

# Symbiosis Between Pastoralists and Agriculturalists Corraling Contract and Interethnic Relationship of Fulani and Nupe in Central Nigeria

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## ABSTRACT

“Corraling contract” is the indigenous fertilization system commonly practiced in the African Sahel and its southern periphery. In this article, the practice of the corraling contract between Fulani pastoralists and Nupe agriculturalists in the Bida region of Niger State of central Nigeria is examined. The attempt is to find out how the farmers and herders arrange the corraling contract, how they utilize this instrument and how it influences their social relationship. Findings suggest that pastoral Fulani groups have different strategies to maintain socioeconomic relations with specific villages through the adoption of corraling contract in order to ensure resources entitlement. While some groups can well manipulate the relationships with various villages through the adoption of the corraling contract, some groups prefer a more stable situation and just got the minimum advantages. Higher social status, larger herd size and longer history of interaction which allowed trust to be built are the factors contributing to the popularity and bargaining power of a pastoral group.

## KEYWORDS

Corraling Contract, Fulani, Herder-Farmer Relationship, Nigeria, Nupe, Resources Entitlement, Traditional Institution

## INTRODUCTION

Coexistence of farmers and herders in the semi-arid Africa has been described as symbiotic. Although confrontation occasionally occurred, in most cases they could be regulated in such a way that the peaceful cohabitation of the groups as a whole was not endangered. In West Africa however, conflicts over the use of scarce natural resources between farmers and herders are said to be on the increase in recent years. The occurrence of such conflicts is generally attributed to two factors: the changing patterns of resource use that lead to increasing competition for resources; and the breakdown of traditional mechanisms governing resource management and conflict resolution. The generalization of increasing conflict gives an impression that the traditional mutual dependent and mutual beneficial forms of farmer-herder interaction that well-functioned in the past does not work anymore now. This

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perspective justifies direct interventions and implies new structures for new institutions for the cooperative management of natural resource use and conflict management.

Observations have been made in respect to the Nupe farmers and Fulani herdsmen in the Niger State of Nigeria. Case materials suggest, at least with the specific case of the Nupe farmers and the Fulani pastoralists in the field site, a perspective that contrary to the increasing-conflict view. Even though limited natural resources are shared and their production system is gradually converging, tension seems to be absent and their relationship shows no sign of deterioration. The farmer-herder interactions are frequent and mostly cordial. The traditional institutions governing natural resource use and conflict resolution are being preserved and are still functioning fine.

This paper focuses on the corralling contract which is one of the most important traditional institutions between farmers and herdsmen that have been practiced down through the ages. Corralling contract refers to the contractual agreement between farmers and herders to maintain livestock on croplands for a specified time period. Following the great reduction since mid-1980s and finally the withdrawal in 1997 of fertilizer subsidies by the Nigerian government, the corralling contract has become more important for resource-poor farmers who cannot afford fertilizer. Meanwhile, the decreasing availability of grazing resource due to the extension of cultivated area outpacing population growth also make herders rely more on the corralling contract as the tool to ensure access to resources. The corralling contract has gained more attention in recent years. Although it is not a new phenomenon, some scholars described it as a newly emerging traditional institution. Most researches focused on the ecological impacts of manure on soil fertility; very few examined the socio-economic implications of the corralling contract. While the contract is an institution that requires the agreements of both sides, most researches took only the farmers' perspective. Nevertheless, field observations revealed that farmers are rather passive in the adoption of corralling contract. The preconditions for them to adopt the practice are the presence of herders in nearby area and the location of village that is in an environment suitable for cattle stay when herders come for the season. Therefore, the perspectives of herders are indispensable for the thorough understanding of the corralling contract. However, there is no research the author could find so far that explains how the farmers and herders reach to the corralling contract and how the details are being arranged. This paper intends to provide a detail account of this important institution.

Research has been done on both sides to investigate the implementation of this traditional institution. The main questions here are: how do the two groups arrange the corralling contract; how do they utilize this instrument and how does it influence their socioeconomic relationship? Findings suggest that Fulani groups adopt different strategies to maintain social relations with specific villages in order to ensure resources entitlement. Their "popularity stakes" and the amounts of payment they can get through the contract vary greatly from each other. The competition for Nupe farmers to host a Fulani group is keen and costly therefore villagers have to combine collective efforts. Contrary to traditional depiction, richer and influential farmers do not necessarily benefit more from corralling contracts and there is no significant sign that Fulani herders claim more payment in cash or in kind than in former years.

## **CORRALLING CONTRACT**

### **Ecological Benefits Brought by Corralling Contract**

Corralling contract, or manure contract, is an indigenous fertilization system commonly practiced in the semi-arid area of West Africa (Asanuma, 2004; Neef, 2001). It is also known as "parcage system" in the French literatures and locally as "*hoggo* system". *Hoggo* in Fulani language means the cattle enclosure where cattle herds are kept overnight. When individual or group of farmer and herder enter into the contractual agreement, the herder has to corral his cattle overnight on the farmer's field for a specific period of time at the farmer's request. In return the farmer pays the herder in cash or in kind and allows livestock to graze on the crop residues on his fields.

Land scarcity and degradation from insufficient nutrient cycling increase the demand for manure in sub-Saharan Africa. In Nigeria, the lack of accessibility to good quality and affordable fertilizer and the unavailability of fertilizer in time of need make farmers rely on cattle manure. Demand for manure increased especially after the gradual reduction of the fertilizer subsidy since the mid-1980s and the liberalization of the fertilizer sector in 1997 (Nagy and Edun, 2002; Shimada, 1999). Fertilizer use declined sharply from a peak of 461,000 nutrient tones in 1994 to 173,000 nutrient tones in 2000. To ensure the availability of fertilizer for farmers, the federal and the state governments still procured and subsidized fertilizer in an ad hoc manner. However, the problem of lack of access to subsidized fertilizer for farmers still persisted. A substantial amount of subsidized fertilizers was sold on the black market (Nagy and Edun, 2002; USAID, 2007). Farmers have to rely on cattle manure to retrieve the productivity of their lands when fallow system for long-period is difficult. The benefits of the use of manure in crop production are the improvement in soil physical properties and the provision of N, P, K, and other mineral nutrients. The application of livestock manure increases soil organic matter content, which leads to improved water infiltration and water holding capacity as well as increased cation exchange capacity. Farmer access to manure requires either a decision to invest in animals or to enter into a corralling contract with someone who keeps livestock, usually the professional herders. The latter is more commonly in use in rural Nigeria not only because many farmers cannot afford to own livestock, but also because the corralling contract can bring a better efficiency in fertilizing a larger area of farmland with lower cost. Evidence suggested that in Niger, the fields manured through corralling contract received 5 to 13 times more manure than average land (Hiernaux et al., 1997).

Many researches have proven the effectiveness of corralling livestock on cropland for improving soil fertility (Schlecht et al., 2004; Sangarè et al., 2002; Achard & Banoïn, 2003). It is more effective in maximizing nutrient cycling of soil comparing with merely applying manure transferred from other places. Based on the report of TropSoils (1991), the ecological benefits from manure applied by corralling animals can last for 10 years, which is much longer than that of transported manure which can last for only 3 years. The corresponding crop yields are also significantly higher. The difference is proven to be brought by cattle urine, which is difficult to be transported (Powell & Williams, 1993). Urine and manure together can effectively raise the PH level of soil and accelerate the decomposition of organic matter and termite mounds<sup>1</sup> (Brouwer and Powell, 1995; 1998). Many farmers regard the corralling contract with herders a better mean to fertilize their fields than the application of fertilizer by themselves.

### **Social Impacts of Corraling Contracts**

Corralling contract can be regarded as an exchange of services between herders and farmers: the service to fertilize croplands in exchange for the right to settle on fallow lands and to graze on crop residuals. Besides, exchange of farm products and milk products between farmers and herders is very common when herders are settling on the land of farmers (Grayzel, 1990; Wilson, 1984; Ogawa, 1998). Corralling contract is an important economic arrangement that facilitate the complimentary relationship of the two groups. Nevertheless, changes caused by economic, environmental and political factors are making the contract less accessible to some farmers. The corralling contract is no longer just a simple economical agreement. Some scholars point out that it has turned into tools and symbols in broader struggles among communities over access to land for field and pasture (Hesley and Delehanty, 1996).

The research of Neef (1997) in south-west Niger found out that richer and more influential farmers obtained greater access to manure through corralling contract than poor farmers. In many parts of sub-Saharan Africa, herders are claiming more and more payment in cash or in kind than in former years. Evidence in Southwest Niger suggested that tenants of short-term use rights used animal manure to a significantly lesser extent compared with landowners and tenants with medium-term use rights. Some of them feared that the landowner would reclaim the land back if he noticed that soil fertility was improved (Neef, 2001).

On the other hand, higher demand for manure enhances the bargaining power of herders and enables them to get a better position in the politics of manure. Many pastoralists use the contract as a trump in case of land conflicts (Loofboro, 1993) and as a strategy to obtain and secure permanent land use rights from private landowners or local leaders (Neef, 1997). Heasley and Delehanty (1996) illustrated the case study of four villages in southwestern Niger to demonstrate how the access to manure has become a signal point of entry into the political economy of agropastoral production emerging in the Sahel. In two of the villages studied, the pastoral Fulani could threaten to withhold or even boycott corralling contract to enforce claims to ownership of lands and secure free passage to grazing resources. However, in another two villages studied, the Fulani herders were in weaker positions that manure could only ensure their temporary access to lands. Contrary to conventional depiction, access to manure was not guaranteed for wealthier farmers who have livestock ownership. The control of manure was rather likely to reside with a professional herder entrusted with the farmer's stock. These case studies showed that beneficiaries of manure contracts were not necessarily determined by wealth ranks, but increasingly by the vagaries of the shifting local politics of ecology control. Manure has become a potent political tool because the rules and procedures governing its accessibility are undergoing transition. Such transition is due to the changing production systems from strictly crop or livestock based into more agropastoral-based.

