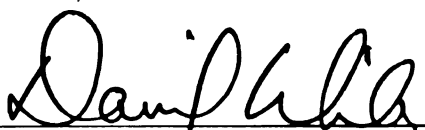This is to certify that the

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THE SHIFTING SANDS OF AUTHORITY AND AMBIGUITY IN NATURAL
RESOURCE MANAGEMENT IN EASTERN MAURITANIA

By

Beth Pennock Dunford

A DISSERTATION

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ABSTRACT

THE SHIFTING SANDS OF AUTHORITY AND AMBIGUITY IN NATURAL
RESOURCE MANAGEMENT IN EASTERN MAURITANIA

By

Beth Pennock Dunford

There have been far-reaching legal changes in Mauritania that allow new possibilities for traditionally disadvantaged groups such as women and Haratines to access natural resources upon which they depend for their livelihoods. Community-based natural resource management schemes and increasing privatization have become important avenues for less powerful groups to obtain access to land and other natural resources. However, these new laws often fundamentally contradict traditional hierarchies, which remain powerful forces in natural resource access negotiation. This research examines the nature and impacts of power in social relations on natural resource access. It focuses on the ability of different social groups to negotiate access to natural resources within a strong tradition of hierarchy and new state laws and policies favoring privatization, either at the individual or community level. This research finds that disadvantaged groups are more able to maintain control over resources when they have geographic and institutional distance from groups favored within traditional hierarchy.

To Dad,
for taking the time to read everything I ever wrote
and for knowing just how to guide me.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER ONE
INTRODUCTION

There have been far-reaching legal changes in Mauritania that allow new possibilities for traditionally disadvantaged groups such as women and *Haratines*[1] to access natural resources upon which they depend for their livelihoods. Community-based natural resource management (CBRNM) schemes and increasing privatization have become important avenues for less powerful groups to obtain land and other natural resources. However, these new laws often fundamentally contradict traditional hierarchies, which remain powerful forces in natural resource access negotiation. This research examines the nature and impacts of power in social relations on natural resource access. It focuses on the ability of different social groups to negotiate access to natural resources within a strong tradition of hierarchy and new state laws and policies favoring privatization, either at the individual or community level. In addressing this question, I highlight the misconceptions of diverse strands of theories within the resource tenure literature. Although the majority of this literature focuses on the promise of legal and institutional reform on the management of resources from an environmental perspective, much also can be learned from natural resource literature on the implications for social relations or resource access within the legal and institutional systems of which they are writing. My analysis of resource tenure in eastern Mauritania shows that there are important omissions from this literature. A more complete analysis must focus on the complex

linkages between networks of global influences, national polices and legal reform, and firmly-rooted social networks that influence resource tenure realities in Mauritania and much of sub-Saharan Africa.

Mauritania is a country located at the western edge of the Sahara, bordered on the north by Morocco and Algeria, on the east and southeast by Mali, on the south by Senegal and on the west by the Atlantic Ocean. Today, the Islamic Republic of Mauritania occupies a vast land area of over one million square km with a sparse population of 2.3 million (IBRD 1997). Mauritania is an arid country where nearly 90% of the country is desert, receiving less than 150mm of rain annually. The rural economy is based on the raising of livestock including cattle, sheep, goats, and camels. Herding is the most important agricultural occupation, accounting for nearly 80% of the agricultural GDP. This figure has remained remarkably stable. Even during the mid 1980s drought years when large number of animals died or were slaughtered for lack of fodder, it declined to 74%, only to rise again to 81% in the wetter years following 1985. 14 million ha of Mauritania's land is suitable for grazing, and according to latest World Bank estimates, there are approximately eight million sheep and goats, 1.4 million cattle, and one million camels (World Bank 1997:2).

Crop production contributes less than 20% to agricultural GDP. Over two-thirds of the population depends on agriculture and herding which together consists of one-third of the country's GDP (World Bank 1997). Availability of water dictates farming in Mauritania, and only about 0.5% of Mauritania's land can support rainfed agriculture. Where there is enough rainfall, about 120,000

2

ha of rainfed crops are harvested here annually. Where there is less rainfall (<450mm), cropping depends on supplementary water supplies. Supplementary water is mostly in the form of flood recession cropping that relies on residual soil moisture after flood waters have receded. Recession agriculture accounts for 35,000 ha in bottom lands and behind retention dams. Millet and sorghum are the main crops, often rotated with cowpeas. In addition, the Senegal River Valley contains 19,000ha of rice that is irrigated by the river (World Bank 1997:2). The rich typically eat Rice, with poorer people depending upon sorghum, millet and cowpeas for important protein in their diet.

Mauritania is an excellent place to conduct research on natural resource access because of its harsh environment that renders such resources scarce. Mauritania is located at the western edge of the Sahara desert, between the Maghreb and the Sudan, "...culturally dominated by the former and, until independence, economically and administratively a part of the latter" (Stewart 1972:375). Mauritania is extremely diverse, with the northern desert regions of Atar and Tagant where sparse rainfall makes the population entirely dependent upon scattered oases. The coastal regions rely on fishing as their livelihood. Southwestern Mauritania rests on the Senegal River valley where the recent construction of irrigation has promoted rice farming.

The area of focus for this study is eastern Mauritania, specifically the Province of Hodh El Gharbi. The Hodh (meaning basin) is surrounded by cliffs of the Assaba and Tagant to the north and west and Tichit and Walata to the north and east. Eastern Mauritania has relatively high rainfall ranging from 150-

550mm per year. The increased rainfall in eastern Mauritania makes the region uniquely suited to support an active rural economy, based on herding and agriculture. In addition to the relative abundance of fodder and the possibility for rainfed agriculture in pockets of high rainfall, there are a high number of semi-permanent wetlands in eastern Mauritania that from in depressions after seasonal rains.

Wetlands in eastern Mauritania currently play an important role in animal herding, agriculture, forestry and biological diversity. Wetlands provide a strategic water source that enables transhumant herds to exploit surrounding pasturelands in addition to providing cold season pasture for grazing and browsing. Farmers plant the humid clay soils of the wetland areas as the wetland (much like a pond) dries up at the end of the rainy season[2]. This recession agriculture allows for greater security in agricultural production in low-rainfall years when rainfed agriculture fails. The abundance of woody vegetation made possible by the wetland moisture provides an important source of construction wood, firewood, and forestry by-products such as the seeds used for tanning leather, wild foods, and medicinal plants. The dependence upon wetlands becomes even more important during drought years, which are part of the natural climatic cycle of the region.

In addition to the high levels of rainfall, eastern Mauritania provides an interesting location for this research as the region has only recently seen development intervention. In previous years, the government and development agencies have focused their resources on the development of the Senegal River

valley. The potential for irrigation and the projected gains in agricultural

productivity and the ability to plant rice that is consumed by the urban elite

focused all attention in this area. As the farming land around the Senegal River

valley gained in value due to new development infrastructure, violent fights broke

out among multiple claimants to the land. The conflict grew into a full-scale war

in the early 1990s when hundreds of thousands of farmers on the land were

forced to flee their homes into neighboring Senegal. With increasing

development investment in eastern Mauritania, systems of land tenure also have

become more conflictual and warrant in-depth study.

Mauritanian society has experienced radical and rapid change in the past

30 years, beginning with the devastating Sahelian drought from 1969 to 1973.

The enormous loss suffered during this drought in conjunction with an

increasingly modernizing economy transformed the country from a primarily

nomadic society (over 80 percent before 1970) to an increasingly sedentary

population. By 1990 less than 20 percent of the population was nomadic (Salihi

1996). However, herding is still one of the most important livelihood activities in

Mauritania. Most herds in Mauritania are as mobile as they have ever been

because mobility is still required for survival in Mauritania's sporadic rainfall both

in space and in time. Although animals are still moving along traditional

migration routes, most people have a home base where women, children, and

those men rich enough to hire shepherds remain to be close to schools and other

amenities that sedentary life allows. This construction of sedentary residences

changes land tenure realities, both in customary and national legal tenure

regimes.

In addition to the radical change of sedentarization experienced by Mauritania in the last 30 years, slavery was abolished in 1980. This seminal event greatly altered the relations between *Bidan*[3] (former master) and Haratine (former slave). Additionally, gender relations have been rapidly evolving as women have become more active in the regional economy. These severe shocks to Mauritanian social structure have occurred in the context of national policy that produced an upheaval of traditional tenure systems. Traditional tenure was based upon *kabila* rule. Kabila is an Arabic word that is often translated as 'tribe.' Traditional, kabila-based land tenure was abolished by national decree in 1983, allowing those who worked the land to lay claim to the land. There has been a recent influx of development assistance that attempts to alter rural livelihoods and governance. New development interventions have established new institutions of community-based natural resource management (CBNRM) and focus on agricultural production, which is not suited to Mauritania's arid climate. The shocks described above of sedentarization, shirting, and the altering of relations between social strata and between men and women have had an increased impact due to their occurrence in the context of globalization and increased development intervention. The 1983 land tenure law explained in greater depth in Chapter Five is one such example.

The traditionally advantaged noble herding class in Mauritania may have the most to lose when traditional access to natural resources changes. The 1983 law abolished traditional kabila control of land and natural resources and allows

for private ownership of land by anyone who improves the land. This tenure

regime change has the potential to help traditionally disadvantaged groups,

especially the Haratines who were the traditional cultivators. However, the noble

class usually has the means to manipulate new systems of land tenure to their

advantage. These 'new' arrangements may completely leave out disadvantaged

groups who before at least had some tributary access to land. In addition,

privatization advocated by international organizations may come into conflict with

the communal nature of survival embedded in customary law. Although

administrators may try to enforce privatization, difficulties arise because of a

fundamental contradiction between individualistic exclusionary land tenure and

the local interpretation of Islamic law (*shari'a*), which forbids exclusionary access

to water, fire, and pasture, and group rights to customary land.

In the following chapter, I provide a brief overview of Mauritanian history

that provides a context from which to analyze the changes that have occurred in

the country with the arrival of colonialism and Independence. In this chapter, I

outline the traditional hierarchical structure and the economic and political base

of the society. I focus attention on the impact of the colonial period and the

foundations laid for the significant changes that have occurred since

independence. In Chapter Three I review the literature relating to power and

natural resource tenure. In Chapter Four, I provide a detailed explanation of the

methodology I used to collect data for this research.

Chapter Five is devoted to providing an overview of present day

Mauritania, highlighting the changes that have occurred since the pre-colonial

and colonial periods. In this chapter, I examine the important events that have impacted and changed pre-colonial Mauritanian society. In Chapter Six I begin my data analysis focusing on the impact of community-based natural resource management (CBNRM) on resource tenure. The increasing decentralization of natural resource control has had a significant impact on natural resource tenure in eastern Mauritania. In Chapter Seven I analyze resource tenure concepts. Chapter Five details the legal changes in land tenure that have occurred since independence, but Chapter Seven focuses on the realities of tenure on the ground. Concepts or perceptions of land tenure heavily impact the actual practice of tenure on the ground. Especially in a country such as Mauritania where distances are great and legal officials are few and far between in the rural areas, local perceptions and practice of tenure customs provide the basis from which land tenure is implemented. In Chapter Eight I focus on negotiations for natural resource tenure, focusing on the ability of women and Haratines to find ways to increase their tenure security. In Chapter Nine, I summarize my findings and propose research questions for the future.

CHAPTER TWO
A BRIEF HISTORY OF MAURITANIA

The Mauritanian political system consisting of an elected president and a congressional body is firmly rooted in the country's kabila system. Mauritania's kabila system has remained relatively intact although somewhat altered after remarkable political and environmental upheavals experienced in the 20th century. To understand the effects of recent events upon the Mauritanian political, social, and economic system, it is necessary to first examine Mauritanian society as it existed before the arrival of colonialism.

2.1. Livelihood and Environment

The success of nomadism[4] in the Sahara traditionally was ensured by a diverse economy based on a strong trans-Saharan trade, a mobile lifestyle well adapted to the environment, and a hierarchical society that rigidly secured access to vital resources, primarily through warfare. Territory is a foundation of kabila identity and remains an important keystone to Mauritanian social structure and politics today. The importance placed on territory stems from its importance in the livelihood system of Mauritania.

Mauritanian livelihood before colonialism was dominated by nomadism and trans-Saharan trade. The dispersion of pasture throughout the seasons and the variation in pasture relies upon a highly mobile population able to follow the scarce and sporadic rainfall. The extensive livestock raising through high mobility and extensive pasture exploitation characterized Mauritanian nomadism

that was well adapted to the scarcity and fragility of the Saharan-Sahelian environment (Ould Mey 1996). The ability of camels to move quickly and withstand several days' travel without water made them central to the nomadic economy. Sheep and goats are also drought resistant. Cattle are also valuable, but are not able to travel great distances without water or green pasture, thus limiting their practicality in the Mauritanian environment. The high degree of spatial mobility was based upon kabila controlled seasonal migration routes from the north to the south sometimes extending thousands of miles. Their search for better pasture fueled by rain required traveling great distances and gave these nomads the nickname *Oulad Al Minzah* (children of the clouds) (Ould Mey 1996: 74).

Nomads also were dependent upon oases and wetlands for crucial drought year pasture and for products such as dates and grain to supplement their diet. Although nomads gain many of their nutrients from their herds by drinking the milk and often blood of their animals, a dietary supplement is crucial for their survival. A Tuareg nomadic family consumes on average 50% of their calories from millet (Bernus 1990:165), and a similar percentage of Moorish nomad's food also came from outside sources. Nomads obtained products from oases and wetlands under very favorable terms of trade, ensured by a strict hierarchy that delegated tasks through relationships of authority and submission, protection, and allegiance (Toupet 1977:175).

Nomads have traditionally practiced seasonal migrations in the Sahara, and their knowledge of the desert, ownership of transport animals, and control

10

over route areas enabled them to diversify their economies through trade and the linkage of remote and sedentary populations to become rich and powerful people. Much commerce was aimed at Morocco where they sold products such as wool, animals, and salt. Trade also extended south into Mali and Senegal.

