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Land Tenure Center

CAPITAL ON THE MOVE:

THE CHANGING RELATION BETWEEN LIVESTOCK AND LABOR IN MALI, WEST AFRICA

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Geoforum, in press



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**Capital on the move: The changing relation between livestock and labor in Mali, West
Africa**

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Abstract

In dryland areas of the Africa, livestock play important economic roles as commodities, wealth stores, producers of products, and agents of environmental change. Conventional depictions of livestock economies in this region have focused (in support or against) on the need for greater engagement of livestock producers with markets supplying meat to urban areas. This paper argues this singular focus has led analysts to ignore two important aspects of livestock economies: livestock as a preferred store of wealth across a wide range of social groups and the need for specialized labor to manage these livestock across open pastures to maintain their productive and limit their negative environmental impacts. In the West African Sahel, the capital-like nature of livestock wealth has become more clear with a growing fraction of the region's livestock owned by investors with little connection to livestock husbandry. Livestock investments are maintained on a day-to-day basis by hired herders who facilitate access to ephemeral pastures and water. A particular concern is the changing geographies of livestock ownership and the herding labor in relationship to regional pastures (to economic and environmental ends). This relationship will be explored using the case study of the Maasina region of central Mali – a historically important livestock region, which is now undergoing significant labor emigration. Building from a long-term ethnographic engagement with local livestock owners and herders, the results of ownership surveys of livestock herds across a 14-year period and interviews of urban-based emigrants from the study area about investment decisions will be used to analyze the changing geographies of livestock investment and herding labor in the Maasina.

Introduction

Subsaharan Africa seemingly, and the West African Sahel most certainly, are backwaters of economic globalization. Extra-regional trade is small and international capital investments are limited. While one is hard-pressed to identify any “competitive advantage” the area enjoys in the global economy, the Sahel does arguably hold a competitive advantage in the regional economy with respect to livestock (cattle, sheep, goats, camels, donkeys) and to a lesser extent, cheap labor (Asuming-Brempong and Staatz, 2004). Livestock produced in the Sahel supply regional markets that are strongly shaped by rising urban demand within the humid tropical zone along the coast where livestock production is limited by trypanosomiasis (tsetse fly). Young men from Sahelian drylands also move south on a seasonal or semi-permanent basis to work in mines, plantations, as well as taking on menial urban-based jobs within region more regionally. While the export of livestock and labor is not new in the region, the centrality of these movements for the economy’s future has grown with the 1995 devaluation of the currency of Sahelian countries (FCFA), reduction of Sahelian government subsidies/support for crop agriculture, and reduction of trade barriers among the countries in the region.

The changing relationship of livestock and herding labor is the focus of this paper – a relationship which, I argue, plays an important role in the region’s economic and environmental futures. In thinking about livestock economies in arid Africa, significant attention within academic and policy circles has focused over the years on the degree to which livestock producers in arid Africa sufficiently market their animals. This debate no longer (if ever) addresses the realities of the Sahelian livestock economy. Yes, animals have cultural value and are sold for meat but livestock are implicated in a broader political economy than simply that between pastoral households and the market. In the Sahelian region, livestock are increasingly

owned by outside investors who hire labor (through different contracts) to care for their livestock in distant pastures. How this relationship is negotiated across a region undergoing significant social change will play an important role in shaping livestock investment and management with important implications for the region's environment and economy.

In this paper, I will present a reconceptualization of the Sahelian livestock economy that places the relationship between livestock capital and herding labor as a central force in its future evolution. I will then explore these changing sets of relationships in more depth by presenting the case of the Maasina area of central Mali using information gathered from long-term participant observations with herders, repeat herd surveys, and interviews of migrants from the Maasina who now live in Bamako, the capital city of Mali.

Interrogating common understandings of livestock economies

"Were the term capital to be applicable to classical antiquity . . . then the nomadic hordes with their flocks on the steppes of Central Asia would be the greatest capitalists, for the original meaning of the word capital is cattle"

(Marx, 1964, pg. 119)

"Thus the Latin word for money, *pecus*, referred equally to a herd of domestic livestock; whilst the Greek word for interest on a financial loan, *tekhos*, denoted also the progeny of an animal"

(Ingold, 1980, pg. 229)

Despite the myriad of socioeconomic roles played by livestock in African societies, there has been a tendency for outside analysts to emphasize only a few.¹ The elevation of certain roles