## **THE FAILURE OF GRAZING RESERVE POLICY IN NIGERIA**

The Fulani<sup>2</sup> are the most numerous and probably the most prominent of all the pastoral groups in West Africa. They expanded eastwards from the Gambia River over the last thousand years and stretched across the entire West Africa sub-region. Among the estimated 30 million of pastoralist in Africa, 10 million are found in Nigeria. The Fulani is the largest group of pastoralists in Nigeria which constitute about 95% of nomadic herders in the country. The presence of Fulani was recorded in the Hausaland of northern Nigeria as early as the thirteenth century (Awogbade, 1983:3). A number of classic monographs described the Nigerian Fulani, most notably St. Croix (1972), Hopen (1958), and Stenning (1959). They studied the pastoral clans in the semi-arid areas. More recent researches were from Awogbade (1983) who described the Fulani on the Jos Plateau and Gefu (1992) who studied the Fulani of Udubo Grazing Reserve. The study on pastoral Fulani in the humid and sub-humid regions of Nigeria is still limited. Some of the papers in Kaufmann, Chater & Blench (1986) studied the Fulani in southern Zaria. Omotayo (2002) and Fabusoro (2006) explored the land related issues of Fulani in Southwestern Nigeria.

The pastoral Fulani in Nigeria, same as other nomadic pastoralists in Africa in general, have for several centuries concentrated their activities in the dry savanna and arid regions where farming activities were limited and competition for resources with other forms of land use were practically non-existent (Tonah, 2002). During the twentieth century, Fulani herders in Nigeria began to migrate through and settle in whole zones that were previously inaccessible to pastoralists. Ecological change and population increase has reduced the tsetse challenge for the non-trypanotolerant cattle owned by Fulani. This has removed the major barrier that stopped their southern expansion in previous era (Blench, 2010). The conventional stereotypes of the Fulani as living in Northern Nigeria are becoming less and less true, year after year. Now it is not surprising to find Fulani pastoralists settling even in the coastal states in southern Nigeria.

Since independence, the Nigerian government has placed emphasis on the sedentarization of nomadic pastoralists in its effort to develop the livestock sector. It was assumed initially that the intensive western ranching models could be introduced to replace the traditional Fulani systems of production. After several unsuccessful attempts at making the westernized ranges work locally, they were dropped in favor of improving the traditional livestock production systems. One of the suggestions was the need to protect and improve grazing areas and stock routes so as to stabilize the Fulani mode of production. In 1965 the federal government passed the "Grazing Reserve Law" which

intended to provide grazing rights and all-year resources to the pastoralists (Powell, 1992). The idea of establishing grazing reserves was to provide grazing land on which nomadic pastoralists could settle permanently with the expectation that this would lead to empowerment and equitable property rights for the Fulani pastoralists, improved standards of living, improved cattle production and elimination of conflict between them and sedentary crop farmers (Omotayo, 2002; Fabusoro, 2006).

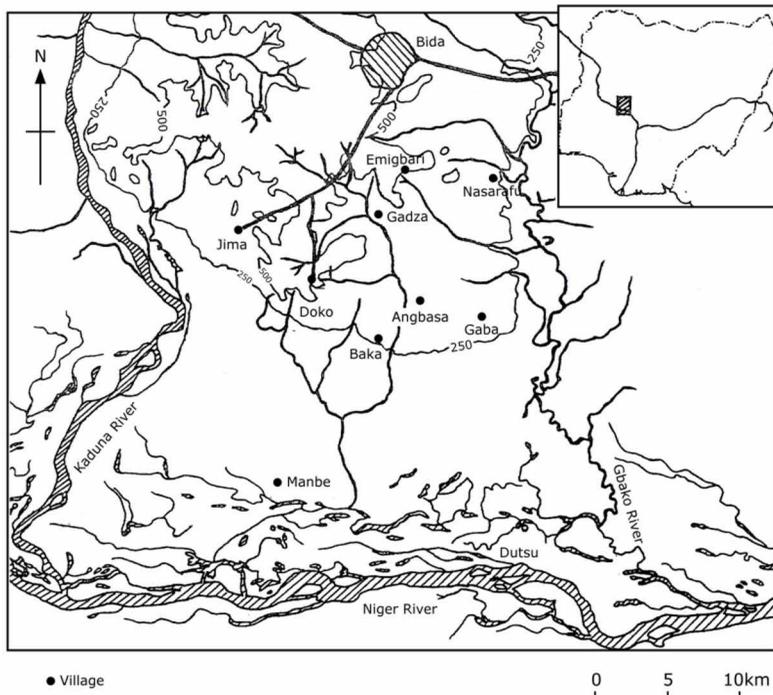
In the Third National Development Plan of 1975-80, the establishment of a total of 22 million hectares of grazing reserves for the exclusive use of nomadic pastoralists was proposed (Gefu, 1989:23-25). The long-term objective of the policy was to enable the herders to settle down and adopt modern technologies of livestock production. The provision of infrastructural facilities such as watering points, improved pastures, treatment centers and feed store was to be embarked upon by the government as part of the strategies to develop the grazing reserves (Olomola, 1998). Nevertheless, despite of what has been written on proposal, in reality very little has been accomplished beyond the demarcation of some identified lands. By 2003, only 2.8 million hectares, which were only 13% of what has been proposed, had been acquired by the government for the purpose of grazing reserves in the northern states. Out of these acquired lands only about 10% were legally sanctioned (National Livestock Development Project, 2003, p. 5; 2007, p. 15). Due to the fact that these grazing reserves often located in very remote districts with bad access to transportation and market, the numbers of pastoralists voluntarily settling in has been limited. Basic infrastructures were often not available in these reserves. Even among the pastoralists who have settled, there were few signs of improved production and living standard. Serious problems of overstocking and range deterioration have been encountered (Suleiman, 1989, pp. 42-43). Crop farmers and other users have encroached upon almost all the reserves (National Livestock Development Project, 2003, p. 5). As a result, most of the grazing reserves have indeed been abandoned (Fabusoro, 2006, p. 55). Regarding the Niger State, attempt was made to establish grazing reserves at strategic locations to reduce transhumance by pastoralists. Eighteen grazing reserves in total of 104,309 hectares were designated, but only two reserves in total of 44,302 hectares have ever been sanctioned (National Livestock Development Project, 2007, p. 73; NYSC, 2010). Although governmental documents indicated that three grazing reserves were locating right in the Bida region, none of the interviewed pastoral Fulani, even those of the ruling Fulani council, acknowledged the existence of these grazing reserves. This poses a question of the actual status of grazing reserves listed on paper: whether they have ever actually existed, or have been abandoned and then encroached by farms since long time ago. Obviously, Nigerian pastoralists do not and cannot rely on the nation's grazing reserve policy for securing adequate land resources for their herds. The majority of them continue the nomadic production system, and to maintain a cordial cooperative relation with their hosting communities remains as the most important method to secure resources access.

## STUDY AREA AND METHODOLOGY

The research was conducted in the Niger State of central Nigeria where Nupe is the dominant ethnic group. Nupe agricultural villages and pastoral Fulani groups in the suburb of Bida were studied (Figure 1). Bida is the second largest city in the Niger State. It was the capital town of the old Nupe kingdom in the early 19<sup>th</sup> century. At present it is still the political and cultural center of the current Bida Emirate where the highest level traditional chiefs, such as the Bida *Emir* and the Fulani *Dikko* are stationed. The study area locates about 150 km upstream of the confluence of the Niger and Benue rivers. It is surrounded by rivers the Kaduna to the west, the Gbako to the east and the Niger to the south.

The vegetation of the study area belongs to the Guinea savanna zone with yearly precipitation of about 1,100mm. There are two distinct seasons – the rainy season from April to October and the dry season from November to March. However, the pastoral Fulani divide the year in a different way. They divide a year into six seasons and their herding activities change accordingly. For simplicity, the six seasons are grouped into two in this study: December to May is regarded as the dry season and

Figure 1. Bida and its environs (counter lines shown in feet)



June to November is regarded as the rainy season. The study area can be divided into uplands and lowlands roughly by the counter line of 250 feet, which is approximately 75-80 meters. This peculiar topography and the availability of water in surrounding river basins throughout the dry season allow the pastoral Fulani not to migrate in long distance between seasons. The activities of pastoral Fulani concentrate on the uplands during the wet season from June to November. In the dry season from December to May, the river valleys turn into important grazing resource for the pastoral Fulani and other nomadic Fulani which migrate through or settle in from the north.

The research is based on fieldworks carried out during September to October in 2005 and September in 2006. Similar to many researches on pastoralists, much time was needed to build up relationship with pastoral Fulani. The author first contacted the Fulani in September 2004 during another fieldwork. Some preliminary researches were done during December 2004 to January 2005 with two major pastoral Fulani groups. In order to investigate the migration pattern and the practice of corralling contact of more Fulani groups, permission was obtained from *Dikko Bida* before more extensive research could be carried out. Statistical procedure to select samples for interviews was impossible because the two groups were rarely studied and census data did not exist. The author was introduced to the Nupe and Fulani informants through the Fulani officer of *Dikko Bida* council and the extension staff of Bida Agriculture Development Project. With the basic information gathered during the preliminary research, a list of questions was designed for the semi-structured interview conducted during September to October 2005. Interviews were carried out mostly in the Fulani camp with the group heads. However as many of the heads gathered in market or Nupe village during day time, some of the interviews were carried out in market or village. Supplementary interviews were also conducted with other male household heads (*baade head*). Information of seventeen pastoral Fulani groups was gathered. For the farmers' perspectives, another list of questions was also designed for the semi-structured interviews with Nupe villagers. Farmers from sixteen Nupe villages who have hosted Fulani groups were questioned. For additional information about the relationship between

pastoral Fulani and Nupe, dispute settlement, grazing reserve and traditional administration, interviews were conducted with the Nupe Village Area heads, the *Bida Dikko*, the assistant of *Bida Emir*, the officer of the Bida Agriculture Development Project and the officer of the Niger State Ministry of Agriculture. Fulani camp sites and farmers' manured fields were surveyed in details and maps were drawn out of the survey data. A digital area-line meter (PLANIX EX of Tayama Technics Inc.) was used to measure areas based on the survey maps.

