

Individualization of Livestock Ownership in FulBe Family Herds: The Effects of Pastoral Intensification and Islamic Renewal

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A man's herd is a complex organization of individuals tied to one another in diverse ways; quite as complex as the community of people in which he lives and in many ways reflecting that community. His herd depicts the household structure, lineage, and clan; expresses the network of social relationships as they extend to his father's father and the yet unborn son of his son; and also reflects the ties that have been established through the marriages of his aunt and his sisters and the no less tenuous ties arrived at through contractual relationships, all of which bind him to widely scattered fellow tribesmen (Goldschmidt 1986:80).

Like the Sebei herds in East Africa (Goldschmidt 1986), the family herds of FulBe pastoralists in West Africa also reflect the social relations of their households and can be read as social biographies of the people who keep them (Bonfiglioli 1988). For example, some animals in FulBe family herds may be descendants of a line of animals that has been in the patriline for generations. A few of them may have been given to children in the household, thereby reaffirming the continuing fertility of both family and herd. Other animals in the FulBe family herd may be gifts or loans from parallel cousins, which reinforce the kin ties between families. Others may have been inherited by wives from their parents and represent affinal ties with the matriline. Yet other animals are entrusted or loaned by friends and represent the current social network of the household head and other adult males. One could argue, following Mauss (Mauss 1925), that the FulBe family herd is a total social system in that the whole community is implicated in the herd of one family through the transfers and exchanges of animals, and the obligations these entail. This also means that one can describe FulBe social systems through an examination of property relations in one family herd (Douglas 1990; Goldschmidt 1969).

However, in one of the pastoral FulBe communities in which I conducted my dissertation research, one can no longer reconstruct the social system through an examination of property relations within the family herd, which also could no longer be read as the social biography of its people. In this peri-urban community, individualization of livestock ownership and disappearance of livestock transfers has resulted in more exclusive property rights and a concentration of livestock in the hands of one person: the household head (*baaba saare* or patriarch). These changes in property rights represent an 'invisible transformation', in that they cannot be directly be observed but do have far-reaching consequences for social and economic relations within and between households (Baxter 1990:iii).

In this paper I will briefly discuss the causes of this invisible transformation within peri-urban FulBe family herds: pastoral intensification and Islamic renewal. The greater part of the paper is dedicated to a discussion of property relations within and between households; one section covers livestock ownership, another covers livestock transfers – both are intrinsically linked. I discuss how the individualization of livestock ownership among peri-urban pastoralists entails a number of other shifts in property relations within and between households: usufruct rights have become less important; ownership has become more exclusive, i.e., there are fewer overlapping rights over animals; and, there are fewer transfers of property rights.

In order to highlight the changes in property relations within peri-urban family herds, I make a comparison with property relations in an agro-pastoral village located about 40 kilometers away in a more rural area. Twenty-five years ago, before the simultaneous processes of intensification and Islamic renewal brought about the individualization of livestock ownership, the peri-urban pastoral system was much like the agro-pastoral system is today (Moritz 2003). The data on property relations in FulBe family herds was collected in a comparative study of three pastoral FulBe communities during a year of ethnographic fieldwork in the Far North of Cameroon in 2000-2001 (Moritz 2003). The three communities represent different types of pastoral systems: peri-urban, agro-pastoral, and nomadic. Here I limit my discussion to the peri-urban and agro-pastoral systems.¹ But I start with a brief introduction of FulBe pastoralists in the Far North Province and the peri-urban village of Wuro Badaberniwol in particular.

FulBe Pastoralists in the Far North Province

The Far North Province has a semi-arid climate with one rainy season from May through September and annual rainfall that ranges from 400 mm in the north to 1000 mm in the south of the province. Two phytogeographic zones characterize the province: Sudanian (Sudano-sahelian) in the southern part of the province, including the Diamaré plains, and Sahelian (Sahelo-sudanian) in the Logone flood plain. The traditional transhumance areas, the Diamaré plains and the Logone flood plain, form complementary resources in the pastoral ecosystem of the Far North in which the former provide pastures in the rainy season, the latter in the dry season (Requier-Desjardins 2001:28).

Rangelands were never communally owned by pastoralists in the Far North Province. FulBe pastoralists lived interspersed with agriculturalists of different ethnic groups (e.g., Zumaya, Giziga). In the pre-jihad times, pastoralists would request permission from local chiefs of these groups for access to rangelands. After the jihad, which was started in Sokoto in 1804 by sheikh Uthmân dan Fodio and resulted the establishment of FulBe emirates in the Far North a few years later, FulBe pastoralists negotiated with FulBe chiefs (*laamiiBe*) over access to rangelands and security in exchange for tribute (Moritz, et al., 2002). The FulBe emirates provided for pastoralists relatively safe and secure access to rangelands in the Diamaré. Access to rangelands in the Logone flood plain was arranged with Musgum and Kotoko sultans following the same principle of tribute in exchange for access and security. When the Europeans conquered northern Cameroon, they incorporated the traditional FulBe authorities in the colonial administration. The Germans and later the French did not directly interfere with relations between traditional authorities and pastoralists, and the independent republic of Cameroon continued the hands-off policy in which pastoralists negotiated with traditional authorities over access to rangelands (Moritz, et al., 2002).

Pastoralists' primary contacts continue to be the traditional authorities: FulBe *laamiiBe* in the Diamaré, Musgum and Kotoko Sultans in the Logone flood plain. The governmental and

¹ The main corpus of data consists of an inventory of livestock ownership and stewardship of all members in a household, including children. I recorded data on the structure of the herd, e.g., sex, age, location of animals, and property rights over these animals. I also collected data on changes in the herd during the year 2000-1 (e.g., births, deaths, sales, loans) and on livestock transfers that people were involved in during their lifetime (Moritz 2003).

municipal authorities, for their part, use the agents of the traditional authorities in their contacts with and tax collection from pastoralists. No pastoralist is refused access to rangelands in the Far North as long as they pay taxes to the authorities. Requier-Desjardins has argued that there is some degree of regulation of rangeland access through the differential payment of taxes (2001). Pastoralists pay taxes to governmental, municipal, and traditional authorities in each municipal district. However, non-Cameroonian pastoralists and pastoralists from outside the district pay more than 'resident' pastoralists, in addition, there is a system of seniority in which pastoralists that have practiced transhumance to a particular area for a number of years pay lower taxes than recent arrivals (Requier-Desjardins 2001). The differential taxation is not necessarily resulting from an effort on the part of the authorities to regulate access to natural resources. As long as pastoralists pay, they are not refused access by the authorities (nor by fellow pastoralists), and in practice, the access to rangelands can be considered open access in which there are few restrictions for pastoralists.

