | Oh, it must be!   |
| ELDER | Kanko, lokacin nan. [Ga maa] e woodi wo'ongo dolo. Manzo, ngo naye'en meɗin mbiyete  | He, at that time. [Also] there was this hunger. Manzo, that one our elders called "Dogowa"  |

|       |   |   |  |
|-------|---|---|--|
|       | “Dogowa,” ko?   | [the long one], right?  |  |
| KMG   | Haka ne, ko.  | That’s right.   |  |
| ELDER | E kuma ɓe mbiye ngo<br>“Kumumuwa.”  | And they also called it<br>“Kumumuwa.”  | <i>Kumumuwa:</i><br>meaning<br>unknown |
| KMG   | Kumumuwa.   | Kumumuwa.   |  |
| ELDER | Ee, Kumumuwa, ba.   | Yes, Kumumuwa, right.   |  |
| KMG   | Kumumuwa.   | Kumumuwa.   |  |
| ELDER | Ee. E maggo, nan-mi, ɗotiijo<br>amin vi’i, ɗum waɗi ga ungo<br>lalaaje ɗum; ɗum waɗa gappal,<br>tukuɗi ɗum yara.  | Yes, During that, I hear, our<br>father saw, it was just pounding<br>lalaaje; they made gappal, that<br>tukuɗi [gruel], they drank.   |  |
| MM    | [Haka nan ne, bo.]  | [That’s for sure.]  |  |
| ELDER | [Haka ne.]  | [That’s right.]   |  |
| KMG   | Ɗu-ɗumey?   | What’s that?  |  |
| ELDER | Lalaaje.  | Lalaaje.  |  |
| KMG   | Ɗumey woni lalaaje?   | What’s lalaaje?   |  |
| ELDER | A anndi tumuude?  | You know calabash bowls?  |  |
| KMG   | Ee.   | Yes.  |  |
| ELDER | Nde, nde ngintu-min [nyenya].   | That which I spend the day<br>[carving].  |  |
| KMG   | E, e mi nani. E mi, mi, e mi nani<br>iri ɗum.   | Yes, I’m understanding. Yes, I, I,<br>I’ve heard that sort of thing.  |  |
| ELDER | Yawa! Madala! To neɗo nana<br>dolo kanje hoosata. Waɗa nder<br>vovru, fusa ɗe, fusa ɗe, una, una,<br>una, una, una, una, una. Cikenan.<br>Na ɗe mbaɗi sonndi, daga o yare<br>– to e woodi kosam, daga o waɗe<br>kosam. Cikenan, daga e [virga, e<br>virga, virga, virga], kadi o waɗa<br>ga yargo, ɗaka, ɗaka, cikenan.<br>[Kuma ... ...] | Good! Very good! Well, a<br>person feels hunger, takes up<br>those. Puts [them] in the<br>mortar, splits, them, breaks,<br>them, pounds, pounds, pounds,<br>pounds, pounds, pounds. That’s<br>it. When they’ve become flour,<br>then he drinks – well, if there’s<br>milk, he puts in milk. That’s it,<br>then he [unknown word,<br>perhaps stirs], then he just<br>drinks it up, chews, chews, that’s<br>it. [And unclear] |  |
| KMG   | To, den maa, e mi janngi, den<br>maa, e woodi lokaci, na’i waɗi,<br>waɗi ciya-jam. E ciya-jam no<br>waari na’i fuu.   | Okay, then also, I’m reading,<br>then also, there was a time that<br>the cows got, got sick. And this<br>sickness killed all the cows.  |  |
| ELDER | To, waari na’i fuu.   | Okay, killed all the cows.  |  |
| KMG   | Ee, e ɓe ɗiftinaayi ɗum tarihi?   | Yes, they told this history?  |  |
| ELDER | To! Mi nani ndotiijo vi’i, ɗiftini<br>ɗum don. Kanjum bo, mi nani<br>ndotiijo vi’i, ɗum waɗi, ɗum ton<br>nyaw ɗum na’i, ɗum ndeen no,<br>ɗum onon Nasara’en, ɗum tufo<br>moɗon laggi ɗum. Ton ɗum-ɗum<br>mbiyete zagawo.  | Okay! I heard Father say, talked<br>about that there. That, well, I<br>hear Father say, it happened<br>that there sickness of the cows,<br>it was long ago, it was you<br>Westerners, it was your<br>injections that drove it away.   |  |

|       |   |  |
|-------|---|--|
|       |   | There it was called “zagawo”<br>[Rinderpest].  |
| MM    | [Zooga.]  | Zooga.   |
| ELDER | Zooga.  | Zooga.   |
| KMG   | Zooga.  | Zooga.   |
| ELDER | Zooga. Zagawo, ba? Đum nagge wađa ga caargo, wađa ga caargo çiçam, wađa ga caargo çiçam, faa nge tampa nge waata. To, a anndi, ndeen no, kanjum woni nyaw na’i. Kanjum woni malaati na’i, non. Madala. To, mi nani ndotiijo vi’i, đum wađi zagawo đum, sa’anan kuma zagawo đum kama duuđi-duuđi wa’arata [naa...]. Na’i mbađi, đi mbađi, đi mbađi. Đi duuđi, to daga zagawo e waare. Daga e natte, đum wađa ga waargo, đum wađa ga waargo đum. Ko đi duuđi, fuuka, gođo mo-risku, semmbiđo, dalane ko, ko tati, ko điđi; gođo dalane wo’oto; gođo dalane viigel; gođo dalane gaggil. Ko đi duuđi, fuuka, zagawo waarda đi fuuka, say đum dalane neđo iri; gođo, bo, sarey maa đi mbaati. Yawa, to, mi nani ndotiijo vi’i đum wađi gođum zagawo, mbiyete đum zagawo ndociya. A anndi ndociyel, ko? To, o vi’i kanjum, bo, zagawo ndociya đum mbiyete. Đon to na’i mbaati, đi mbaati, to, jemma wađi, say ngi’a yiite nyaama đi kamar rocere. Yiite e nyaama đi. O vi’i, đum đon e gite mađe ɓe ngi’i. To, đum tokkana zagawo ndociya. Đon to nagge waati, to hiiri, say ngi’a yiite e nyaama nge. Yiite nyaamdi. Kanjum warti đum vi’i, to, say kamɓe maa e tarihi e mađe, to, ɓe pottiri ɓe mbađa tarihi, ɓe mbađa hiirde mađe, say ɓe mbi’i, “To waane, an, ko zagawo ndociya, duuđi mađa noye?” Neđo, say vi’a, “Ii, ko zagawo ndociya wađi, min e mi woodi duuđi kaza.” O’o maa vi’a, “To, | Zooga. Zagawo, right? It’s when a cow has diarrhea all the time, lots of diarrhea with blood, lots of diarrhea with blood, until she’s so fatigued she dies. Okay, you know, long ago that was the cattle disease. That was the cattle sickness, that. Good. Okay, I heard Father say, this zagawo happened, at that time then that zagawo, like for years and years killed [ <i>unclear</i> ]. The cattle caught it, they caught it, they caught it. They were many, and zagawo was killing [them]. From the time it entered, it kept on killing, it kept on killing them. Even if they were many, all of them; someone wealthy, strong, was left just, just three or two; another was left one; another was left a young heifer; another was left a young bull-calf. Even if they were many, all of them, zagawo killed them all, it just left a person with a bit [seed]; another, well, they all died. That’s right, okay, I heard Father say that zagawo happened, called that ember zagawo. You know a little ember? Well, he said it was called ember zagawo. There where the cattle died, they died, well, when night fell, you would see fire burning like embers. Fire was eating [burning] them. He said, that there with their eyes they saw it. Well, that was following, ember zagawo. There where a cow died, in the evening, you would see fire burning it. Fire burned it up. That’s why it’s said, okay, then they also in their history, well, they got together and they |



min, bo, ko zagawo ndociya waɗi, min maa e mi woodi shekara kaza.” O’o vi’i, “Ko zagawo ndociya, min, sa’anan mi waɗana [mayrijo].” O’o vi’a, “Ko zagawo ndociya, min, mi woodi bi’be kaza.” O’o vi’a, “Min, ko zagawo ndociya, sa’anan [manngowa min mi hingo nih min].” To, nih nan-mi, dumm min nani ndotiijo amin, e be mba’ara tarihi nihi, min maa e mi nana. To, be pototiri naye’en, bo, ma’be, say, be mbi’a, “To waane, ko zagawo ndociya waɗi, to manngu maɗa?” [O’o] vi’i, “Ko zagawo ndociya waɗi, min, min [zaaniya] am kaza.” Goɗo vi’a, “Min, ko zagawo ndociya waɗi, min, sa’anan, mi dali kaya, ko.” Goɗo vi’a, “Min, ko zagawo ndociya waɗi, mi, hitaan nan, mi nanngo wuro.” Goɗo vi’a, “Ko zagawo ndociya, bo, min, mi [hippo nih], mi duubi am kaza.” E’be diftini nga nih. Mi nana.

told history, they’d make their conversation, and they said, “Well, so-and-so, you, at the time of ember zagawo, how old were you?” The person would say, “Yes, when ember zagawo happened, I was so many years.” Another would say, “Okay, me, well, when ember zagawo happened, me too, I was this many years old.” Another would say, “At the time of ember zagawo, me, at that time I hadn’t had [unclear] done for/to me. Another said, “At the time of ember zagawo, me, I had such-and-such children.” Another said, “Me, at the time of ember zagawo, at that time [unclear].” Well, that’s what I heard; always we hear our elders, they would [talk about] history there, and I too, I heard. Okay, they would meet their mothers, okay, then they would say, “Okay, so-and-so, when ember zagawo happened, how big were you?” [Another] said, “When ember zagawo happened, me, I [unclear] such-and-such.” Another said, “Me, when ember zagawo happened, me, at that time, I’d given up [things].” Another said, “Me, when ember zagawo happened, me, in that year, I set up house.” Another said, “At the time of ember zagawo, well, me, I [unclear], I had so many years.” And they told about it in that way. I heard.