¹Domestic livestock simultaneously serve multiple economic purposes for their human masters (e.g. stores of wealth, commodities, producers of products/services). The relative importance of these purposes varies across individuals, families and communities due in part to differences in their wealth status and livelihood strategies. Outside observers of rural Africans have tended to emphasize singular roles played by domestic livestock such as: holders of cultural meaning (Comaroff and Comaroff, 1991; Herskovits, 1926; Kelly, 1985; Kuper, 1982), commodities (Delgado and Staatz, 1980; Fafchamps and Gavian, 1996; Holtzman and Kulibaba, 1994; Kervan, 1992), producers of manure (Powell et al., 1995), laborers on the farm (Boserup, 1965; Winrock International, 1992) and stores of wealth (Doran et al., 1979; Fafchamps and Udry, 1998; Ferguson, 1985; Schmidt, 1992; Sutter, 1987).

over others reflects prior (mis)understandings of livestock economies and the perceived need to counter misrepresentations by other epistemic communities. In arid lands of Africa, the major oppositional dyad has been formed by treatments emphasizing “livestock as commodities” versus those emphasizing “livestock as sources of subsistence” (Ensminger, 1992; Schneider, 1981). The formation of this oppositional dyad has a long history. One can trace it to early colonialist attempts to coax/coerce rural peoples to sell products of interest to the colonial state (largely meat for livestock producers). Pastoralists were generally more able to resist the colonial political strategies to induce (through taxation..etc.) “sales” because of their mobility. Depictions of pastoralists’ tradition-bound economic irrationality are countered by those arguing that resistance to the market was due to some combination of cultural veneration of cattle (Herskovits, 1926); a symptom of the perverse incentives of “tragedy-of-commons” formulations (Jarvis, 1980; Picardi and Siefert, 1976; Simpson and Sullivan, 1984; Sinclair and Fryxell, 1985); a subsistence logic based on dairy production (Coughenour et al., 1985; Dahl and Hjort, 1976), or the result of a strategy to deal with recurrent drought risk (e.g. Sandford, 1982; Scoones, 1994). While it could be argued that this debate has always been misplaced in West Africa where livestock producers have a history of selling their livestock (Amanor, 1995; Coulomb, 1972; Dupire, 1962, pg 350; Grégoire, 1997; Kervan, 1992; Lovejoy and Baier, 1975; Sutter, 1987; Tricart, 1956), a more important problem is that it has pulled attention away from the role of investment demand in affecting livestock economies.

These variable depictions reflect not only the complex social roles played by livestock but our inability to grasp their multivalent nature.

Livestock in West Africa serve as major stores of wealth across a wide range of social groups defined by ethnicity, caste, or occupation.² Economic surpluses enjoyed by farmers, herders, traders, Islamic priests, and government officials are often invested into livestock. As such, livestock serve as the productive capital for livestock production systems -- capital, which will grow over time when serviced by human labor to provide access to water, minerals, and natural rangelands. The capital-like nature of the livestock has become increasingly revealed by works that have documented the growing gap between livestock ownership and management. Evidence suggests that a significant fraction of the region's livestock are owned and managed (herded) by different people from different families and with different ethnic/caste identities (Bassett, 1994; Blench, 1985; Habou and Danguioua, 1991; Raynaut and Lavigne Delville, 1997; Turner, 2003; White, 1990). Herding contracts are variable (wage, entrustment...etc.) but result in low levels of herder remuneration – often at or below subsistence requirements. Seen in this way, livestock (capital) accumulation occurs through the surplus extraction of herding labor.

A fuller view of Sahelian livestock economy reveals that livestock growth in a particular area is not driven solely by livestock managers' level of engagement with regional markets but from the interplay of local demand for livestock as wealth stores and productive capital versus the demand for livestock as meat coming from urban areas to the south. For example, changes in the attractiveness of alternative investments (bank accounts, land speculation...etc.) will affect the livestock economy as much as changing prices for beef in Abidjan, Cotonou, or Lagos.

Ecology, economy, and livestock movements

² Livestock investments are seen as having advantages over alternative wealth stores because of their lower perishability (compared to grain stores and paper money), limited liquidity (protection from requests by others), and ability to grow over time.

As described above, livestock serve rural economies not solely as commodities (sold for slaughter) or providers of products (milk, fiber, traction) but also as stores of wealth which, as the social distinction between livestock owner and herder increases, their capital-like features are most revealed. Livestock are also biological organisms whose breeding and reproduction, at least in a rural African context, are not controlled by the accumulation, sales, or subsistence interests of their human masters.³ Yes, livestock managers can, by slaughtering animals for meat, affect the growth of their livestock herd but the regional livestock economy is shaped largely by the inherent reproductive capacity of livestock species and the access of livestock to palatable and nutritious natural pasture. Human intervention primarily affects the latter through investments of labor to herd animals through humanized landscapes to ephemeral patches of forage near water points.