FulBe are the main pastoral people in the Far North Province are the FulBe, living primarily in the Diamaré Division, while Shuwa Arabs live further north in the Logone-Chari Division. The majority of the FulBe are descendants of the pastoral FulBe conquerors from the eighteenth and nineteenth century. Nowadays, many FulBe are only peripherally involved in pastoralism, while others are agro-pastoralists who live in multi-ethnic villages. The FulBe identity in the Far North is based on Islam and their pastoral heritage. The FulBe believe that they are the only true Muslims in the Far North and the only true pastoralists. Many FulBe, even those in the cities who no longer have a daily involvement with cattle, own animals, which they have entrusted to family, friends or salaried herders. FulBe think that they are the people chosen to own animals. This conviction is expressed in a number of proverbs, such as, *waagaare Pullo waalde maccuDo a yaalan a yaaltata* (a Pullo's [singular of FulBe] sheaf of sorghum stalks, a slave's corral, you pass it on your way, you will not pass it on your return), meaning FulBe should stick with raising cattle and leave agriculture to others (and vice versa). Cattle are not only of symbolic importance; it also remains an important economic resource many FulBe in the Far North.

The peri-urban village *Wuro Badaberniwol* (Community Close to the City), the focus of this paper, is a community of FulBe, RiimayBe (former slaves of the FulBe), and Kanuri households, which is located about 10 kilometers from the provincial capital of Maroua. The area has high population densities ranging from 100 to 149 inhabitants per km² (Seignobos and Iyébi-Mandjek 2000). Over the years, the village has become incorporated in the conglomeration of Maroua, which has grown from approximately 50,000 to 400,000 inhabitants in the last twenty-five years. Most household heads earn part of their income through commerce in Maroua dealing in a wide range of commodities (e.g., cattle, small stock, cereals, groundnuts, cloth, dried fish), crafts (e.g., bicycle repair, tailor, watch repair), or providing services as religious specialists (*maraboutage*). All the peri-urban pastoralists cultivate sorghum for auto-consumption and cotton for cash. Several of the wealthy pastoralists in Wuro Badaberniwol have entrusted part of their cattle herds to nomadic FulBe pastoralists. Other poorer inhabitants have entrusted a few heads of cattle to friends or family in neighboring villages. In this paper I will focus my discussion on the six pastoral households, which had a daily involvement with cattle. This excludes the six households that have entrusted cattle to friends and family in neighboring villages and the fourteen poor households that had no cattle at all; *ko wicco* (not even a tail).

The Effects of Intensification

The Far North Province has some of the highest population densities and growth rates in the Sudan-Sahelian zone of West Africa. Over the last decades, the population has grown from 1,395,231 inhabitants in 1976 to an estimated 2,467,000 in 1995, or about 65 inhabitants per square kilometer (Seignobos and Iyébi-Mandjek 2000). However, the densities in the traditional transhumance zones are much lower (10 per km²) than the densities in the Diamaré plains (70 per km²). The population growth in the Diamaré has led to a rapid expansion of agriculture and subsequent disappearance of the bush. In the densely populated peri-urban areas around Maroua there are practically no rangelands left today.

This expansion of the city and subsequent pressure on rangelands is the main cause for the ‘indigenous intensification’ of pastoral systems in the peri-urban area of Maroua (cf., Tiffen, et al., 1994). There is practically no forage in the peri-urban area. A biomass study showed that the grazing capacity, i.e., the number of animals that can live off the forage available in a determined period, is extremely low: 11 animals per day per 100 hectare in the dry season (Moritz 2003). Cattle in the peri-urban area cannot survive without supplementary feed. Pastoralists in the Far North Province have used cottonseed cakes and hulls, by-products from the Sodecoton refineries, as supplementary food for exhausted or malnourished animals since the 1980s. Today, however, peri-urban pastoralists use these products as substitute for natural forage for all their animals. The extensive use of these feeds represents an intensification of the peri-urban pastoral system. Intensification refers here to a transition from a pastoral system that relies on free natural forage to a capital-intensive system that relies on expensive cottonseed cakes.

Over the last decades, the overall costs of the pastoral production system have increased almost eight-fold in the peri-urban area. The biggest rise in costs comes from supplementary feed of cottonseed cakes and hulls, which constitute 62% of the total costs of the pastoral production system in the peri-urban village of Wuro Badaberniwol compared to 23% in more extensive, agro-pastoral systems in the rural areas, or respectively 7,552 FCFA (\$10) and 401 FCFA (\$0.50) per animal. Consequently, the total costs per animal are significantly higher in the peri-urban area than in the more rural areas, respectively 12,555 FCFA (\$17) versus 1,868 FCFA (\$2.50) per year (Moritz 2003).²

Unlike in the agro-pastoral village, where all production costs concerning the family herds (including the animals of outsiders) are covered by the household head, in the peri-urban village of Wuro Badaberniwol the household head covers some but not all production costs. Because production costs have increased so dramatically, household heads have distributed some of the costs to individual owners. The costs that are covered by the household head are *collective costs*, which are independent of the number of animals in the herd (e.g., herding wages). *Individual costs* are costs that can be directly traced to individual animals, e.g., veterinary care and cottonseed cakes, and are covered by the owners of these animals (Moritz 2003). The highest individual costs are those for cottonseed cakes and hulls, and each individual owner has to pay these for his or her own animals (this applies also to adult children, wives, and other resident

² The use of cottonseed cakes has also radically altered the daily management of cattle in the family herd. Animals are fed individually and twice daily, once in the morning before the animals go to ‘pasture’ and once in the evening upon return in the dry season. Feeding cattle cottonseed cakes thus also resulted in a more labor-intensive form of production. In the rainy season, the animals are sent on transhumance to the Mindif-Moulvoudaye region because of the increased of crop damage in the peri-urban area during the growing season.

kin). Individual owners are also responsible for purchasing and storing cottonseed cakes for their own animals. Most men cultivate cotton to have relatively cheap and reliable access to cottonseed cakes via the Sodecoton, as they have the option to get paid in cottonseed cakes at a lower factory price. This is generally not sufficient and they have to buy additional sacks at the markets in Maroua. Men use income from trade or sales of small stock and cattle to buy additional sacks of cottonseed cakes. Women use income from petty-trade, sale of small stock, or the sale of dowry (e.g., enamelware, jewelry).