|       |   |  |
|-------|---|--|
| KMG   | E baaba maɗa?   | And your father?   |
| ELDER | E ndotiijo am, e be diftina nga nih. Zagawo ndociya. E to, daga maga, kadin ... | And my father, they would talk about it that way. Ember zagawo. Well, after that, then |
| KMG   | E ndeen, baaba maɗa e mo rimaama den?   | And then, your father, was he born then?   |
| ELDER | Moye?   | Who?   |
| KMG   | Ibrahim.  | Ibrahim.   |

A'a, kambe, be ngi'i nga. Kambe, be ngi'i nga, kambe. Ii, kambe, zagawo ndociya, be ngi'i nga, kambe. Ammaan, kadin, naa no be potti. Be bilkihon pamarhon, ko zagawo ndociya waɗi. Ii, kambe, be diftini mi, kambe diftinta min. Zagawo ndociya, ko nga waɗi, sa'anan dum-dum [qaqalaba] ngo'ongo ngo dum mbiyeta Dogowa, sa'anan ngo waɗaayi; dum waɗi zagawo ndociya. To kambe, boo, nan-mi, kotamci, e be mbi'a o'o maama VCJ-en, o mawni, tokkeɗo baaba VCC1-1-en, Gaatoru o viyete. E to, kanko, e hunndoko mako, maa, o vi'i min, e [kan marayanci] be mbaɗi. Cikenan. O vi'i, o te'ina leɗe, o soora. O [wala], o wula ɗulbe. Sa'anan, to be mbaɗa kasawanci dum Kano. Kano be njehta. Daga, be ngare, ben te'ina leɗe. Ammaan leɗe [gomode] kamar de de [dili din] ngi'a [ɗum feɗata rewbe feɗa leɗe], ngula, itta ɗulbe? To, daga be te'a leɗe, cikenan, be, kadin, [koreje] be feɗata, daga be ngule dum, cikenan; be mbaɗa ɗulbe. [De] be mbaɗa ɗulbe, be kebene buhuji. ɗulbe, daga be ndonoto, e ko'e mabe; be njahara Kano, be coora. Ko, kuma be caro hottollo. Be mbaɗa e inndiya. Ammaan, a anndi inndiya? Inndiya hottollo. Daga be ngare, kuma, be caro hottollo, kuma daga be ndondoto [kore]; daga be njarahe Kano.

No, them, they saw it. Them, they saw it, them. Yes, them, ember zagawo, they saw it, them. But, then not that they were very old. They were small children when ember zagawo happened. Yes, them, they talked about it to me, they told me. Ember zagawo, when it happened, at that time that [unclear] that one that is called Dogowa, at that time it hadn't happened; when ember zagawo happened. Okay, them, well, I heard, a rough reckoning, they would say that one, the grandparent of VCJ and them, he had grown, the one who followed the father of VCC1-1 and them. He was called Gaatoru. And so, he, with his mouth, he told me, during the orphaning that they endured. That's it. He said, he would search for dead wood [branches] to sell. He [unclear], he burnt charcoal. At that time they would market at Kano. To Kano they would go. From the time they arrived, then they would look for dead wood. But [small] branches, like those that [unclear, tiny ones?] you see [those that the women cut, cut branches], burn, take out the charcoal? Okay, when they searched for dead wood, then, they, then [unclear] they cut, then they would burn it, like that; they made charcoal. [When] they made the charcoal, they filled bags [large leather bags for transporting grain]. Charcoal, then they placed it on their heads, on their heads; they took [it] to Kano, they sold [it]. Or, they also bought cotton in bulk. They would put it in *inndiya*. But, you know *inndiya*? *Inndiya* for cotton. When they

|       |   |   |  |
|-------|---|---|--|
|       |   | arrived, then they bought cotton in bulk, then they placed it on their heads [ <i>unclear</i> ]. Then they just took [it] to Kano.  |  |
| KMG   | Ɖumey woni inndiya?   | What is <i>inndiya</i> ?  |  |
| ELDER | Ah, ɗum goɗum to ɗum, to ɗum, loovata hottollo. Hottollo, kuma. [Ko anndu-ɗ-a ko ɗum waarata hottollo?]   | Ah, it's something, where one, where one, stores cotton. And hottollo. You do know what's meant by <i>hottollo</i> ?  |  |
| KMG   | Ah, mi anndi hottollo.  | Yes, I know <i>hottollo</i> [cotton].   |  |
| ELDER | To, kanko, ɓe soodata ɗon to, to garkaaji. Daga ɓe kooce, ɓe yahara Kano, ɓe coora. Kuma, ɓe ngula ɗulɓe. Kuma ɓe njahare, ɓe coora. Cikenan, kuma, gonɗo njacuwa, kuma, o laɓto dow njacuwa, o lagga. Yahara. E hottollo fuu e ɗulɓe, nih woni bakin nih bakin [kan] to ɓe koɗata nder ladde, iyaka majjum, kanjum ɓe coorata. | Well, that, they bought there in, in the gardens. When they got some, they took it to Kano, they sold it. And they burnt charcoal. And they took [it to market], they sold [it]. That's it, and one with a donkey, then, he would load it on the donkey, and drive [the donkey]. Take [it to market]. Both cotton and charcoal, there they were there near [ <i>unclear</i> ] where they collected in the bush, on the edge of it, that's what they sold. |  |
| KMG   | Hottollo, nder ladde woni? Naa, e garka?  | Cotton was in the bush? Not in the garden?  |  |
| ELDER | A'a, ɗo, ɗo, ɗo e peɗi, e peɗi, garkaaji ɗo. Ɖo to garkaaji. Goɗo, boo, i woodi garkaaru [wuru], i woodi non ndu hottollo. Kay, [maigam] maa, ɓe fuu, ɓe [ndulaayi], kowa i woodi garka [e luungil] hottollo, kanko to [sufiko, sufiko], waɗi inndiya, hebbini inndiya, daga e rondoto e hoore, yahara.                         | No, here, here, here in the gardens, in the gardens, gardens here. Here in the gardens. Someone, well, had garden [ <i>unclear</i> ], there was that of cotton. Hey, [ <i>unclear</i> ] too, all of them they [ <i>unclear</i> ], everyone had a cotton garden [in a corner/hidden away, perhaps on the edge of the bush], he [picked, picked], put it in the inndiya, then placed it on his head and took [it].  |  |
|       | Naa kowa woodi njacuwa lokacin nan; naa maa, kay, ɓe ngalaa ɗi. Ran nan, njacuwa, gam maa, huwata. Sa'anana, say nih gonɗo diskuɗi, gonɗo kokari, ay, sa'anana, patawci ga'i wa'arate.  | Not everyone had a donkey in those days; not at all, hey, there weren't any. In those days, a donkey just didn't do work. At that time, just there, some rich person, someone with resourcefulness, ay, at that time, itinerant trade with oxen was going on.   | <i>patawci</i> :<br>from Hausa<br>fatauci, trade |
|       | Nan mi, ɓe mbi'a. Ga'i ɗum  | I heard, they said. Oxen carried  |  |

wa'arata patawci lokacin nan, say fora dan ngaari, kayri bilanta komi; mbaɗata. Kayri mba'arata patawci. To gonɗo hanya ngaari, kay, ko ummanti fuu, daga o laɓtoto. Ammaan, Kano woni luumo maɓe to ɓe njaharata, ɓe cooroye. Eh, cikenan. To, o vi'i, mo soora ɗulɓe, o soora hottollo. O vi'i, o waɗani hoore mon, kanjum o moɓti ceede, o waɗani hoore mako yeerijo.

Kanko, o'o Gaatoru, maama VCJ-en; dimmɗo baaba VCJ2-1. Kanko e ... A anndi, ɗo o soyti. ɗo, yenaande mako e ɗon, ɗon naa on ngi'aayi genaale ɗon, wela wuro Mbaaluuri, hakkunde wuro [arɗo] e VCJ2-1? Genaale e ɗon, to, to jo'oni [hakon] ton bappa min, ɗon o woni. Ay, [arɗo] jogi mo.

the trade goods in those times; you would train a young bull, and that's what you'd load everything on; do that. That's what carried the trade goods. So, someone with a means to get a bull, hey, whenever he wanted to go, he would load up. But, Kano was their market where they took [things], they sold [them]. Yes, that's it. Okay, he said he sold charcoal, he sold cotton. He said he put it on his head, with that he got money, he married himself his wife [he himself earned the money to marry his wife].