Recurrent and severe drought required elaborate risk aversion strategies, such as economic diversification, mobility, diverse and large herds, and tributary relations enforced by military supremacy. Herd management objectives were aimed at sustaining a community rather than maximizing of returns. Short-term meat was sacrificed for long term milk, thereby decreasing uncertainty by risk aversion. Resilient herd growth was favored over cash sales, and males were culled in favor of milk producing females (Galaty and Johnson 1991:20). In her study in the Malian Sahel, Susanna Davies (1996:28-29) verifies that nomadic survival in crisis situations such as droughts is aided by people's emphasis on protecting their future livelihoods (increased resilience) at the cost of current consumption (increased sensitivity or fewer buffers against sharp reductions in production). The aforementioned pre-colonial nomadic diversification strategies had evolved to maximize resilience against recurring drought, adopting an "uncertainty as norm" attitude (Mortimer 1989:214 In Davies 1996). Many relations between kabilas, territory control, and trade that created buffers for drought periods were agreed upon peacefully. However, a powerful military base forcibly created an atmosphere of favorable relations. Military force was used as a last resort to gain access to resources. The diversification strategies were vital to survival and were created and maintained through force, making military

prowess a fundamental and vital aspect of Saharan nomadic society.

2.2. Hierarchy in Pre-Colonial Mauritania

The mobility of the nomadic lifestyle, diversified with trade and sedentary agriculture, was well adapted to the uncertainty of life in the desert. However, as emphasized by Bonte (1981), the form of agropastoral production that evolved in Mauritania is related to the climate, yet not uniquely related. Other combinations or types of agro-pastoral production are possible within the Mauritania climate, yet did not evolve within the historical and cultural context. The particular pattern of relationships between people, animals and vegetation known as nomadic pastoralism is a product of history and is distinct to Mauritania. The nomadic pastoralism that developed in Mauritania is firmly rooted in a hierarchical social structure.

Mauritanian hierarchical society is based upon a distinct status within different kabilas based in theory on family heritage and pure blood. The 'white' Bidan nobles trace their heritage back to the prophet, using pure blood as a rationale for dominance. Within the larger category of nobles, there are two groups, the religious leaders (*Zwaya* or *Marabout*), and the warriors (*A'rab* or *Guerriers*). The social stratification between these two noble groups is explained in the settlement of the Shurr Bubba war in the 17th century (Stewart 1973:54) whereby the victorious retained the right to bear arms and the defeated were dedicated to trade and scholarly devotion. Although the divisions between the two groups remain important to the identity of the

Mauritanian people, in reality, the divisions are not strict, and there has always been significant lateral movement between the two groups. The well-known Mauritanian historian Charles Stewart (1973:63) uses a functionalist argument to describe the segmentary principles of Moorish society based on opposition and complementarity that balanced the numerically superior religious leaders against the warriors. The pastoral economy was balanced against the raiding economy and the spiritual was balanced against physical protection. However, more recent scholarship (Ould Cheikh 1985) has dismissed the functionalist argument, citing numerous examples of zawaya and hassan changing roles temporarily or even permanently.

The hierarchy of Mauritanian society shown in Figure 1 is constructed within the kabila. The kabila is a collective form of social organization held together by a combination of ideological, material, and symbolic means. Ideology, the notion of common descent from the founder (kinship) legitimizes the kabila's existence. "Despite the prevalence of the metaphor of common descent, the kabila is best characterized as a political confederation that absorbs individuals and even entire groups who are not descendants of the founder." Materially, land and wells in zones of pasture are controlled by kabila, and when blood crimes are committed, the group is held collectively accountable and is required to pay blood money (Bhrane 1997:54).

Economic supremacy was controlled by the religious leaders, and political supremacy was enforced by the warriors (see Figure 1, Caratini:1989). The religious leaders in Moorish society traditionally were the wealthiest group and

Figure 1. Social Hierarchy in the Mauritanian Kabila System (Caratini 1989)
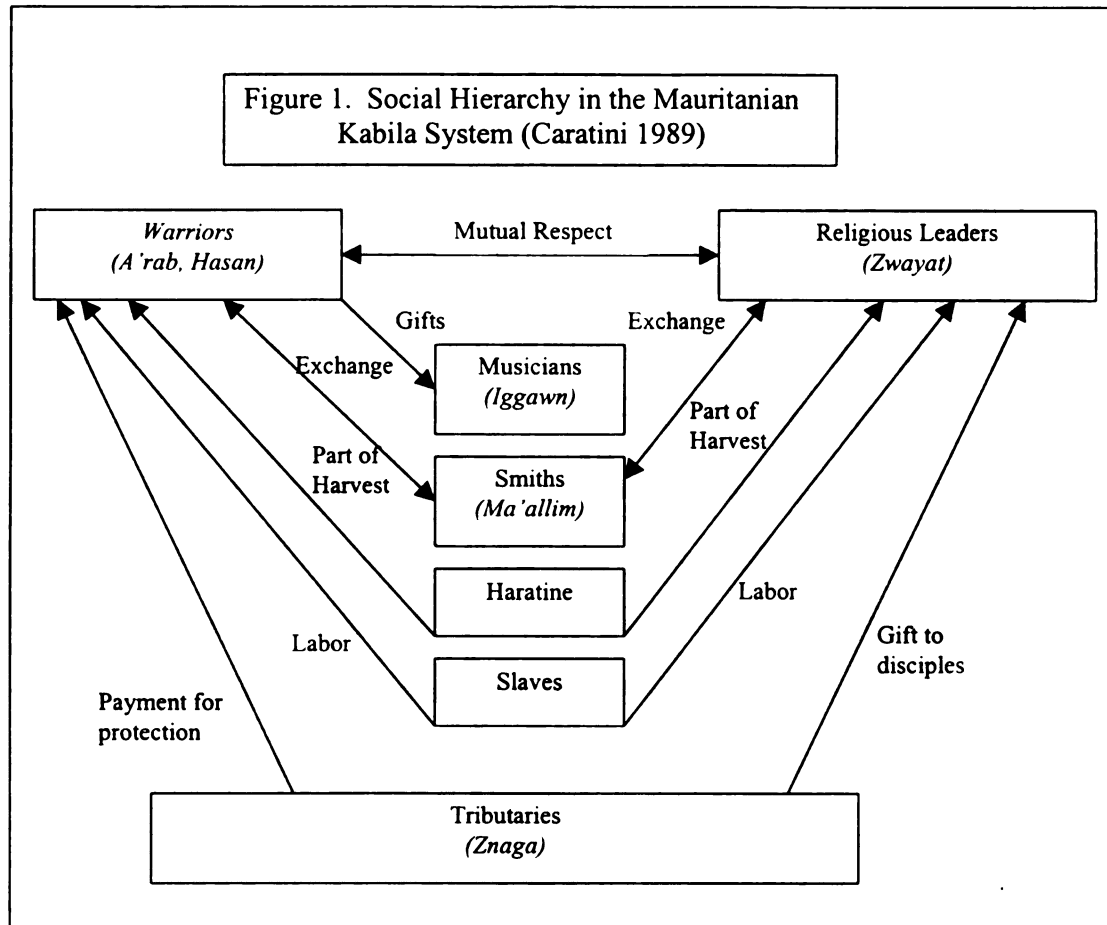
were feared due to their religious powers. The religious leaders were herders and merchants, and thus controlled wells and the majority of the slaves and sharecroppers who worked the fields in the oases. Specifically, they were in control of the gum Arabic trade, which was very lucrative.

Additional commerce involved salt trading among other goods. Some religious leaders were powerful enough to become equals of the warriors, yet most paid tribute for their protection or for rights to caravan access routes for their goods. Although the religious leaders were greater numerically, they were vulnerable to warriors because of their dispersion in small groups in search of

pasture for their animals. Like the warriors, they were paid tribute for the religious protection of their tributaries.

The warrior class was the most powerful although they produced little of tangible value. They were responsible for defending the territory of the kabila group, which was crucial to their ability to gain access to resources and survive (Caratini 1989:32). To be a warrior, in theory one had to be born a member of a kabila not already subservient to another kabila. Tradition dictated that noble warriors could not engage in activities such as trade, agriculture, or other manual labor (Ould Cheikh 1987). They gained their revenue through *razzia* or pillaging expeditions directed at weaker kabilas and though tributary payments *(hurma)* by subservient tribes or payments for passage by caravans passing through their territory. Warriors bore arms and levied taxes, ensuring their superiority by raiding or protecting rivals (Stewart 1973:55).

Domestic security was obtained by creating alliances across ecological zones, distributing livestock among family and other members of a clan, and by securing rights to dry season pastures (Galaty 1990:21). These political and economic alliances were created during times of great military success and were called upon in times of crisis, namely when drought caused the failure of dry season pastures, necessitating departure from directly controlled territory to find green pastures and water near agriculture producing oases and wetlands. It was not uncommon for nomads to demand hospitality from oasis dwellers during several years of drought before gathering their dependents and animals to return to the rangeland.

Most noble families were served by a number of tributaries whose service of fighting or herding depended upon the status of their master. There were Bidan tributaries of the warriors called *Lhama* (translated as meat, implying their use for labor) and *Znaga* (a name stemming from their Berber roots) who were tributaries to the *Zawaya*. Both retained some degree of independence but were forced to pay tribute to their masters in return for spiritual or military protection. Artisans (*Maalem*) and musicians (*Griots* or *Igguen*) were also tributary and paid for their protection through their specialization.

The shifting of alliances among tributaries was common; sometimes tributaries experienced a great deal of independence from their noble masters. They were known to negotiate for their rights with masters or seek advice or counsel outside their tribe. Negotiations were motivated by the 1) burden of tribute, 2) geographical proximity of some other tribe able to defend their interests, 3) security or prestige that would come with joining a neighbor tribe, or 4) genealogical connections which might be discovered or already known to exist between the subservient group and their new patrons. Thus, although usually remaining subservient, there was considerable lateral mobility for tributaries. Often the defection of one group could decide the outcome of a battle between two kabilas. Thus, in some ways tributary needs were catered to, aiming to keep them on their side (Stewart 1973:383).

Although not common, there was occasional vertical mobility for individuals within the tributaries, including Haratines. A gifted man by service to a master or via education could be elevated by marriage or fabrication of his

16

genealogy to become noble. The strict hierarchy of Mauritania has been often compared to the caste system existing in India. However, the existence, although rare of vertical mobility for individuals suggests that the extremely rigid boundaries existing in the Indian caste system do not appropriately describe the Mauritanian social structure (Ould Cheikh 1985).

The wealth of tributaries was dependent upon the wealth and status of their masters. The lowest of the tributaries were the slaves who were directly owned by their masters and had no personal property or independence. With the exception of slaves, Haratines were the most disadvantaged of the tributaries. Haratines are characteristically black in color, but culturally Arab, even to the point of calling themselves Bidan. They have adopted the culture and language of their masters. However, the distinction between Bidan and Haratine is not genetic but is a product of history and society. The importance of social definition in hierarchy is exemplified by the 'Chorfa' who, black in color, claim they are direct descendents from the Prophet and are thus accorded higher status. Although difficult to trace directly, most Chorfa are likely to have been slaves or the descendents of slaves. However, due to extreme loyalty, intelligence, or hard work, some may have been able to link their genealogy to the Prophet and move vertically upward in the social hierarchy. Additionally, many Haratine are light in color, suggesting a decline in status by a White Moor tributary or their ancestors (Stewart 1973; Bhrane 1997).

Although 'Haratine' is today often translated directly as Black Moor and implies slave ancestors, Haratines were historically distinct from slaves.

Although subservient to Bidan nobles, they were free, some being former slaves and some coming from families with no slave ancestors. However, the Haratine identity was defined in terms of their white masters or nobles from whom they learned their language and culture. As is stated by Bhrane (1997:44), the sense of identification that Haratines felt for one another was minimal due to the limited communication and contact among them through which the notion of this collectively imagined community could be diffused.

Haratines were either connected to one family within a kabila by living in or next to their tent, or those who lived independently were connected to the entire kabila by living in an area dominated by the kabila. Haratines were members of the kabila and showed solidarity by participating in *diya* (or blood money payments[5]), yet their genealogy did not fit within the heritage of the kabila itself. Thus, although bound by obligations, Haratines were not full members of the kabila (Bhrane 1997:56).

The traditional role of the Haratine in the kabila is one of cultivator. Haratines worked as indentured peasants who forcibly donated a portion of their harvest to specific Bidan families or to the tribe as a whole depending upon their affiliation. This practice maintains the lower social status of Haratines because it implies payment of tribute as this donation gave Haratines the right to services and protection.

Slaves were located at the very bottom of the Moorish hierarchy, although their work and subservient status were crucial to the pre-colonial Moorish economy. In the pre-colonial period, the majority of Bidans had slaves. In a

previous era, any Bidan with no slave would be very poor (Ould Cheikh

1985:427). Indeed, "…survival in the harsh desert climate necessitated a variety

of labor intensive tasks most often carried out by slaves." They dug wells,

farmed the land, and harvested gum Arabic for their masters. Slaves were

responsible for all domestic chores including cooking and setting up the tent

(Bhrane 1997:80). Most slaves were bought or grabbed during raids in the

Senegal basin.

2.3. Gender in Pre-Colonial Mauritania

As in most Arab countries, women traditionally are relegated to the home.

The divide between the public male sphere and the female domestic sphere

forms the basis for gender relations. Women do not play a role in formal kabila

politics and cannot shake the hand of a man who is not a relative. Like most

Arabs, Moors adhere to the ideal of a man marrying his father's brother's

daughter, thus acknowledging the patrilineality of power of the male gender in

lineage and inheritance that is commonly found in Muslim Arab societies.

Although Mauritanian women historically have not enjoyed the same rights

as men, Bidan women have always been distinct from other Arab women

because "they live with confidence, not with terror, with affirmation and not

negation, in evolution and not in stagnation" (Simard 1996:78). Women have

liberty that is not compatible with orthodox Islam; most significant is the lack of

veils on Mauritanian women (Ould Cheikh 1987). Bidan women traditionally

have enjoyed more freedom than women to the south in sub-Saharan Africa and

than their neighbors to the north in Morocco. The anomaly of Bidan women and their relative freedom has been the subject of much debate. Simard (1996:79-80) has outlined four theories that have emerged as dominant.

One important theory on Bidan women's relative freedom in Mauritania maintains that prior to the arrival of the Arabs, the Mauritanian Berber society was matriarchal and influences from this society remained strong after their defeat. The rationale for this theory stems from the similarities between the Moors and their Tuareg neighbors who remain Berber and matriarchal. Additionally, some Moorish kabilas today are tied together by alliance to a female ancestor. Matrilineal rights exist, and women are very important in mediation. Finally, there is evidence of matrilocal residence due to the fact that Moorish women have the right to chase their husbands from their tent should tensions rise.