## NUPE AND FULANI IN THE STUDY AREA

### Nupe Society

The Nupe people live in the heart of Nigeria in the low basin formed by the villages of the Niger and Kaduna Rivers. It is located between 9° 30' and 8° 30' north, in an area roughly 17,920 square kilometers in extent (Forde, 1970:17). Nupe is the dominant group in Niger and Kwara States. They were first described in detail by ethnographer Siegfried Nadel, whose book *Black Byzantium*, remains as anthropological classic. Accounts of the Nupe society can also be found in Forde (1970), Ibrahim (1992), Mason (1981) and Ismaila (2002). There are probably about a million Nupe, principally in Niger State<sup>3</sup>. They are primarily Muslims. Christianity was brought into the area since the mid-19<sup>th</sup> Century. Traditional religion still exists but is weak. The Nupe trace their origin to *Tsoede* who fled the court of Idah and established a loose confederation of towns along the River Niger in the 15<sup>th</sup> century. Nadel refers to *Tsoede* as the culture-hero and mythical founder of the Nupe kingdom. The Nupe were converted to Islam at the end of the eighteenth century by Mallam Dendo, a wandering Fulani preacher, and were incorporated into the Fulani Empire established by the *Jihad* led by Usman dan Fodio after 1804. Mallam Dendo's second son, Usman Zaki became *Etsu Nupe* (King of Nupe) in 1832 and the Fulani conquerors have been ruling the Nupe of the Bida Emirate since then. The city of Bida fell to the colonist British forces in 1897 but the traditional administration of Bida Emirate has been preserved until now. The Fulani ruling class were assimilated with the Nupe by intermarriage and have lost their Fulani identity.

Extended family system of the Nupe is accompanied with patrilineal, patri-local and Islamic polygyny. Descent and succession to offices and the inheritance of rights to land and other property are patrilineal. The domestic unit is the elementary or polygynous family. The domestic family normally forms part of a larger social unit - the "*emi*" which means house. *Emi* is both a kinship and a territorial group and may also be referred to as *katamba*, a term for the common gateway or entrance to an enclosed compound. Nupe village normally composed of several *emi* which descended from one ancestor. Marriage of Nupe is largely endogamous, especially among the aristocracy. People normally marry within the same social class and the Nupe class endogamous marriage is characterized by a much lower marriage payment than exogamous marriage. Interethnic marriage is uncommon. The Nupe in Bida never inter-marry with the pastoral Fulani, but in 2005 there was the first case of a Nupe man marrying a Fulani woman.

### The Nupe Production System

The Nupe are subsistence farmers. Their means of livelihood slightly differ according to ecological division. In the uplands, they depend on shift cultivation during the rainy season, growing sorghum, millets, maize, melon, cassava, legumes and some vegetables. In the lowland watersheds that are floodplains of small rivers, they depend on rice farming in the rainy season and some of them grow off-season crops like sugar cane, cassava, sweet potato and vegetables after harvesting rice in the dry season. In the huge floodplains along the Niger, Kaduna and Benue Rivers, the Nupe rely on traditional rice farming in the rainy season and fishery (Hirose, 2002, p. 187). Some farmers keep domestic livestock like chicken and goat, but only very few can afford investment in cattle fattening. Women do not own farmland and do not involve in farm work, but food processing is entirely done

by them. Moreover, marketing of farm produce is normally in the hands of women. Because of increasing population density, land is becoming scarce. Fallow period is largely shortened in the uplands and lowland fields are cultivated annually. According to the AICAF (1994) report on a Nupe village called Gadza, the cultivated area of lowland rice is about 2 ha and upland fields are about 2.2 ha per family<sup>4</sup>. Few farmers use inputs such as chemical fertilizers, insecticides, pesticides, improved seeds or imported agricultural equipment. In 2006, a bag of 50kg fertilizer (NPK:15-15-15) was estimated at NGN 3, 000 (USAID, 2007), which was expensive relative to return and credit for purchase was unavailable. Like many parts of rural Nigeria, many young farmers have left their villages for education or better income in towns and cities. Their farms are usually managed by other household members and they just come back to work on their farms during long vacation. Since few years ago, motorbike-taxi driver in Bida town has become a very popular occupation for young Nupe farmers. Older Nupe farmers complained to the author that there is labor shortage especially for the community farms and younger farmers do not manage their farms as good as before. This situation also causes dissatisfaction of the pastoral Fulani as it is sometimes difficult to distinct farm from fallow land and farm encroachment may happen unintentionally.

### Land Tenure in Nupe Agricultural Communities

Nigeria is a former British colony and Africa's most populous country. It has about 120 million people, and 98 million hectares of land of which about three-quarters is arable. Prior to colonization, customary norms and laws governing the use of land evolved differently in various part of the country with a fundamental conception that land belongs to a vast family of which many are dead, few are living and countless yet unborn. In the customary land holding system, land is owned communally. It is the responsibility of the community heads to allocate the land to members of the community. Individuals within the community are entitled to portions of communal land for personal use and are expected to hold such land in trust for coming generations. Under the customary law, non-indigenes or strangers and migrants do not have guaranteed access to land.

Despite of the introduction of the Land Use Act in 1980 which took over the legal ownership of all land to the state, communal land rights still prevail in most part of Nigeria including the study area. Due to the history of Fulani conquest in the 19<sup>th</sup> century, the customary land tenure system of the farming communities in Bida area is complicated. There is a three-layered structure of pattern of control over land and land related activities (Masuda, 2002). On the top level it is the traditional ruler, *Bida Emir*. In principle all the territories of the Bida Emirate are under the control of *Bida Emir*. In case of land dispute, the *Emir* is always in the supreme position of the traditional judicial system to arbitrage. Under the *Emir* there are primary landlords which were created by the feudalistic system of the kingdom. It consists of absentee or sometimes resident landlords. The absentee landlords in most cases are the privilege class of town Fulani living in Bida whose ancestors were important warriors of the *jihad* or dominant vassals of the *Emir*. On the other hand, resident landlords were mostly originated from the subordinates or slaves of noble Fulani in the distant past. Farmers regard the primary landlords as the "real landlords" who have the right to take over land from a community and to appoint secondary landlords. Primary landlords usually own large area of lands which cover the area of a few villages. Some of them hire Fulani herdsmen to manage their cattle herds and let them settle on their lands. At the bottle of the structure there are secondary landlords who are usually referred to as the "land managers" by farmers. The secondary landlords are usually the village chiefs. Their powers over village lands are restricted to allocation of farmland and management of vacant land, while each individual, group, or family can exercise exclusive right on the land on their own farming. Under the customary land system, pastoral Fulani do not have guaranteed access to land as they are still regarded as strangers even though some of them have been cohabitating with Nupe in the area for over a century. When pastoral Fulani decide to set up their camp on the land of a particular village, they must get the permission of the secondary landlord. Grazing lands in the study area are

regarded as open access resources. The peaceful coexistence and mutual understanding with their Nupe hosts grant pastoral Fulani unrestricted access to any fallow land either during the rainy or dry season. Even for farmers who are hostile toward some Fulani, especially those migrate from far north during the dry season, they do not have the legitimate right to expel herdsmen from their fallow lands and harvested farmlands under the customary land system.

## Pastoral Fulani in Bida

Fulani are highly differentiated, not only according to clans but also by their economic pursuits and way of life. Fulani can be divided into two main types. The first type is called “*Fulbe siire*” in the Fulani language *Fulfulde*, meaning “town Fulani”. They are Fulani urban dwellers who may or may not own cattle. They are mostly engaged in commerce, administration and education. The Fulani aristocrats who are the ruling class living in town belong to this type. Most of them have long abandoned the traditional lifestyle of Fulani, and they do not speak the Fulani language *Fulfulde*. The second type is the “pastoral Fulani”, which in *Fulfulde* are called “*Fulbe na’i*” – “cow Fulani”, or “*Fulbe ladde*” – “bush Fulani”. The one important distinguishing feature differentiating the “pastoral Fulani” from the “town Fulani” is their close relationship with their cattle. This is the second group, the pastoral Fulani who reside in the bush and farmlands of the rural area that is the concern of this paper. Research on the pastoral Fulani in the Niger State is very limited. The ecological anthropological study conducted by Shikano (2002) in the mid-90s is the only account. There is no affinity between the pastoral Fulani and the town Fulani in the research area. Their clan organizations do not cross and they do not intermarriage. It has to be emphasized that pastoral Fulani is not a homogenous group. There are “*Fulbe wuro*”, the semi-settled or settled transhumant Fulani having permanent homestead; and “*Fulbe bororo*”<sup>5</sup>, the highly nomadic Fulani who still maintain a close system. *Fulbe bororo*, who are the true nomads, constitute only a small fraction of the total Fulani population in West Africa. The pastoral Fulani studied in this paper are “*Fulbe wuro*.”