To be productive and less damaging to the environment, livestock need to be distributed across arid landscapes to maximize their access to pasture, water, and minerals – resources that shift seasonally and from year to year.⁴ Despite the fact that livestock are owned by people, the conditions for livestock husbandry on natural pastures declines as human population density increases and pasture area decreases and barriers to movement increase. Moreover, previous research has shown that the quality and quantity of labor investments into herding significantly affects the distribution of grazing in relation to forage (Turner and Hiernaux, 2008). Therein lies a basic dilemma facing all livestock production systems in arid Africa: the availability of rainy-season pastures is often the negatively associated with human population densities, available herding labor, and access to markets for milk and meat.

³In this way, livestock are unlike commodities produced in factories, their “production” not solely the result of their commodity value. As such, they share some characteristics with the fictitious commodities of land, “ecosystem services”, labor, and money (Polanyi, 1944; Robertson, 2005).

⁴Arguably, livestock are a form of “landesque capital”, which if not properly managed, could lead to environmental degradation (Blaikie and Brookfield, 1987; Zimmerer, 1993).

In the Sudano-Sahelian West Africa, the sharp decline in rainfall as one moves north is associated with a decline in human population densities and increased availabilities of pasture (Bourn and Wint, 1994). This along with the fact that forage, while sparser, tends to be of higher quality as one moves north, explains the historic north-south seasonal movements of livestock commonly referred to transhumance resulting in the regional herd being widely dispersed across the northern pastures during the rainy season (June through September) followed by a return to cultivated areas to the south during the long dry season (October – May). Poor utilization of these northern pastures would strongly limit the ability of Sahelian countries to benefit from their competitive advantage in livestock production.

Livestock “move” across an arid region not only through herder-controlled grazing movements but through the shifts in the geographic distribution of livestock owners and managers. The degree to which increased concentrations of livestock owners result in imbalances of livestock grazing pressure depends on the ability/inclination of livestock owners to conduct or hire grazing management that is mobile or distant (Little, 1985). In the Sudano-Sahelian region, three decades of recurrent drought has led to a shift in livestock owners (movements of people and livestock ownership) toward the more well-watered south and areas of higher population density, including cities (Amanor, 1995; Bourn and Wint, 1994). The degree to which this has led to an imbalance between forage and grazing pressure depends on the relationships between where livestock spend the rainy season and the availability of pastures – a relationship governed in large part by the social relations among livestock owners and herders. Neither capital nor labor is completely mobile in this context. Urban-based external investors may hire herders or entrust their livestock to herding families with extant herds but their ability to move their investments anywhere is limited by the need to trust and/or monitor the herders

who are managing their wealth. Most often this involves investing in livestock managed in peri-urban herds or investing back in their rural home regions.

The herding labor contract

The livestock economy, which figures prominently in the Sahel's environment and economic future, is strongly governed by the relationship between those who herd and own the region's livestock. The availability of herding labor in prime rainy-season pasture areas in the north is affected by the level of herder remuneration and emigration from prime pasture areas in the north. The degree to which livestock are accumulated in the Sahelian countries rather than slaughtered in the cities to the south depends on the attractiveness to the wealthy of livestock as an investment which is affected by a number of factors including investors' relationships with herding labor. Since most potential investors live and work in areas where there is a shortage of pastures, the degree to which they see their livestock investments being managed by professional herders as secure plays an important role in determining the attractiveness of livestock compared to alternative investments. In this way, the herding labor contract, the institution linking herding labor to livestock capital, figures prominently in the future evolution of the Sahelian livestock economy.

The herding profession remains strongly linked to ethnic identity in West Africa (Grayzel, 1977). This is particularly true for more mobile forms of the livestock husbandry (seasonal movements outside of village territory) since success requires knowledge and access to social networks over broad geographical areas – attributes historically held by certain ethnic groups such as the FulBe, Kel Tamashek, and Bella. Herding labor is contracted through multiple arrangements including:

1. Seasonal charges per livestock head for herds composed of livestock owned by members of a village or neighborhood. These arrangements are most typical in cases where livestock are grazed locally and where there are few resident herding families resident in the area (or where relations between resident herders and social groups have broken down).
2. A monthly salary paid to herder to graze a herd. Such arrangements are most typically found in cases of a herd owned by a single investor.
3. Entrustment of livestock into an existing herd managed by a professional herding family. Remuneration for herding of these livestock is variable (milk of entrusted animals, yearly gift, offspring of entrusted animals) but is distinguished from (1) above as not being cash-based.

While increasing in prevalence, individual ownership markings (brands, tags) of livestock are not the norm in the region. Moreover, sales of lost or stolen livestock are not hindered significantly by such markings. Therefore, livestock owners face a dilemma with respect the security of their investments. While keeping their livestock in proximity to their home significantly increases their monitoring ability, the nutrition of their animals will likely suffer (unless they pay for feed). Allowing their animals to leave the home territory with herders will likely improve livestock nutrition but reduces their ability to monitor the herder to avoid livestock losses due to loss, sickness, and theft. On the herders' side, their diligence with respect to outside investors' livestock in their care will likely depend not only on effectiveness of sanctions for mismanagement but the level of remuneration they receive for their services.