There is a growing reluctance on the part of the household head to cover the collective costs for animals from others, including kin. Members of the household increasingly treat their animals as personal instead of collective property and when they sell their animals, they use the revenues solely for personal expenditures. Moreover, they do not compensate the household head for his expenses. Outsiders who have entrusted animals, on the other hand, generally compensate the household head for taking care of their animals by giving him a percentage of the sale price. Peri-urban household heads feel that the collective expenses they make for the family herd are taken for granted by other household members. Consequently, household heads are more reluctant to relinquish control over animals in the family herd by transferring ownership title to other members of the family.

Individual owners on the other hand, no longer regard their animals as that part of the family herd that serves collective household needs. Because they cover the cottonseed cake costs of their animals in the family herd, they are reluctant to let the household head sell these animals for collective household needs. When a woman sells items from her dowry, her lifetime security blanket, to feed her animals, she is unlikely to let the household head sell them for collective household needs. This is particularly an issue in polygynous households, which all peri-urban pastoral households were.

Though it is unclear whether initially individualization of ownership led to redistribution of the cottonseed cake costs within the household or vice versa, the fact is that the two phenomena reinforce each other today. Intensification and the subsequent redistribution of costs over the individual owners of animals in the family herd has strengthened the individualization of livestock ownership within the family herd. This process is further reinforced by a simultaneous process of Islamic renewal in the peri-urban areas of Maroua.

The Effects of Islamic Renewal

The spread of Islam in West Africa has been associated with the development of trade, the promotion of private property and the accumulation of wealth (Last 1979; Levtzion 1979; Lovejoy 1971). Islamic traditions have also affected economic behavior in the domestic sphere of FulBe households and family herds. Peri-urban pastoralists' stricter adherence to the codes of Islam played a critical role in the individualization of livestock ownership in FulBe family herds. This stricter adherence is part of a movement of Islamic renewal, which is an umbrella term that incorporates many changes that all have in common an increasing commitment to a more orthodox form of Islamic practice (Watts 1999: 70). The recent movement of Islamic renewal in northern Cameroon started with the change of the presidency in 1982, when catholic Paul Biya succeeded the Muslim (and FulBe) Ahidjo and introduced policies aimed at breaking the power of the northern Islamic bloc. FulBe compensated for the loss of political power and influence

with a renewal movement in the religious arena, which Seignobos and Iyébi-Mandjek refer to as the ‘birth of an Islamic Renewal’ (2000).

FulBe have been Muslims for centuries and Islam is a defining feature of their ethnic identity. Islam has deeply impregnated every aspect of their society, to the extent that *pulaaku* (FulBe-ness) and Islam have merged into a single cultural ideology (see also, Boutrais 1984; Bovin 1990; Buhl 1999; VerEecke 1989). The pursuit of piety is an integral part of the Islamic renewal, and refers to a continuous endeavor of individual FulBe to become better Muslims by actively studying, observing, and applying Islamic codes to everyday life (Moritz 2003). Koranic education and Arabic literacy provide greater access to religious knowledge, which in turn affords greater piety. There is thus direct link between greater access to religious knowledge and stricter adherence to the codes of Islam. This is evident in the peri-urban village of Wuro Badaberniwol, which had more educated Muslims (*mallum'en*), mosques, and Koranic schools compared to agro-pastoral villages in the rural areas. Peri-urban pastoralists also followed more strictly the rules and traditions of Islam than agro-pastoralists in the rural areas.

The stricter adherence to the codes of Islam played a critical role in the individualization of livestock ownership in a number of ways. First, individual rights are more clearly defined in Islamic legal traditions, including inheritance laws. Islamic inheritance laws favor individual ownership, including that by women, whereas previous pastoral FulBe traditions prioritized the continuity and integrity of the family herds. In the past only sons would inherit, and patrilocal residence rules ensured that sons continued to live together after the death of the household head. This meant that the family herd would not be divided among inheritors and remained a viable economic unit (cf., Hopen 1958). The Islamic inheritance codes prescribe that property must be directly divided among the direct survivors: children, spouse(s), and parents. Sons inherit twice as much as daughters, while spouses inherit one fourth or one eighth (depending on the number and type of heirs). In the peri-urban village of Wuro Badaberniwol, pastoralists followed the Islamic codes strictly, even when this meant breaking up the family herd into non-viable parts. Not doing so would have been a flagrant violation of the religious norms in the village and marked the individuals as more interested in pastoral wealth than in religious observance.

Secondly, stricter adherence to the codes of Islam also indirectly promoted the individualization of livestock ownership through the widespread adoption of the ‘urban Islamic family model’ in the peri-urban area. This family model is characterized by seclusion of women, polygyny, separation of spouses’ income and property, and shifts in the rights and responsibilities of spouses. Although seclusion of women is the most visible change associated with the adoption urban Islamic family model, its impact on the economic organization of pastoral households is minimal as FulBe women continue to market dairy products from their compound to itinerant dairymaids. The increase in polygyny rates and polygynous households had a greater impact on the economic organization of peri-urban pastoral households because of the associated institutional changes. Income and property of spouses, being wives and husband, is kept strictly separate in polygynous households instead of pooled in a common household fund. This separation of property also extends to livestock ownership in the family herd.

In addition, peri-urban household heads are now solely responsible for provisioning the household; women no longer contribute the revenues from dairy marketing to the common household fund but instead use them for personal expenses (e.g., soap, wedding gifts, travel costs) and investments (enamelware, jewelry). This has led to a shift in the domestic economy. FulBe men rely on the sale of animals to provide for the household, now that dairy revenues are no longer available. One of the consequences is a re-allocation of milk from marketing to calves.

Although milk continues to be the female domain, a woman's supply of milk remains under direct control of the household head who milks and decides whether to allocate milk to nursing calves or to women. In the past, when revenues from dairy marketing still contributed to the common household fund, it was in the interest of household head to allocate sufficient milk to women for dairy marketing in order to avoid the sale of animals. Although peri-urban women retain their traditional usufruct rights over milk, these rights have become weaker as household heads make decisions in favor of overall herd growth by allocating more milk to nursing calves (Moritz 2003). This is also associated with another change in usufruct rights; whereas in the past women had rights over the milk from a specific cow (*Biriteenge*), today they have rights over a proportion of the total milk yield from the family herd.