The date when the pastoral Fulani first reached the land of the Nupe is unknown. It was estimated that semi-nomadic pastoralists made their appearance at a very early stage, but long-term group probably did not take place until much later and even after they settled it was only on a small scale (Johnston, 1967:135). Even by the time of the *jihād* conquest, Nadel (1942) estimated that the total number of Fulani, including the leading Fulani preachers and warriors, plus their cattle Fulani followers and Hausa mercenary soldiers, was not more than 1,000 or 1,500.

At about the seventeenth century, Fulani mallams and Fulani cattle owners began to settle in the land of the Nupe (Ismaila, 2002). The first group of pastoral Fulani that settled in the Bida region was the *Dindima’em*, *Juuliranko’em* group led by *Abdul-Maliki*. They migrated from an area named Machina which located somewhere north-east to the Sokoto country near Niger. During the colonial era, Fulani from the *Dindima’em*, *Juuliranko’em* group was selected by the *Emir* as *Dikko* - the chief of all pastoral Fulani in the emirate for the convenience of cattle tax collection. Apart from collecting cattle tax during the rainy season, other major functions of *Dikko* are to settle disputes, to arbitrate divorce, to attend the transfer of cattle ownership and to represent the interests of his people in the national association of Fulani, Miyetti Allah Cattle Breeders Association (MACBAN). When the *Dindima’em*, *Juuliranko’em* group first settled in the Nupeland, they were just four in persons. After the migration of these four pioneers, pastoral Fulani from Machina and other regions in the north gradually infiltrated into the Bida Emirate. *Dikko Bida* estimated that by 2005 there were about 1,450 Fulani groups under his domain in the whole Bida Emirate, within which about 350 groups resided in the Bida region. The main pastoral Fulani lineage groups that are now settling in the region are the *Dindima’em*, the *Boodi* and the *Fittoji*. Pastoral Fulani in the region sustain their subsistence by raising cattle, sheep and chicken. Majority of them are pure pastoralist that they do not farm at all, but in recent years there is a trend for Fulani to borrow farm plots from the Nupe for very small-scale upland farming.

## Pastoral Fulani Camp

Pastoral Fulani form small group compose of several families and live in cooperation with one another (see Figure 2 and Figure 3). They call their camp as *wuro*. A pastoral Fulani camp in the Bida region normally composes of several *baade*, which refers to a household headed by a married man with an independent herd of cattle. The most senior male member of the whole group usually becomes the group head, *moudo wuro*. The seventeen Fulani groups studied vary greatly in size as indicated in Table 1. The average number of people is 30 per group, but the smallest group just consists of 6 people while the largest one has 112 members. The average herd size is 252.5 per group, but the smallest group just owns 25 cattle while the biggest herd size of a group is 900 heads. The spatial structure of the homestead of a pastoral Fulani group in the region is shown in Figure 4. In general, the pastoral Fulani camp in the region is long and narrow rectangular in shape extending from south to north. This rectangular shape and orderly arrangement is related to the practice of corralling contract that Nupe farmers turn these camp sites into farms after the Fulani have moved.

The pastoral Fulani camp consists of the residential section for Fulani people and the enclosure for their cattle herd which is called *hoggo*. In the rainy season, *hoggo* is enclosed with logs, but in the dry season log is not necessary because there is no crops around the camp. After the Fulani move out, the manure and soil inside the *hoggo* are spread over the whole camp site, very often even beyond the camp site. The camp site of an average Fulani camp in the region is about 8,548m<sup>2</sup><sup>6</sup>. However as mentioned there is great variation among groups that the smallest camp site is just 2557m<sup>2</sup> while the largest one is almost 2 hectares in size.

## CORRALLING CONTRACT BETWEEN NUPE AND PASTORAL FULANI

The brief record of the practice of corralling contract in the study area can be found in the ethnographies of Nadel (1942:206) and Shikano (2002:353). Nadel described it as “an interesting cooperation” between villagers or landlord and nomadic Fulani herdsmen. Presents of food, cash and assistance in the building of the camp were given to induce the pastoral group. Shikano even observed that invitation had to be done more than one year ahead. For the benefit of such cooperation, Nadel

Figure 2. View of *hoggo* of a Fulani camp in rainy season (DB group, October, 2005)



Figure 3. View of a Fulani camp in the dry season (AA group, January, 2005)

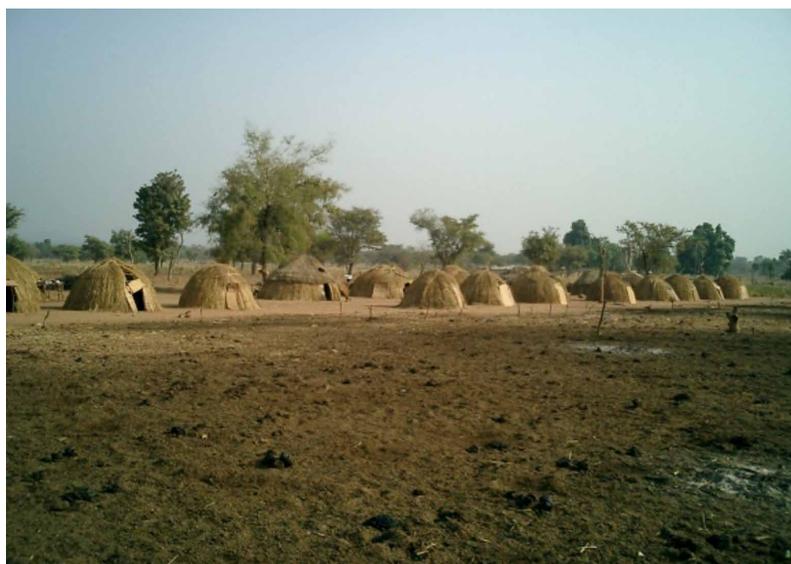


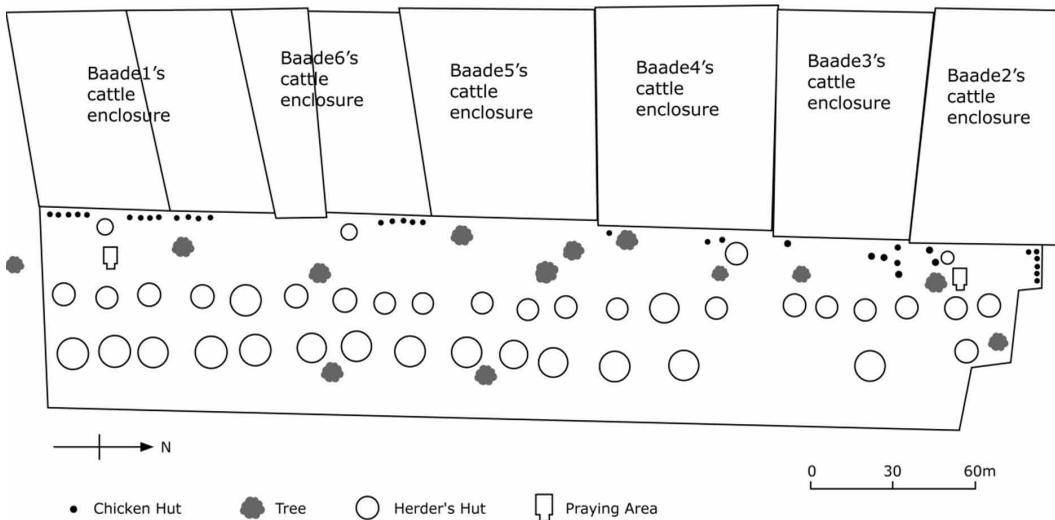
Table 1. Information of the pastoral Fulani groups studied

Group	Lineage	Year of Residing in Bida Emirate	Place of Origin	No. of Household	No. of People	No. of Cattle	No. of Sheep
AA	D.J.	~200	Maasina	6	51	353	162
AJ	D.J.	~200	Maasina	2	21	75	45
AK	D.J.	~200	Maasina	1	11	45	30
DB	D.J.	~200	Maasina	2	50	600	30
GA	D.B.	46	Sokoto	1	6	35	0
KA	D.B.	18	Nararuka	1	14	25	15
MK	D.B.	60	Sokoto	1	10	60	30
AB	D.B.	75	Kano	6	45	151	15
DU	D.B.	35	Sokoto	3	21	90	15
AE	D.B.	30	Massina	5	34	285	-
SA	H.A.	27	Sokoto	1	12	25	-
WA	D.J.	20	Minna	3	37	375	81
AI	B.O.	51	Sokoto	1	9	32	15
DA	B.O.	51	Sokoto	7	45	145	35
MN	B.O.	51	Sokoto	1	35	500	0
RU	B.O.	51	Sokoto	1	13	900	40
IS	D.S.	50	Lapai	9	112	427	87
<i>Average</i>				<i>3.0</i>	<i>30.9</i>	<i>242.5</i>	<i>40</i>

Source: Fieldwork (September –October 2005).

Note for lineage: D.J.: Dindima'em, Juuliranko'em; D.B.: Dindima'em, Baasamanko'em; H.A.: Hausaji; B.O.: Boodi; D.S.: Dindima'em, Sattanko'em.

Figure 4. Spatial layout of a pastoral Fulani camp studied (The camp of AA group, September, 2005)



stated that “I have myself seen the enormous difference in the growth of the crops between a plot on which the Fulani had made their camp and other, ordinary farm-plots.” He also mentioned that it was an accepted arrangement among the Bida landlords to place one’s fallow land at the disposal of the Fulani herdsman previous to leasing it to a new tenant. The landlord could then obtain a much higher price for his land. The record of Nadel and Shikano were very brief and no further information was provided, but they proved that the corralling contract has been an arrangement being practiced at least for half a century.