A second theory regarding women in Mauritania rests upon the image of the good father. Bidan women are protected in Mauritania because they are seen as vulnerable. Indeed, Bidan women are protected and limited from manual labor. This also is related to the feeding of Bidan women. Because plumpness is desirable for women, mothers and female family members expend great effort to eat enough to maintain excessive weight as compared to Bidan men, or Haratine men or women.

A third theory suggests that Bidan women do not need to veil or practice other demure behavior required of women in more populated areas. The need for the veil arises when outsiders threaten masculinity or when women are

vulnerable to foreign harm. In the isolated and sparse country of Mauritania, male identity has never been contested. Increasing foreign intrusion into the country is changing these circumstances.

A final theory suggests that Mauritania operates under a 'better' Islam where Bidan women are respected through a more enlightened interpretation of the Koran. Mauritania always has been always a center of Muslim theology and Sufism, thus making logical their different understanding of Islam.

Haratine and slave women did not have the luxury to be protected or force fed, as they were often struggling to find enough food to feed their families. Although subservient to men, the necessity of their labor with their husband's in order to survive provided them with as much freedom they needed to perform the domestic, agricultural and herding tasks of which they were responsible. Their freedom greatly depended upon their status as Haratine or slave. However, both Haratine and Slave women struggled for survival usually in partnership with men.

Women were the productive force of the slave society where they were often preferred to men, reflected in their higher price. Women performed the same tasks that men performed and, in addition, performed tasks that were unique to women. They tended and milked animals, fetched water from great distances, produced milk products, treated skins for use in leather goods, wove goat and camel hair into tents, and pounded millet among many other tasks.

Women usually were born Haratine or slave. It was difficult for women to move upwards from slave status. It was common for Bidan who liberated slaves to provide them with a bit of property such as a few animals or fields to farm to

enable them to live independently. In the case of slave women, there was no incentive to let them free because any property given to them would automatically become the property of their husbands when they married or if they were already married. Their husbands could be slave themselves thus negating the property gift. Also, Haratine women did not pay communal tax as did the Haratine men. Due in part to these disincentives, women could only change their status vertically from slave to Haratine by becoming concubines (male children were born with their father's status) or by wet nursing Bidan children. The recognized bond between a woman who nurses and the child enabled wet nurses to increase their status through their close connection to the Bidan children they nursed. Women could improve their situation by cultivating relations and a cherished place within their master's families. "Women experienced power, domination, and resistance …in gendered ways" (Bhrane 1997:77).

2.4. Tenure in Pre-Colonial Mauritania

The apparent liberty or even anarchy that seemed to preside over nomadic movement in pre-colonial times disguises a system that was quite complex. Tenure in pre-colonial Mauritania was based upon kabila collective appropriation which when examined carefully has many complicated facets. Spatial control and usage rights were directly connected to status and social networks. Political and social constraints limited mobility within hierarchical organization. Thus, territory is more than a geographic entity in Mauritania, it is a

value system tied into the role of spatial mobility in the Moorish political system (Ould Cheikh 1987:2,37).

Possession of water points was the most important element in making boundaries for territories. Because water is needed to exploit surrounding pasture, the placement and control of water points effectively creates territorial boundaries. In pre-colonial Mauritania, wells belonged to the religious leaders but were subject to the warriors who had military supremacy to gain access to the wells and forage when they were needed. The settlement of the Shurr Al Bubba War in the 17th century that provides the foundation of Moorish identity states that although wells were controlled by the religious leaders, warriors were entitled to one third of the water (*thuth alma*) (Ould Cheikh 1985:212). Although known to belong to a certain kabila, water was liberally available to all with the owner kabila having priority. This flexible system became more rigid when there was a war or in severe drought conditions.

Agricultural land and forest products were collectively owned by the kabila that controlled the territory, often dictated by well placement. Wetlands also were important water points and were controlled by kabilas. For the most important wetlands, tenure conflicts often were settled by two or more kabilas controlling different sections of the wetland. Wetlands were not fenced to keep other groups out. Rather, alliances of protection or, alternatively, fear of retribution effectively controlled access to wetlands.

Haratine access to agricultural land depended upon the good graces of leaders and importance of the gifts given by the potential users (Ould Cheikh

23

1987:170). Although certain Haratine families or groups stayed on some

agricultural plots for generations, the access to the land was always tenuous as

it was reinforced by the obligatory yearly donations given to the noble leaders of

their kabila who effectively controlled the ownership, management, harvest, and

use of the land. These forced donations, often called *zakat*, or religious

offerings, constituted an informal rent payment on the part of the Haratine. This

payment varied from year to year depending upon the success of the season

or, more often, the needs of the masters.

2.5. Hierarchical Changes in Colonial Mauritania

Until independence in 1960, there were few alterations to traditional

patterns of political authority and social stratification. Mauritania was of minimal

political and economic interest to the French colonializers, and thus the French

did not have a large presence or radical impact upon the Moorish social, political

and economic systems. However, there were some important changes that

occurred under colonization. Although the French colonization of Mauritania

remained relatively short, and in reality had little impact on daily life, its influence

still was important and had ramifications for social relations in Mauritania still

evident today.

In Mauritania, as was the case in much of the Sahel, the colonial

administration formally recognized kabila authority and territories while removing

the system of mobility based upon shifting alliances and armed conflict that had

kept kabila territories fluid and ever changing (Grayzel 1988). Thus, by freezing

and reinforcing what they thought was 'traditional,' the French introduced new

power and support to specific sectors of the society (Colson 1971:196). Chanock

(1991) further explains that colonial administrators codified law, placing strict

rules and individualist leanings on communal institutions that had been flexible,

thereby diminishing the communal solidarity of customary laws. Formalized

tenure did not replace customary tenure but added a different set of rules and

regulations through which society's relations could be defined (Mackenzie 1988).

Introducing more national security that effectively eliminated armed

conflict and raids *(razzia)* among kabilas, the French increased the security of

non-warriors. Furthermore, the French purchased tributary payment *(hurma)*

rights from warriors and sunk wells for tributaries to free them from their eternal

servitude. The French cemented wells and thus further reduced the fluidity of

territory. Communication improved with an increase of motorized transport that

left a decline in camel breeding.

The resulting power shift in the traditional hierarchy is obvious. Hassani

warriors lost their source of income that usually came from those paying for

protection. Thus, they were forced to take up livestock and commerce.

Tributaries were able to gain some degree of independence; however, today

their status is still much lower than the Bidan (Stewart 1973:386).

In protecting religious leaders against warriors, the colonial administration

reinforced the weak by weakening the strong. The colonial monopolization of

violence left the warriors no reason to exist (Marchesin 1992:74). A Bidan from a

warrior kabila tells of their quest to enter into agriculture when it became

25

apparent that warring would no longer pay after the French arrived. He

describes the complex relationships between those rising and falling in

dominance in Leweija, one of the best and longest-cultivated areas in eastern

Mauritania (interview[6] at Leweija October 1999).

> Leweija had been cultivated by the Tenwajib kabila long before
> 1940. The marabouts had people who farmed for them in Leweija
> and this agriculture was a big source of income. In 1940, my
> ancestors began to realize that there was no future in warring and
> that agriculture was a good way to support ourselves. Before they
> used to go south to take grain by force, but then the French said
> you couldn't do that any more. So they went to Leweija to tell the
> Tenwajib to get off the land that they wanted to farm. There were
> many problems and finally the colonial administration had to
> become involved. The French governor came with the Tenwajib
> kabila chief and our chief, and they divided up Leweija between the
> two kabilas. You see, we had always owned Leweija, but had
> never farmed it. Because we were the warriors, we owned
> everything. The Tenweijib were just reluctant to give us our land
> when we decided we wanted it.

Perhaps the most important change that came with colonization was the

introduction of Western education. The French imposition of Western education

met with strong resistance from the Mauritanian elite. In spite of opposition, the

French mandated school attendance, especially for the noble families each of

which were each required to send at least one son to school. Their great distrust

of this education system led many Bidan kabila leaders to send one of their slave

or Haratine boys instead. Although they initially were manipulated to enroll in

Western education, these Haratines or slaves were served very well by their

education. At the time of independence (and even before), they were among the

very few Western-educated in Mauritania and were well placed to participate in

top level colonial (and subsequently new governmental) positions (Levrossier

1987:387).

Colonization did not penetrate slavery, but instead laid the groundwork that would in the future enable the abolition of slavery. During colonization money began to circulate in the country derived from new taxes, salaries, and schooling. Slaves had a new important role in bringing in money so their masters could pay taxes. Some slaves were sent to be salaried workers or manual laborers. Thus, although they did not at first keep their earnings, the introduction of salaried labor provided an avenue for increased independence and freedom. Another important result of the increasing colonial tax burden was the migration of many Bidan families. Migration outside Mauritania was a good way to make money to pay needed taxes if herds were too small. Traveling Bidan brought their slaves with them across West Africa to help them in their trading and daily lives. Although most slaves returned with their masters, this experience provided a larger worldview outside Mauritania where slavery was insignificant. Finally, the creation of modern political parties in 1948 was the last contribution of the French effort towards the creation of a viable state political entity (Levrossier 1987:387).

2.6. Economic Changes in Colonial Mauritania

The trans-Saharan trade through which Saharan nomads supplemented their incomes was changed drastically in the late nineteenth century, dropping from one million francs of trade in 1878 to under 540,000 francs after 1880 (Caratini 1989:97). The decline in trans-Saharan trade caused the decline of the

desert-edge economic sector, which is one of the most underestimated impacts of colonialism (Lovejoy and Baier 1976:145). The Industrial Revolution made sea transport by steamer more efficient than caravan transport and thereby took away from the Sahara the control of lucrative markets, while effectively eliminating Morocco from its middleman position in Western Saharan trade (Caratini 1989:97). In pre-colonial times this sector had provided an extensive market for grain and other imported products from further south, was a good source of salt and animals, and connected peoples with North Africa (Lovejoy and Baier 1976:145). This decline rendered less effective one of the critical ways that nomads traditionally had diversified their economy. The decline in wealth weakened their power over sedentary populations, and also made their long migrations in search of water and fodder for their herds a difficult task without payments that often were received for transportation on these migrations.

As Europe gained control over the commerce in West Africa, the indigenous economy was changed because the colonial powers developed the economic sectors most suited to their needs (Campbell 1977:83). The French began to influence sedentary groups controlling the means of production in wetlands, particularly the gum Arabic trade in Mauritania. European intervention in this area reinforced the political power of the oasis leaders and religious aristocracy by freeing them from military and economic domination by the warrior class as the colonial power prepared to take ultimate control of trade (Hames 1979:375).

Domination by the warrior classes had been crucial to secure access to

needed resources in oases. After colonization, many resources, such as grain

and pastures, especially drought year pastures, were more difficult to obtain

through tributary relations. This shift in power away from the groups led by the

nomadic warriors significantly altered the desert economy. Whereas the terms of

trade had long favored services that the nomads could provide such as

protection, transport and animal products, now they were products with

unfavorable terms of trade. Since colonialism, animal prices have risen slightly,

but grain prices have increased significantly due to the exportation of goods to

areas with higher purchasing capacity, and to the reorientation of agriculture from

subsistence to cash crops (Sandford 1983:137).

Taxes imposed by colonial governments also contributed to the integration

of nomads into the cash economy. Where they were forced to raise cash, they

had to sell their animals, which conveniently created a cheap source of meat for

the growing urban populations. Nomads were taxed by the worth of their herd,

as estimated by a colonial official. These 'values' were set while no

consideration was given to the large herd size required for minimal survival.

These prices were set as if all animals of the herd were in excess and could be

sold at the market on any given day. In Mauritania, the governor set the herd

value, and people were required to pay 1/100 of the total herd value to the

colonial government (Caratini 1989:237).

Taxation provides a good example of the political-economic concept of the

margin as explained by Blaikie and Brookfield (1987) where land managers are

often marginalized through the imposition of taxes that result in surplus

extraction. Surplus extraction in the case of nomads can be dangerous, as the

large size of their herds is necessary to withstand prolonged drought and

therefore future security. While being forced to sell part of their herds to pay

taxes, a crucial strategy for risk aversion was destroyed. As Doornbos and

Markakis (1991) explain:

> Little thought and no effort was expended in the post colonial
> period to improve production in the traditional livestock sector,
> although efforts were made to persuade pastoralists to sell their
> animals in order to provide the urban and export markets with
> cheaply priced meat.

Mixed results of commercialization efforts were blamed on emotional and

traditional cultural reasons for not wanting to sell. The traditional importance of

risk management or unfair terms of trade with the modern sector were not

considered (Doornbos and Markakis 1991:271). In addition, the creation of

outside markets for 'excess animals' broke up a traditional social security system

where wealthier nomads would farm out some animals for their poor relatives to

herd, thus solving a labor problem and providing a livelihood to less fortunate

members of the group (Toupet 1977:185).

Traditionally, nomads were the hardest people to conquer due to their

historical military supremacy and their mobile lifestyle, causing colonial powers to

aggressively seek to break nomadic power. Taxation and direct requisition of

animals for butchery or army transport were effective ways of decreasing herd

size and weakening the nomad economy and ability to survive. In 1926, the

French army requisitioned 1,500 camels in Mauritania out of a population of

9,000. Not only were these animals requisitioned; they had to be kept by their

owners on the edge of the oasis for easy access, disregarding the lack of pasture there for the requisitioned or other herd animals to feed on. The governor himself recognized that this extreme tax was contributing to the famine that was occurring during this time (Ould Cheikh 1986:31).

2.7. Political Changes in Colonial Mauritania

The colonial powers sought to defeat the nomadic armies in order to gain complete control over their territory. By 1880, migratory utilization of rangeland was politically incompatible with the expectations of colonial powers interested in preventing tribal disputes over rangeland occupancy (Bennett 1988:31). Overpowering the sedentary communities was easier and was achieved early in the colonial process. The conquering of the sedentary population aided in the complete conquest of the nomadic populations, as their decreased access to sedentary resources negatively impacted nomadic life. Adrar, an important nomadic dietary source of grain and dates, and the only major oasis in Northern Mauritania, was completely occupied by French armies in 1914. The French allowed the warrior kabilas to come to the wetland oases, but they were not allowed to bear arms, thereby forcing warriors to accept the domination by groups they once controlled. As a result, warrior kabilas found it difficult to obtain the resources that they required in the oasis (Caratini 1989:126). Pre-colonial freedom of movement was restricted only by each group's capacities for self-defense and networks of alliances. New restrictions imposed by the colonial government with a differing agenda and often superior military force interfered

with their migrations and access to traditional sources of food and pasture (Ould Cheikh 1991:213). Colonial wars involving mineral wealth were restricting access to resources, such as the territory battle between Morocco, Algeria, and Mauritania in the Western Sahara where an actual wall was built across migratory routes to protect Moroccan territory. This wall made of sand and rubble was equipped with land mines. Defenses bordering the Western Sahara now extend more than 1,600 km from southern Morocco to the Mauritanian border, sealing off major towns, water sources, good pasturage, migration patterns, and fisheries of the Saharan coast (Arkell 1991:164).