Now I have outlined the causes and nature of the changes in property relations within peri-urban households and family herds, I will compare livestock ownership and transfers in the peri-urban and agro-pastoral villages in both quantitative and qualitative terms.

FulBe Family Herds

The FulBe do not have a direct translation for 'family herd'. The Fulfulde word that best covers the animals managed but not necessarily owned by a household is *waalde*. *Waalde* is the corral where animals are regrouped and rest at night. In everyday use *waalde* also refers to the animals of the corral, which makes it a good equivalent of family herd (Moritz 2003). FulBe also use the term *saareeji* to refer to the family herd, but this term is ambiguous since it can refer to all the animals in the corral regardless of who owns them, but also to those animals owned by members of the *saare* (household, family) as opposed to *yaasiji* (animals owned by outsiders).³

FulBe family herds are always amalgamations of animals over which the members of the household and outsiders have a variety of property rights and obligations. Some animals are owned by outsiders, others are owned by individuals within the household, non-resident consanguineal kin or affinal kin. The fact that a family herd consists of animals that are owned by multiple people with different, often overlapping rights over the animals is reflected in a number of sayings. *Waalde Pullo reedu waynaare* (the corral of a Pullo is like a cow's third stomach [which has many folds]) expresses the norm that FulBe family herds are never owned by only one person but always contains animals from other people hidden in the folds. *Waalde Pullo boo bana tummude kilaajo* (a Pullo's corral is like a blacksmith's gourd). Blacksmith gourds contain many items; some are useful and others are useless, meaning that not all animals in the family herd can be used to meet household needs because it has usufruct rights over the milk of outsiders' animals but not the right of its disposal, which is the right to sell the animal (or dispose of the animal in other ways). *Dam balo non Dum luggay* (the water is dark but not deep) meaning the size of the herd does not indicate the wealth of the household (head). Someone might seem wealthy because he has a sizeable herd; while in reality he is very poor since he does not own the animals (Moritz 2003).

³ Depending on the closeness of kin ties, cattle from non-resident kin are generally regarded as *saareeji* (cattle owned by the family), in particular when they are owned by women (daughters, sisters, mothers, or aunts) or young sons. Cattle bought on the market (*coodaDi*) are not regarded as *saareeji*. In general, household heads have more control over inherited animals (*tawtwaDi*), than animals that were brought into the herd from the outside through market or other exchanges.

Property rights over cattle in FulBe family herds are complex (see also, Diallo and Pelican in this volume). Different people can have different property rights over the same animal. Members of a patrilineage have moral claims over a cow called *helooye* because she is a descendant of a cattle lineage (*jabbere*) that has been in the human lineage for generations. The household head with such a cow in his family herd cannot simply take the animal to the market and sell it; other lineage members have the right to buy it first. The wife of the household head has use rights over the milk from this cow (*Biriteenge*), which was assigned to her by her husband's father at the birth of her first child. Her son was given ownership rights over this animal when his father assigned it to him as *sukkilaaye* (gift of a heifer from parent to child). However, the son's ownership rights only become effective with the death of his father, who until then has the right of disposal over the animal. Finally, a number of animals in the herd may have been loaned or entrusted by outsiders and/or non-resident kin (*nanngaaji, goofalji, kalfiiji*) and the household has only usufruct rights over these animals but the right of disposal.

Livestock ownership in FulBe pastoral societies is an excellent illustration of the complexity of property described aptly by anthropologists, drawing from Sir Henry Maine, as a bundle of rights that can be ranked (Hann 1998). Property rights over livestock can be held by individuals, families, households, and lineages, and all these different corporate units can have simultaneous and overlapping rights over the animals. Owners never have absolute rights over an animal and rights are never perfectly specified and enforced (cf., North 1990:33). When studying property rights, it is thus important to attend to ideals as well as practical outcomes of institutional arrangements of property rights (Carrier 1998; Gulliver 1964; Hann 1998). These property rights can also be regarded as property relations in that they govern the conduct of people within the household with respect to the use and disposition of cattle (Hann 1998:4).⁴

The parallel processes of indigenous pastoral intensification and Islamic renewal have significantly affected property relations in peri-urban family herds in multiple, interrelated ways. I have already touched upon a number of these changes above, but will discuss them in more detail below in a comparison of livestock ownership and transfers in peri-urban and agro-pastoral family herds, examining both the principles and practices of property rights over cattle.

Livestock Ownership

The increasing costs of pastoral production, the distribution of costs from household head to individual cattle owners, and the institutional changes in the economic organization of the household have affected property relations in the peri-urban family herds. In the peri-urban village of Wuro Badaberniwol, household heads own the majority of the cattle in the family herds (78%), followed by wives (7%), resident children (6%), resident kin (5%), non-resident kin (2%), and outsiders (2%)(see table 1). There are practically no animals from non-residents in the peri-urban herds (4% compared to 36% in the agro-pastoral herds). And compared to the agro-pastoral village, livestock ownership is much more concentrated in the hands of the household head in the peri-urban village (78% versus 37% in the agro-pastoral village). There are a number of reasons for this concentration of livestock ownership. First, household heads are unwilling to

⁴ And, as I have discussed above, these property relations are not only affected by larger economic and cultural processes, they also have implications for pastoral production within households, i.e., a shift from milk to 'meat' production (Moritz 2003).

take in animals from others, including their wives, because they frequently end up covering the collective (and sometimes individual) costs of animals over which they no longer have the right of disposal. Second, household heads are reluctant to transfer ownership rights to their children because they fear to lose the right of disposal over these animals.

FulBe society is patrilineal and patrilocal and as a result, the position of wives in FulBe household is ambiguous. Women always remain members of their fathers' family and household, while their children are members of another household. A woman generally only becomes invested in her husband and children's family when her sons have come of age and are old enough to defend her, and their future, animals against claims from her husband. It is only then that she will transfer her cattle from her father's herd to her husband's herd. The majority of animals owned by women remain in the family herd of their father. When a woman keeps her animals in her father's herd, she does not have to contribute to the costs of cottonseed cakes. In that case, her animals are part of the family herd (*haa nder saare*). But this also means that her animals are more likely to be sold by her father (or brothers) to provide for the household. When a woman keeps animals in her husband's herd, they are regarded as outsiders' animals or *na'i yaasi*, which cannot readily be sold by the household head. But then she has to cover the costs of cottonseed cakes. Many household heads in the peri-urban village refuse, however, to take in cattle from their wives in the family herd because they do not want to cover the collective costs of animals that they cannot sell for household needs. Nevertheless, the percentage of cattle owned by women is higher in the peri-urban village of Wuro Badaberniwol than in the agropastoral village (respectively 7% and 3%). This may be a reflection of the fact that women's individual property rights are better protected under Islamic codes than under previous FulBe traditions.