The ability of the Sahelian economy to respond to market incentives which now more clearly reflect its competitive advantage in livestock production depends on the continued

attractiveness of livestock as an investment to people who are increasingly distant from quality pastures. These decisions are not just based on abstract ‘return on investment’ calculations but the security of such investments (trust of herder, means of monitoring livestock) and the ecological and nutritional viability of extant livestock grazing systems (pasture and labor availability). The capital-labor relationship lies at the heart of this dilemma – the extent to which livestock owners can regulate/force/expect good management by herders in distant pastures will strongly affect the attractiveness of livestock relative to other forms of capital investment. I explore these issues by presenting work on livestock investment and owner-herder relations within a local administrative district located within the Maasina region of central Mali (Commune de Diondiori). Herds originally surveyed in 1989 were resurveyed in 2003 to evaluate the changing ownership rates within these herds. In addition, the results of a survey of emigrants from the district to the capital city of Bamako will be discussed. Questions were asked of emigrants about their investment decisions and their views of the security of livestock investments back in the district. Combining these two sets of data will reveal changes in the relationship between capital (livestock) and herding labor in one of the most important livestock-rearing areas in the region.

Capital-livestock relationship in the Maasina livestock economy

The Inland Niger Delta is a 20,000 km² floodplain lying within the Sahelian zone. The Delta is historically and currently a dry-season pasture of regional importance. A significant fraction of the Malian cattle population converges on the Delta floodplains during the dry season. Resident FulBe clans control floodplain pastures charging grazing taxes (*tolo*, *coggu hudo*) to outside herds (Cissé, 1982; Gallais, 1967; Legrosse, 1999). While granting access to outside herds, resident FulBe clans retain priority access to pastures within their clan’s territory (*leydi*) as well

as reciprocal access to the floodplain pastures controlled by other resident clans. The extent and quality of floodplain pastures have declined due to the reduction of floods and the encroachment of cropped fields (Legrosse, 1999). Still, their attractiveness to livestock owners has only increased due to recurrent drought and the low nutritional quality of surrounding rainfed pastures during the dry season.

The Maasina region is the portion of the floodplain fed by the Diaka River along western edge of the Delta. In the Maasina region of the Inland Niger Delta of Mali, livestock ownership has shifted away from FulBe livestock managers toward rice cultivators, Islamic priests, merchants, and government officials. This trend began during the later half of the colonial period but has accelerated since the 1970s. Most all FulBe families now own a very small fraction of the livestock they herd. Herders still resist herding for a wage since this is viewed as antithetical to their identity as free men (Riesman, 1977). Working for a wage is seen as akin to being a slave to the livestock owner. This is compounded by the fact that a large fraction of livestock owners in the region are rice cultivators who are descendents of precolonial slaves. Those young men from the area that do herd for a wage must leave the area to do so. In the 1980s, they would describe their work as “cattle merchants” because of the shame attached to what they really did. Today, the stigma attached to wage labor is less simply because so many young men leave to do it. Herders that remain in the area herd animals entrusted to them by livestock owners. They are paid for their services by getting 50-100% of the milk produced by the entrusted animals (much less remunerative than wage labor). Under such arrangements, large herds are required to support the family through milk barter -- at least 250 head are required. Those that remain as herders of entrusted cattle insist that it is difficult to support

one's family and certainly extremely difficult to reestablish one's own livestock wealth under such labor contracts.

Livestock owners who entrust livestock to Maasina FulBe interact most directly with the herd patriarch – the eldest male of the family associated with the herd. The herd patriarch often relies on younger men to herd. His ability to control what they do is limited, especially while herds are distant from the home territory. As the fraction of investor-owned cattle in Maasina herds has increased over the past decades, distrust has increased between livestock owners and herding FulBe. Livestock owners complain that too many of their livestock are lost or die under Maasina FulBe care. The general understanding is that such livestock losses are actually thefts by herders with or without the knowledge or support of herd patriarchs. The FulBe counter that the remuneration under the prevailing entrustment contract does not alone allow herding families to reach a subsistence level of income. In general, both groups are correct. This represents a societal standoff: livestock owners stating that they are unwilling to provide greater compensation for herding services (given thefts of their entrustments) while the herding FulBe, at least privately, stating that unless they can attract a sufficient number of entrustments (around 250 head) they must farm, beg, or steal animals to support their families.

Changing control of Maasina livestock

I first lived and worked with a Maasina FulBe clan during the late 1980s. I have continued since to maintain contact with members of this clan and the broader set of communities found along the Diaka River within the Diondiori Commune of the Tenenkou Cercle.