The colonial and neo-colonial governments' containment of nomads greatly affected their ability to continue to herd animals as the environment of the desert required. The pacification of their armies decreased their ability to ensure access to needed resources and also decreased the functionality of nomadic government. Nomadic groups tended to move quite far from one another in search of pastures and would reunite for governmental purposes only when the strength of the entire group was needed. The council of elders would discuss war strategies and or migratory patterns. As migrations were restricted and warfare was eliminated, there was no longer a need or possibility for this group to meet. The Cheikh, a powerful member of the council who once had the final word on migration patterns, was reduced to a hated tax collector for the French (Hodges 1983:14).

Another political change was in the French colonial interpretation of resource tenure. The usefulness of the image of the customary law of land

tenure was not lost on the rulers of the postcolonial states. In the name of customary land tenure and protection of African customs as identified by colonial rulers, post-colonial governments in Africa have commonly asserted a total control over vast amounts of territory that formally was communally owned. A customary veil has been drawn over national confiscation of rights and increasing scarcity, and the inequality of existing holdings has been disguised by the assertion of rights for all. "Not only have people been deprived of full land rights in terms of the dominant, imported legal system, but the dominant system also has distorted the rights recognizable and assertable in the customary one" (Chanock 1991:82), thus relegating Africans to a legal rightlessness in land (Berry 1988:58). In addition to state governments appropriating land, traditional law codified by colonial rulers was easy for the elite to manipulate to concentrate their land holdings. Land disputes often were settled under the supervision of colonial officials that benefited loyal traditional leaders who were able (without traditional checks and balances) to claim more property. As is explored in greater depth in Chapter Six, community-based natural resource management (CBNRM) advocates try to recapture the virtues of traditional community management by using modern legal systems.

Mauritania's social structure is rooted in a strong history of hierarchy that still is evident today. Although the basic structure has remained intact through colonization and independence, there are important changes that allow for different negotiations of relations and hierarchies. The altered and newly-created

opportunities for people at all levels of Mauritanian hierarchy have their roots in the colonial period. Although the French influence was seemingly short and superficial, some important elements of Mauritania's society were solidified and altered during that period. As I examine in subsequent chapters, this pre-colonial and colonial history plays an important role in the negotiations for resource tenure in present day eastern Mauritania.

CHAPTER THREE
POWER AND NATURAL RESOURCE TENURE:
A REVIEW OF THE LITERATURE

People's ability to access, control and use natural resources effectively is crucial to their livelihoods (Berry 1989:41). Natural resource institutions through which control over natural resources is mediated have been the subject of much scholarship, debate, and experimental policy-making on the part of development agencies and of pre- and postcolonial governments. Community-based natural resource management (CBNRM) has emerged in recent years as a new development paradigm. This new paradigm has caught the eye not only of development scholars, but also of development practitioners working in a wide-range of organizations such as large multi-lateral institutions (e.g., the World Bank) to small, grass-roots, non-governmental organizations (NGOs). CBNRM emerged from the concept that people who live near a resource and who depend upon it for their survival are more likely to use the resource in a sustainable manner (Benjaminsen 1997).

Making the concept of CBNRM increasingly attractive is the realization that state bureaucracies in much of the Third World have limited financial and human resources and have been unable to live up to the exigencies of centralized planning and administration. Because of their generally poor performance, these bureaucracies have come under increasing pressure from the international community to relinquish control over many social and technical services to local communities and civil society. Furthermore, scholars such as Bromley (1991) have led scholars and development practitioners alike to realize

that communal property closely resembles private property in that both groups and individuals can exclude outsiders from access to their property. For those seeking the goal of ultimate privatization, CBNRM is a logical step along the path to development.

The appeal of CBRNM to such diverse players in international development has led the concept to be widely implemented over the developing world with much lauded success and potential. The concept has moved to the stage that Latour (1987) terms 'the black box', whereby the rationale and assumptions leading to CBNRM have been taken for granted and no longer are open for discussion. Thus, CBNRM has become difficult to deconstruct and critique, because the concept of increased participation is now taken as a universal good.

This study attempts to open the black box and reconsider the concept. Mainstream research and policy on natural resource institutions led by the advocates of CBNRM have misconceptualized the realities of resource tenure in two important ways. First, the centrality of power as a variable in resource tenure is analyzed only as it pertains to the legal power of an institution, disregarding the informal[7] and traditional avenues of power that remain regardless of nationally-recognized legal efforts to the contrary. Second, natural resource institutions are placed into rigid and clearly defined categories of tenure regimes, which mask the complexities of social relations and networks that play an important role in natural resource access in contemporary Africa and in other parts of the world. To address the disjuncture between mainstream theoretical understandings of

natural resource institutions and the actual on the ground realities, I use the

social network (Berry 1989) and political ecology (Blaikie 1987) frameworks. An

examination of the relevant literature on resource tenure follows.

3.1. Legal and Institutional Approaches to Resource Tenure

Scholars focusing on legal and institutional aspects of land tenure argue

that efficient use and management of resources is dependent upon appropriate,

clear tenure regimes (Bates 1989). Because property rights are insecure in

African customary systems (Feder 1987), they contend that African governments

should create conditions of secure tenure in which property rights determine

patterns of resource allocation. The conditions of secure tenure should be

created through law and policy formation (Berry 1993:102). Most contemporary

scholars focusing on legal and institutional approaches to resource tenure

advocate CBNRM when appropriate to the culture and production system.

Legal and institutional approaches to resource tenure were based

originally on Hardin's 1968 work 'The Tragedy of the Commons.' This work was

based upon the assumption that people always tend to maximize their own self-

interest. Due to this individual drive, people ignore the implications of their

actions on others and thus communal property will eventually lead to over-

exploitation of natural resources (Pearce 1988). To support his argument,

Harden detailed an example of a herding economy dependent upon common

pasture. Because each herder is primarily interested in profit maximization, each

herder will add sheep to their flock when possible, even when they know that the

addition of more sheep will degrade the pasture. While receiving all the profit

from each additional sheep they add to their flock, the herder bears only a small

portion of the cost of the degradation because the pasture is owned communally.

Thus, herders would not have the incentive to protect their commons from a

tragic overexploitation. Using this example, Hardin asserted "…freedom in the

commons brings ruin to all" (Hardin 1968:1244). "This 'tragedy' is due to the

failure of the market to develop properly, which forces people to internalize

externalities" (McCay 1998). Although Hardin recognized that communities are

able to influence the management of common property, the commons dilemma

arises when the benefits of individualistic behavior outweigh community

pressures and people will pursue resource extraction in ways that will harm the

community (including themselves) in the long run. The conclusion of Hardin's

argument is that only private property leads to a sustainable exploitation of

natural resources.

A second major assumption of critics of communal management maintains

that tenure evolves in a linear progression in which tenure becomes increasingly

defined, individualistic, and secure. This assumption is in part rooted in Rostow's

(1993) stages of growth that is based in the modernist ideal that all countries

move towards modernization in similar stages along similar paths. The need for

institutional arrangements to describe and enforce property rights is common in

countries that are making the transition to a modernized economy. Prior to

modernization, land typically is abundant and the population is small, which

enables easy exchange and access to information regarding who customarily

uses and manages resources. At this stage, the gains afforded by enhanced property rights often are less than the transaction costs of defined property rights. When countries begin to develop, mobility increases, which creates an asymmetry in information and requires more definition of tenure arrangements. When growth begins, communal tenure is seen by critics as an obstacle to progress, particularly in relation to the ability to use one's land as collateral for agricultural credit. Thus, one requirement for development is the evolution of private property (Cousins 2000; Platteau 1996).

3.2. Common Property Resource Advocates

Common property resource advocates (also called institutionalists) have moved away from Hardin's original arguments to dispute the polarity of communal (disregarded as traditional by critics) and individual (lauded as modern) tenure regimes. Instead, they argue that there are several types of tenure regimes, all with different possibilities for tenure control. Communal tenure regimes can in fact be quite organized and can effectively implement controls against over-exploitation of a resource. These communal regimes offer the possibility of incorporating local traditions within modern legal reforms to provide natural resource institutions that are appropriate to diverse local situations in the context of diverse histories, social strata, and ecologies.

Bromley (1991) argues that rather than two, there are four broad categories of land tenure regimes. The first is *open access*, in which each user has privilege regarding the use of the resource and there is no authority system

39

to exclude users or to enforce behavioral norms among participants concerning the natural resource. The second category is *common property*, in which a group of people has private ownership and management of a resource and others can either use the resource or make decisions about it. The third category is *private property*, in which a person or corporation has exclusive ownership and management rights to a resource. The fourth category of land tenure regimes is *state property,* in which the state owns and controls use. State property regimes can quickly become open access regimes if the state does not have the means or desire to closely manage the resources. These four categories make clear a fundamental misconception in the analyses of communal critics that confused common property with open access. Whereas open access to a resource has obvious consequences for the overuse of a resource, common property can be efficiently and exclusively managed by a group to avoid such problems. There has been a drastic increase in CBNRM schemes stemming from the increasing acceptance of CBNRM policy and scholarship. For example, in Mauritania as in much of the Sahel, the World Bank has been implementing projects (*Gestion de Terroir Villageoise*)[8] based on village control and management of their surrounding natural resources.

Ostrom (1996) asserts that sustainable use and management of resources does not necessarily require the ability to sell and use the resource for collateral. She explains in further detail the types of rights or contractual arrangements[9] to natural resources which include: 1) *access* or non subtractive benefits (authorized entrant), 2) *withdrawal*, or ability to remove resource (authorized

user), 3) *management*, or right to regulate the internal use of the resource and to transform the resource by making improvements (claimant), 4) *exclusion*, or the ability to determine who has rights to the resource and how these rights transfer (proprietor), and finally 5) *alienation*, or the right to sell or lease a resource (owner). Communal critics have interpreted the concept of a well-established property rights system to refer only to systems that include alienability. Ostrom (1996:138) cites evidence from Ghana, Kenya, and Rwanda that alienation is not a necessary condition for promoting sustainable use. A second key assumption of common property advocates is that those who can exclude other users but cannot sell (as is the case with many communal property arrangements) also make decisions in the interest of the long-term sustainability of their resources. They have even been shown to have more interest in the long-term health of their resources than those involved in legal private ownership conflicts.

In addition to having the capacity to function as well as private property regimes, another assumption of common property advocates is that common property regimes are in some circumstances more appropriate for local and regional conditions than the Western-based ideology of private property. Additionally, as Mehta (1999:16) maintains, theorists advocating private property do not take into consideration ecological realities of Sahelian Africa. For example, herding, an important livelihood strategy in the Sahel, is dependent upon mobility to search for different pastures during different times of the year. Privatization of land usually forces settlement of pastoralists, which is likely to cause them 'to suffer from extreme poverty and social dysfunction' because they

cannot opportunistically search for pasture over large areas (Lane 1998:ix).

Even those not forcibly settled by anti-communal tenure policies will be pushed

aside as the best forests, the best range land, and the best water access points

are privatized, squeezing the existing commons to land of less quality and

quantity. Thus, nomadic people and other marginalized groups dependent on

the commons, either due to a mobile livelihood strategy or a lack of access to

other land, will lose access to resources crucial to their survival (Lane 1994;

Rocheleau 1996). Thus, common property allows more people access to a

greater range of resources.

CBNRM advocates, in agreement with the range science and pastoral

development literature, have recently begun to call into question the previously

dominant view that local people were largely responsible for the destruction of

their natural environment through misuse (Sandford 1983; Behnke 1995; Styles

1995). Both theorists and pastoral development practitioners are increasingly

advocating the recognition of local expertise in environmental management.

Studies have shown that introducing Western-style range management

techniques are ineffective in most African environmental and cultural contexts.

Locally derived customs and practices, in fact, have proven much more effective

as a basis for local ecological management (Sandford 1983).

Ostrom (1990) asserts that it is important to craft institutions that will result

in collective action and efficient management of natural resources. Her research

on existing long-enduring common property resource (CPR) institutions uncovers

important design principles. One important design principle is the provision of

'collective-choice arrangements' that allow for most individuals who are affected

by operational rules to participate in modifying those rules.

> CPR institutions that use this principle are better able to tailor their
> rules to local circumstances, because the individuals who directly
> interact with one another and with the physical world can modify the
> rules over time so as to better fit them to the specific characteristics
> of their setting (Ostrom 1990:93).

Additionally, it is necessary to ensure a clear definition of boundaries, both

of resources and people using resources. If the resource endowment is

randomly distributed, there are additional incentives for joint use. The fairness

implicit in joint access is highly assuring (Runge 1986:631). Agarwal

(unpublished) warns that for CBNRM to be effective, there must be a true

commitment to the decentralization of power. With examples from natural

resource management projects in Africa, he illustrates their likelihood of failure

when local authority is not downwardly accountable. It is only when local people

actually have the power to manage all aspects of their natural resources that they

will make decisions in the interest of sustaining the resource over the long-term.

Viewed from another angle, people involved in community management

may find it difficult to regulate the multiple resource uses and users (Feeney

1990:14). Thus, devolution of extra-community control may not be appropriate.

Often, it is necessary for the state to continue to play a role in resource

conservation and allocation among communities of users. Ostrom (1996)

advocates in some circumstances a co-management system between local users

and the state. Involving both the state and local users can be advantageous

because it can capitalize on local knowledge and interest in resources while the

larger reach of the state provides low transaction cost coordination with other resources users who may be situated over a large geographical area. The 'nesting' of local natural resource management institutions in state institutions is especially important where resources are migratory or overlap jurisdiction (McCay 1996:119). Ostrom (1996:147) maintains that state intervention can reduce time, money, negotiation, and antagonistic behavior.