Very few animals in the peri-urban village of Wuro Badaberniwol are owned by non-resident kin and outsiders (2% each). The primary reason is that the costs are too high. Entrusting animals in the peri-urban area means that owners have to reimburse the household head (i.e., herd manager) for all the costs. Moreover, in many cases, it means that owners have to purchase cottonseed cakes, hulls, and sorghum stalks themselves and supply these to the herd manager because purchasing these supplementary feeds is time-consuming and stressful (due to unreliable access). Herd managers are loath to take on these responsibilities for other people's animals over which they do not have the right of disposal. For owners, on the other hand, it is simply cheaper to entrust animals farther away from the peri-urban areas where there is natural forage and they do not have to cover the costs of cottonseed cakes.

The relationship of entrustment is inherently fraught with tension, and even more so in the peri-urban areas. Owners are always preoccupied with the question whether the herd manager (or herder) takes good care of the animals and is not selling them without permission. Herd managers, on the other hand, are concerned with the effort and costs they expend for other people's animals. Animal husbandry in the peri-urban areas is more capital and labor intensive and this only aggravates the reluctance of herd managers to take in outsider's animals. Mutual trust is the basis for the relationship of entrustment. One way to conserve this trust on the part of the owner is to have minimal contact with the herd manager and generally avoid direct inquiries about the animals. When an owner has to make regular contributions or reimburse the herd manager for costs made, it leads to more frequent contact and this ultimately is detrimental to the relation of trust between owner and herd manager.

The discussion of the entrustment relation shows how livestock ownership, and changes herein, are directly linked to livestock transfers, through which many animals come into FulBe family herds.

INSERT TABLE 1

Livestock Transfers

In an examination of property rights in FulBe family herds it is equally important to discuss how property rights are transferred and property relations are established. Because it is through the transfers of livestock and rights there over that the herd becomes the nexus of social relations within the household and with other pastoral households in the community.

There is a variety of livestock transfers within and between pastoral FulBe households in the Far North Province.⁵ The main livestock transfers within the household are: gift of heifer to children (*sukkilaaye*), indirect dowry (*sadaaki* – the gift of a cow by the groom’s family to the bride) and inheritance of cattle (*donaaye*). There is no system of pre-inheritance gifts among the agro-pastoral and peri-urban pastoralists in the Far North Province. The main livestock transfers between households are: loans (*nanngaaye*), temporary loans of milking cow (*diilaaye*), entrustment (*goofalye*), guardianship (*halfiinge*), gift (*hokkaange*), and purchase of an animal (*soodaaye*). These transfers can be categorized as three forms of changes in property rights: ownership change (gift, purchase), nominal ownership change (gift to child, indirect dowry, inheritance), and change of holder only (loan, loan of a milk cow, entrustment, guardianship).

The parallel process of pastoral intensification and Islamic renewal have resulted in more individual and exclusive property rights over animals and a decrease in transfers within the household, while the increase in production costs is primarily responsible for the disappearance of transfers between households. Here I will briefly discuss these changes by comparing livestock transfers in the peri-urban and agro-pastoral village within each category.⁶

Gifts to Children

Sukkilaaye (plural *sukkilaaji*) is the gift of a heifer to a child by parents, namesakes, or kin. The *sukkilaaye* concerns a livestock transfer from one generation to the next; it is not given within generations. The *sukkilaaji* are generally given by parents to their children. Both mother and father give and both sons and daughters receive *sukkilaaji*, though sons more often than daughters. The age of children can range from zero to twenty and older. The *sukkilaaye* becomes the personal property of the child *huunde maako tabitinde* (his/her thing for sure), meaning that in principle the offspring of the *sukkilaaye* in the family herd are not taken into account when the inheritance is divided among inheritors. The *sukkilaaye* is the livestock transfer that comes

⁵ I am using here ‘transfers’, following (Hunt 2001), because the concept of transfers covers both exchanges and gifts.

⁶ I will not discuss inheritance of cattle here because I already covered this in the section on Islamic renewal.

closest to what is described as pre-inheritance in other pastoral FulBe societies (Bonfiglioli 1988; Dupire 1962).

One reason why parents give a sukkilaaye to their child is to test the child's *risku* (luck, predestination). If the heifer reproduces well, and the child's cattle holdings grow, it bodes well for the future economic success of the child. It means that the child has *risku*. The household head can profit from the *risku* of this child by giving multiple animals that consequently would reproduce quicker than under the ownership of the household head. Sukkilaaye are given for a variety of other reasons as well: the sukkilaaye may be born on the same day as the child; the giver of the sukkilaaye is a homonym of the child; or the giver and parent of the child are friends.

In the past, the household head retained the right of disposal over all the animals in the family herd, including the sukkilaaji of his children. The household head could sell them to provide for the family. The household head in principle retained this right of disposal until his death, although in practice he gradually lost this right as he ceded the daily management to his oldest son. Today household heads in the peri-urban village (but also in the agro-pastoral village) often complained that they have lost the right of disposal over sukkilaaye to which children previously had only nominal title. Children now protest the sale of their sukkilaaye and its offspring. In response, many peri-urban household heads no longer give their children sukkilaaye, which was reflected in the low percentage of sukkilaaji in the peri-urban herds compared to the agro-pastoral herds (0.6% versus 3%)(see table 2).

INSERT TABLE 2

Indirect Dowry

Sadaaki is the indirect dowry from the groom's family to the bride. Sadaaki, an Islamic tradition, compensates a woman for the loss of virginity in marriage. In the past a bride was given a cow in the herd of her husband's family by her father-in-law as sadaaki. The gift did not involve a physical transfer of cattle but only a change of ownership in the husband's family herd. The gift of a cow as indirect dowry has all but disappeared in the peri-urban area in the early sixties and among agro-pastoralists in the mid-seventies. Today, fathers-in-law prefer to give cash instead of cattle to the bride. In this way, the household head remains in full control over all the animals in the family herd. This monetarization of the dowry is one example of the gradual disappearance of livestock transfers and an increasing concentration of livestock ownership in the hands of the household head. Women complained that the monetarization of the sadaaki meant that they had less (re-)productive capital and were thus more dependent on their husbands. Cash, they argued, disappears more readily than cattle, even more so when the bride's parents take the money to finance her dowry.