### Invitation to Pastoral Fulani

Pastoral Fulani in the research site migrate two times in a year; in June they migrate to the drier uplands to avoid tsetse fly and to get closer to the markets in Bida town; in late October they move to the *fadama* lowlands to secure water and pasture for their cattle in the dry season. As mentioned before, the topography of the region benefits the Fulani that seasonal migration distance is relatively short as compared with pastoralists in other regions. Interviewed pastoral Fulani groups settled on uplands around the Bida town in the rainy season; and in the dry season they migrated about 10-20km west to the river basin of the Gbako River, or about 20-30km southwest to the large floodplain of the Niger River. It was similar to the case of the Fulani in Jos Plateau whose seasonal migration distance was 20km (Awogbade, 1983). On the contrary, Hopen (1958) estimated that the average one-way distance for transhumance was about 100km (ranging from 10km to 303km) in Sokoto. In southwestern Nigeria the dry season grazing radii ranged from 32km to 125km (Fabusoro, 2006). Comparing to these figures, pastoral Fulani in the research site are carrying out their pastoral activities in a rather limited district. It allows Nupe farmers to easily stay in contact with the pastoral Fulani even after they migrate away. They can observe the behavior of the Fulani, find those they trusted, and to frequently visit the groups that they are targeting to host.

The battle for inviting popular Fulani groups begins few months to a year before the seasonal migration. Some groups receive invitation from several villages in every season. The number of invitation a group receive depends on its popularity stakes and strategy to be linked with various villages or to stay free. Likewise, Nupe farmers also have their options to invite a few groups simultaneously or to tightly target a particular group. Among the groups studied, five of them got invitations from three or more villages for each season, but more of them, that were nine, got invitation

from just one village for each season. Nupe farmers need to formally declare the wish to host the group at least few months before the season changes by visiting the group with kola nut and gifts. When the village is already hosting a Fulani group, farmers need to express welcome for the group to come again next year before they move away. Fulani group head is not the only person who can accept invitation; other male household heads also can be the contact point of villagers. There is an unspoken rule among the pastoral Fulani in the region that before the decision is made; no gift other than kola nut should be taken from any village to avoid conflict. Village representatives normally visit the group at least three to four times before the decision is made. They gather information about their competitors and the amount of gifts they propose to offer. Some villages offer more and more gifts every time they visit the Fulani camp in order to out beat other villages.

### Cost to Host a Group of Pastoral Fulani

There is great variation in the cost to host a pastoral Fulani group. The amount of gifts farmers need to offer mainly depends on the expectation and the size of the group. Generally speaking, farmers need to pay cash and kola nut once their invitation is honored. After the Fulani has settled in the village, farmers then need to offer sorghum, rice, salt and so on. Moreover, in recent years popular groups additionally request for truck money to move their belongings. Farmers need to pay 50% or even all of the transportation cost which can sometimes reach a few thousands Nigerian Naira. Nevertheless, not all the pastoral Fulani use the corralling contract to take financial benefit from farmers. It depends on their bargaining power and the strategy adopted. As shown in Table 2, nine out of the studied groups received nothing from farmers in the dry season of 2005. Most of them settled on uncultivated area of floodplains for the dry season. Based on the information obtained from the Fulani group studied, the estimated average amount of gifts that a Fulani group received for the corralling contract for the dry season of 2005 was NGN 2,803 (about US\$21), and for the rainy season of 2005 was NGN 4,295 (about US\$33)<sup>7</sup>. This amount probably underestimated the actual amount because Fulani tended to tell a lower amount during interview. While it can cost some villages almost nothing to host a smaller group, it can cost some villages over NGN 10,000 to host a big or popular group. In the rainy season of 2005, the biggest group in the area received gifts equivalent to NGN 23,156 (about US\$177) for the corralling contract.

Apart from gifts, there are many other things that the hosts need to provide to their Fulani guests. They need to supply labor. Younger farmers normally need to clear the land, cut tree, set up hoggo, and to assist in building shelters after the Fulani has selected their camp site. Female villagers need to provide labor and assist in cooking when their Fulani guest held ceremony. The hosts have to allow the guests to access to resources like water, firewood, building materials for shelter and most importantly, the grazing resources like crop residuals on harvested fields and pasture grasses on

Table 2. Estimated amount of gifts received by the Fulani groups studied (n = 17)

Amount in Nigerian Naira	Number of Groups (Percentage Shown in Parenthesis)	
	2005 Dry Season	2005 Rainy Season
0	9 (53%)	3 (18%)
1-1,000	1 (6%)	4 (24%)
1,001-5,000	4 (24%)	5 (29%)
5,001-10,000	1 (6%)	3 (18%)
>10,000	2 (12%)	2 (12%)

Source: Fieldwork.

pre-cultivated fields and fallow lands. Thatching grass as the main building material for shelter is specially requested in the dry season. According to informants, it is a tedious job for farmers to gather all the materials necessary for the whole Fulani camp. Not only labor is costly but also the materials themselves are expensive if these are purchased in market. Pastoral Fulani therefore expects a lower cash gift and no salt is requested for dry season.

### Village Selection by Pastoral Fulani

Decision for selecting the village to set up camp site is made in a meeting of all *baade* heads. Pastoral Fulani well aware the value of their cattle manure and think to set up camp site in a particular village is a kind of service to “sit for” the village. The meeting for village selection is “*kauten hore bolwen hala hodde*”, means gathering together to discuss about sitting. In the meeting, all *baade* heads can express their opinions and preferences. Decision is made with consensuses among all *baade* heads and final approval of the group head. When deciding where to sit for, the record that cattle reproduction was good in the village concerned is the most important consideration. Pastoral Fulani is deeply superstitious in this regard. Villagers can be quite sure that the Fulani will come again when they think their village is a place that brings luck. On the contrary, when cattle reproduction was bad, no matter how much the villagers are willing to pay the Fulani are not willing to go there again within few years. The second most important criterion is the availability of water and pasture especially during the dry season. The location of village is the third important consideration. Pastoral Fulani avoid villages close to rivers, streams and forests in the rainy season to prevent cattle from sickness. In the dry season they prefer villages closer to grazing resources on floodplains. Given similar conditions among villages, a good relationship between herdsman and villagers is an important criterion. Pastoral Fulani avoid villages that always trouble them with farm encroachment and showed hatred when they settled before. Besides, they appreciate the good personal quality of farmers. For instance, some of them are more willing to sit for farmers who are hard-working and well utilize the sites they settled before.

No Fulani group admitted that the amount of payment affected their consideration. However, some of the informants had ever sat for certain villages when the payments offered were higher. Besides, there was a case that herdsman did not sit for a village again because the farmers did not offer any gift other than kola nut. For the popular groups, to maintain fairness among villages and different households within a big village is important. They rotate among villages as well as different households of a village to avoid conflict among Nupe. All the groups studied had the experience that they could not sit for particular villages even when they wanted to because almost all the lands were under cultivation. Pastoral Fulani avoid settling in such kind of villages because it can easily result in unintended farm encroachment which harms the relationship with villagers. In case the group really wants to sit for a particular village for some reasons while the location of the village is unfavorable or there is lack of enough vacant land within the village, the Fulani may request farmers to lease a piece of land in another village to accommodate the Fulani camp. There were few cases like this recorded but in 2006 a village which used to lease land to other villages to host Fulani began to refuse the request of farmers. Therefore, the group concerned sat for another village which was not their first choice. Female members of the group have no influence in village selection although the camp location greatly affects their well-being. They cannot complain even if the village is far from market or they need to trek longer for water and firewood. After the group has decided which village to sit for, a day is selected for the village representatives to present kola nut and cash to the Fulani group head. Once this ritual is done, the corralling contract is formally set up. A few *baade* heads of the group will visit the village and choose the camp site from a few pieces of land selected by villagers before the seasonal migration.

## CASE STUDIES OF DIVERSE STRATEGIES OF PASTORAL FULANI

All the seventeen pastoral Fulani groups studied have different migration patterns and different degree of closeness with Nupe villages. They also arranged the corralling contract in slightly different ways in response to their different conditions and needs. The adoption of the corralling contract for pastoral Fulani is not just a simple economic arrangement, but the most powerful tool for them to ensure access to resources and to maintain a harmonious relationship with the Nupe. They have different strategies with respect to the use of the corralling contract in accordance to their peculiar circumstances. Although generalization is difficult, their strategies could be roughly grouped into four different types. The four strategies are namely; the utilization of the corralling contract as a political tool, the utilization of the corralling contract as an economic tool, the passive adoption of corralling contract and the adoption of corralling contract with an exclusive village. Each of the strategies is illustrated below with a representative case study.