A major change observed over the period is the greater participation in labor emigration by young FulBe men. In the late 1980s, herding FulBe displayed much lower rates of either temporary or permanent labor emigration compared to social groups tied to rice farming or

fishing. This was due to the year-round demand for herding labor compared to farming and even fishing labor. Departures of young FulBe men often resulted from or led to a schism with their herd patriarch (father, uncle, older brother) who, more often than not, resisted such departures. By the turn of the century, the absence of the young FulBe men (18-30 years) was striking. It has become the norm for young men to leave. If they do not, there is little chance for them to have sufficient resources to marry. Clan herds are increasingly managed on a day-to-day basis by boys and older men.

I initially surveyed the livestock ownership of the eighteen herds of the clan in 1989 – four years following the most severe drought on historical record (1984). Herds were very much depleted at this time. I resurveyed ten of these same herds in 2003 to understand how livestock wealth has been reconstituted in the region.⁵ In both cases, herds were enumerated with the herd patriarch while the herd was pasturing away from human settlements. While viewing the herd, animals of owned by each individual were enumerated in succession. Given the vulnerability of FulBe with high rates of outside ownership, owners were not named. Instead they were described simply by their ethnicity and home village.

Table I compares the cattle numbers owned by outside investors and family members in 1989 and in 2003 for the ten surveyed herds. Two herds split during the period (herds 6 and 10) and the management of another herd was claimed by its largest owner with the original herd manager's family working as his clients (herd 3). Sizes of herds have generally increased over the period but with little growth of family-owned livestock. Overall the number of cattle increased by 57% from 1215 to 1905 head while the fraction of the herd owned by the managing

⁵ I should note that while climatic conditions showed general improvement over the intervening years, the “Tuareg rebellion” created significant risks to losing cattle to rebels/bandits during the early 1990s (at least two members of the clan losing all of their animals during this period).

clan family declined from 15% to 3%.⁶ Some argue that the relative success of a herding patriarch rests less with his ability to manage livestock and more to do with his ability to beg, cajole, and manage the owners of livestock. Livestock owners report being less concerned about the productivity of their livestock under the care of herding FulBe (weight gain, calving rates, milk yields) and more about whether they can trust herders and herd patriarch, most particularly, with respect to unexplained livestock losses.

The reported source of wealth for livestock investments in 1989 was a mixture of old livestock- or rice-derived wealth, wealth generated through aggregation via taxation/tithing (government officials or Islamic clergy), or new wealth generated from elsewhere (Turner, 2003). Over the subsequent 14 years, local generation of wealth remained stagnant and old wealth has eroded further. Those herds that increased in size did so by attracting entrustments from large livestock owners. The cost of this strategy is a decline in the autonomy of herd management. Previous work with these families has shown that as a herd becomes dominated by the livestock of a single owner, that owner will increasingly dictate decisions about the herd. In these cases, the freedom of the herder is a fiction – the herder becomes increasingly beholden to his patron and without even receiving a living wage.

Within the context of economic stagnation in the Sahelian zone and widespread labor emigration, the Maasina livestock economy will, without resolution of the distrustful stand-off between livestock owners and the herding FulBe, evolve in a number of different directions. The first possibility, which looked more likely in 1989 compared to today, is that Maasina livestock production will persist in its present form despite continued deterioration in trust due to a continuation of: the relative attractiveness of the Maasina as dry-season pastures: the social

⁶Cattle owned by family members but managed outside of the family herd are not captured by these numbers. It is common for women and young men to entrust their livestock in other herds to protect them from the herd patriarch. There is no evidence that the prevalence of such family entrustments has increased between 1989 and 2003.

prestige associated with the accumulation of livestock wealth across all groups; and the lack of alternative investments. The expansion of labor emigration from the Maasina has been a long-term trend that works against this possibility – income is generated elsewhere where alternative investment opportunities exist while the ability of monitoring of livestock investments back in the Maasina are limited. The second possibility is, despite the relative economic promise of the region for livestock production, the Maasina livestock economy will continue to decline as trust continues to erode and alternative investment opportunities become more attractive. Under these conditions, the ability of FulBe herding clans to resist the extension of rice irrigation projects will decline with severe costs not only to the Maasina but also to regional livestock production. The third possibility is that the livestock production will persist in the Maasina but with a reworked herding labor contract. Under this scenario, livestock ownership will continue to become more concentrated with the large livestock owners effectively taking over the “family herds” of the pasture-controlling Maasina clans. Herd 3 is an example of this phenomena – under economic duress, the FulBe clan member effectively trading his inherited right to floodplain pasture for the greater economic security of clientage.

These trends are not mutually exclusive – they could occur together. Still the relative importance of these trends will have a strong effect on the future of the Maasina and more generally, the Sahelian zone.