He, that one, Gaatoru, the grandfather of VCJ and them; the birthparent of VCJ2-1's father. He and ... You know, he died here. Here, his grave is there, there you didn't see graves there, north of the arɗo's house, between the arɗo and VCJ2-1? Grave are there, so, so now [unclear] there our uncle, there he is. Yes, the arɗo took care of him.

|       |  |   |   |
|-------|--|---|---|
| KMG   | Woyo! O'o Bammi? Naa Gaatoru?  | Is that right! He, Bammi? Or Gaatoru?   |   |
| ELDER | Ah, Gaatoru, nih. Bammi, ɗum ɓii ko. Bammi kam rimi VCJ2-1. E Gaatoru e baaba mako. To Gaatoru, on, aay, to kanko ɗiftinata min, to, o vi'i Dogowa ... kul dolo Dogowa waɗi, e mo woodi duuɓi tati e waɗgo wuro. Duuɓi tati o woodi e waɗgo wuro. To. An, boo, ndotiijo amin, Ibrahim, [ambaɗi] kul Dogowa waɗi, kamar kotamci mako, raa: kamar nga bilki'en ngara, [nga'anga nga] naane ɗo. Nga [lookindo dileeji]. | Ah Gaatoru, there. Bammi was his son. Bammi himself birthed VCJ2-1. And Gaatoru was his father. Okay, Gaatoru, that one, aay, okay, he told us, okay, he said Dogowa ... when the Dogowa hunger happened, he had his household for three years. Three years he had set up his household. Okay. He, well, our father, Ibrahim, [mentioned] that when Dogowa happened, like with his rough calculation, look: like that boy there that came [that one there] just a bit ago. He was [unclear cows]. Okay, him, he said, the estimate he gave us, okay, when Dogowa came around, he was about that | <i>ambaɗi:</i><br>Hausa,<br><i>ambaci</i> , to mention? |
|       | To, kanko, o vi'i, kotamci ɗum o waɗana min, to, ko Dogowa wa'ari o potti non. Ton da, ko  |   |   |

|       |  |  |   |
|-------|--|--|---|
|       | <p>Dogowa ..., o vi'i çavol Dogowa, o feni nattugo soro. Iri ngo soro, ngo, ngo Ndovi'en nattata, Manzo. Kamar kon, kon, kon, kon [kaddaama] nih kon natta soro. To, o vi'i, e Dogowa, o feni nattugo soro. Kanko, baaba amin. To, ammaan, ɓe'e, mawneraaɓe mako, i baaba VCC1-1-en, i o'o, i o'on Gaatoru, ɓen fuuka e ngure maɓe.</p> <p>O'o Duuna, maama VCD2-3, on, to, kanko woni – mi heɓaayi tarihi mon, kay! Ko Dogowa wa'ani, o waɗaayi wuro. Ay, da, o'o mawniko, Gaatoru da vi'i ka. Gaatoru [no kama vi'i kammu] ko cekara uku nih Dogowa wa'adi, yeerijo cekara uku den Dogowa waɗi. To, ammaan mi nanaayi kama o inni ra o'o nih kam no wa'ari wuro.</p> | <p>age. There, when Dogowa ..., he said the harvest season of Dogowa, he started to enter the soro. That kind of soro, that which the other Fulɓe [Uda'en] enter, Manzo. Like that, that, that, that, [unclear] there that entered soro. Well, he said, in Dogowa, he started entering the soro. He, our father. Okay, but, they, his older brothers, the father of VCC1-1 and them, and that on, and that Gaatoru, they both had their own households. That one, Duuna, the grandfather of VCD2-3 there, well, he was – I didn't get his history, hey! When Dogowa happened, he hadn't set up a household. Yes, or, that one, his older brother, Gaatoru would have said so. Gaatoru [said something like] three years before when Dogowa happened [he had] his wife for three year, then Dogowa happened. Okay, but I didn't hear that he named, see that one there [Duuna] how [he] set up his household.</p> |   |
| KMG   | Ammaan, ndeen eɓe ton Saafe, ko?   | But, then they were there at Saafe, right?   |   |
| ELDER | Den, ɓe Saafe. Ah, den, ɓe Saafe, sa'anani. ɓe fuu Saafe ɓe mbaɗi. Ben ɗon fuu Saafe mbaɗi ngure. E ɓe eta taw. Ammaan, o'o mo amin tan waɗi wuro ɗo Kollangi. Ii, o'o amin ... Ibrahim, Ibrahim. Kam, ɗo o waɗi wuro, ɗo Jibiya, ɗon Kollangi, ɗon. ɗon kanko o waɗi wuro, ɗon kanko o hoovi yeerijo [mon]. Ii, ɗon [mi nani... fades].   | Then they [were at] Saafe. Ah, then, they were at Saafe at that time. They were all living at Saafe. Those there all at Saafe set up their households. And they still measured. But, that one of ours alone set up house at Kollangi. Yes, that one of ours ... Ibrahim, Ibrahim. Right, there he set up house, there Jibiya, there Kollangi, there. There he set up house, there him, he married [his] wife. Yes, there [I heard ... fades].  | <i>E ɓe eta taw:</i><br>And they still measured:<br>not sure;<br>perhaps buying grain rather than harvesting?<br>( <i>eta</i> is used to mean buying grain) |
| KMG   | Eh, duuɓi noye ɓe mbaɗi e Kollangil..., gada ɓe peɗi ton-to Jibiya woni? Duuɓi noy ɗum waɗi kadima den Ibrahim no wari ɗo Doqoro ?   | Eh, how many years did they live at Kollangil..., since they clear [fields] there where Jibiya is? How many years was it then, then Ibrahim came here to   |   |

|       |   | Dakoro?   |  |
|-------|---|---|--|
| ELDER | To kadin min ... duuɓi ɗi ɗi ɓe mbaɗi ton kanjum woni mi heɓɗata ɗiftinigo kadi, ɓe mbaɗanaayi am tarihi majji ... Ɗo'o, nih, Doqoro, nan mi, emo vi'a ɗon kamar cekara maɓe talatin ɓe mbaɗi. Den o warti ɗo.  | Well then, we ... those years that they lived there, that's what I can't remember the telling then, they didn't give me their history ... Here, there, Dakoro, I heard, he was saying there like thirty years they spent. Then he came here.  |  |
| KMG   | Ammaan, kul Ibrahim kamar, mbi-ɗ-a ngil afo mako, e baaba VCD2-4, kamɓe tan o woodi o wari ɗo Doqoro ? Kadima, o ... ɓe neeɓaayi ton Jibiya ko o wari ɗo Doqoro , ko?   | But, if Ibrahim like, you said the little one his first born, and VCD2-4's father, them alone he had when he came here to Dakoro? Then, he ... they didn't stay long there at Jibiya before he came here to Dakoro, right?  |  |
| ELDER | Ah, ɓe neeɓaayi; ɓe neeɓraayi non ɗum sosay kadi, ammaan! mi annda duuɓi maɓe ɗon. Ay, a anndi ɗon ɗum, ko ɓe ngari Jibiya, ɓe neeɓraayi nih non ɗum. [Kin gani] ton Jibiya, ton ko ɓe ngari, ɓe fuu ɓe sukaaɓe. Kanko nih, ɗon o kayi ɗon Jibiya. Kanko ɗon o kayi.<br><br>Ɗon o kayi soro mako fuuka; ɗon o sori; ɗon o femmbi. Ɗon ɗon, Jibiya; ɗon, bo, o waɗi wuro. Nih Jibiya. Ammaan, [mi mbi'el], nih Doqoro, ton o waɗi gemu, [Doqoro kanko. Kanko ... ton]. Ton, o [yahare] garsojo. [O yehe to Doqoro.] Ii. Yawa. Garsojo, o [yehe Doqoro]. Ammaan, hoore ɓe fuu kam, kay, ndotiyen, mbaɗi gemuje, ɓen ɗon fuu mawneraaɓe mako, ɓen fuu e gemuje maɓe [...too soft ... ...]. Ee kanko tan [... ... fades ...]. | Ah, they didn't stay long, they didn't stay very long like that, but! I don't know their years there [how many years they spent]. Ay, you know there then, when they came to Jibiya, they didn't stay long there like that. [You see] there at Jibiya, there before they came, they were all young men. He there, there he grew into a young man, there at Jibiya. There he grew into a young man.<br><br>There he grew into his soro completely; there he participated in soro; there he shaved. There at Jibiya; there, well, he set up a household. There at Jibiya. But, [I was told?], there Dakoro, there he grew a beard, [Dakoro he. He unclear there]. There he [reached/became] an experienced scout. [He went there to Dakoro.] Yes. That's right. Experienced scout, he [went/became at Dakoro]. But as for all the rest of them, hey, elder, grew beards, all those others of his older brothers, they all had their beards [...too soft ... ...]. And just him [... ... fades ...]. | <i>Kin gani</i> –<br>You see:<br>Hausa<br><br><i>there he shaved:</i><br>Earlier he explained that the men used to wear their hair in braids like the Woɗaaɓe.<br><i>gemu, gemuje:</i> from Hausa, beard<br>Very quiet and sentence endings fade |

## APPENDIX H: HOUSEHOLD BUDGETS

The following charts present sketches of eight household budgets for 2005 through October 2007. Years extend from nduungu to nduungu, following Nigerien convention.

By no means are these budgets complete. In some cases we did not ask enough questions, either of particular individuals, or of all individuals for certain expenses or incomes. I do not show expenses for 2004-05, such as well fees and fines that households incurred when they trekked into the cultivated zone. Once they returned home only a few households (none of the eight) incurred fines, and no one paid for water. Neither did anyone fine others for field damage. We did not ask livestock traders to detail their business sales and purchases, for instance. We also did not question people about travel expenses, such as market van fares and expenses for transporting grain. Most people also could not remember the all of the sales and purchases they made over a year, of course, and even if they could remember what was sold and purchased, they could not remember the amounts of money. I have approximated amounts of money where these were left out.

Therefore, “totals” should not be taken as exact, but only general amounts of money. One can compare the much larger amounts of money spent and received by larger, livestock-wealthy households as compared to smaller (especially the older) livestock-poor households. I have only disaggregated some economic activities by gender (e.g., dairy products). In comments I noted where wives or husbands made certain sales or purchases.