### Strategy One: Corraling Contact as a Political Tool

As the chief of all pastoral Fulani in Bida Emirate, the group of *Dikko Bida* needs to act as a role model regarding the practice to sit for Nupe villages. *Dikko Bida*, *Alhaji Adamu Dikko*, owns one of the largest herds in the area. He is a highly respected elder who persists in maintaining the traditional nomadic lifestyle of Pastoral Fulani. Although he earns a monthly salary and owns a house in Bida town as office, this ninety years old chief still lives in his simple shelter with his family members in the group. The group of *Dikko Bida* began to sit for villages north to Bida town during the rainy season about sixteen years ago. He moved northward as the *Dindima'em* group expanded so he moved slightly northward to explore new grazing resources. As the chief of Pastoral Fulani, his group was soon welcomed by villages. For rainy season, the group rotates among four Nupe villages, namely Kologa, Bube, Akote and Emigbari. Meanwhile for the dry season, the group has been sitting for just one village – the Eyagi village, for all the last 80 years. For *Dikko Bida*, corralling contact is not a tool to get economic benefit, but a political tool to symbolize the harmonious social relationship between Pastoral Fulani herdsmen and Nupe farmers, as well as to maintain the linkage with the Emir. Eyagi village was the birthplace of the mother of the late Emir. In addition, the village head of Eyagi has always been the ward head, *Etsu Yenka*, who is responsible for dispute settlement for villages under his management. Sitting for Eyagi can be regarded as an annual virtual to acknowledge the allegiance of Pastoral Fulani to the Bida Emirate. Regarding the four villages for rainy season stay, unlike other popular groups, *Dikko Bida's* group does not take any cash gift from villagers; rather cash is always given to village heads whenever they come to greet Dikko. The group only receives kola nut as the ceremonial gift. However, in recent years villagers volunteer to offer money for the group to hire truck to move their belongings. Exchange of gift between herders and villagers is more often comparing with other groups studied. Produce like yam, sweet potato, maize, rice and sorghum are always given to the group. In return, village heads receive cheese, milk, chicken and money. The exchange is unbalanced; Dikko always offers more gifts to show generosity and to gain prestige. Corraling contract with villages does not bring economic benefits to *Dikko Bida's* group, but it has an important political meaning for the maintenance of the cordial social relationship between Nupe and pastoral Fulani.

### Strategy 2: Corraling Contract as an Economic Tool

Some informants from more popular groups which always receive many invitations described the corralling contract as a kind of “exchange”. They regarded it as a kind of service provided for farmers to achieve better yield, and in return they could take some advantage from it. As mentioned before, these popular groups receive higher payments and more gifts from farmers for the contract. They sit for different villages in each season. However, they are not absolutely utilitarian in their consideration for village selection. The monetary benefit they receive is just one of the conditions that they expect

farmers to fulfill. The long term harmonious relationship with various villages is a more important consideration for them. The groups with higher popularity usually have higher social status, such as belonging to the ruling house or led by respectful Islamic mallam. Besides, their groups are usually bigger in size, and it is highly welcomed by many villages because they can get more benefit of manure at once.

The group of *Aliyu Abdullahi* is one of the most popular groups in the area. The group belongs to the same lineage group of *Dikko Bida*. The group has 51 people and 353 heads of cattle. It is the second largest group in the area in term of population. The group sits for various villages south to Bida town in the rainy season. In the dry season, the group migrates to the basin of River Gbako and rotates among a few villages. Table 3 lists the locations of the camp site and the amount of gift the group received from 1996 to 2006.

The amount of gift received in certain years deserves some elucidations. In the dry season of 2006, only 150 pieces of kola nut, 40 kg of sorghum and NGN1,000 were requested by the group. It was because of the lack of rainfall in 2005 that herders were willing to accept a lower payment from farmers. On the other hand, in the rainy season of 2002, a record-breaking high amount of gift and payment were received from a farmer of Patishin. Moreover, to avoid the cattle disease that prevailed in the area during that time, the farmer accepted the request to rent a piece of land in Ndaceko village in order to accommodate the Fulani camp. Although the group did benefit a lot financially that year, they did not continue the contract with that farmer because they did not want to provoke other villages. As listed in Table 3, the group did not sit for a village continuously for over two years. The informant of the group pointed out that, “It is good to maintain relationship with various villages because it gives you more freedom and bargaining power.” When deciding which village to select, informant said, “You cannot follow money, you need to follow cattle.” Financial benefit is just one of their considerations, what really matter to them are the welfare of their cattle and the good relationship with villages which makes grazing on farmers’ land an easier task. To avoid conflict among villages, the group needs to rotate. In the dry season of 2003, there was a special case that farmers of two villages needed to share the site. The group originally promised to sit for a Nasarafu villager but they wrongly chose the land belonged to a Shabamaliki farmer. None of them were willing to give up so finally

**Table 3. Camp sites and amount of gift received of Aliyu Abdullahi group<sup>8</sup>**

Year	Dry Season (Dec – May)		Rainy Season (Jun – Nov)	
	Village	Amt. of Gift (NGN)	Village	Amt. of Gift (NGN)
2006	Nasarafu	3, 200	Alukusu Tako	7, 350
2005	Tswatagi	5, 267	Emigbari	7, 650
2004	Nasarafu	5, 367	Emigbari	8, 528
2003	Shabamaliki & Nasarafu	5, 600	Lemuta	7, 578
2002	Nasarafu	4, 267	Patishin	16, 628
2001	Nasarafu	4, 667	Ekota	10,122
2000	Shabamaliki	7, 480	Emigbari	7, 428
1999	Nasarafu	4, 500	Lemuta	6, 778
1998	Tswatagi	2, 867	Lemuta	6, 378
1997	Nasarafu	3, 867	Emigbari	6, 578
1996	Tswatagitako	3, 933	Emigbari	6, 378

Source: Fieldwork.

herders requested them to share the site equally. For large village like Nasarafu and Shabamaliki, the group even needs to rotate among different households in order to avoid conflict within village. To run the corralling contract is similar to running a “business” to those popular groups. They care about financial benefit, but they also need to maintain “customer relations” with various “clients” and to prevent them from “fighting among themselves”.

### **Strategy 3: Passive Corraling Contract**

Some pastoral Fulani groups are not so eager to engage in corraling contract with villages. They value freedom of mobility higher than the close relationship with certain Nupe communities. *Adamu Iya* belonged to the *Boodie* lineage group which began to settle in the Bida area in the 1930s from the Sokoto region. His group is small; it has just 9 people and 32 heads of cattle. Unlike the *Dindima'em* group, most of the *Boodie* groups studied do not formally engage in corraling contract with Nupe villages. Even though they do not get so many benefits from the corraling contract comparing with the two types of group mentioned above, they are less nomadic in the sense that they do not need to move to different villages every year. They usually settle on a particular village continuously for several years during the same season. For example, until 2005, *Adamu Iya* has been setting up his camp in Fakunba village during the rainy season for 5 consecutive years, and in Gaba village for the dry season for 10 consecutive years. However, he never sets up his camp on the same spot for two consecutive years. When he sits for a small village, he can choose a plot of fallow land as he wishes and let villagers later share the land among themselves. When the village he settles is large, he needs to follow the advice of the village head and rotates among the lands of different households. *Adamu Iya* does not actively engage in corraling contract with villages although a few villages always show welcome to host his group. He does not receive payment from villagers, but village head of each village usually give him 100 pieces of kola nut and some grains for gratitude and to express welcome for his coming back. Nevertheless, *Adamu Iya* usually does not give promise that he must come again. He prefers to keep his flexibility. If he wants to come again in the following year, he just walk-in and gets permission to settle from village head. Villagers still need to provide some basic services, such as clearing the land for his camp and assisting in building camp. There is usually no specific reason when *Adamu Iya* decides not to return to a village. He prefers to be flexible so that he can explore new environment for his cattle any time he wants. The precondition for him to stay in a village is that the villagers have shown welcome and have ever forgiven him for minor destruction caused by farm encroachment.

### **Strategy 4: Fixed Corraling Contract**

There were a few groups studied that do not carry out seasonal migration. They settle both in the rainy and dry seasons in a village for years. Their life-style can be regarded as semi-settled, but they do not own permanent shelters and need to move their cattle enclosure frequently within the village following the request of their hosts. These groups are usually smaller and own a smaller herd. The villages they stay are usually larger in scale, with large area of vacant land or fallow land. Besides, there must be water resource available even during the dry season. Groups prefer not to migrate but just sit for a particular village because it is “too much suffering” to move around villages. They do not get any payment for their cattle manure, but they do receive kola nut and grain sometimes from villagers for courtesy. The group of *Aliyu* moved into the Bida area from the Sokoto region about 45 years ago. They have 21 people and 90 heads of cattle in the group. *Aliyu* has never moved out of Gbanchitako village for over a decade. The stable relationship with the village enables him to get a relatively large plot to do his own farming. He also gets a plot in a nearby village. Although he gets no payment from farmers, he gets land to farm and the right to use the cattle manure exclusively for his own farms during the dry season. *Aliyu* move his cattle enclosure following the wishes of farmers in the rainy season. In the dry season, he can let his cattle to stay on his two farms for two months

respectively. *Aliyu* is not interested in getting financial benefits by corralling contract. Stability is more valued and by sitting for a village all year round for long term, he is able to sustain a semi-settled life.

## UTILIZATION OF FULANI CAMP SITE

Cattle manures are accumulated inside the *hoggo* during the season. Calves, sheep and other animals are not corralled inside the *hoggo* and are left free in the camp at night. Every morning the Fulani women and children sweep the residential section and drop the animal faeces in the *hoggo*. Pastoral Fulani do not use cattle manure as fuel or construction material. All the animal faeces are concentrated inside the *hoggo*. In the next rainy season after the group have moved away, Nupe farmers will spread the faeces all over the previous camp site and the area is usually extended. They often transfer part of the manure to their other farms as well. The size of such manured field depends on the size of the camp. Based on the 24 surveyed manured fields (Table 4), the average size of such manured field is 14,016m<sup>2</sup>. These fields are extended on average by 199% beyond the original size of the Fulani camp site.

The arrangement for the corralling contract of Nupe farmers can be categorized into two: hosting by collective effort of the whole village and hosting by single household of the village. The former is far more common in the study area, especially for smaller scale villages that host Fulani group during the wet season. The latter is only practiced in larger village or during the dry season when small group of pastoral Fulani, often just one *baade*, migrate into the region for relatively short period of stay. For the region is close to the great floodplain of the Niger River, many pastoral Fulani basing in the north pass through the research area during the dry season for reaching the floodplain for water and pasture. They move in small groups and stay on the lands of Nupe villages for short period like a few weeks.