Still advocating for community-based management of natural resources, some scholars have questioned the strict reliance on legalistic terms of communal management to achieve community involvement. Social capital theorists maintain that social capital can substitute for well-defined legal property rights in both private and common property resources (Katz 2000:114). In this framework, in the absence of a formal legal system (which is advocated by both common and private property advocates) that can guarantee resource tenure rights for either individuals or for groups of users, social capital can act as a substitute. Social capital can provide a non-market solution to the problems of negative externalities, information asymmetry and moral hazard that can be expected to arise when property rights are not well defined...' and can substitute for costly monitoring of rules (117).

For scholars adhering to the 'community is good' assumption, a breakdown in the communal management of resources is due to a breakdown in the system. This can be due to market influences (Runge 1986) or other causes of social dysfunction within the community. Like social capitalists, McCay places less importance than Ostrom and other common property advocates on legalistic

natural resource institutions. She relates community failure in natural resource management to Giddens' (1994 in McCay 1998) concept of 'disembeddedness,' whereby local communities lose critical points of control over both economic matters and governance. In contrast to communal property critics that see rational behavior as motivated by a desire to maximize individual gains, rational behavior is "...anchored within the social context" (24). Thus, community norms have a strong role in dictating behavior and maintaining rights. The user is restrained by a number of concerns in her or his role as community member. Social conditions required for tragedies of the commons occur where "...resource users find themselves without the social bonds that connect them to each other and to their communities and where responsibilities and tolls for resources management are absent..." (McCay 1998:24). Communal critics assert that community norms will only influence individuals when the gain of being part of a community is more than the possibility of personal gain. McCay's positioning of rationality in the social context counters this assumption of economistic rationality by asserting that community norms will always heavily influence behavior to positively manage natural resources unless communities become disembedded.

3.3. Tradition, Community, and the Environment

In addition to the problems examined above, the movement towards CBNRM is driven in part by an unexamined assumption that a community's involvement in natural resource management is beneficial to community members. This assumption fuels a desire to return to the virtues of community in

natural resource management led by the 'new traditionalist'[10] scholars. In India,

new traditionalist thought upon which much CBRNM is based maintains that

traditional or pre-colonial societies enjoyed harmonious social relationships,

ecologically-sensitive resource use practices, and had fewer problems with

gender, economic, and environmental exploitation which concern India today

(Gadgil and Guha 1992: Ch 4; Shiva 1988: Chs 1 and 2). These scholars

suggest that colonial rule imposed a pervasive and alien set of social, economic,

and ecological relationships on India, which have been continued by post-

independence governments. Alien practices disrupted traditional ecological and

social relationships. The revalorization of 'traditional' society and 'indigenous'

knowledge in new traditionalist discourse aims to recover a socially-responsible

and ecologically-harmonious alternative to conventional development strategies

(Sinha 1997:67).

The desire to return to the virtue of community and its management of

natural resources (compounded with an overall trend towards decentralization)

has focused much scholarly and development effort on the community as an

increasingly attractive alternative to state or private economistic trends.

However, much of this attention to community is based on questionable analyses

such as Gadgil and Guha's (1992) analysis of the Indian caste system. Rather

than critiquing the system based on oppression and domination, they describe

these relationships to be 'sympatric.' Gadgil and Guha use this term to equate

the Indian caste system to an ecosystem. Each caste is like an organism that

performs an important function in the ecosystem. At the same time, each

organism is dependent upon other organisms in the system, just as each caste is

mutually dependent upon other castes in the Indian system. Although coming

from different perspectives, the new traditionalist discourse and community

based natural resource management advocates both suffer from a lack of critical

analysis of their assumptions about the inherent good of community and tradition.

In addition to questionable harmony with the environment, the pre-colonial period

was not a "...period of social harmony; caste and class divisions were deeply

oppressive, especially as experienced by the poorest and lowest castes, and

caste (and class) -linked sexual exploitation of women was common" (Agarwal

1998:61). Sinha (1997:66) sharply criticizes the new traditionalist project for its

"...implications for social relations, for the distribution of benefits from resource

use, and indeed for ecological sustainability." Similarly, CBRNM advocates do

not examine the hierarchies existing in the communities upon which they wish to

bestow new powers.

  Salihi (1996:12) contributes to the new traditionalist discourse with his

description of the traditional Mauritanian pastoral system that evolved over time

to accommodate the climatic conditions of the region. He asserts that this

system is built upon climate-mandated permanent mobility, diversification of

animal species, and an effective mechanism for maintaining a relatively

homogenous distribution of animals (*zakat,* or religious charity). However,

Salihi's description of harmonious nomadic interaction with the environment in

Mauritania also was based on strict hierarchies, which included nobles and

slaves. Inequalities existing in customary tenure have always existed, thus

refuting the ideal of a harmonious egalitarian traditional society in Africa.

Although it is difficult to argue against increased local participation, it is incorrect to assume that if you increase local involvement, increased equity will follow. It is easy to underestimate the persistence of inequality and unequal access to power (Adams 1992:197). Local institutions often are reflective of extant power structures in a society. Newly-strengthened local institutions, especially those involved with common pool resources have tended to be dominated by local elites, often interested in their own self-promotion (McCay 1996:117). Self promotion can also motivate differing interpretations of custom. In Mauritania, for example, urban-based herders define tradition from the Koranic-based *Sharia* that forbids denying others the water, fire, and pasture, which they need for their flocks. This increasingly influential view contradicts kabila custom in which kabila members defended exclusive access to their territories for their members (Ould Zeidane 1998; Bonte 1987).

Some critics of new traditionalists argue that outside intervention in traditional systems can be liberating for those who were traditionally oppressed. Ould Cheikh (1985) argues that in Mauritania land titling to those improving the land has liberating potential for farmers marginalized within a strict hierarchical caste system traditionally dominated by noble herders. However, current attempts to implement CBNRM have also been used as new avenues of power for traditional elites.

In addition to their lack of attention to hierarchy and oppression, both new traditionalist and CBNRM advocates focus heavily on communities, without

examining what their definition of community entails. As opposed to the rigid boundaries advocated by CBNRM scholars, communities often are ambiguous and difficult to delineate with a rigid boundary in territory or affiliation, which is examined in greater depth in chapter 6.2. The fluidity of community boundaries often is necessitated by spatial and temporal variations in geography, as is evidenced by the fluidity of groups and boundaries in dryland Africa (Behnke 1995:148-49).

Gusfield (1975) insightfully reorients community theory by emphasizing mixtures rather than conflicts inherent in dichotomies that are often used to analyze communities. He argues that the problem with defining community according to categories such as territory or number of services is in the dichotomies inherent in these categories. The repeated use of dichotomies such as rural versus urban, traditional versus modern or community versus society concentrates on conflict and polarities among co-existing elements. Gusfield (1975) calls for analyzing community as a multidimensional ordinal variable in which, he suggests, communal elements and the emergence of social institutions can exist as a mixture, rather than always being in conflict. Gusfield's reoriented theory allows for a more appropriate analysis of the many different elements that constitute a community without necessarily devaluing one aspect or another. He also eliminates the major CBNRM problem of defining what is community and what is excluded from that community.

In summary, the new traditionalist and CBNRM frameworks base their theories upon several assumptions left unanalyzed. These theorists assert that

environmental degradation reflects a disjunction between a community and its natural resources. Thus local management will restore harmony to people and environment relations. However, this assertion is based upon the questionable assumptions that a distinct, homogeneous community exists and that there is a distinct and stable local environment. A further requisite to the CBNRM rationale is the assumption that there is '...harmony, equilibrium, and balance between community livelihoods and natural resources' (Agarwal 1998:238). Refuting these assumptions are the realities existing in Africa and in many other parts of the world. Communities are dynamic rather than static entities in changing climate and ecological conditions, and the environmental priorities and natural resources claims of social actors in differing power relations (gender, caste, age, wealth) may be highly contested and may not always enhance environmental sustainability (236).

Community advocates have made an important contribution to scholarship concerning natural resource access. They have argued that the four-category analysis of tenure regimes more accurately describes tenure realities and demonstrates that community management can be efficient and often is more appropriate to African contexts. Also, the community based structures created by outside intervention can be liberating for those who were traditionally oppressed.

Although positive in their ability to focus attention on local people, community advocates still rely on a static and formal definition of institutions. Additionally, the notion of community is not deconstructed, with critics calling for

analysis of the boundaries of communities and the examination of the

assumption that communities are homogeneous. Finally, the power implications

of resource tenure are not addressed due to their assumption that if resources

are managed communally, all in the community will benefit. The power

differentials existing within and between communities at the local, regional,

national, and global level are not addressed. The policy implications of the

institutional argument have been to create local institutions for natural resource

management, often operating alongside existing structures of authority.

3.4. Social Networks and Land Tenure

Social network theorists focus their analysis of resource tenure in

developing societies on the social networks through which people negotiate to

obtain access to natural resources. They fill the gap left by CBRNM scholars

who neglect the "...many everyday contexts within which institutions are located

and their rootedness in local history and society" (Mehta 1999:5). CBRNM

advocates view institutions as rules, regulations or conventions imposing

constraints on human behavior to facilitate collective action. Instead, less formal

arenas where production, authority, and obligation are contested and negotiated

also are important institutions that influence natural resource management.

"Rather than mere rules or regulations, institutions are seen to be what people

regularly 'do' or how people 'behave' (Berry 1989 in Mehta 1999:13).

Problematic in the CBNRM analysis and prescriptions of institutions is their

assumption that there is a non-interactive divide between formal and informal

institutions, and local, national, and international arrangements. This neglects "...the 'messy middle' where different institutional domains overlap and are beset by ambiguity." Instead there should be an increased awareness of overlapping jurisdictions, which cross formal-informal and global-local divides that include contested knowledges (Mehta 1999:9).

Social network theorists shift their focus from the virtue of communities in natural resource management to the locus of power in determining access to natural resources. Although the contemporary African state may allocate resources either by state law or through a mix of state and local initiatives, social networks in the end will influence access to these natural resources. Inequalities existing in current customary tenure have always existed in one form or another, thus refuting the stereotype of an idealized, harmonious and egalitarian traditional society in Africa. Traditionally, hierarchical relationships affect tenure even with property owned by the state, community, or clan. Resource ownership "...remains effectively under the managerial control of selected men through their dominance in both traditional and modern institutions" (Agarwal 1994:1458). The limited impact of tenure reform (both individual and communal, state and local) on patterns of control and access in relation to land suggests that land access and control are the outcomes of social processes, negotiations, and conflict resolution (Cousins 2000:1).

Social network theorists analyze resource tenure in a complex manner and take into consideration interaction between a diverse set of institutions that influence natural resource tenure. Rather than being able to classify resource

tenure types into two (communal tenure critics) or four (communal tenure advocates) types of tenure regimes, the division between these categories cannot be so rigidly defined. Several institutions at once can manage one resource. A farmer may control his field next to a seasonal wetland at the same time that herding communities manage their access to that wetland and while also maintaining rights to gleaning crop remains after harvest. Simultaneously, others may have rights to harvest forest products in and around the field. Moreover, due to the specificity of each tenure regime to its social and natural environment, it is impossible to transfer one regime to another place. Like the critics of the new traditionalists, they view as flawed the romanticizing of customary social structures and environmental interactions, and expose the hierarchical structures of customary tenure regimes.

The most important addition of the social networks theorists to the resource tenure literature is their focus on social networks that were previously overlooked in resource tenure study. Although my research shows that both social networks and policy and laws influence tenure, this initial focus on networks highlights an important issue. Social network theorists argue that social networks are so strong that externally imposed laws or economic changes cannot significantly alter natural resource tenure regimes. Thus, social network theorists argue that it is difficult to externally create a tenure regime. Berry (1993) argues there is no proof that African governments can actually change or control land tenure. Even with all of their efforts to control the tenure system, land tenure has remained ambiguous and is 'subject to ongoing interpretation.'

The significance of ambiguous land rights is not that they cause land use to be inefficient, 'but that people's access to land depends on their participation in processes of interpretation and adjudication, as well as on their ability to pay' (Berry 1993:103). The informal institutions through which social network theorists maintain that natural resource access is negotiated are rooted in the context of social inequality that pervades all aspects of society. Agarwal (1998:84) argues that women's negotiating strength regarding natural resource tenure and environmental concerns in general would be enhanced by changes in the gendered division of labor and in the distribution of political power. She suggests that these changes are dependent upon women's ability to "...bargain for a better deal within the household, as well as with the community, the market, and the state."

The limited impact of legal tenure reform is evidence that land and natural resource tenure is a social process (Fortmann 1996). In fact, people use land for many purposes beyond the production of the requirements for material survival and enrichment. Land and other natural resources are used to gain control over others and to define personal and social identities. In Mauritania for example, agricultural land is generally of such poor quality that it cannot uniquely sustain nobles or their former slaves (Haratines), thus making the struggle over the land not only an economic but a political struggle for symbolic control over the other party (Bonte 1987:213). James C. Scott's (1985) "Weapons of the Weak" asserts that peasant rebellions and revolutions are few and far between, rather the weak assert themselves in ordinary ways requiring little coordination and

planning (29). Scott suggests that common forms of 'everyday resistance' employed by powerless groups are "...foot dragging, dissimulation, false compliance, pilfering, feigned ignorance..." In Mauritania, Haratines who resist sharecropping from their former nobles are employing one such tactic in their resistance to domination. Even when good quality agricultural land is available to borrow for free from noble former masters (Bidans), Haratines often create their own plots on marginal lands, preferring to harvest less than further submit themselves to their former nobles. Thus, as they are creating new fields in land previously considered too marginal for agriculture, they are asserting their independence. Property rights are subject to change with changing social relations; thus power is an integral part of land tenure.

Changes in the natural resource base also can impact social relations and their resulting tenure regimes. As Latour (1987) maintains, non-human things impact humans and human relationships. As seen violently in the Senegal River basin, improved irrigation systems that rendered the Senegal River basin agriculture more profitable caused a war over tenure rights. In eastern Mauritania, the impoverishment of several noble white herders due to recurring drought has increased Bidan interest in farming. This has led to a tightening of access to agricultural plots that previously were allotted through the kabila elders to anyone who desired to engage in the socially-disgraceful work of working the land.

Because resource tenure is a social process, it often is necessary to invest in social relationships to gain access to these resources. Individuals

frequently invest in social relationships in the form of ceremonies, education, or gifts in efforts to establish or reaffirm advantageous identities for themselves that strengthen their connections or claims to resources (Berry 1988:67). "Investment in social relations as channels of access may divert surplus from investment in directly productive activities and direct the management of production towards fostering loyalty rather than maximizing physical output" (Berry 1989:43). In Mauritania for example, Haratines regularly give a portion of their harvest to Bidan members of their kabila. Although this yearly 'contribution' can impose severe hardship on families, it is important because this contribution ensures Haratines access to their kabila and ensures that there will be no problems for them to stay and plant on the kabila land the following year. In times of extreme difficulty such as drought they can count on aid from the group.