### *Abbreviations*

|                       |   |
|-----------------------|---|
| <b>fCFA</b>           | franc CFA: the money of Niger, tied to the Euro. During the research it was about 475f to the dollar and then sank to under 400f. For simple exchange, we use 500f to one dollar; thus 5f equals one penny. Please note that 500f and 5f are worth more to rural Nigeriens than \$1 and one penny are to Americans. |
| <b>MfCFA<br/>or M</b> | mille francs CFA: one thousand francs CFA; to save space (and arrays of zeroes) in the charts, I have listed all money amounts in thousand-franc increments.  |
| <b>t</b>              | tiyawol or tiyaaji  |
| <b>bush</b>           | bushel  |
| <b>mkt/mo</b>         | market per month  |
| <b>Calabsh</b>        | calabashes  |
| <b>Sorg</b>           | sorghum   |



**VCA1-1**  
sedentary  
cultivator

**Elderly couple with one granddaughter living with them. Youngest son cultivates field (see Table 1.2) and provides his parents with grain. Daughter (living nearby) also brings some food for meals, as does wife of half brother (also nearby).**

Youngest son (mobile household) herds their 2 cows. They keep smallstock and chickens with their own household.

Youngest son sells husband's livestock for him and he could not tell me how many were sold to buy grain, thus receipts and expenses (below) are skewed. Note, this is the reverse of father selling son's livestock for the good of the household.

Wife sold and bought livestock recorded for 2005-06. The chickens died from eating mouse poison in 2006-07.

Wife sold 2 bucks in 2006-07.

|              | 2005-06 |           |          |           |      |      | 2006-07 |           |        |          |      |      |
|--------------|---------|-----------|----------|-----------|------|------|---------|-----------|--------|----------|------|------|
|              | sold    | MfCFA     | bought   | MfCFA     | died | lost | sold    | MfCFA     | bought | MfCFA    | died | lost |
| Goats        | 1       | 4         |          |           |      |      | 6       | 47        |        |          |      |      |
| Sheep        |         |           |          |           |      |      |         |           |        |          |      |      |
| Cows         |         |           |          |           |      |      |         |           |        |          |      |      |
| Bulls        |         |           |          |           |      |      |         |           |        |          |      |      |
| Donkeys      | 1 male  | 25        | 1 female | 20        |      |      |         |           |        |          |      |      |
| Camels       |         |           |          |           |      |      |         |           |        |          |      |      |
| Chickens     | 1       | 1         |          |           |      |      |         |           |        |          | 2    |      |
| <b>Total</b> |         | <b>30</b> |          | <b>20</b> |      |      |         | <b>47</b> |        | <b>0</b> |      |      |

|              | 2005-06          |            | 2006-07          |           |
|--------------|------------------|------------|------------------|-----------|
|              | VCA1-2           |            | VCA1-2           |           |
|              | sold             | MfCFA      | sold             | MfCFA     |
| Kosam        | 3 mkts           | 1.5        | Çavol            | 10        |
| Butter       |                  |            | and              |           |
| Cheese       |                  |            | dabbund          |           |
| <b>Total</b> |                  | <b>1.5</b> | e                | <b>10</b> |
| Milk cows    | 1 cow, 2-3 goats |            | 1 cow, 2-3 goats |           |

Youngest son purchases grain for them and fodder for their livestock. Grain purchases not included in household expenses (though livestock sales went to grain purchases). Son sold a camel to buy the grain in 2006-07.

|              | 2005-006 |        |        |          |        |           | 2006-07         |        |        |            |      |       |
|--------------|----------|--------|--------|----------|--------|-----------|-----------------|--------|--------|------------|------|-------|
|              | Harvest  | lasted | Purch. | MfCFA    | Sold   | MfCFA     | Harvest         | lasted | Purch. | MfCFA      | Sold | MfCFA |
| Millet       | 60 bush  |        |        |          |        |           | 9 bush          | 3      | 345 t  | 125        |      |       |
| Sorg         | 20 bush  |        |        |          | 3 bags | 36        | 5 bush          | months | 95 t   | 30         |      |       |
| Gayamna      | yes      |        |        |          |        |           | yes, no harvest |        |        |            |      |       |
| <b>Total</b> |          |        |        | <b>0</b> |        | <b>36</b> |                 |        |        | <b>155</b> |      |       |

Wife sold about 3M worth of bran and one hide for 200 francs.  
Husband does not purchase items. Clothing is given to him. Wife purchased everything recorded.  
Son probably purchases livestock salt, grain and tools.

The couple receives cash, clothing and rice from nephews who work in government and NGOs. They are the only people in the research communities with such resources.

|                | 2005-06  | 2006-07     |
|----------------|----------|-------------|
| Rice, beans    |          |             |
| Oil            |          |             |
| Sauce          | 2        | 2           |
| Tea & Sugar    | 0.25     | 0.25        |
| Grain Seed     |          |             |
| Livestock salt |          |             |
| HH tools       |          |             |
| HH utensils,   | 0.75     |             |
| Clothing, etc. |          | 2.4         |
| Medicines,     |          |             |
| <b>Total</b>   | <b>3</b> | <b>4.65</b> |

|                                     |  |
|-------------------------------------|--|
| (2006-07) How did HH feed members   | Son sold goat for 7M                           |
| (2006-07) How did HH feed livestock | Son sold three bucks for 34 tiyaaaji of grain. |

|                       | 2005-06 | 2006-07 |
|-----------------------|---------|---------|
| Celebrations spent    |         |         |
| Livestock slaughtered |         |         |
| Celebrations received |         |         |
| Other cash received   | 20      |         |

|              | Fodder 2006-07         |             |
|--------------|------------------------|-------------|
|              | Amount                 | MfCFA       |
| stalks       | none                   |             |
| hay          | none                   |             |
| chaff        | none                   |             |
| bran         | some tiyaaaji          | 0.6         |
| granary      | none                   |             |
| grain        | 34 tiyaaaji (with son) | 14.5        |
| <b>Total</b> |                        | <b>15.1</b> |

|          | 2005-06 | 2006-07 | Total |
|----------|---------|---------|-------|
| Expenses | 23      | 4.65    | 27.65 |
| Receipts | 51.5    | 57      | 108.5 |

**VCD2-1**  
sedentary  
cultivator

Middle aged couple with 2 young sons at home, an eldest son at Koranic school and his younger brother fostered to the wife's brother. The eldest son lives with them during nduungu to help with cultivation and the husband's mother came for a lengthy visit in 2007, though she did not always live with them.

The husband cultivated two fields in 2006 and added a third of sorghum in the southern maysoore in 2007.

The wife sold more than 20 tiyaaji of grain and 3M fCFA worth of beans (about 9 tiyaaji) in 2005. The husband sold 10 bags for 60M and 2 bags of beans. She "always" sells bran at market for between 25 and 50f each tiya. In the dry season she buys milk, but kin also give her dairy products.

|              | 2005-06 |          |        |          |      |      | 2006-07 |              |        |          |       |      |
|--------------|---------|----------|--------|----------|------|------|---------|--------------|--------|----------|-------|------|
|              | sold    | MfCFA    | bought | MfCFA    | died | lost | sold    | MfCFA        | bought | MfCFA    | died  | lost |
| Goats        | 2       | 8        |        |          |      |      | 3       | 21           |        |          |       |      |
| Sheep        |         |          |        |          |      |      |         |              |        |          |       |      |
| Cows         |         |          |        |          |      |      |         |              |        |          |       |      |
| Bulls        |         |          |        |          |      |      |         |              |        |          |       |      |
| Donkeys      |         |          |        |          |      |      |         |              |        |          |       |      |
| Camels       |         |          |        |          |      |      |         |              |        |          |       |      |
| Chickens     |         |          |        |          |      |      | 4       | 4.52         |        |          | ate 2 |      |
| <b>Total</b> |         | <b>8</b> |        | <b>0</b> |      |      |         | <b>25.52</b> |        | <b>0</b> |       |      |

|              | 2005-06 |           |        |          |         |           | 2006-07       |         |        |           |      |       |
|--------------|---------|-----------|--------|----------|---------|-----------|---------------|---------|--------|-----------|------|-------|
|              | Harvest | lasted    | Purch. | MfCFA    | Sold    | MfCFA     | Harvest       | lasted  | Purch. | MfCFA     | Sold | MfCFA |
| Millet       | 60 bush | into next |        |          | 11 bags | 63        | 20 bush       | 2-3 mo. | 4 bags | 35        |      |       |
| Sorghum      | 20 bush |           |        |          |         |           |               |         |        |           |      |       |
| Beans        |         |           |        |          | 2 bags  | 28        |               |         |        |           |      |       |
| Gayamna      | beans   |           |        |          | ~9      | 3         | Did not plant |         |        |           |      |       |
| <b>Total</b> |         |           |        | <b>0</b> |         | <b>94</b> |               |         |        | <b>35</b> |      |       |

|              | 2005-06 |           | 2006-07 |            |
|--------------|---------|-----------|---------|------------|
|              | VCD2-2  |           | VCD2-2  |            |
|              | sold    | MfCFA     | sold    | MfCFA      |
| Kosam        |         | 5         | None    | 0          |
| Butter       |         |           |         |            |
| Cheese       |         |           |         |            |
| Bran         |         | 9         |         | 9.5        |
| <b>Total</b> |         | <b>14</b> |         | <b>9.5</b> |
| Milk cows    |         |           | 5 goats |            |

|                       | 2005-06 | 2006-07 |
|-----------------------|---------|---------|
| Celebrations spent    | 0       | 0       |
| Livestock slaughtered | 0       | 0       |
| Celebrations received | 0       | 0       |
| Other cash received   | 0       | 0       |

|                                     |  |
|-------------------------------------|--|
| (2006-07) How did HH feed members   | Sold 2 bucks and 1 goat; still had grain from 2005; kin gave them grain. |
| (2006-07) How did HH feed livestock | Own bran, stalks and chaff   |

|              | 2005-06     | 2006-07  |
|--------------|-------------|----------|
| Rice, beans  |             |          |
| Oil          |             |          |
| Sauce        | 3           |          |
| Tea & Sugar  | 10          |          |
| Grain Seed   | NR          | NR       |
| Livestock    | NR          | NR       |
| HH tools     | NR          | NR       |
| HH utensils, |             |          |
| Clothing,    | 33          | 5        |
| Medicines,   | 2.2         |          |
| <b>Total</b> | <b>48.2</b> | <b>5</b> |