This does not mean necessarily that women had more control over their sadaaki in the past. In principle, the sadaaki animal only remained property of the husband's family if the woman ran away and the marriage was not consummated. In all other cases, the animal(s) belong to the woman. The practice was different, however. When a woman ran away or asked for divorce she lost title to her sadaaki animal and its offspring (*jabbere sadaaki*). In general, it was considered shameful to ask for the sadaaki animals, even when a divorce was initiated by the

husband. In practice, a woman could only take sadaaki animals when her husband died. In many cases, a woman did not know whether she was given an animal as sadaaki, and if so, which animal.⁷ FulBe men were always reluctant to give animals as sadaaki, and some joked about how women were given a fictive animal named *koobaaye*, which comes from *kooba* (antelope), suggesting that the women were given an antelope that had run away to the bush and disappeared (Moritz 2003).⁸

Loans

The *nannganaaye* or *haBBinaaye* of the WoDaaBe is the quintessential livestock loan in the FulBe literature and its ideology has been well described (Bonfiglioli 1988; Dupire 1962; Scott and Gormley 1980; Stenning 1959). The basic principle of the WoDaaBe *nannganaaye* is the following: a heifer is loaned, and returned only to the owner after it has calved three times. The three offspring are for the recipient to keep. The loans serve both as aid for young herders to set up their own independent household and family herd and as aid to reconstitute a family herd after disaster. There is often an implicit assumption in the literature that the WoDaaBe *nannganaaye* is a general FulBe tradition instead of the tradition of one particular FulBe group (Bovin 1990:52; de Bruin and Dijk 1995:323). There is, however, no evidence to support these assumptions (Moritz 2002).

In the *nanngaaye* (plural *nanngaaji*) tradition of FulBe pastoralists in the Far North of Cameroon, for example, the recipient of the animal has only usufruct rights over the animals and no offspring is given.⁹ The *nanngaaye* does not involve a change of ownership. As one Pullo explained the *nanngaaye*: *an kossam kanko kussel* (you [get] the milk, he [keeps] the meat). The *nanngaaye* thus does not serve to support herders in setting up independent family herds since no offspring is given. The *nanngaaye* is given for an indeterminate period. Some owners may decide at a certain point to give a *nanngaaye* animal or one of its offspring to the recipient, i.e., transfer ownership title. The recipient can then sell the animal it has taken care of as *nanngaaye* and use the revenues to cover household needs.

There are a number of reasons why pastoralists in the Far North give *nanngaaye*. One of the main purposes of the *nanngaaye* is to assist poor people with food aid. But loans are also given because of practical considerations on the part of the lender (e.g., weaning of calves, lack of corral space). I found that an additional reason for loaning livestock to fellow villagers without animals of their own is to enable them to participate in the social life of the village (Moritz 2002). Animal husbandry is one of the major topics of conversation and entails a number of common everyday activities in villages (e.g., herding, watering). FulBe without animals are unable to fully participate in the social life of the village because they do not share common concerns and do not participate in socially meaningful everyday activities. Finally, pastoralists

⁷ In some cases, the husband did not know either which animal was given to his wife as sadaaki, since the sadaaki was announced at a marriage ceremony at which neither groom nor bride are present.

⁸ *Hoobaaye*, on the other hand, is a genuine name for a cow, which comes from the same root, and means cow with the coloring of an antelope. Men believed that women did not know the difference because cattle is not their domain.

⁹ FulBe in the Far North Province of Cameroon used the terms *nannganaaye* (cow attached for someone) and *nanngaaye* (attached cow) interchangeably as they refer to the same thing: the loan of a cow. However, *nanngaaye* is also used for a variety of other animals because it literally means an attached cow (e.g., cows that are taken to the market are also attached).

give nanngaaye to reinforce and deepen friendships (*enDindirgo*). *EnDam* (love, affection) is a key component of the nanngaaye, also when it is given as food aid (*waalinde nyaamdu*).

Today, there are practically no nanngaaye in the peri-urban village of Wuro Badaberniwol (see table 2). The majority of the villagers did not even know what a nanngaaye is. Only a few knew the tradition – absentee herd owners with close ties with nomadic pastoralists and herders who have been or are still practicing the transhumance – although they do not practice the nanngaaye. The main reason why there are no nanngaaye in the peri-urban village is that costs of keeping animals are very high. If someone is too poor to own animals, he is also too poor to feed them. If someone would give a nanngaaye to a poor recipient, the owner also would have to provide the supplementary feed and cover all the other expenses, and de facto continue to take care of the animal. This is incompatible with the idea that when one loans or entrust an animal, there should be minimal contact between the owner and the recipient concerning the animals in question. Some peri-urban pastoralists said that it was cheaper to sell animals than to loan them. Similarly, it was almost cheaper to buy milk at the local market than to take care of a nanngaaye cow. In short, increasing production costs have made livestock transfers more burden than benefit for the recipient of the animal in the peri-urban areas.

Another livestock loan is that of the *diilaaye*, which is a lactating cow that is temporarily loaned as a form of food aid. There is some overlap between the nanngaaye and the *diilaaye*. Sometimes nanngaaye animals serve effectively as *diilaaye*, but they are not given as such. The main difference between a nanngaaye and a *diilaaye* is that the former is loaned for an indeterminate period while the latter is only for the limited period of lactation. *Diilaaye* are generally given to families who are in acute need of milk. No animals in peri-urban village were loaned as *diilaaye* for the same reason that no nanngaaye were given. However, one pastoralist regularly gave milk to poor household with an orphaned infant.