The main policy implication of the social network framework is that it is necessary to shift state and development policy to focus on intervention in the informal institutional arenas through which "…negotiations take place and power relations assert themselves" (Cousins 2000:11). This focus on informal institutions assumes that laws are inefficient in the face of social relations, which dictate behavior and ultimately decide how resources are accessed and distributed. Thus, land tenure reforms do not significantly clarify indigenous tenure or achieve increased equity. Legalistic tenure reforms will simply induce new arguments and debates over access to land.

The social network framework of natural resource access is flexible and provides the framework for critical analyses of natural resource access in diverse

ecologies and social strata. The examination of networks in this theory fills a gap in the existing frameworks for natural resource tenure with its recognition that institutions are loci of power that are negotiated and renegotiated constantly and give rise to different ways of accessing natural resources. Although the four categories advocated by CBNRM advocates of private, communal, state property and open access are useful ideal types to describe natural resource tenure, they obscure the complexities of multiple institutions and networks that influence resource tenure. In actuality, resource tenure regimes usually will not neatly fit into one category or another. Furthermore, the dry climate of Mauritania makes it impossible to find one tenure solution that will work each year, because the quantity and location of rain changes drastically each year. Most importantly, a social network analysis deconstructs the homogeneous community that forms the basis of mainstream resource tenure literature and focuses on power and negotiation in resource access. The recognition of hierarchy and difference in community is an important and necessary point of departure for analysis of Mauritania. Finally, the extremely hierarchical societies inhabiting much of the Sahel and other parts of Africa make it difficult to produce one resource tenure solution for all groups, notwithstanding the difficulty of defining the group boundaries.

> Depending on the local environment and land use practices, there is a vast array of land tenure regimes, which result not only from physical, geographical or economic factors, but also from the user communities' forms of social organization. There can be a vast body of rights over a resource ranging from occasional, seasonal gathering rights through to priority and exclusive rights. In the same way, between the two extremes of access, open to a large number of user and to a restricted community or even one family,

one may also find a plurality of users, sometimes of the same resource (Thebaud 1995:i).

Social network theorists have attempted to focus on social relations that pervade all types of societies. This framework, importantly focused attention on informal institutional areas that were previously excluded from analysis of tenure. However, Cousins (2000) critiques social network theorists for disregarding the power of laws in tenure. He maintains that in a place such as South Africa, disregarding the influence of legal institutions is to disregard the history of the country. Although social networks may be pervasive, the legal discrimination under South African apartheid and colonial law is intense and must be countered in legal and in other ways. Similarly, Agarwal (1998) argues that it is possible for legal protections to provide a buffer to women from the stronghold of community patriarchy. Decentralization and increased community control over resources empower local communities that are neither unitary nor ungendered, which can strengthen local pockets of patriarchal and other hierarchical powers. As decentralization increases, it is important that state institutions, NGOs, and political bodies outside the local power nexus provide an arena for strengthening women's bargaining power in relation to the community and the family (Agarwal 1998:85). Legal measures should be recognized as potential mitigators of local hierarchies, while recognizing their limited powers in this respect. Thus, my analysis of natural resource tenure must focus on informal and formal institutions, laws, and policies.

3.5. National and Global Networks

In this analysis, I use a social relations framework, which fills the gaps of CBNRM by analyzing the distribution of power in social networks, focusing on informal institutions and negotiations that influence resource access. However, it is important to look not only at power in local networks and formal and informal institutions, but also at economics and of the state and global politics that influence from a distance the availability of resources and who can use those resources, even in small villages distant from the source of power. In an era of increasing globalization, global and state economics and politics will affect local governance, access, and use of natural resources, and thus must be considered in any analysis. For example, colonial introduction of strict borders between geographical areas that previously had little other social cohesiveness has significantly impacted social relations and tenure access among Mauritania's nomadic groups. Similarly, distant policies introduced by the World Bank favoring agricultural and village-based development also had an effect on power relations.

Political ecology adds to the examination of social networks. Political ecology combines the concerns of ecology with a broadly-defined political economy (Blaikie 1987). This approach contends that the integration of local economies into the global economy has transformed their basic structure (Campbell 1991:13); yet, the global economic system is not responsible alone for environmental change because the state also intervenes in economic activity to promote environmentally destructive activities. This intervention may result from

market expansion or from a ruler's interest in extending political power, national security, or personal enrichment (Bryant 1992:3).

Current environmental problems are not simply a reflection of local misuse as often is advocated by large development organizations. Political ecology posits a broader national and global study of environmental problems because their causes can rarely be relegated only to local-level activity. Thus, while it is important to analyze local level environmental use and access, this must be accompanied by an analysis of the global and national contexts. Furthermore, rather than mere failure of policy or the market, environmental problems are a manifestation of broader political and economic forces (Bryant 1997). Latour (1987), in his description of a Brazilian computer scientist, describes the often-devastating impact of networks outside the realm of influence. In his example, the computer scientist struggles to create a Brazilian computer industry that must be bolstered by networks with a common interest. However, he is drained of force by decisions taken by the military to liberalize import control and by advances in the Japanese computer industry, both networks in which he has no participation or influence. By consequence of these decisions made at considerable distance from his Brazilian computer works, his network shrinks considerably, leaving him isolated in his failed endeavors. Using the same concept, natural resource use and the social networks that determine resource access will be fundamentally altered if World Bank-funded projects pour money into agriculture, which is traditionally marginal in the economy. Investing in agriculture not only upsets a power

balance between wealthy herders and poor farmers, it also negatively impacts the environment by damaging wetlands crucial to the survival of the herding economy well-suited to the region.

Although it is useful to focus on local resource negotiations, it is crucial to analyze the root of the change that reaches far beyond the local community. Economic policy or legal measures from distant networks may meet resistance from local social networks and may be altered by this resistance, but they will have some effect nonetheless. As seen with colonial codification of indigenous institutions, legal measures can bolster inequalities. Also, the global push towards democracy resulting in the community territory management schemes *(gestion de terroir)* has served to benefit settled populations. Not only does this increase the power and natural resource access of the settled over nomadic groups, but it also upsets mobile natural resource management, which is well-suited to the spatially and temporally varied rainfall in the region. However, national and global laws and policies also can reduce the force of local elites, as exemplified by the reform of apartheid laws in South Africa (Cousins 2000). Whether working to intensify or diffuse entrenched social norms, legalistic measures for natural resource access cannot be discarded in any analysis of natural resource tenure. The political ecological framework provides an analysis of the social and environmental consequences of macro-level forces, while looking at local level negotiations for natural resource access.

In conclusion, a review of the natural resource literature reveals that a central issue is the extent to which state and global laws and policies influence

resource tenure and resource access. Questions that emerge from this literature include the following: What is the impact on the local level of national and global policy directives concerning natural resource management? Have members of the elite been able to use new laws to increase their power and prestige, and if so, how? In what circumstances have traditionally marginalized populations been able to use these laws to loosen the grip of their oppression? In which types of network memberships does the ability of members to negotiate for natural resource increase?

Mauritania provides an excellent case study with which to analyze this issue. The passage of a law in 1983 dictated a radical change in resource tenure systems that has yet to be fully implemented. However, as I show, this national law has had a significant impact upon resource tenure and access. I analyze the degree and type of influence that global and national policies have had on natural resource management in the Hodh El Gharbi Province in eastern Mauritania. From this analysis, I draw conclusions regarding the circumstances that lend themselves more easily to national and global law and policy influences, and those circumstances that do not.

CHAPTER FOUR
METHODOLOGY

This study focuses on the negotiation for access to resources in Mauritania in the context of 1) contemporary natural resource law, 2) development interventions, 3) changing livelihood strategies, and 4) social relations anchored in traditional hierarchies. This study was conducted in eastern Mauritania but may be relevant for other populations that derive subsistence from agriculture and herding and have mixed land-use systems. This research includes on sedentary and nomadic populations who use land in multiple ways including herding, cultivation, household energy supply, forest by-products, and harvesting traditional medicine.

I conducted research in Mauritania from May 1999 through April 2000. I spent the first three months of my time in Mauritania in the capital, Nouakchott. While in Nouakchott I was able to spend time researching documents, meeting with government officials, international organization leaders and Mauritanian scholars. During this time I also conducted intensive language study to help me adapt my knowledge of Arabic to the local dialect spoken in the country. At the end of my research I returned to Nouakchott to conduct further documentary research and to discuss preliminary findings with many of the people I interviewed upon arrival. The rest of my time was spent in the Hodh El Gharbi Province in eastern Mauritania. While in Hodh El Gharbi, I was based in the Provincial capital, Aioun El Atrouss. I spent most of my time in the bush staying with families in villages and in tent encampments. Eastern Mauritania is remote,

connected by a severely potholed paved road that is over 800 kilometers from the capital. Within the Hodh El Gharbi, travel is extremely difficult with tracks in the sand serving as main travel routes. During the rainy season, many of these roads become impassible, necessitating long detours to reach destinations. The year of my research was a wet one, with most wetlands filled far beyond capacity, which made travel difficult. Village water sources were submerged, leaving the village and my research team without safe water to drink.

I conducted my research in close collaboration with Tara Shine, an environmental scientist working with the German Technical Cooperation (GTZ) on their Natural Resource Management Project (GIRNEM) in Hodh El Gharbi. My collaboration with the GTZ and with Tara Shine in particular was crucial to my ability to conduct my research. The GTZ has been working in the region for several years resulting in an in-depth understanding of the people and environment. In addition, their relations with the people in the region were important in providing me insider access to people in local government and throughout the region. The majority of the data I collected for my research was supported either materially or intellectually though my collaboration with the GTZ.

Survey

The locus of my research includes people using natural resources in 11 wetlands in the Hodh El Gharbi province in eastern Mauritania. These wetlands were chosen to provide a representative sample of the 128 wetlands existing in Hodh El Gharbi (see Appendix 3). In the area of each wetland, one village was

chosen at random for the completion of 20 surveys. Because there are no population registrars in Mauritania, it was necessary to use the cluster sampling method. After choosing a central location within the village, I threw a pencil in the air to indicate a random direction. After pulling a number from one to 10 from a hat, the interviewer began walking in the direction of the pencil, counting houses until coming to the number drawn from the hat. This was the first house interviewed. After leaving the first house, the interviewer then proceeded to the closest house in any direction and began interviewing, continuing this process until five people were interviewed in that cluster area. Subsequently, the interviewer would return to the central location to throw the pencil once again to indicate a new direction, and then count houses in this direction until reaching the number pulled out of the hat. This process was repeated four times, producing 20 respondents. In order to ensure that the sample was representative, the interviewer had 4 cards, one for older women (35 and up), one for younger women (18 - 34), and two similar cards for men. When the interviewer found a younger woman to be interviewed, he then put the card in his pocket, and could not interview a younger woman until he had 'used up' the other cards. If the next house he selected only had a younger woman at home, he was required to skip this house and proceed to the next nearest house.

In addition to the 20 people living at each of the 11 wetlands included in the study (220 respondents), it was necessary to include respondents who currently are nomadic. The 1988 Mauritanian census reported that of 159,296 residents of Hodh El Gharbi, 41,207 were nomadic (25.9%). This number has

certainly declined since the latest census; thus, we conducted 50 interviews with nomads (18.5% of surveys). At the time of interviewing, (three month period, intermittent) we could find nomads at only six of the wetlands. However, most of these respondents frequent several of the wetlands and could provide us with information about their access to and use of many wetlands and their surrounding areas. Because of their scarce and mobile nature, we interviewed who we could find, taking a snowball sample that took recommendations from one tent as to how we could find other nomadic tents. In total, we interviewed 270 people, 220 at the wetlands at the time of the interview, and 50 in tents in the larger area.

The survey has the potential to be biased towards the settled people of the area. To address this bias, I interviewed nomadic populations. The selection of the entire sample was not random. However, within the difficult circumstances of conducting research in a remote area, many precautions were taken to limit these biases. Due to the number of clusters sampled (11), the bias of cluster sampling should be reduced.

I used the data from this survey to provide basic livelihood statistics for the region that I have used primarily in Chapter Four, but also to provide information in the data analysis chapters. Chapter Six is based on data from the survey regarding membership in cooperatives and community development associations (CDAs). Data from the survey regarding concepts of natural resource tenure form the basis of Chapter Seven. Data regarding the amount of land owned provide important supporting figures for my analysis in Chapter Eight.

Semi-structured Interviews and Focus Groups

In addition to the questionnaire, we conducted in-depth interviews with two or more people in each of the survey areas (27 interviews total). We conducted interviews using an interview schedule, although diversions in topics were frequent, depending upon the course of the interview. Although we did interview some young women and men in this fashion, we usually chose older men and women who knew much about the history of the area and who could explain in detail how their livelihoods, resources access and environment had changed. In addition, I interviewed four key informants to gain their insight on the land tenure issues in their regions. In total, I conducted 31 in-depth interviews.

In addition, at each research site I conducted informal focus groups or group discussions with mixed and homogeneous groups including Haratine and Bidan men and women, young and old. I would talk with women at the well, or around the cooking fire at night, or with groups of farmers. These discussions were countless, occurring at all times of the day. Because these discussions were much less formal, much of my best information came from these candid discussions. The semi-structured interviews and the group discussions provided information for all chapters, especially Chapters Five, Six, Seven and Eight.

Archival Work

I reviewed Mauritanian laws regarding land tenure and how tenure was applied in the past. I attempted to review legal cases surrounding the appropriation of new land, but I was denied access to these documents. Land

tenure is an extremely sensitive topic in Mauritania and regularly suspicious government officials become even more suspicious when the subject is broached. However, I was able to interview people to obtain information regarding the history of land tenure in the Hodh El Gharbi. Additionally, my interviews in the field shed light on these issues.

Wetland Histories

For six of the wetlands (again chosen to be representative of the wetlands in Hodh El Gharbi), we conducted in-depth studies. This included obtaining livelihood data such as animal counts, agricultural production, and field area. Additionally, we researched in-depth the history of the wetland. This involved interviewing people from each settlement around the wetland, as well as seasonal users of the wetland. This history focuses on land tenure conflicts surrounding the wetland and illuminates the negotiation process surrounding natural resource access. In addition to my own interviews at each wetland I visited, Cherif N'Diaye of the GTZ Aioun interviewed over 30 people to inform the wetland histories. As he is from the region and is well known and respected, he was able to gather key data and provide insightful analysis of the history of each wetland. The data from the wetland histories provided much of the information used in Chapter Eight.