The husband bought most of the items listed in 2005-06 with proceeds from grain and bean sale. He bought mouse poison in 2006 and contributed to locust spraying expenses in 2007, neither recorded here. Sometimes the wife buys sauce and condiments. The wife paid the clinic costs. She must contribute her earnings to household income as she reported buying very little for herself.

| Fodder 2006-07 |              |          |
|----------------|--------------|----------|
|                | Amount       | MfCFA    |
| stalks         | gathered own |          |
| hay            | none         |          |
| chaff          | gathered own |          |
| bran           | gathered own |          |
| granary        | none         |          |
| grain          | none         |          |
| <b>Total</b>   |              | <b>0</b> |

|          | 2005-06 | 2006-07 | Total         |
|----------|---------|---------|---------------|
| Expenses | 48.2    | 40      | <b>88.2</b>   |
| Receipts | 116     | 35.02   | <b>151.02</b> |

**VCN1-1**  
**sedentary cultivator**  
**Husband with one wife and daughter and two sons in household; youngest married son and daughter-in-law live nearby.**

Relatively livestock wealthy; two mobile sons (see BCN2-3) herd most livestock. Husband has not yet divided field or livestock with sons. Large field in southern portion of Mai-Kalafo. Husband grows calabashes with brother.

Husband claimed 3 cows died; wife said 8 to 9 in 2005-06. She may have been counting 2004 through koorsool 2006. Cows and goats died from hunger in koorsool 2007.

Cow sold may have belonged to a son.

Wife sold goats in 2007 to buy holiday clothes and food.

|              | 2005-06 |               |        |           |      |      | 2006-07 |          |        |       |          |      |
|--------------|---------|---------------|--------|-----------|------|------|---------|----------|--------|-------|----------|------|
|              | sold    | MfCFA         | bought | MfCFA     | died | lost | sold    | MfCFA    | bought | MfCFA | died     | lost |
| Goats        | 4       | 25.5          |        |           |      | 5    | 2       | 9        |        |       | 5        |      |
| Sheep        | 3       | 34.25         |        |           |      |      |         |          |        |       |          |      |
| Cows         | 1       | 120           | 1      | 80        | 3-9  |      |         |          |        |       | 3        |      |
| Bulls        |         |               |        |           |      |      |         |          |        |       |          |      |
| Donkeys      |         |               |        |           |      |      |         |          |        |       |          |      |
| Camels       |         |               |        |           |      |      |         |          |        |       |          |      |
| <b>Total</b> |         | <b>179.75</b> |        | <b>80</b> |      |      |         | <b>9</b> |        |       | <b>0</b> |      |

|              | 2005-06       |        |        |          |      |             | 2006-07       |         |        |          |      |           |
|--------------|---------------|--------|--------|----------|------|-------------|---------------|---------|--------|----------|------|-----------|
|              | Harvest       | lasted | Purch. | MfCFA    | Sold | MfCFA       | Harvest       | lasted  | Purch. | MfCFA    | Sold | MfCFA     |
| Millet       | 200           | into   |        |          | 25 t | 7.5         | 100           | through |        |          |      |           |
| Sorghum      | 20            | next   |        |          |      |             | 7             | nduung  |        |          |      |           |
| Gayamna      | Did not plant |        |        |          |      |             | Did not plant |         |        |          |      |           |
| Calabsh      | 160 bowls     |        |        |          |      |             | 28            |         |        |          |      | 50        |
| <b>Total</b> |               |        |        | <b>0</b> |      | <b>35.5</b> |               |         |        | <b>0</b> |      | <b>50</b> |

|              | 2005-06     |          | 2006-07      |       |
|--------------|-------------|----------|--------------|-------|
|              | sold        | MfCFA    | sold         | MfCFA |
| Kosam        | 1mkt/m      | 3        | Ramadan 2007 | 6     |
| Butter       | nduung      | 1        |              |       |
| Cheese       | u           | 1        |              |       |
| <b>Total</b> |             | <b>5</b> |              |       |
| Milk cows    | 1 or 2 cows |          | 2 cows       |       |

|                            | 2005-06 | 2006-07 |
|----------------------------|---------|---------|
| Celebrations spent         |         | 15      |
| Celebrations spent (sheep) |         |         |
| Celebrations received      | 0.5     | 16      |
| Other cash received        |         |         |

In koorsool 2006, one milk cow stayed at home and one with her mobile son nearby. Later in 2006, the cows did not give birth so she had little milk. In 2007, she had little more than was necessary for her hearthhold.

Harvested grain lasted through nduungu 2007 with a promising harvest for 2007.

Wife sold 25 tiyaaji of grain in 2005, given to her as sadaka.

Wife has not planted for five years because her body is sore, but in 2007 she hosted a harvesting party for sorrel.

|              | 2005-06      | 2006-07     |
|--------------|--------------|-------------|
| Rice,        |              |             |
| Oil          | 2.4          |             |
| Sauce        | 4            | 4           |
| Tea &        | 5            | 5           |
| Grain Seed   | from granary |             |
| Livestock    | 5.5          | 5.5         |
| HH tools     |              | 4           |
| HH           | 0.9          |             |
| Clothing,    | 16.4         | 10          |
| Medicines,   | 10           |             |
| <b>Total</b> | <b>44.2</b>  | <b>28.5</b> |

Husband's expenses were undercounted, but wife contributed income and purchased many items.

The wuro celebrated a grandchild's naming ceremony in 2006 (sheep belonged to father), and their daughter's marriage in 2007 (groom's family slaughtered bull).

|                           |                 |
|---------------------------|-----------------|
| (2006-07) How did HH feed | Harvested grain |
| (2006-07) How did HH feed | Own stores      |

| Fodder 2006-07 |                          |           |
|----------------|--------------------------|-----------|
|                | Amount                   | MfCFA     |
| stalks         | from field               |           |
| hay            | none                     |           |
| chaff          | from field               |           |
| bran           | 10 bags                  | 10        |
| granary        | none                     |           |
| grain          | from granary, 30 bushels |           |
| <b>Total</b>   |                          | <b>10</b> |

|          | 2005-06 | 2006-07 | Total         |
|----------|---------|---------|---------------|
| Expenses | 124.2   | 53.5    | <b>177.7</b>  |
| Receipts | 220.75  | 75      | <b>295.75</b> |

**BCN2-3**  
mobile  
cultivator

**Husband, one wife, 2 children. He is the second son in VCN1-1 wuro, and herds for his father.**

Husband still cultivates with father and 2 married brothers. They have not yet divided fields or livestock. The harvested grain recorded here is for all four households. The field, in southern portion of Mai-Kalafo complex, is as big or bigger than that of BCA1-1 and 2-3. Husband may have earned some grain he sold through fieldwork.

In ceeḍu 2006, wife brought her sheep from father's house in Seloum. She sold her ram to buy clothing.

In koorsol 2007, cows and sheep died of hunger and illness caused by hunger.

In 2005-06, husband sold 2 bags of grain recorded here for his household. Wife sold 10 tiyaaji of grain, earned by threshing, for 3M, and 7 tiyaaji of beans for 2.5M

|              | 2005-06 |           |        |          |      |      | 2006-07 |           |        |          |        |      |
|--------------|---------|-----------|--------|----------|------|------|---------|-----------|--------|----------|--------|------|
|              | sold    | MfCFA     | bought | MfCFA    | died | lost | sold    | MfCFA     | bought | MfCFA    | died   | lost |
| Goats        | 3       | 37        |        |          |      |      |         |           |        |          |        | 1    |
| Sheep        |         |           |        |          |      |      | 1       | 20        |        |          | 11, 4y | 1    |
| Cows         |         |           |        |          |      |      |         |           |        |          | 6      |      |
| Bulls        |         |           |        |          |      |      |         |           |        |          |        |      |
| Donkeys      |         |           |        |          |      |      |         |           |        |          |        | 1    |
| Camels       |         |           |        |          |      |      |         |           |        |          |        |      |
| <b>Total</b> |         | <b>37</b> |        | <b>0</b> |      |      |         | <b>20</b> |        | <b>0</b> |        |      |

|              | 2005-06       |        |        |          |      |           | 2006-07       |         |         |      |          |
|--------------|---------------|--------|--------|----------|------|-----------|---------------|---------|---------|------|----------|
|              | Harvest       | lasted | Purch. | MfCFA    | Sold | MfCFA     | Harvest       | lasted  | Purch.  | tias | MfCFA    |
| Grain        | 300           | into   |        | 0        | 2.5  | 27        | ~150          | through | nduungu |      |          |
| Sorg         | bushels       | next   |        | 0        | 7t   | 2.5       | bushels       | 2007    |         |      | 0        |
| Gayamna      | Did not plant |        |        |          |      |           | Did not plant |         |         |      |          |
| <b>Total</b> |               |        |        | <b>0</b> |      | <b>27</b> |               |         |         |      | <b>0</b> |

|              | 2005-06 |           | 2006-07           |             |
|--------------|---------|-----------|-------------------|-------------|
|              | BCN2-4  | BCN2-4    | BCN2-4            | BCN2-4      |
|              | sold    | MfCFA     | sold              | MfCFA       |
| Kosam        |         |           |                   |             |
| Butter       |         | 5M        | 1 market day only | 1.5M        |
| Cheese       |         |           |                   |             |
| <b>Total</b> |         | <b>5M</b> |                   | <b>1.5M</b> |
| Milk cows    |         |           | 2 cows            |             |