Environmental implications

These trends have a number implications for the environment. The annual grasslands of Sahelian West Africa are most sensitive to grazing during the rainy season. Aggregation of the grazing animals in time or space on rainy season pastures will increase the potential for the grazing-induced land degradation. Herding practice that effectively distributes grazing pressure

requires significant investments of time (16 hour a day of grazing) and stamina under difficult conditions. Moreover, longer-distance transhumance movements are normally managed by young men. Growing scarcity of herding labor (due to emigration) leading to reliance by boys and old men along with a reduction of self-ownership rates of Maasina herds is likely to reduce herd mobility and increase the density of grazing pressure. This would result from a reduction in the incentives for prolonged herding effort and a greater potential for owners to restrict herders from leaving home areas with their animals to distant pastures. In these ways, the changing nature of livestock ownership and labor availability in the Maasina is likely to have significant environmental implications.

Investing in livestock back home

Given the demographic and economic importance of emigration from the region of herders and potential livestock investors, it is important to learn how these emigrants think of investments in Maasina-based livestock relative to other opportunities. In the section that follows, I present the results of a survey of 36 emigrants from the Diondiori Commune conducted in Bamako, the capital of Mali, during July of 2007.

The cash of emigrants represents only a fraction, although a growing fraction, of new investments in Maasina livestock. Outside investors controlling Maasina livestock consist not solely of people who have grown-up in the area – government officials and merchants from outside of the area place their livestock wealth in the Maasina to take advantage of its dry-season pastures. I focus here on the investment decisions of emigrants for a number of reasons: 1. The investment decisions made by emigrants are representative of the decisions that are increasingly being made in the region as the distance between locations of income generation and livestock pasture increases; 2. Infusions of cash by emigrants increasingly shape the livelihood choices of

the young in the home region;⁷ and 3. Emigrants are not ignorant of the social relations that surround Maasina livestock management – they are not making investments in ignorance.

Emigrants from the Diondiori Commune now living in Bamako were identified through key informants very knowledgeable of this emigrant community. Thirty-six of the approximately fifty total adults identified as living in Bamako were interviewed during July of 2007.⁸ Bamako is far from the most lucrative destination of emigrants. For younger men and women, it often represents their first destination before building up the necessary money and networks to move further south to the West Africa coastal cities. My choice to interview emigrants in Bamako reflects my contacts there and the higher density of emigrants from Diondiori Commune found there. Still, the level of income achieved by emigrants in Bamako generally fall below those achieved at more distant destinations.

During short interviews, requiring about a half hour to complete, questions focused on informants' general views about investment choices and for those with livestock in the Maasina, their views about the owner-patriarch-herder relationship. Interview questions were posed in an open-ended fashion with responses grouped into categories after the fact. Fifteen of the 36 interviewees own livestock of whom, twelve own livestock in the Maasina. Livestock owners are generally older having migrated to Bamako on average 15.4 prior to the survey compared to 5.2 years among those not owning livestock. 73% of the livestock owners are merchants (including two livestock traders) with the remainder being herders, butchers or professionals.

⁷Many stories circulate about the newfound wealth of emigrants. Given the menial jobs that most emigrants find at their destinations, such stories are exaggerations but these exaggerations are reinforced by the actions of emigrants who upon return to the village very much overstate the wealth that they have gained while away. Such overstatements are made to bring prestige to the emigrant and his/her family as well as to provide a post-hoc rationale for why he/she had been away for so long. The story of one emigrant who returned to a Diondiori village in 2005 provides a good example. During the first week that he was back, he would show people a metal footlocker seemingly filled with cash. The illusion was created by a thin layer of cash on top of blankets. By the end of the week, his cash was exhausted through the provision of gifts and the purchase of a few cattle. Once broke, he was ready to return back to Ghana.

⁸This sample excludes the much larger number of seasonal emigrants who frequent Bamako during the dry season.

Among those not owning livestock, 29% were livestock herders, 38% were clothes washers, 14% were merchants and 19% pursued other occupations (butchers, cultivators). When asked to state the reasons behind their preference for making investments in Bamako versus investments in livestock back home, livestock owners displayed a much stronger interest in Bamako investments than those not owning livestock (Table II). They view alternative investments in Bamako being more profitable, more secure, and easier to monitor. Those not owning livestock were evenly split between those favoring urban investments or Maasina livestock for these same reasons. Those not owning livestock strongly prefer Maasina livestock with respect to the ease of making the investment compared to alternative investments in Bamako. Livestock owners on the other hand prefer urban-based investments for the same reason. This may reflect that owners are composed largely of merchants who have spent a longer amount of time in Bamako compared to those who are not livestock owners. For them, finding alternative urban-based investments is much easier due to their knowledge, wealth, and age.