Gifts

In addition to livestock loans, FulBe pastoralists in the Far North Province also simply give animals to each other without any strings attached, both within and between households. Wives gave animals to their husbands and vice versa. Unlike the other livestock transfers (e.g., *sukkilaaye*, *nanngaaye*, *diilaaye*), there is no specific term for this type of gift. FulBe said *mi hokki meere non* (I just gave [it] for nothing [or no reason]) when they explained these livestock transfers. Sometimes, they referred to the animal as *hokkaange* “the given cow”. Gifts within the household were generally primarily motivated by *enDam* (love, affection). Gifts between people from different households serve mainly to assist poorer kin or friends when sorghum stocks are low and/or corrals are empty. The recipient household could then either sell the animal and buy sorghum or raise the animal and rebuild a small family herd. Sometimes animals were given within the household as some form of pre-inheritance (similar to the *sukkilaaye*) or as compensation for work within the household (e.g., feeding the sheep, cleaning stables). Only one-and-half animal was given in the peri-urban village, compared to seven in the agro-pastoral village (see table 2).¹⁰

¹⁰ Sometimes cattle are owned by multiple people. The animal is then referred to as *nagge mardinge* (co-owned cow). Depending on the number of owners, each owner can have half (*ba nge*), one-fourth (*kosngal*, leg), one-eighth (*tayre*, piece of meat), or one-sixteenth (*laasol*, a hair) of the animal. When animals are owned by multiple

Entrustment and Guardianship

The last category of livestock transfers is the entrustment of animals. Entrustment is an umbrella term that covers a variety of different livestock transfers – including *goofalye*, *halfiinge*, and sometimes *nanngaaye* – that involve a change in holder but not a change in ownership. Here I make a distinction between loans (*nanngaaye*), entrustment (*goofalye*) and guardianship (*halfiinge*), although I will also argue that there is considerable overlap between loans and entrustment.

Goofalye (plural *goofalji*) is the temporary entrustment of one or more animals and is in many ways very similar to the *nanngaaye* loan. The recipient of the animal(s) has usufruct rights over the milk but cannot keep any of the offspring. There were exceptions; in some cases the herder was given an animal, compensated financially, or received a salary for the herding (Moritz 2003).¹¹

The distinction between loans (*nanngaaji*) and entrusted animals (*goofalji*) is not always clear (Moritz 2002). In fact, sometimes FulBe use the term for loan animals (*nanngaaye*) for entrustment animals. In general, one could argue that loaned animals are transferred with the goal of supporting the receiving household head, while entrusted animals are transferred to relieve the owner of the care and management of the animals. However, in many cases, the transfer of animals, loaned or entrusted, serves both purposes, which makes it difficult to distinguish between the two. I have argued elsewhere that the difference between loans and entrusted animals is a matter of degree, rather than kind (Moritz 2002). In both cases, the owner might be kin, friends, or both, but loans are generally associated with closer friendship and kin ties. When a large number of animals is transferred, it is most likely a case of entrustment. When the benefits for the recipient are greater than for the owner, it is more likely a loan. When the owner compensates the recipient household head for maintenance costs (by giving an annual amount or a percentage of the sale price when the animal is sold), the animals are entrusted. However, in the case that there is no compensation, the animals can be either loaned or entrusted. This is not the case among peri-urban pastoralists, where costs for entrusted animals always have to be reimbursed. In both cases, the recipient household has usufruct rights over milk and the transfer is for an indeterminate period. The owner can legitimately take the animals back at any time, though it would be frowned upon (by the larger community) if the owner takes them back without warning or provocation, particularly when the recipient household is dependent on the milk of the animal(s).

There were few entrusted animals (*goofalye*) in the herds of peri-urban pastoralists (see table 2). It was simply too expensive for non-pastoralists to entrust animals in the peri-urban

people, it is generally because part(s) of the animal have been given (as *sukkilaaye*, *hokkaange*, or as *zakat*) or sold. The transfer of parts of animals occurs mostly within the household. Less than 10% of the animals in the peri-urban village were owned by multiple people, compared to 20% in the agro-pastoral village. The relatively low number of co-owned cattle in the peri-urban village is another indication of an increasing individualization of property rights over livestock.

¹¹ In the literature, this form of exchange is often associated with non-FulBe farmers or absentee herd owners entrusting animals to impoverished herders (Thébaud 2002; van Dijk 1994; White 1990). Among FulBe pastoralists in the Far North Province there is not always a clear distinction between entrustment and more traditional loans of cattle (Moritz 2002).

area, even though comparatively the costs were lower for them than for the peri-urban pastoralists because they did not cover all the expenses for their animals. They generally only paid the 'individual' costs, while the herd managers covered most if not all the 'collective' costs. Owners were much better off entrusting their animals away from the peri-urban area, where cottonseed cakes were not necessary for the survival of cattle (Moritz 2003).

The problem for many owners was to find a reliable herd manager there who would take good care of the animals and would not sell them without permission. This was only possible for livestock owners who had kin in the rural areas or enough animals (preferably a whole herd) to entrust to a *kaliifa* (guardian). The animals involved in these transfers are referred to as *kalfiiji* (plural of *halfiinge*). A *halfiinge* entrustment is more formal and institutionalized than the *goofalye* entrustment. The distinguishing feature of this exchange is that it involves a guardian, the *kaliifa*, who is responsible for the animals and supervises the herder. Pastoralists often referred to the book, i.e., the Koran, when they referred to this form of exchange. Some people argued that under the *kaliifa* arrangement, the owner always remains the owner, and that the *kaliifa* would guard the animals entrusted to him even against claims of the owner's children. The *kaliifa* is an entrustment arrangement that is used when the owner is absent. In those cases, the *kaliifa* replaces the owner and oversees the herder and the everyday management of the herd.¹² By invoking the Koran in entrustment of cattle, in which trust is essential, herd owners attempted to reduce the risk of livestock losses due to theft and sales by the herder. It is the common belief and observance of the rules of Islam, including those concerning guardianship that herd owners appeal to to reduce the transaction costs of entrustment (cf., Ensminger 1992).

Many peri-urban pastoralists had split their herds and kept part in the village (*cureeji*, *wurooji*) and entrusted the other part to nomadic pastoralists in the bush (*laddeeki*). Most animals that were entrusted to nomadic pastoralists were entrusted to a *kaliifa*, generally the leader of a nomadic camp. The *kaliifa* in turn entrusted the animals to herders, most often the *kaliifa*'s sons or other resident kin. The *kaliifa* has the final responsibility over the herd. He answered to the peri-urban herd owners. The herders had usufruct rights over the animals and received a monthly salary. But there are no direct material benefits for the *kaliifa*, except some small gifts (*gooro*, literally kola nut). Most animals that were transferred in the peri-urban village were *kalfiiji* (see table 2). The main reason for peri-urban pastoralists to entrust their animals to nomadic pastoralists under the guardianship of a *kaliifa* is to reduce the costs of raising animals. It is simply too expensive to keep all the animals in the village and feed them cottonseed cakes. Of all the livestock transfers, guardianship has the least social significance; it is primarily an economic and temporary relation. A number of peri-urban pastoralists kept changing herders and/or guardians for their bush herds because they were not content with their herd management. In other livestock transfers (such as the *nanngaaye*, *diilaaye*), the social relation is more important than the quality of herd management, and owners would not to retake their animals for that reason.