During interview in ceeḍu 2006, granary held 46 bushels; by November 2007, the grain from 2006 had run out. Harvest for 2007 was not yet finished, but very promising.

|                       | 2005-06 | 2006-07 |
|-----------------------|---------|---------|
| Celebrations spent    | 0       | 0       |
| Livestock slaughtered | 0       | 0       |
| Celebrations received | 0       | 0       |
| Other cash received   | 0       | 0       |

Husband's expenses for 2005-06 were under counted, thus the very low amounts for total expenses. However, his father probably still buys grain seed, livestock salt and tools. His wife bought mats and half of the clothing reported.

|                | 2005-06            | 2006-07   |
|----------------|--------------------|-----------|
| Rice, beans    |                    |           |
| Oil            | 0.4                |           |
| Sauce          | 15.5M              |           |
| Tea & Sugar    | NR                 | NR        |
| Grain Seed     | taken from granary |           |
| Livestock salt | NR                 | NR        |
| HH tools       | NR                 | NR        |
| HH utensils,   | 4.3                | 4         |
| Clothing, etc. | 15                 | 26        |
| Medicines,     |                    |           |
| <b>Total</b>   | <b>19.7</b>        | <b>30</b> |

| Fodder 2006-07 |                           |          |
|----------------|---------------------------|----------|
|                | Amount                    | MfCFA    |
| stalks         | gathered own              |          |
| hay            | none                      |          |
| chaff          | gathered own and villages |          |
| bran           | own                       |          |
| granar         | none                      |          |
| grain          | 4 bags from HH stores     |          |
| <b>Total</b>   |                           | <b>0</b> |

|                                     |                 |
|-------------------------------------|-----------------|
| (2006-07) How did HH feed members   | Harvested grain |
| (2006-07) How did HH feed livestock | Own provisions  |

|          | 2005-06 | 2006-07 | Total |
|----------|---------|---------|-------|
| Expenses | 19.7    | 30      | 49.7  |
| Receipts | 64      | 20      | 84    |

**BCA2-1**  
mobile  
cultivator

**Husband and 2 wives; 7 children; oldest son is married with one child. Son's wife does not milk cows. Husband is eldest son of VCA2-1.**

Household cultivates 1 field at Mai-Kalafo and 1 field at Bangaji (see Table 1.2). They are moderately livestock wealthy for a cultivating household.

In 2005-06, son's wife sold 2 rams for 20M clinic expense. In 2006-07, the second wife sold a bull for 100M; bought 5 bags of grain at 8M each for 40 M and bought a heifer with the remaining money.

In 2007, eldest son earned 10 bushels harvesting for his great-uncle, and 5M from field labor.

|              | 2005-06 |              |        |          |      |      | 2006-07 |            |        |           |      |          |
|--------------|---------|--------------|--------|----------|------|------|---------|------------|--------|-----------|------|----------|
|              | sold    | MfCFA        | bought | MfCFA    | died | lost | sold    | MfCFA      | bought | MfCFA     | died | lost     |
| Goats        | 6       | 42.5         |        |          |      | 2    | 8       | 78         |        |           | 1    |          |
| Sheep        | 2       | 61           |        |          |      |      | 8       | 100        |        |           | 1    |          |
| Cows         | 1       | 80           |        |          |      |      |         |            | 1      | 60        |      |          |
| Bulls        | 2       | 148          |        |          |      |      | 3       | 360        |        |           |      |          |
| Donkeys      | 2       | 40           |        |          |      | 2    |         |            |        |           |      | 1 + colt |
| Camels       |         |              |        |          |      |      |         |            |        |           |      |          |
| <b>Total</b> |         | <b>371.5</b> |        | <b>0</b> |      |      |         | <b>538</b> |        | <b>60</b> |      |          |

|              | 2005-06    |           |        |          |        |           | 2006-07  |        |         |      |            |
|--------------|------------|-----------|--------|----------|--------|-----------|----------|--------|---------|------|------------|
|              | Harvest    | lasted    | Purch. | MfCFA    | Sold   | MfCFA     | Harvest  | lasted | Purch.  | tias | MfCFA      |
| Milllet      | 90 bush    | into next |        |          | 5 bags | 55        | 10 bush  | 6 mos  | 23 bags | 570  | 170        |
| Sorghum      | 10 bush    |           |        |          |        |           | 5 bush   |        |         |      |            |
| Gayamna      | Did not    |           |        |          |        |           | okra, no |        |         |      |            |
| <b>Total</b> | <b>100</b> |           |        | <b>0</b> |        | <b>55</b> |          |        |         |      | <b>170</b> |

|              | 2005-06 |          |        |           | 2006-07  |            |         |          |
|--------------|---------|----------|--------|-----------|----------|------------|---------|----------|
|              | BCA2-2  |          | BCA2-4 |           | BCA2-2   |            | BCA2-4  |          |
|              | sold    | MfCFA    | sold   | MfCFA     | sold     | MfCFA      | sold    | MfCFA    |
| Kosam        | Çavol   | 2        |        | 10        | Çavol    | 1          | Nduung  | 3        |
| Butter       |         |          |        |           |          |            |         | 1        |
| Cheese       |         | 3        |        | 3         |          | 1.5        |         | 3        |
| <b>Total</b> |         | <b>5</b> |        | <b>13</b> |          | <b>2.5</b> |         | <b>7</b> |
| Milking      |         |          |        |           | 1 cow, 5 |            | 2 cows, |          |

| Fodder 2006-07 |          |           |
|----------------|----------|-----------|
|                | Amount   | MfCFA     |
| stalks         | gathered |           |
| hay            | none     |           |
| chaff          | gathered |           |
| bran           | 2 bags   | 4         |
| granary        | none     |           |
| grain          | 20 tiyas | 9         |
| <b>Total</b>   |          | <b>13</b> |

|                | 2005-06     | 2006-07    |
|----------------|-------------|------------|
| Rice, beans    |             |            |
| Oil            |             |            |
| Sauce          | 12          | 14         |
| Tea & Sugar    | 26          | 26         |
| Grain Seed     | 18          | 18         |
| Livestock salt | NR          | NR         |
| HH tools       |             |            |
| HH utensils,   |             | 40         |
| Clothing,      | 21          |            |
| Medicines,     | 22.2        |            |
| Voyage         |             | 30         |
| <b>Total</b>   | <b>99.2</b> | <b>128</b> |

Husband's expenses for 2005-06 were not counted, thus the very low amounts for total expenses. In 2006-07, the first wife went on a voyage, spending 30M.

In 2005-06, the household celebrated 2 naming ceremonies; in 2006-07, 1 naming ceremony.

|                                     |  |
|-------------------------------------|--|
| (2006-07) How did HH feed members   | 5000 fCFA loan; livestock sales                    |
| (2006-07) How did HH feed livestock | own provisions (stalks, chaff) and livestock sales |

|                       | 2005-06    | 2006-07 |
|-----------------------|------------|---------|
| Celebrations spent    | 10         | 10      |
| Livestock slaughtered | ram, sheep | sheep   |
| Celebrations received | 22         | 11.75   |
| Other cash received   | 10         |         |

|          | 2005-06 | 2006-07 | Total  |
|----------|---------|---------|--------|
| Expenses | 109.2   | 381     | 490.2  |
| Receipts | 476.5   | 614.25  | 1090.8 |

**BCB2-1**  
mobile  
cultivator

**Husband with 2 wives; younger brother of first wife, married in koorsol 2006; 3 daughters and 4 sons (oldest is 13). Brother's wife was not always present.**

First wife and brother inherited livestock from parents and are livestock wealthy, as is husband. Second wife is livestock poor. First wife contributes to household income.

Husband (2 fields) and his brother-in-law (1 field) cultivate separate fields, but combine grain, as first wife (with his wife) cooks for her brother. Brother did not cultivate in 2007.

|              | 2005-06 |              |        |            |      |      | 2006-07 |            |        |          |        |      |
|--------------|---------|--------------|--------|------------|------|------|---------|------------|--------|----------|--------|------|
|              | sold    | MfCFA        | bought | MfCFA      | died | lost | sold    | MfCFA      | bought | MfCFA    | died   | lost |
| Goats        | 20      | 126          |        |            | 1    |      | 18      | 180        |        |          | 2      | 3    |
| Sheep        | 13      | 170          |        |            |      |      | 10      | 158        |        |          | 3      |      |
| Cows         | 2       | 235          | 2      | 199        |      |      | 3       | 115        | 1      | trd bull | 1 calf |      |
| Bulls        | 3       | 305          | 1      | 81         |      |      | 4       | 200        |        |          |        |      |
| Donkeys      | 1       | 12.5         |        |            |      | 1    | 1       | 15         |        |          | some   | 1    |
| Camels       |         |              |        |            |      |      |         |            |        |          |        |      |
| <b>Total</b> |         | <b>848.5</b> |        | <b>280</b> |      |      |         | <b>668</b> |        |          |        |      |

|              | 2005-006 |            | 2006-07       |        | Purch.        | tias | Total     | MfCFA |            |            |
|--------------|----------|------------|---------------|--------|---------------|------|-----------|-------|------------|------------|
|              | Purch.   | MfCFA      | Harvest       | lasted |               |      |           |       | Harvest    | lasted     |
|              |          |            | BCB2-1        |        | BCB2-3        |      |           |       |            |            |
| Millet       | 35 bags  | 275        | 30 bsh        | 3 mo   | 16 bsh        | 4 mo | 28        | 24.5  | 686        | 220        |
| Sorghum      |          |            | 3 bsh         |        | 1 bsh         |      | 5         | 25    | 125        | 67         |
| Gayamna      | Did not  |            | Did not       |        |               |      |           |       |            |            |
| <b>Total</b> |          | <b>275</b> | <b>33 bsh</b> |        | <b>17 bsh</b> |      | <b>33</b> |       | <b>811</b> | <b>287</b> |

Second wife stayed near fields and had no cattle during koorsol. Her brothers help her; bought her a donkey in 2004-05.