Village Settlement Study

Steve McCracken of the GTZ surveyed in 1999 103 villages in Hodh El Gharbi to determine the date of settlement and the reason for settlement. The study illuminates the phenomenon of settling to gain increasingly private ownership of important resources. Chapter Eight draws heavily on this data.

Participant Observation

During the period of fieldwork, I lived with families in all 11 wetland areas, and camped with nomads throughout the area. During this time I was able to observe daily activities and to talk to many people with whom I was living and interacting throughout my stay in the Hodh. I had the opportunity to be present during many development project visits and to be present after they left to obtain other reactions from the visits. Participant observation provides many important insights to my entire study and provided me with a context within which to analyze all of my data.

Language and Research Assistants

All of the research was conducted in Hassinya, the local dialect of Arabic spoken in Mauritania. I conducted ten percent of the structured surveys and 50% of the semi-structured interviews. I had two male research assistants, one Haratine and one Bidan who were both from the area in which I was researching. They both spoke Hassinya as their mother language. I interviewed five Peul herders (a minority ethnic group located mainly to the south of my research area)

during which time a male Peul research assistant provided translation. I conducted most of the informal discussion focus groups; however, because the entire research team stayed together, I often benefited from the participation of my research assistants. I would have liked to have a female research assistant, but I was not able to find a woman who was willing to travel with me. Cultural norms do not encourage women traveling for work, especially when away from family. Thus, my results have the potential to be biased by the male research assistants.

CHAPTER FIVE
CONTEMPORARY LAND USE

Colonization set the stage for the radical changes that occurred in

Mauritania after independence. The severe drought that hit Mauritania less than

a decade after independence was a catalyst to impending changes that altered

social relationships and economic systems. Additionally, government actions

such as the abolition of slavery and the 1983 land tenure law also have been

important actors in the shaping of present day Mauritania. Furthermore,

government sponsored globalist economic policies, which increased the

importance of export minerals and the adoption of IMF measures, also have had

a profound effect. These changes influence land use in present day Mauritania

and are discussed below.

5.1.   Drought

The Mauritanian social and economic structure has changed dramatically

since independence was declared in 1960. In addition to the profound influence

of independence, a severe drought catastrophically shocked social and economic

systems that had already begun to transform or breakdown. The drought was

the worst in over two centuries, beginning in some places in 1968 and continuing

through 1973 (Lovejoy 1976). Mauritania suffered greatly during the drought. An

estimated 80 percent of Mauritania's economy centered on livestock

Figure 2. Perceived Resiliency to Drought in the Sahel (Davies 1996).
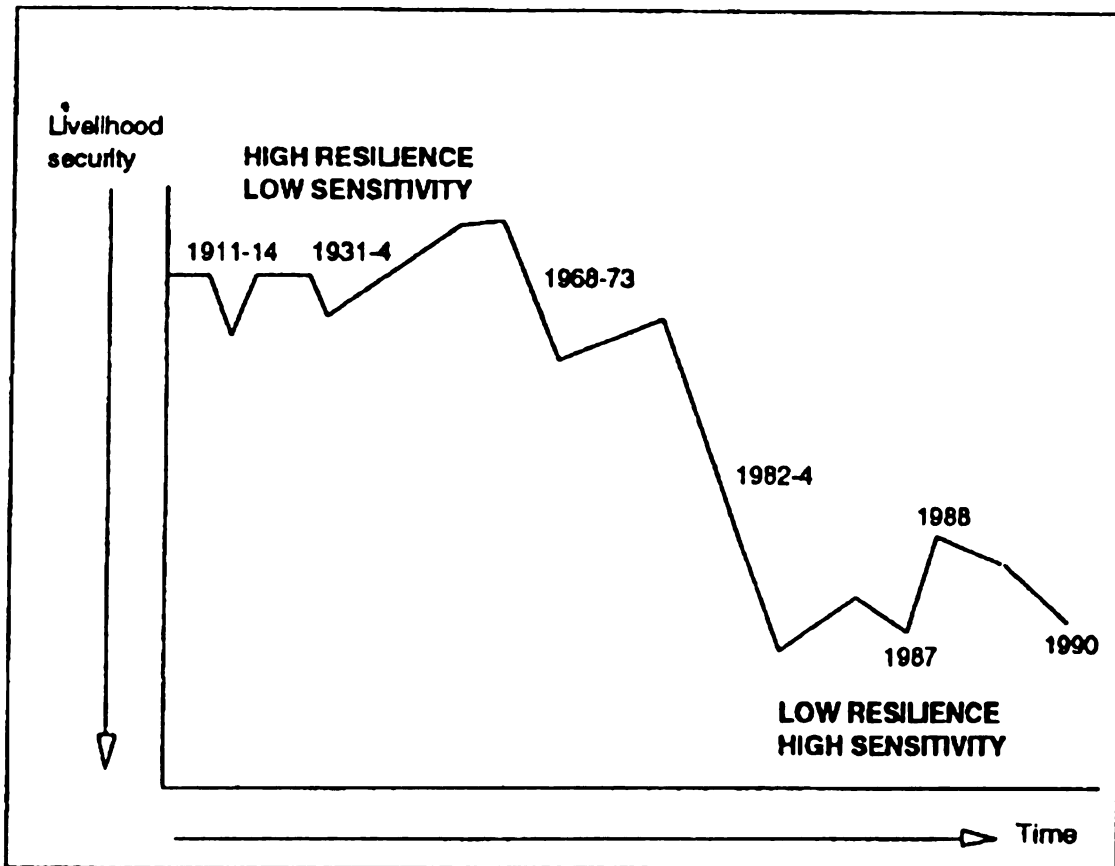
before the drought. During the drought an estimated 30 percent of animals were

lost, and many people were forced to sell their herds (Ould Mey 1996:82). Over

the centuries, a nomadic lifestyle has enabled nomadic people to survive in

marginal lands and to weather periods of drought, yet it seems that this lifestyle

is threatened under current conditions. In people's own perceptions, their

sensitivity to shocks has increased over time as the severity of shocks has

increased, and their ability to deal with the shocks resiliently has not returned to

pre-shock levels (see Figure 2, Davies 1996:26).

A major consequence that had not occurred during previous droughts was

urban migration. Many nomads turned to sedentary life with rural to urban

migration increasing at an unprecedented scale. In 1965, 78 percent of

Mauritania's population was nomadic, 15 percent were sedentary in rural areas,

and only eight percent were urban. In 1988 only 12 percent of the population

remained nomadic, 41 percent were sedentary in rural areas, and 47 percent of

the population lived in cities. As a result, Nouakchott is one of the fastest

growing cities in the world with its population increasing from a mere 5,000

inhabitants in 1960 to 581,238 in 1991. Rapid and chaotic urbanization without

industrialization has rapidly transformed a largely nomadic society into a society

of environmental refugees (Ould Mey 1996:82).

There has been a decided decrease in rainfall in the Sahara and Sahel

during the past 25 years, yet there is no concrete evidence that this occurrence

alone is an indicator of changing conditions. It is more likely that this most recent

drought is the latest in a series of droughts in a long environmental cycle of

significant increases and decreases in rainfall (Lovejoy and Baier 1976:147).

The examination of environmental causes of the decline in nomadic

sustainability is crucial, yet it does not explain why nomadic strategies that have

evolved over centuries have suddenly ceased to be viable during a severe,

although not unprecedented, drought. Political ecology contends that the

integration of local economies into the global economy has transformed their

basic structure (Campbell and Olson 1991:13). Galaty and Johnson (1990),

explain further:

> The political ecology of pastoralists became the process of
> adjusting resources, the modes of production and patterns of social
> life to these demands of requiring citizens to live in one place,

receive social services and intensively utilize resources in order to maximally contribute to productivity in the country.

Prior to colonization, nomadic relations had evolved to ensure access to resources, provide opportunities for wealth, and safeguard against crises of which serious and prolonged drought was the most frequent. The evolution of societal relations "...was disrupted by the impact of colonialism which forced the people of the area to adapt to conditions different from their past experiences." The collapse of traditional societal relations within the desert-side economy may be critical to understanding recent failures of traditional coping strategies during droughts (Berry et al. 1977:83).

The origins of the crisis in Mauritania are complex, involving drought and population pressure. However, pre-colonial and post-colonial policies regarding nomadic peoples have been uniquely detrimental. Whatever the suffering due to previous droughts, this had never been the point of departure for a radical mutation or life change such as rural exodus or sedentarization as has happened in Mauritania. As discussed in greater depth in Chapter Two, colonization set the groundwork for Mauritania's insertion into the world economy by solidifying relations with France, introducing salaried positions and taxes, etc. As Ould Cheikh argues, a more complete insertion of Mauritania into the world capitalist economy as a peripheral member (as described by Wallerstein 1993) was necessary before recent climatic change would have the force to engulf the country in a societal crisis (Ould Cheikh 1985:24).

During the disastrous drought of the 1970's, the most visible cause of famine was a lack of rainfall. However, the lack of rainfall was compounded by increased population pressure, which had begun many years before but had yet to have a substantial impact. Taxation began early this century, yet the far-reaching effects of the decrease in herd size that was forced due to the burdens of producing cash to pay the colonial government taxes was deeply felt during serious drought when larger herd security was needed. In the Western Sahara, the combined effects of an economic pull factor from industrializing towns and a drought that decimated camel herds left the nomadic population weak enough that the subsequent war nearly ended all forms of nomadism in that region (Arkell 1991:163).

Although the post colonial ruling government in Mauritania is comprised primarily of the noble herding class, they have nevertheless followed a colonial trend favoring sedentarization. Colonial and post-colonial governments in many African countries had several reasons for justifying their upheaval of nomadic livelihoods through taxation and forced settlement. The so called humanitarian desires of the governments aimed to make the nomadic populations economically self-sufficient and increase their standard of living; however, the nomadic populations were considered to be wealthier than farmers although they did not have as many material possessions. Other, more strategic objectives of administrative policies were concerned with nomadic integration into national society and easing state administration of nomadic populations that enabled their forced contributions to the national economy. Perhaps the most important

administration goal of pastoral sedentarization aimed to prevent nomadic military threats to the state (Bennett 1984:36). Nomadic populations defended their territory with guns and warriors that were often used against the colonial administration that was threatening their territory.

Colonial and postcolonial administrators have progressively eroded and radically altered the traditional pastoral system, which did not fit into the national framework. Pasture, to which access had been carefully regulated by agreements between tribes and emirates, was reclassified as public domain (Swift 1976 in Salihi 1996:110). State property regimes differ from common property regimes in that the state removes most managerial discretion from the user and generally conveys no long-term expectations in terms of tenure security (Bromely 1991:23). The result in Mauritania has been unsustainable exploitation of rangeland resources. The destruction of traditional grazing arrangements initiated a free-for-all system of rangeland use entailing neglect of the environment (Salihi 1996:110).

5.2. Rural Sector Components

Whatever the underlying causes, the drought was a catalyst for profound change in the Mauritanian social structure and economic systems. The lasting dramatic impact of the 1968-73 drought has transformed Mauritania, yet as described in Chapter One, its rural economy dominated by herding remains important.

Eastern Mauritania is ideally suited for herding due to its relatively high rainfall. It is home to the majority of the nation's animals, mostly cattle, camels, goats, and sheep. Livestock is responsible for 80% of the revenue in Hodh El Gharbi Province in eastern Mauritania (MEMAU 1999 in Shine 2002). The meat production of Hodh El Gharbi contributes 17% of the total production in Mauritania (Bureau Statistiques Agricoles/SSP/DRAP/MDRE, HG 1999 in Shine 2002). Goats and sheep are the most commonly herded animal, followed by cows, camels and donkeys and horses (see Table 1).

Table 1: Livestock in Hodh El Gharbi (MDRE 1998 in Shine 2002)	
Livestock	Numbers
Goats and Sheep	560,000-600,000
Cows	190,000
Camels	65,000-70,000
Donkeys and Horses	>2,000

Central to eastern Mauritania's ability to support its rural economy are semi-permanent wetlands located through the area. Wetlands provide easy access to drinking water. Because on average, animals can not exploit pasture more than 12 kilometers from a water source, each water source then allows access to 45,000 ha of pasture (OECD/CILSS 1987 in Shine 2002). The importance of the numerous wetlands in Hodh El Gharbi comes not only from the freestanding water source that easily allows animals access to important zones of pasture, but wetlands also replenish ground water level that is close to the surface. It is easy to dig shallow traditional wells at the wetland edge even when the wetland itself has dried up. These shallow traditional wells can be dug

quickly during a stop over visit to wetland pasture. This also enables easier access to clean drinking water for area residents, even during the dry season.

According to survey data, 46 percent of respondents with animals water their animals in wetlands in winter as opposed to 96 percent in rainy season. Although water is necessary for survival, fodder found in wetlands is perhaps more important to herders. Replacement of the high quality fodder found in and around wetlands is nearly impossible. Available on the market are straw and feed supplements; however, these do not match the quality of fodder located in wetlands. Herders in the rich wetlands of Tali and Tamachekett reported that their goats reproduce three times in 15 months, which is an exceptionally high reproduction rate. In fact, in all of my focus group interviews with herders, there was unanimous agreement that the fodder around wetlands was the most valuable and crucial resource they depended upon in wetlands. A transhumant herder camped at Oum Lelli wetland emphasizes the importance of the wetland (Jan 2000),

> We come here for the water and we come here for the fodder. But we are always able to find water somewhere. Even if all the wetlands have dried up and the traditional wells have gone dry, there is someplace to get water. We will have to work harder to get the water, but we have always been able to find water somewhere even if it is difficult and tiring for us. But the fodder. You cannot get good quality fodder in the dry season except in the wetlands. The seeds and good fodder are irreplaceable anywhere else. If our animals don't eat here, they will be weak and it is less likely that they will survive.