For villages that host pastoral Fulani during the wet season, not only the very field that is utilized as camp site, but also the fields surrounding the camp site, that the farming activities for the year have to be suspended because of inevitable cattle destruction. If the benefits brought by the corralling contract are not shared among all the villagers whose farming activities have been affected, tension can easily be generated. For villages that host Fulani group during the dry season, there is no such trouble because no farming activity will be affected.

When arrangement is done by collective effort of the whole village, the land for past Fulani camp site will be divided into many small plots and distributed to village members according to the norms and rules of the village. For a group of about 1 hectare, it is normally divided into eight to nine plots. There was a case that a Fulani camp site of 1.5 hectare was turned into a field of about 2.6 hectares and was then divided into twenty-three small plots. Fourteen manured fields achieved through collective effort were surveyed and the average area of such divided small plot is just about 1,447m<sup>2</sup>. Dividing the field into so many long and narrow small plots may not comply with the principle of economics of scale, but for many Nupe farmers the notion of fairness in the community is highly important. That is the reason why larger group is more desirable by Nupe farmers. By hosting a bigger Fulani camp, they can ensure members of every household of the village can get a share of the manured land.

Table 4. Summary of the manured fields surveyed

No. of Field Surveyed	Smallest Field Size	Largest Field Size	Average Field Size	Lowest Portion to Size of Camp	Highest Portion to Size of Camp	Average Portion to Size of Camp
24	2,542m <sup>2</sup>	38,312m <sup>2</sup>	14,016m <sup>2</sup>	81%	605%	199%

Source: Fieldwork.

Village head often has the first priority to choose the plots he prefers and the remaining are then distributed to other members usually according to seniority. According to farmers, the plots in the middle and of the two ends are most wanted, because farmers think the plots in the middle have more faeces accumulated and the plots at the two ended can easily be extended into larger size. As the most senior member of the village and usually the secondary landlords, the village heads have the privilege to get a bigger portion. In the measurement it is found that the plots of village heads are 146% bigger than plots of ordinary villagers.

The cost incurred for the corralling contract is divided among members of the village. If the cost is not shared, it would be a very heavy burden for farmers as it can easily cost a few thousands Nigeria Naira to host a popular group. In most cases the cost is divided unequally. Senior and wealthier members, especially the village head, of the village usually contribute more money and grains. This justifies their bigger shares of the manured land. Younger farmers can contribute less money, but they need to provide physical labor in assisting the clearing of land and building of camp in order to entitle to the manured land.

Figure 5 shows a typical example of a measured manured field which the unit of host was the whole village. It used to be the camp site of the group of Aliyu Abdullahi in Emigbari village for the rainy season of 2005. The Emigbari village has a population of fifty-six. Villagers are earnest about the corralling contract with pastoral Fulani for maintaining the fertility of their land. In 2006, there were totally nine fields made out of previous pastoral Fulani camp site in the whole village. Twenty-seven percent of their land was manured through the corralling contract with pastoral Fulani groups. The field in Figure 5 was divided into 13 long and narrow plots. All the six household heads of the village obtained their shares. The distribution was uneven: 25% and 29% of the field were taken by the village head and the deputy village head respectively while the remaining 47% were shared by the other four household heads.

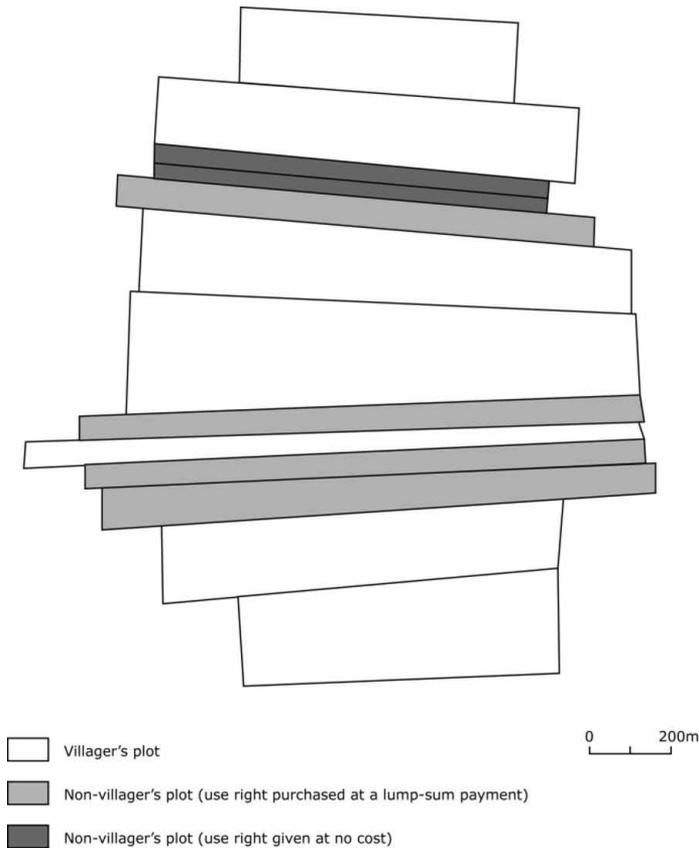
It is noteworthy that six plots out of the thirteen plots, about one-fifth of the whole field, were occupied by non-villagers. In the research area it is common for the owner of such manured fields to sell the use right of part of their plots for good income. Ten plots with the use right sold to non-villagers were identified. The lump-sum price for the use right of 5-7 years for a plot of 1130m<sup>2</sup> was NGN 4,100 on average. Every year the tenants also need to submit 10% of the harvest to their landlords as rent. In this example, three farmers from other villages have bought the use right for four plots. One of the household heads sold the use right of 70% of his plot to his father-in-law of another village. In addition, two non-villagers obtained the plots for no lump-sum cost through affinity relationship and friendship.

When the unit of host is a household, the distribution of land is much simpler. Figure 6 shows the layout of a manured field which the unit of host was a household of a larger village. It used to be the camp site of the group of *Aliyu Abdullahi* in Nasarafu village for the dry season of 2003. The previous group camp site was largely extended and then distributed among the three brothers of the household. Plot size of the manured fields achieved through individual household effort is often much larger. For the ten surveyed fields of such, the average plot size was 7,645m<sup>2</sup> in area. It is probably because as the household do not need to share the land with other villagers, they can arrange the group to set up camp site in the midst of their family land and then easily spread the manure all over on the land when the Fulani has gone. Instead of dividing the plot into smaller size and selling the use right, farmers of such fields seem to prefer more extensive farming. In the study area, only the large and populous villages on the floodplains of river basins allow their villagers to invite a Fulani group on their own. To avoid competition among villagers, coordination of village head is necessary but villagers still compete on time and gift to invite the same group sometimes. Pastoral Fulani usually intentionally rotate among different households when sitting for such large villages in order to avoid conflict among villagers.

## FARMERS' ACCESS TO MANURED LAND

In the conventional depiction, richer farmers and cattle herders are often described as the major beneficiaries of the corralling contract. Resources poor farmers with less access to manure, suffer

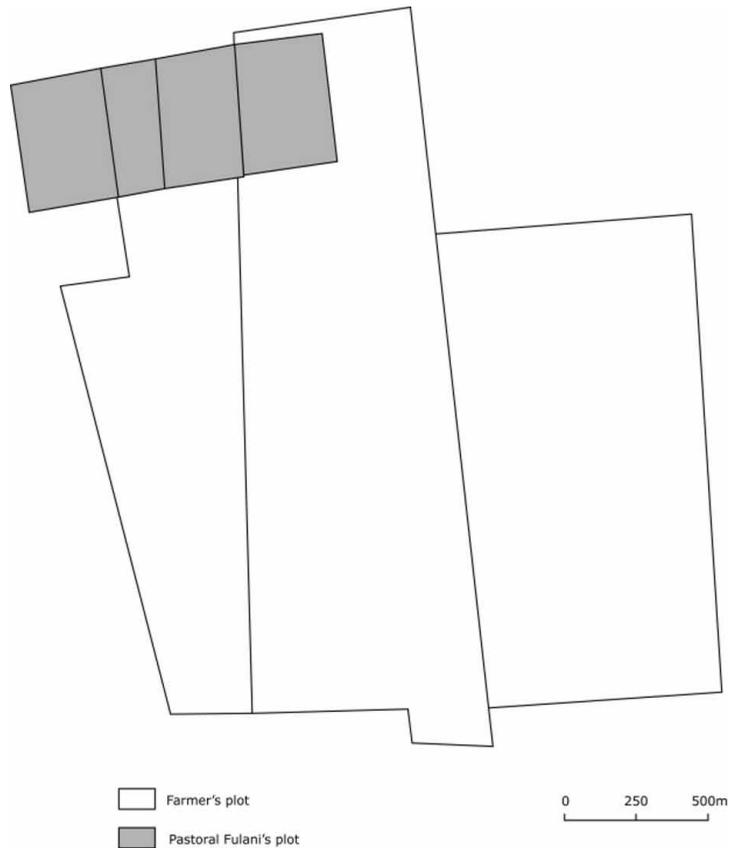
Figure 5. Layout of a manured field in Emigbari village (measured in September, 2006)



more on land degradation as they have to provide pasture for cattle grazing but get nothing in return to retrieve the nutrient cycling of their lands. In this research, evidences from case studies suggested that it is not necessarily the case at least with respect to the Nupe farmers and pastoral Fulani herders. Under the same local settings, different pastoral Fulani groups have different strategies regarding the adoption of corralling contract with Nupe villages. The classical description that herders are the dominative beneficiaries of the politics of manure was only true to some herdsman. The corralling contract was the most powerful instrument that assisted in the access to resources for all the groups studied, but what they could get from the arrangement varied greatly from each other. While some groups could well manipulate the relationships with various villages through the adoption of the corralling contract to their advantages, some groups preferred a more stable situation and just got the minimum advantages out of the contract. Findings revealed that higher social status, larger herd size and long history of interaction which allowed trust to be built were the factors contributing to the popularity of a group. Each of the strategies illustrated before has its merits and demerits if comparisons are to be made. But the important message is that different strategies have been evolved and adopted by the pastoral Fulani in accordance to their particular circumstances and needs. Under the customary land system of the study area, the corralling contract plays a pivotal role that facilitates the interdependence of the two groups. This well-functioning traditional institution allows limited resources to be shared and balance to be maintained.