In 2005-06, the husband and first wife celebrated a naming ceremony (ram), and the wife's brother was married (bull, 110M). In 2006-05, the first wife celebrated her sister's biki (with a contribution from her husband).

|              | 2005-06 |           |         |          | 2006-07      |            |                 |          |
|--------------|---------|-----------|---------|----------|--------------|------------|-----------------|----------|
|              | BCB2-2  |           | BCB2-4  |          | BCB2-2       |            | BCB2-4          |          |
|              | sold    | MfCFA     | sold    | MfCFA    | sold         | MfCFA      | sold            | MfCFA    |
| Kosam        |         | 40        |         |          | nduungu only |            |                 |          |
| Butter       |         | 15        | some    | dk       |              |            | not enough milk |          |
| Cheese       |         | 20        | 5 @ 0.5 | 2.5      |              |            |                 |          |
| <b>Total</b> |         | <b>75</b> |         | <b>5</b> |              | <b>7.5</b> |                 | <b>0</b> |
| Milk         |         |           |         |          | 6 cows       |            | 2 cows, 1goat   |          |

|                | 2005-06      | 2006-07      |
|----------------|--------------|--------------|
| Rice, beans    | 24.5         |              |
| Oil            | 0.5          |              |
| Sauce          | 12           | 12           |
| Tea & Sugar    | 48           | 48           |
| Grain Seed     | 3.1          | 3.1          |
| Livestock salt | 42           | 42           |
| HH tools       | 13.7         | 55           |
| HH utensils,   | 7.85         |              |
| Clothing, etc. | 63.25        |              |
| Medicines,     | 60           |              |
| <b>Total</b>   | <b>274.9</b> | <b>160.1</b> |

In 2006-07, second wife (with husband) held a naming ceremony and daughter from first marriage (fostered by grandmother) gave birth.

|                       | 2005-06 | 2006-07 |
|-----------------------|---------|---------|
| Celebrations spent    | 130     | 25      |
| Livestock slaughtered | ram,    |         |
| Celebrations received | 20      | 18      |
| Other cash received   |         |         |

|              | Fodder 2006-07 |              |
|--------------|----------------|--------------|
|              | Amount         | MfCFA        |
| stalks       | none           |              |
| hay          | 30 bales       | 12           |
| chaff        | 8 bags         | 5            |
| bran         | 8 bags         | 36           |
| granary      | none           |              |
| grain        | 1b             | 11.25        |
| <b>Total</b> |                | <b>64.25</b> |

(2006-07) How did HH feed sold cattle and sheep, and dairy

(2006-07) How did HH feed sold livestock

|          | 2005-06 | 2006-07 | Total         |
|----------|---------|---------|---------------|
| Expenses | 959.9   | 536.35  | <b>1496.3</b> |
| Receipts | 948.5   | 693.5   | <b>1642</b>   |

**PDA3-1** **Husband and wife with two daughters and two sons; one son was a fostered nephew who returned home in 2007.**  
**Exclusive Pastoralist**

The husband recently began to trade in cattle, but receipts from his trade are not included here. He cultivated in 2005 and reported that his brothers cultivated for him in 2006, but he harvested nothing that year. He cultivated in 2007, but seemed to concentrate more on his livestock trade than on cultivation; we met him living far from his fields in nduungu 2007.

The household does not possess much livestock, and the husband reported that he experienced no difficulty with ceeḍu 2007 until just before nduungu (unlike PBA2-1), though several smallstock offspring died as they did in most households.

Wife's sibling gave her a hen.

One sheep and some goats died from the cold rain in 2007. The rest were offspring that died of hunger.

|              | 2005-06 |           |        |           |      |      | 2006-07 |              |        |          |      |      |
|--------------|---------|-----------|--------|-----------|------|------|---------|--------------|--------|----------|------|------|
|              | sold    | MfCFA     | bought | MfCFA     | died | lost | sold    | MfCFA        | bought | MfCFA    | died | lost |
| Goats        |         |           | 3      | 24        |      |      |         |              |        |          |      |      |
| Sheep        | 7       | 70        | 2      | 20        |      |      | 5       | 50           |        |          | 14   |      |
| Cows         |         |           |        |           |      |      |         |              |        |          |      |      |
| Bulls        |         |           |        |           |      |      |         |              |        |          |      |      |
| Donkeys      | 2       | 25        |        |           |      |      |         |              |        |          |      |      |
| Camels       |         |           |        |           |      |      |         |              |        |          |      |      |
| Chickens     |         |           |        |           |      |      | 1       | 0.75         |        |          |      |      |
| <b>Total</b> |         | <b>95</b> |        | <b>44</b> |      |      |         | <b>50.75</b> |        | <b>0</b> |      |      |

|              | 2005-06  |            | 2006-07 |            |
|--------------|----------|------------|---------|------------|
|              | Purch.   | MfCFA      | Purch.  | MfCFA      |
| Grain        | 10+ bags | 100        | 18-20   | 100        |
| Beans        |          |            |         |            |
| <b>Total</b> |          | <b>100</b> |         | <b>100</b> |

Husband was not sure how much grain he bought in 2006-07; he reported 18 to 20 bags and said he bought 20-30 tiyaaji at each market. All grain purchases in 2006-07 were made with livestock trade purchases.

|                       | 2005-06 | 2006-07 |
|-----------------------|---------|---------|
| Celebrations spent    | 0       | 15      |
| Celebrations spent    |         | sheep   |
| Celebrations received | 0       | 11      |
| Other cash received   | 0       |         |

|              | 2005-06 |           | 2006-07  |            |
|--------------|---------|-----------|----------|------------|
|              | PDA3-2  | PDA3-2    | PDA3-2   | PDA3-2     |
|              | sold    | MfCFA     | sold     | MfCFA      |
| Kosam        |         |           | 2 gourds | 1          |
| Butter       | 3       | 12        | 1 liter  | 1          |
| Cheese       |         | 5         | 11 sqrs  | 3.3        |
| Bran         |         | 2         |          |            |
| <b>Total</b> |         | <b>19</b> |          | <b>5.3</b> |
| Milk cows    |         |           | 4 cows   |            |

Couple celebrated a naming ceremony in dabbunde 2006-07. Husband spent 10M and Wife 5M. He received about 5M and she received 6M.

The husband bought all the clothing. Wife did not go to market until 2007.

|              | 2005-06     | 2006-07     |
|--------------|-------------|-------------|
| Rice,        |             |             |
| Oil          | 1.5         |             |
| Sauce        | 4.5         | 4.5         |
| Tea &        | 15          | 15          |
| Grain Seed   |             |             |
| Livestock    | 1           | 1           |
| HH tools     |             |             |
| HH           | 18.5        | 15          |
| Clothing,    | 8.7         |             |
| Medicines,   |             |             |
| <b>Total</b> | <b>49.2</b> | <b>35.5</b> |

Wife bought a taarewol (long tent mat), bed mats, jerry cans and metal bowls in 2005-06 for 18.5MfCFA, by giving money to other people. She sold a male donkey (through her husband), besides her dairy products (through older women).

|                                     |   |
|-------------------------------------|---|
| (2006-07) How did HH feed members   | Livestock trade; smallstock sold for other expenses |
| (2006-07) How did HH feed livestock | Livestock trade                                     |

|              | Fodder 2006-07 |           |
|--------------|----------------|-----------|
|              | Amt            | MfCFA     |
| stalks       | none           |           |
| hay          | none           |           |
| chaff        | 2 bags         | 2         |
| bran         | 2 bags         | 8         |
| granary      | none           |           |
| grain        | none           |           |
| <b>Total</b> |                | <b>10</b> |

|          | 2005-06 | 2006-07 | Total  |
|----------|---------|---------|--------|
| Expenses | 193.2   | 160.5   | 353.7  |
| Receipts | 114     | 67.05   | 181.05 |



**PBA2-1** **Husband and two wives with three sons (oldest is 15) and two daughters.**  
**Exclusive Pastoralist** Husband considered cultivating at Bangaji in 2007, but never did. He has never cultivated.  
 In 2006, the husband reported many smallstock and cows dying "last year"; he may have meant during the 2004-05 drought/famine. Sheep died of hunger and cold rain in 2006-07.  
 Husband sold about 20 goats and 30 sheep, a few "every market" during 2006-07; receipts are estimated. The first wife sold 1 ram for 12M. He reported high taxi costs, which weren't recorded. He sold one older cow (3 births) and one heifer, simply because he needed the money. Receipts are estimated.