The most commonly stated reasons for making investments in Maasina livestock by those holding such investments are to provide for family members remaining in the Maasina and to add prestige for the family (Table III). This is consistent with the finding discussed above that Maasina livestock investments are not seen by livestock owners as particularly economically profitable. Instead they serve the important purpose of connecting the emigrant to his/her family back home – providing support in such a way that conveys prestige but limits the frequency of demands from the family. Livestock investors from the home region have not historically exercised a significant amount of choice in the herd patriarch to whom to entrust livestock. This is reflected in one of the most commonly-cited criteria for choosing a herd: old social ties to the herding family (Table III). The second commonly-cited criterion is the reputation of the herd

patriarch and his herders – this has become more important as the distrust between livestock owners and herders has grown. Reflecting this trend is that the most commonly-stated reason for taking back animals from a herder is unexplained losses of entrusted livestock. The herders’ management of livestock (milk or grazing) and livestock productivity are relatively unimportant considerations compared to the trustfulness of the patriarch and his herders with respect to protecting the owner’s wealth. Owners are interested in the growth of their investments but given the high variability of forage conditions outside of herders’ control, they generally focus on limiting the loss of entrustments through loss or theft.⁹ Reflecting this dominant concern, many livestock owners report a tendency to concentrate their livestock holdings in fewer herds whose patriarchs they trust and can control (by owning a larger percentage of herd). This trend is consistent with the finding that the largest owners in surveyed herds own a larger fraction of the herds in 2003 compared to 1989 (Table I).

Interviews of livestock owners illustrate their distrust of Maasina herdsmen. This distrust grows with time as a livestock owner. Despite the relatively high productivity of Maasina pastures, those who have spent a number of years in Bamako (or other emigrant destinations) see alternative investments in banks, land, commerce as more profitable, secure and tractable than investing in livestock back home in the Maasina. For these successful emigrants, the major reason for investing in livestock back home is to support the family back home both socially (prestige) and materially. These relationships suggest that, under conditions of recurrent drought, the growth of livestock populations as capital in the Sahelian zone relies on outside

⁹ One of the interviewed livestock owners, an auto parts shopkeeper, enumerates his livestock investments (all entrusted in the herds enumerated in Table I) in a spreadsheet file stored on a computer in his shop. This allows him to more easily keep track of the calving and mortality rates of his entrustments and compare these numbers between different herds. These numbers convinced him to take back animals from one herd after five years of low productivity to entrust them in another. He is the first to admit however that he is the exception to the rule – most all livestock owners are less focused on productivity measures, given their high variability and difficulty of tracking, and more on whether or not his animals are seen to be stolen from the patriarch’s herd.

investments ---outside investments that will decline as the social ties of emigrants become reoriented away from home regions in the Sahel. In the relatively productive Maasina, capital investments from within and outside of the area are still forthcoming. Unless a solution to the “labor remuneration standoff” is found, herd patriarchs and herders will increasingly find themselves managing the livestock of fewer and fewer owners. The fragility of their identity as “free FulBe” will be increasingly exposed as they trade their traditional claims to floodplain pasture for the “opportunity” to herd the livestock of a large livestock owner. In rainfed Sahelian areas that are less productive, the importance of livestock as capital, drought reserve etc. will decline as livestock’s importance as a commodity will increase. In such areas, recurrent drought has very much limited the accumulation of livestock wealth. Animals are still being raised in these areas but the age in which they are sold has declined. In this way, the Sahelian zone is increasingly a zone in which livestock are produced only to be sold for further growth and fattening in the more well-watered south (Amanor, 1995) -- consistent with the long-held vision of by livestock development experts of “regional stratification” of livestock production.

Conclusions

Conventional treatments of the livestock economies in arid regions of Africa have bemoaned, explained, or defended the perceived limited engagement by “pastoralists” with markets. The Maasina case illustrates that such treatments only partially capture the realities of West African “livestock economies.” As commodities and forms of capital, livestock play analogous roles and show similar dynamics to depictions of more conventional commodities and capital in economic geography. Still, as living creatures who move, reproduce, wreck environmental damage, and require labor services to access pastures, livestock do not conform to highly-reduced economic understandings of commodities or capital. In this paper, I have shown that the

mixed economic, social, and biological roles played by livestock cannot be ignored when tracing the evolving political economy of livestock husbandry in the Sahelian region. An important nexus is the relationship between livestock ownership and the labor required to manage this wealth. The vast majority of Sahelian livestock rely on natural pastures for nutrition. A basic requirement is that herders, pastures, and livestock need to come together in particular places despite the fact that livestock owners are likely to be distant from these places. In the Maasina, I show that geographic adjustments between the presence of livestock wealth and the labor required to service this wealth are far from automatic. These capital and labor markets are strongly mediated by social relations surrounding the security of livestock entrustments, labor contracts and access rights to pasture. Changes in these social relations will have profound effect on the future of livestock husbandry in the region.