Purchases

¹² Others elaborated that the *kaliifa* arrangement is one that people make before they travel and it is unclear when they return. The *kaliifa* is then the guardian over the cattle for the duration of the trip, whether it is two months or twenty years.

The individualization of livestock ownership was also strengthened through household members' investment of personal income in the purchase of cattle. In general, FulBe in the Far North consider income from economic activities that involve capital and/or labor investments as private income and not as collective income for the household. Similarly, livestock purchased with personal income is considered personal property and not collective property of the household. This means that household heads do not have the right of disposal over animals that are bought by other members of the household. Thus, within the family herd there is a clear distinction between two types of property: animals bought with personal income (*coodaaDi*, singular *soodaaye*) and animals that are part of the ancestral family herd (*tawtawDi*) (see also, Hutchinson 1992:305; Kelly 1990:86). The collective household has only usufruct rights over purchased animals, which have a similar status in the family herd as animals owned by outsiders (*yaasiji*). The individualization of livestock ownership through the investment of personal income in livestock is a phenomenon throughout the Far North, but the effect was particularly strong in the peri-urban village because many more animals in the family herd had been purchased, most of them by household heads and their sons with income from commerce and cotton cultivation.

The greater number of purchased animals in the peri-urban herds also means that the herds can less and less be read as social biographies of the households. Purchased animals are exclusively owned by individuals and do not represent any social ties or obligations with others in the community. Unlike other transfers, market exchanges with 'strangers' do not create social relations (Gregory 1982).

Overall, few animals in the peri-urban corrals have come there through livestock transfers (most transfers are of the guardianship type, which is primarily an economic rather than social transfer). The disappearance of livestock transfers between peri-urban households is primarily due to the high costs and labor demands of raising animals. High production costs in the peri-urban village have rendered loans and entrustments more burden than benefit for recipients and herd managers. The disappearance of livestock transfers within households is primarily resulting from the household heads' reluctance to transfer ownership title over animals in the family herd because of fears of losing the right of disposal over these animals.

Summary

Two simultaneous processes, pastoral intensification and the associated increase in production costs and Islamic renewal in which FulBe adhere more strictly to the codes of Islam, have led to an individualization of livestock ownership within peri-urban family herds. I argue that the individualization is the result of complex process that involves both economic and cultural changes within peri-urban FulBe households and family herds. This process or invisible transformation of property relations within the household and family herd has led to more exclusive property rights over livestock; the various property rights over an animal are now increasingly held by only one person and in many cases, this person is the household head. In addition, the rising costs of raising animals have led to the disappearance of livestock transfers within and between families, and cattle are increasingly held by only a few families in the peri-urban village. The greater differentiation in terms of livestock ownership also involves a shift

from interdependence to independence of households. This is reflected in the peri-urban family herd, which can no longer be read as a household's social biography.

Biographical Note

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Table 1: Comparison of livestock ownership in two villages (in percentages)

	Peri-urban Pastoralists	Agro- Pastoralists
Household head	78	37
Family (undivided inheritance)	0	14
Wives	7	3
Children (resident only)	6	4
Resident kin	5	6
Non-resident kin	2	31
Outsiders (non-kin)	2	5
	100%	100%

Livestock ownership in this table concerns nominal ownership, i.e., ownership in name only. The table does not reflect the property relations in the family herd; for example, in the agro-pastoral village, the household head has the right of disposal over animals owned by children, but that is not the case in the peri-urban village (for a discussion of the predicament of comparing livestock ownership see, (Moritz 2003). The category *non-resident kin* also includes children of the household head who no longer live in the village. The large difference between the two villages with regard to the category *family (undivided inheritance)* is indicative of differences in observance of Islamic inheritance codes, which prescribe that inheritance has to be divided among heirs within three to seven days after a person's death.

Table 2: Comparison of livestock transfers in two villages

			Agro-Pastoral Village				Peri-Urban Village			
			Livestock transfers		Households involved in transfers		Livestock transfers		Households involved in transfers	
			No.	%	No.	%	No.	%	No.	%
IN	Loan	(<i>nanngaaye</i>)	23	6.1	6	38	0	0.0	0	0
	Intergenerational gift	(<i>sukkilaaye</i>)	1	0.3	1	6	0	0.0	0	0
	Gift	(<i>hokkaange</i>)	7	1.8	3	19	0	0.0	0	0
	Loan milk cow	(<i>diilaaye</i>)	0	0.0	0	0	0	0.0	0	0
	Entrustment	(<i>goofalye</i>)	92	24.4	10	63	8	1.5	3	50
	Guardianship	(<i>halfiinge</i>)	13	3.4	1	6	0	0.0	0	0
	Purchase	(<i>soodaaye</i>)	12	3.1	6	38	+/-100	19.2	6	100
	All transfers (save for purchase)		136	36.1	13	81	8	1.5	3	50
	Total livestock/households		377	100.0	16	100	519	100.0	6	100
OUT	Loan	(<i>nanngaaye</i>)	21	5.6	3	19	6	1.1	1	17
	Intergenerational gift	(<i>sukkilaaye</i>)	11	2.9	5	31	3	0.6	1	17
	Gift	(<i>hokkaange</i>)	1	0.3	1	6	1.5	0.3	2	33
	Loan milk cow	(<i>diilaaye</i>)	0	0.0	0	0	0	0	0	0
	Entrustment	(<i>goofalye</i>)	63	16.7	5	31	5	1.0	2	33
	Guardianship	(<i>halfiinge</i>)	43	11.4	1	6	396	76.3	5	83
	All transfers		139	36.9	8	50	412	79.4	5	83
	All transfers (save for guardianship)		96	25.5	8	50	15.5	2.9	5	83
	Total livestock/households		377	100.0	16	100	519	100.0	6	100

The tables list the number and percentage of the animals in each village during the year 2000-2001 that had come into the herd through a transfer (but not necessarily in the year 2000-2001). The numbers of purchased animals in the peri-urban village is an approximation; in some cases, the data is not conclusive on unclear whether the animal in the herd was purchased or one of its ancestors. A few animals in the agro-pastoral village are counted twice; once as a loan given and once as a loan received. The peri-urban village includes both the village and the bush herd. *Guardianship* is the largest category in the peri-urban village because it includes the animals in the bush herds that are entrusted to nomadic pastoralists. Aside from the guardianship transfer, very few animals were transferred in the peri-urban village, only 2.9% were given and 1.5% received.