|              | 2005-06 |            |        |          |      |      | 2006-07    |             |        |       |          |      |
|--------------|---------|------------|--------|----------|------|------|------------|-------------|--------|-------|----------|------|
|              | sold    | MfCFA      | bought | MfCFA    | died | lost | sold       | MfCFA       | bought | MfCFA | died     | lost |
| Goats        | 9       | 80         |        |          |      | 1    | 20         | 200         |        |       |          |      |
| Sheep        | 1       | 55         |        |          |      |      | 30         | 450         |        |       | 5        | 6    |
| Cows         | 4       | 280        |        |          |      |      | 2          | 200         |        |       |          |      |
| Bulls        | 3       | 220        |        |          |      |      | 1 + 1 calf | 250         |        |       |          |      |
| Donkeys      |         |            |        |          |      |      |            |             |        |       |          |      |
| Camels       | 1       |            |        |          |      |      |            |             |        |       |          |      |
| Chickens     |         |            |        |          |      |      |            |             |        |       |          |      |
| <b>Total</b> |         | <b>635</b> |        | <b>0</b> |      |      |            | <b>1100</b> |        |       | <b>0</b> |      |

|              | 2005-06 |            | 2006-07 |            |
|--------------|---------|------------|---------|------------|
|              | Purch.  | MfCFA      | Purch.  | MfCFA      |
| Grain        | 30 bags | 304        | 750t    | 300        |
| Beans        |         |            |         |            |
| <b>Total</b> |         | <b>304</b> |         | <b>300</b> |

|                       | 2005-06 | 2006-07   |
|-----------------------|---------|-----------|
| Celebrations spent    | 27      | 20        |
| Livestock slaughtered | sheep   | ram, buck |
| Celebrations received | 13.2    | 14        |
| Other cash received   | 0       | 0         |

|              | 2005-06  |           |          |           | 2006-07         |            |                 |          |
|--------------|----------|-----------|----------|-----------|-----------------|------------|-----------------|----------|
|              | PBA2-2   |           | PBA2-4   |           | PBA2-2          |            | PBA2-4          |          |
|              | sold     | MfCFA     | sold     | MfCFA     | sold            | MfCFA      | sold            | MfCFA    |
| Kosam        |          | 5         |          | 10        |                 |            |                 |          |
| Butter       | 3 liters | 5         | 5 liters | 12        |                 |            |                 |          |
| Cheese       |          |           |          | 5         |                 | 2.5        |                 | 5        |
| <b>Total</b> |          | <b>10</b> |          | <b>27</b> |                 | <b>2.5</b> |                 | <b>5</b> |
| Milk cows    |          |           |          |           | 5 cows, 4 goats |            | 5 cows, 4 goats |          |

The second wife had a naming ceremony in Sep 05. She bought 2 liters of oil and her husband bought 4t sugar, 6t rice, 8 bags macaroni, 1M cola nuts, and 2 bags grain. Expenses are estimated.

The husband and second wife buy sauce. He reported buying "tiyaaji" each market that he attended; she reported 5M worth for 2005-6, and 4M of tea & sugar. He also buys tea and sugar. The second wife paid for 10M worth of maagani from Woδaa6e in 2005-06.

The husband also bought most clothing, though the first wife bought 18M worth of clothing and household items in 2005-06.

|              | 2005-06       | 2006-07     |
|--------------|---------------|-------------|
| Rice,        |               |             |
| Oil          |               |             |
| Sauce        | 10            | 15          |
| Tea &        | 25            | 25          |
| Grain Seed   |               |             |
| Livestock    | NR            | NR          |
| HH tools     | NR            | NR          |
| HH           | NR            | NR          |
| Clothing,    | 68            | 26.5        |
| Medicines,   | 10.75         |             |
| <b>Total</b> | <b>113.75</b> | <b>66.5</b> |

Husband forgot how much cash he received for celebrations. First wife received 3.2M and second wife received 10M and 10 cloths. The household received a bag of grain. The first wife had a naming ceremony in Aug 07. The husband bought food (grain, rice, sugar) and husband and first wife received 8M and 6M respectively. The first wife received 12 cloths.

|                                     |                |
|-------------------------------------|----------------|
| (2006-07) How did HH feed members   | Sold livestock |
| (2006-07) How did HH feed livestock | Sold livestock |

In 2006-07, the husband reported buying for fodder: 6 bags of wheat chaff (40 t each) for 8-9M, and 4 bags of cotton seed (20 t each), for 8-9M, for the cattle, and 20 bags of millet/sorghum bran, especially for the sheep.

| Fodder 2006-07 |                    |            |
|----------------|--------------------|------------|
|                | Amount             | MfCFA      |
| stalks         | none               |            |
| hay            | none               |            |
| chaff          | wheat, cotton seed | 17         |
| bran           | 20 bags            | 85         |
| granary        | none               |            |
| grain          | 3 bags (above)     |            |
| <b>Total</b>   |                    | <b>102</b> |

Bran prices rose from 175fto 250f per tiyawol as the dry season progressed. He bought two bags of grain for the cattle in ceeδu and one in korsool; the expense is included in grain purchases to the left.

|          | 2005-06 | 2006-07 | Total         |
|----------|---------|---------|---------------|
| Expenses | 444.75  | 488.5   | <b>933.25</b> |
| Receipts | 685.2   | 1100    | <b>1785.2</b> |

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#### **Education:**

Master of Arts, Applied Anthropology: University of Kentucky, Lexington, KY, May 2003.

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#### **Professional Positions:**

Part-time Instructor: Introduction to Anthropology, University of Kentucky, January – May 2008

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Facilitation Coordinator for Community Assessment: September 1996 – April 1997 (funded by Lutheran World Relief, Niger).

Coordinator for Para-Veterinarian Training: September 1995 – April 1996 (funded by Lutheran World Relief, Niger).

Ethnographic Surveyor of Agro-pastoralists of the Tanout arrondissement: April 1994 – September 1994 (USAID/Niger).

Coordinator for Non-Formal Education sector of Pre-service Training: June 1992 – September 1992 (Peace Corps Niger).

Peace Corps Volunteer: July 1985 – October 1988 (Peace Corps Niger).

#### **Assistantships:**

Peter D. Little, PhD: University of Kentucky, August – December 2005; June – August 2004.

Teaching Assistantship, University of Kentucky, January – May 2004.

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Teaching Assistantship, University of Kentucky, August 2002 – May 2003.

#### **Presentations:**

Smallstock as Cash Crop, Smallstock as *Haɓɓanayi*: Fulɓe Exchanges in the 21<sup>st</sup> Century. *Annual Meeting of the American Anthropological Association (AAA)*. New Orleans, Louisiana, November 18, 2010.

Strategic Flexibility: Household Ecologies of Fulɓe in Tanout, Niger. *Anthropology Department, University of Kentucky*. March 31, 2010.

- Fulbe, Gender & Life Course: The Mboofiɗo and Liminality. *ANT 737 Sociocultural Theories in the Anthropology Of Gender, University of Kentucky*. Dr. Monica L. Udvardy, professor, March 30, 2010.
- R&D with Mobile Pastoralists: What Next? *Annual Meeting of the Society for Applied Anthropology*. Merida, Mexico, March 27, 2010.
- Women, Men, Children and Livestock: Partnerships and Gendered Negotiations in the Ful'be Household Livestock Enterprise. *Annual Meeting of the American Anthropological Association (AAA)*. Philadelphia, Pennsylvania, December 6, 2009.
- Mobile Pastoralists Sitting and Waiting: Backstage at a Cash Aid Distribution. *Annual Meeting of the Society for Applied Anthropology*. Santa Fe, New Mexico, March 19, 2009.
- Strategic Flexibility in an Era of Climate Change: Household Economies of Fulbe in Tanout Department, Niger. *Annual Meeting of the African Studies Association*. Chicago Illinois, November 15, 2008.
- Mobile (Agro)Pastoralists: Strategic Flexibility of the Fulbe of Tanout, Niger. *Annual Meeting of the Society for Applied Anthropology*. Memphis, Tennessee, March 26, 2008.
- Gendered Work Among the Pastoral Wo'daa'be. *ANT 160 Culture Diversity in the Modern World*, Wini Utari, instructor. University of Kentucky, November 15, 2005.
- Dispatch from the Sahelian Range: Renegotiating Expectations and Relationships among the Woɗaaɓe of Niger. *Annual Meeting of the Society for Applied Anthropology*. Dallas, Texas, April 1, 2004.
- Development Agents and Nomadic Agency in the Damergou, Niger: Four perspectives in the development "market". *Interdisciplinary Group for Development Studies*. University of Kentucky, February 19, 2004
- Development Agents and Nomadic Agency. *Annual Meeting of the Society for Applied Anthropology*. Portland, Oregon, 21 March 2003.
- Participatory Rural Appraisal/Participatory Learning and Action. Workshop Series on Participatory Methods. *University of Kentucky Appalachian Center*, March 2002.
- Community Development among Wo'daa'be Communities. *Lutheran World Relief Partnership Conference*. Bobo-dialassou, Burkina Faso, 1996.

#### **Grants and awards:**

- Social Science Research Council, International Dissertation Field Research Fellowship, \$13,000; July 2006 – August 2007.
- National Science Foundation, Division of Behavioral and Cognitive Sciences, Cultural Anthropology, \$12,000; March 2006 – March 2007.
- National Association of Practicing Anthropologists (AAA), 3<sup>rd</sup> Place, Annual Student Award, \$50; 2003.
- Tuition Grant, University of Kentucky Graduate School, \$6,500; August 2003 – December 2003.
- Lambda Alpha Charles Jenkins Research Award. May – August 2002.



Kentucky Opportunity Fellowship. *University of Kentucky Anthropology Department*. August 2001 – July - 2002.

**Publications:**

Development Agents and Nomadic Agency: Four perspectives in the development “market”. (May 2007) *National Association for the Practice of Anthropology Bulletin* 27(1):110-128.

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