Not only in the Maasina but the region more broadly, the economic and environmental futures of the livestock industry will not be determined simply by “supply and demand” for meat or ability of recalcitrant livestock rearers to develop a more “modern” outlook and produce for the market. The possible futures hinge in large part on the nexus of wealth and labor. Will those controlling economic surplus, often residing in places far from suitable rainy-season pastures, find that alternative investments are more secure and profitable? Will the only way that owners can secure their investments involve investing in single-owner herds leading toward a reorganization of livestock husbandry in the Sahel? Will herders continue to abandon their profession or move to areas to south to work as salaried herders? The answers to these questions will hinge in large part on the evolving relationship between owners and herders. If the level of trust between these parties and security of the herding contract are not improved, the prospects for Sahelian countries to benefit from their regional “competitive advantage” is low.

Entering this complex nexus are donor-funded programs of ranching, livestock marketing, peri-urban animal fattening...etc.¹⁰ These programs, which have a long history in Africa, look to markets to circumvent, modernize or rationalize the recalcitrant “pastoralist” (Ferguson, 1994). These views continue to circulate and influence development programs despite the fact that they miss the broader contours of the issues facing the livestock industry. The herder crossing the highway, as seen from the developer’s landrover, is likely not to own the livestock he is herding. The owner may actually be the ministry official sitting in the landrover speaking of herders’ resistance to sell “their livestock.” Global development efforts, strongly influenced by ideas of political decentralization and reliance on markets, are translated to the Sahelian context along these familiar lines despite evidence strongly questioning their underlying assumptions. The persistence of these views only has served to erode the livestock industry’s access to productive resources (through land enclosure, labor emigration, and shifts in livestock ownership) leading one to seriously question what system, in the end, will be left to rationalize.

¹⁰This is difficult to connect to “neoliberalism” since markets have long been promoted in Africa as mechanisms to make the irrational rational, the isolated found, the unprofitable profitable, the illegible legible, and the insecure secure. Arguably, a new emphasis in market institutions is most discernable in the realm of environmental management including payment for ecosystem services and market-based wildlife conservation (Barrett and Arcese, 1995). An example of the more subtle promotion of market institutions in the realm of rangeland management has been the argument that an expanded network of livestock markets, rather than herder-managed livestock movements, can be relied upon to adjust grazing pressure to changing pasture conditions (Fafchamps, 1998; Fafchamps and Gavian, 1996; Holtzman and Kulibaba, 1994).

Table I. Changes in the number of cattle owned by outsiders (with % owned by largest owner) and by members of herding family for ten herds at the beginning (1989) and at the end (2003) of 14-year period. Cases in which the original herd was split into two during the period are shaded in grey.

Herd	1989		2003	
	Outsider	Family	Outsider	Family
1	70 (27)	0	137 (18)	0
2	106 (36)	20	238 (42)	6
3	55 (31)	10	102 (100)	0
4	98 (13)	0	132 (20)	0
5	81 (19)	3	166 (8)	0
6	220 (22)	1	263 (39)	2
			357 (42)	2
9	205 (11)	8	182 (13)	3
10	92 (22)	10	73 (62)	6
			37 (24)	0
17	105 (19)	6	121 (19)	0
18	4 (*)	121	38 (42)	40

Table II. Number of cases in which a reason was mentioned for why livestock owners and those without livestock (no livestock) prefer to make investments in Bamako (urban) versus livestock investments back home (Maasina livestock). All reasons given by a particular informant for his preference falling in different categorized were counted.

Reason	Livestock Owner		No Livestock	
	Urban	Maasina livestock	Urban	Maasina livestock
Profitability of investment	6	1	9	7
Security of investment	8	0	9	6
Ease of making investment	5	2	1	5
Capacity to monitor investment	7	1	7	8

Table III. Number of cases in which responses to the following questions elicited particular response types among those informants owning Maasina livestock (n=12). For each respondent, full responses often mentioned multiple criteria/reasons. In such cases, multiple response types were assigned to a single respondent and these were tabulated and counted.

<i>Why did you purchase Maasina livestock?</i>	
For economic profit	4
Put a wealth store in place to support family in Maasina	8
Increase your prestige	1
Increase the prestige of your family	6
Maintain friendship with a herder	1
Other	2
<i>By what criteria do you decide to whom you confide your animals?</i>	
Persuasiveness of the herder	1
Old social ties between families	6
Kinship relations	2
The reputation of the herder	6
Friendship with the herder	3
Other	1
<i>By what criteria do you decide whether to take back livestock confided to a herder?</i>	
Productivity of livestock	3
Number of unexplained losses	7
Management of milk*	1
Grazing management	3
Other	3

*This refers to the degree to which the FulBe herders are seen to not leave sufficient milk for calves after milking cows.

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