Concerning the farmers, although village chiefs usually benefit more, the sharing and rotation practices allows members of the whole village to get their shares of manured fields. Village heads and

Figure 6. Layout of a manured field in Nasarafu village (measured in September, 2005)



village elderly usually contribute the major part of the payment to invite herders. They are also the ones responsible for the gifts to herders in ordinary time and during their stays in order to maintain the relationship. Therefore, younger farmers justify their bigger share of the manured land. All the interviewed farmers confirmed the higher yield brought by the manure. They pointed out that the benefits of the previous cattle corral can last for six to ten years and the performance is at least three times better than the chemical fertilizer that they can get in the market. The manured plots can be a source of cash income when the farmers sell the usufructuary rights of their plots. When a village fails to invite any Fulani group, farmers can still access to such manured fields through affinity relationship, friendship or by purchasing the right of usufructuary. There was no evidence that access to manure was concentrated only to wealthier farmers. Although the competition for corraling contract sometimes created tensions between villages or among villagers, such tensions were never serious as farmers knew the norm that pastoral Fulani would rotate among them and they expected that they would get their chance sooner or later. Villages do cooperate occasionally by jointing efforts to host a group together.

Contrary to the conventional description, findings did not show a strong tendency of increasing payment to herders for the manuring service. Table 5 illustrates the change in the value of gift received for the pastoral Fulani studied groups during 2001 to 2005. The value increased for NGN 69.8 for the dry season and just NGN 7.83 for the rainy season during those four years. On the other hand, some groups even received fewer amount of gifts than previous years.

Table 5. Change in value of gift received for the pastoral Fulani groups during 2001 to 2005

Value of Gift Received	Dry Season		Rainy Season	
	No. of Group	Amt. of Change	No. of Group	Amt. of Change
Increased	4	NGN 341.45	6	NGN 531.44
Unchanged	10		6	
Decreased	3	- NGN 59.72	5	- NGN 611.12
Net change	17	NGN 69.80	17	NGN 7.83

Source: Fieldwork.

As illustrated in the examples, some pastoral Fulani groups preferred not to get formal invitation and not to get payment in order to remain flexible. It was only the popular groups whose payments received had shown a slightly increase over the last ten years. The major increase of financial burden to farmers was the truck hiring cost to move the belongings of herders. This burden had partly or totally shifted from popular Fulani groups to farmers. However, as mentioned before, herders did consider the affordability of farmers and the amount of payment was never their only consideration in village selection. With respect to the Nupe farmers and the pastoral Fulani herders of the study areas, the notion that herders are asking for more payment and making manure only accessible to wealthier farmers is not applicable. Nevertheless, informants reviewed that prior to the mid-1990s, pastoral Fulani seldom received any payment for the manure service. Farmers might just take care of lodging and food when the herders stayed on their fields. Herders even needed to move their camp sites two times in each season to sit for four villages in a year. The great improvement of the pastoral Fulani's term of benefits from the corralling contract should be related to the changes of fertilizer policy of the Nigeria government as well as the degradation of land due to population increase and excessive farm expansion.

## CONCLUSION

The corralling contract has enhanced the mutual dependence of the Nupe farmers and the pastoral Fulani herders. It is especially essential to pastoral Fulani who, under the customary land system, has no guaranteed access to land. With the failure of the government in providing grazing reserve, the corralling contract has remained as their most important asset that assists them to access to resources. It is also the most important antifriction for the social relations between the two groups. Most of the interviewed farmers answered that they would forgive pastoral Fulani for minor crop encroachment for the sake of the cattle manure. Village heads were expected to assist their Fulani guests when they have disputes with other villages. In the study area, most of the disputes caused by cattle encroachment into farms could be settled by village heads, just few cases needed to be settled by *Dikko* or the *Emir*.

Despite all the merits mentioned, the corralling contract is not without constraint. First of all, farmers have limited power to manipulate the adoption and the arrangement of the corralling contract. When a village fails to establish relationship with the Fulani groups in the surrounding area, it is difficult for villagers to invite Fulani groups from other areas. There are implicit rules governing the territory of a Fulani group, new comers normally do not just infiltrate into the area without the consensus of the existing groups. It is to avoid competition on resources and unnecessary social conflict. A village has less access to corralling contract when it is located in an unfavorable environment for cattle. Because of these limitations, farmers can hardly plan for the fertilization proactively. Secondly, excessive farm expansion due to population growth and decreasing productivity of land, have created great limitation not only for herders but also for farmers. Many herders revealed that they could not sit for certain villages even if they wanted to because almost all the lands were under

cultivation. When a village hosts a Fulani group during the rainy season, not only the spot where the camp is set up, but also the surrounding farmlands are expected to be sacrificed due to inevitable farm encroachment by cattle and sheep. It is a serious constraint that stops pastoral Fulani from sitting for some Nupe villages and it may lead to a vicious circle for the poor farmers. Thirdly, the corralling contract prevents the pastoral Fulani from settling down permanently on a place and limits their progress in development. All interviewed herders pointed out that if they would stop providing manure for Nupe farmers someday, there would be war between them. The corralling contract helps them to access to resources, but on the other side of the coin, they do not have the chance to develop a more stable life because they cannot break the expectation of farmers that they would move and rotate. Although some groups could begin to get lands for farming from their hosts, they were not supposed to farm on the same lands continuously after they have moved out. Pastoral Fulani well acknowledged the responsibility that they should help poor farmers to fertilize their lands, but they also expressed their wishes for a more stable and secure life.

Despite the history of the Fulani conquer in the early nineteenth century, Nupe farmers generally are not antagonistic toward the pastoral Fulani. Although they do not form martial relations, the Nupe and the pastoral Fulani have a wide range of social interaction. The camp sites of pastoral Fulani are generally close to the homestead of villagers. Fulani men often gather in village and pray in the mosque with their Nupe fellows. The corralling contract has a very positive impact on the social relation of the two groups. They see each other as partner: the Nupe need the Fulani for manure while the Fulani need the Nupe for land and fodder. The corralling contract is not just a casual arrangement, but a dynamic and well-functioning traditional institution that facilitate the collaboration of the two groups. It is an important example of local adaptation and innovation that allow balance to be maintained when limited resources are being shared. By contrast, statutory efforts to draw territorial distinctions between agriculture and livestock production have created social rifts in many regions. Technological solutions, such as chemical fertilizers, have not halted the decline in agricultural productivity. The corralling contract should be advanced as part of the complex set of social and biophysical conditions in agropastoral regions. In spite of working in vain to simplify the system with statutory and technological solutions which separate agriculture from livestock production, efforts should be focused on removing the constraints of the corralling contract on both side and facilitating it in order to enhance the association between agricultural and livestock production.

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## ENDNOTES

- 1 Termites are recognized as “ecosystem engineers” by scholars because they promote soil transformations by disturbance processes. They collect particles from different soil depths and deposit them in the mounds which can be regarded as soil nutrient reservoirs. The decomposition of termite mounds releases the nutrient back to soil.
- 2 The Fulani are referred to variously as Fulbe, Peul, Fellah or Fula in literatures. They call themselves Fulbe. In this paper the Hausa term Fulani is used as it is a more widely used term in Nigeria.
- 3 World Christian Database estimated in 2008 that there were 1,197,139 Nupe, out of which 92% were Muslims, 5.2% Animists and 2.8% Christians. Retrieved 1 April 2008 from <http://worldchristiandatabase.org/wcd/>. Nupe continue to account for about 1% of the total population of Nigeria.
- 4 In Nadel's finding in 1942, the average farm size for a man is 2-2.5 acres.
- 5 The term *Bororo* is Hausa word derived from *Bororo'em*, a Fulani name for a “special” class of *Fulbe ladde*. Despite its widespread use, it has slightly pejorative overtones and is not used by the people themselves.
- 6 The camp sites of ten Fulani groups were surveyed in 2005 and the camp site of two major groups were surveyed again in 2006. From the twelve surveyed camp site records and the cattle data of the corresponding groups, the average camp site area per cattle which is 35.25m<sup>2</sup> is obtained. As the average head of cattle for the 17 groups is 242.5 heads, the average size of camp site is calculated as 35.25m<sup>2</sup> x 242.5, which is 8,548m<sup>2</sup>.
- 7 The values of rice and sorghum were calculated based on the official record of the average retail market price of the Bida market of the Niger State Agricultural Development Project. The values of kola nut and salt were given by Fulani informants while the values of yam and fresh maize were given by farmer informants. Regarding the average exchange rate of US dollar to Nigerian Naira, during 1 December 2004 to 31 May 2005 it was 1:132.35 and during 1 June 2005 to 30 November 2005 it was 1:130.58.
- 8 For a more accurate estimation, track hiring cost is not included in the calculation of the gift value. However, it is one of the biggest burdens for farmers when hosting a popular group. The values of agricultural products calculated based on the retail price of the Bida Market in 2005 rainy and dry season. The official record was obtained from the Niger State Agricultural Development Project. For time-series comparison 2005 was used as the base year for value calculation.