Agriculture is important for the local population's diversification of revenue. There are several shallow wetlands in which water recedes quickly that are well

suited to recession agriculture. Recession agriculture uses soil that was formerly

under water because it remains moist even after water recedes. Seeds planted

in the soil will grow using moisture remaining in the soil. Leweija, a traditional

'breadbasket' wetland has the highest number of cultivable acres and is

completely filled with over 20,000,000m2 of fields (Shine 2002). Other wetlands

that retain water longer do not allow for timely planting of crops before the onset

of the hot and dry season. Pastoralists heavily frequent these wetlands that have

a negligible amount of agriculture. For many cultivating families, agriculture is

merely a diversification of activities; however, there are other more marginal

families that depend heavily upon agriculture. For example, 100 percent of all

the Haratines sampled practiced agriculture. Many poorer families that are

forced to depend upon agriculture use this activity as a means of survival and

also as a means of gaining a surplus to invest. Any extra earnings made from

agriculture are immediately invested in animals. This practice allows poorer

people to invest in herding, which will give them the potential to acquire more

wealth in the future, rather than just living hand to mouth each year. A former

farmer who invested in animals and has become a successful herder in Tali

explains (December 1999).

> This village used to depend more on agriculture. We didn't have
> any animals when we first moved here, but we worked hard in our
> fields and we were able to save money to buy animals. Herding is
> not as difficult as farming and we are able to make more money.
> Our women don't have to work beside their husbands in the fields;
> they can do other things like vegetable gardening and housework.
> When our women don't have to work so hard, we feel better.
> Animals are much more important to us than agriculture because
> farming is so unpredictable. One year you get a good crop; another
> year you don't get a crop at all. Animals always have next year. If

our fields don't do well one year, then we can always sell a few animals to buy grain - no problem.

Farming families have on average 55% of their fields in recession agriculture, and 45% of their fields outside of the wetland using rainfed agriculture techniques. However, the concentration of fields in recession or rainfed agriculture varies by wetland. For example, Gongel has most of its fields actually in the wetland (94%) while others such as Chlim have a smaller percentage of fields in the wetland (40%) (Shine 2002). Just as diversification of livelihood strategies is important in the varied climate of the northern Sahel, it also is important to diversify agricultural production. In dry years, farmers are able to rely heavily on recession agriculture and in wet years on rainfed agriculture, which is not hampered by an abundance of standing water. Residents of these six wetlands explained that in a good year, recession agriculture produced a yield three times higher than in the rainfed fields. Millet is the predominant crop in the rainfed fields, and sorghum and cowpeas dominate recession agriculture. The production of millet, sorghum, and cowpeas are both for home consumption and for sale in local markets. The price of the grain varies according to the area in which it was grown. Grain from the well-known breadbasket of Leweija obtains the highest price on the market (Shine 2002).

Another important agricultural activity is vegetable gardening. Recently introduced by development projects, 36% of the population sampled (n=270) was involved in vegetable gardening, 70% of whom were women. This activity is made possible by the shallow wells that result from the high water table near the

wetland. This activity has had positive effects on both the nutrition and the cash flow of those growing vegetables.

Forest products are abundant in wetlands. The *Acacia Nilothica* is the biggest tree in the region and is found in wetlands. The wood of this tree provides important building materials as well as fuelwood. Additionally, the seeds from this tree (*salaha*) are used for tanning leather. Gum Arabic is also found in Acacias and is important because its sap is sold as valuable gum Arabic, which is the forest product most sold by survey respondents. Berries and other wild foods found in wetlands provide needed nutrition, and many types of medicinal plants are found all over the wetland. The mud in the wetlands is used for brick-making. The many important and diverse uses of forest products in the wetlands is underlined by the fact that only 10 percent of 270 people in the sample surveyed did not report using or selling any forest products.

The Hodh El Gharbi in eastern Mauritania where the research was conducted is considered to have the conditions most favorable for herding and can support some agriculture in its many wetlands. In the sample for this study, which did not include the provincial capital Aioun El Atrouss, an equal number of households received their primary income from herding (43.3%) and agriculture (43.3%). Other primary income sources included salaried positions, forestry products, manual labor, artisanal work, commerce, and teaching (13.4%). As mentioned in Chapter Four, 25% of the population of Hodh El Gharbi were nomadic in 1990 (Bureau Statstiques Agricoles/SSP/DRAP/MDRE/NKT 1990). However, it is important to remember that although sedentary, most who are

involved in herding still migrate with their animals or hire someone to migrate with their animals, still following a transhumant migration pattern. My data show that of those involved in herding, 48.3% still migrate with their animals, yet very few of those are actually nomadic (21.3%), defined as having no permanent home.

Herding, the prized livelihood system of the Bidan, has been transformed since independence. Although still an important activity in eastern Mauritania, many former herders have been forced to support themselves in other ways. There still are as many animals in eastern Mauritania as there were before the drought, yet these animals are concentrated among fewer owners. Even those with substantial herds have now become sedentary, usually sending a herder with their animals or leaving the family at home and going themselves.

Figure 3. Primary Source of Income

n=270
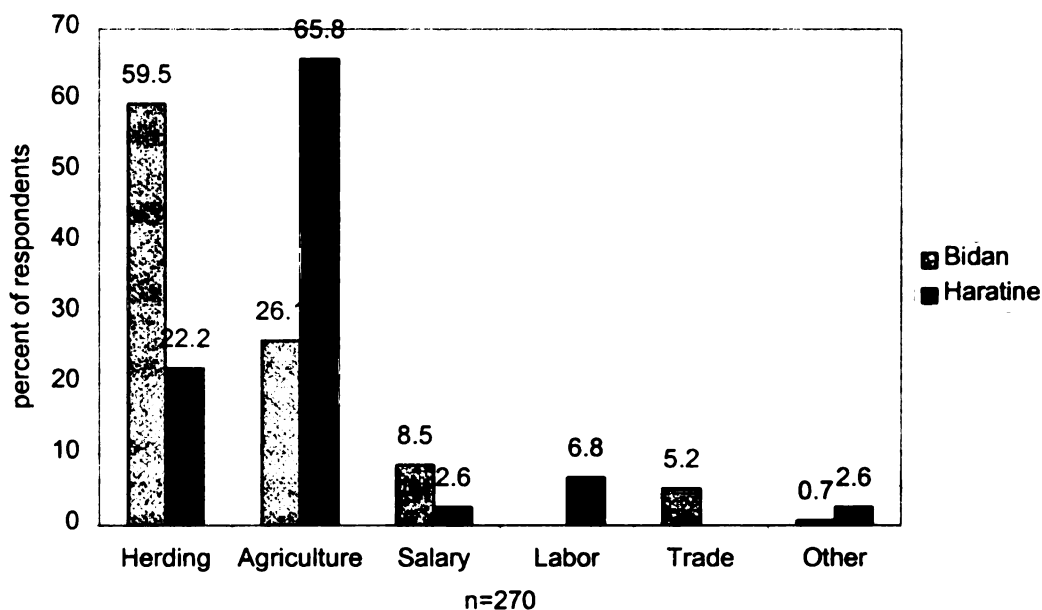
Although agriculture and herding are both of equal importance in providing a source of primary income, agriculture is much more important for Haratines,

providing a primary source of income for 65.8% of those surveyed, whereas 26.1% of Bidan relied on agriculture for their primary source of income. Thus, social status is strongly connected to the primary livelihood occupation. However, more than one quarter of Bidans surveyed in Hodh El Gharbi reported that agriculture was their primary source of income. The large numbers of Bidans reporting agriculture as their primary activity signifies an important change. Traditionally, agriculture was reserved strictly for Haratine and slave members of the social hierarchy as the menial labor was undesirable for Bidan.

A Bidan from Gongel explained how his life had changed (November 1999).

> Before, when we spent more than two days in one place, we said
> that we were stir-crazy and tired of being there so we had to move.
> But now our wings are cut so we can't move. The camels we
> traveled on are gone, and what we traveled for is gone, so there is
> a big open gap in our lives. Now we are forced to stay in one place
> all the time. For us, the herders, we are now in prison. We have
> no means with which to move. I remember that the most beautiful
> thing in life was to leave an area when you have been camped
> where the animals have eaten all the pasture. Then you move and
> arrive to a new, untouched area where the pasture is abundant.
> Just you, your animals, and all of the pasture you would ever need.
> It was beautiful. But now we just sit and wear holes in the place
> where we stay.

The drought and loss of animals is one impetus behind the increasing number of Bidans turning to agriculture for their livelihood. Additionally the increased independence of Haratines has made it more difficult to find workers to farm their land. Thus, many Bidan are now farming the land themselves. Furthermore, many Bidan have realized the potential to make money with agriculture. A Bidan farmer in Chilkha explained (Nov 12, 1999),

Before, when we saw people (Haratines) farming the land, we used to laugh at them. We used to say, 'look at those rats scratching the earth.' But now we have realized the value of agriculture. We used to be only herders here, but now agriculture and herding are equal. Life has changed here.

Also indicating change, over 20 percent of Haratines surveyed reported herding as their primary livelihood occupation. However, in the survey, no Haratines reported being nomadic (having no permanent base), and among those 180 Haratines involved with herding, only 16.9% of Haratines migrated with their animals compared with 63.6% of Bidan (*Difference significant at p=.000). Because larger herds must migrate to survive in Mauritania due to sparse pasture, the lack of Haratine migration leads to the conclusion that they have smaller herds than the Bidan. Data on the number of animals owned was difficult to collect due to cultural sensitivities.

5.3. Abolition of Slavery

An important political event after independence was the abolition of slavery. The declaration of 5 July 1980 abolished slavery with the ordinance of November of 1981. The resistance from powerful members of Mauritania's hierarchical society to the abolition of slavery was intense, and the benefits to slaves and Haratines have been slow to appear. Although there was much resistance to abolishing slavery, as analyzed in Chapter Two, the ground had been laid since colonial times for this abolition. The arrival of independence served to accentuate colonial initiatives with increasing access to salaries and industrialization. The period of drought forced migration and often created

distance between master and slave. Distance from hierarchical oppressors made domination increasingly difficult. Many Haratines who had been able to profit from new opportunities within the altered system formed an anti-slave movement, *El Hor* (meaning the Free). El Hor was successful in agitating for freedom. A slave was sold on the market in Adrar in March of 1980, creating new pressures for an end to slavery. These factors combined with a significant amount of international pressure brought about the declaration that officially abolished slavery (Levroissier 1987:63).

Rather than guaranteeing change rapidly, the laws passed by the government have built an important foundation for increasing equality within the social system. However, change has been slow, and traditions remain in many ways entrenched. The ordinance did not implement measures that paid for freedom. The objections to paying for freedom are obvious; however, there were many within the movement advocating for a payment. Realizing the strength of tradition, a slave is a slave until his master sets the slave free or the slave has paid for freedom. The absence of a signed and sealed certificate for the former slave results in ambiguity that can be taken advantage of by powerful slave owning elites (Bhrane 1997:98).

Regardless, the abolition of slavery has provided the foundation for freedom. One woman I interviewed explained to me that she was not a Haratine (free person) because she still was "...well integrated into the family..." Although she would not describe herself as independent or free, she exclaimed (Gongel Nov. 1999),

> Of course things are better now. We didn't used to have a life; they
> used to buy and sell us like animals. They used to hit us to make us
> work. At least things are better now, and we can work in peace.
> We have a life now.

In response, a Bidan who accompanied me to the field where the woman was working admonished '*dhak ma y'ngal*' (that is not said).

Haratines still are disadvantaged and are struggling with their subservient position within the Moor social hierarchy. The hierarchy pervades, because the bonds between former master and slave remain close. In the village of Dreiga where all the Bidan had departed for a nearby city in search of a better life when the drought came, Haratines stayed behind to continue farming the land. A Haratine woman in Dreiga explained that they are much happier farming by themselves. "Instead of running after people who are telling us what to do, we are farming the land, just for us and not for someone else." However, the family bonds and the bonds of subservience remain. Because the Bidan help them when they are in need, they remain beholden to them. When asked if she gives a portion of the harvest to the Bidan who previously lived in Dreiga, she replied (Dreiga December 1999),

> Of course we do. We give them what we can. We love them
> *(nbriouhoum!)* and they are our brothers (grabbing her breast –
> signifying that she breastfed many of them). They are very nice to
> us. When we have a wedding and we don't have anything, they
> give us a sheep that we can celebrate with. When we have hard
> times, they give us tea and a little money. So we give them what
> grain we can. But still, it is better to work for ourselves than to work
> for 'our family'[11].

Scott (1985:307) interprets such acts of kindness on the part of the wealthy and more powerful as a form of social control. The wealthy Bidan give some of their wealth to Haratines, which in turn gives them increased status and social control although acting as if their intentions were voluntary acts of generosity. This social control will ultimately be converted back into wealth in the form of labor or 'gifts.' He explains further:

> The euphemization of economic power is necessary both where direct physical coercion is not possible and where the pure indirect domination of the capitalist market is not yet sufficient to ensure appropriation by itself. In such settings, appropriation must take place through a socially recognized form of domination. Such domination is not imposed by force but must assume a form that gains social compliance.

Many Haratines with whom I spoke still identified themselves with the noble Bidan of their kabila. Like the woman above who called the Bidan her family, others still identify with Bidan leadership. Upon my arrival in the Haratine village of Chara, I asked to see the village leader in order to properly introduce myself. They replied that their leader was in Agjert, a Bidan village over 50 miles away, where the powerful Bidan *cheikh* of their kabila fraction lives. Although there was in fact a village leader who was responsible for local affairs, the residents identified with their traditional kabila leader as their ruler, rather than a village resident upon whom they had bestowed the responsibility for their daily village affairs.

Bhrane's (1997) work on Haratine identity found that 50% of black Moors (black in skin color and, but culturally Arab Moors, wearing the same clothes and speaking the same language) describe themselves as Haratines, where as 23%

describe themselves as Bidan. Bidan is a term that was traditionally reserved for 'white' Moors, but increasingly is used to describe the entire Moorish population, both black and white. Fourteen percent describe themselves as a member of a kabila. Although a recognized term for black Moors, Haratines often seek to distance themselves from their subservient place in society by referring to themselves as something other than Haratine, which has negative connotations. It is common for a Haratine to be in daily contact with their former masters and most know who their former masters are (Bhrane 1997).

The significant difference in education level between Haratines and Bidan emphasize the disadvantaged position of Haratines in eastern Mauritania. More Haratines (see Figure 4) have attended Koranic school (87.2%) than Bidans (47.7%). When reaching the higher levels of education, Bidans show a higher level of education with 11.8% having attended middle school and 5.8% having attended post middle school as opposed to Haratines with only 8.5% who attended middle school and 0.9% who attended post middle school.

Figure 4. Education by Social Status

Figure 4. Education by Social Status

n=270 significant at p = .000
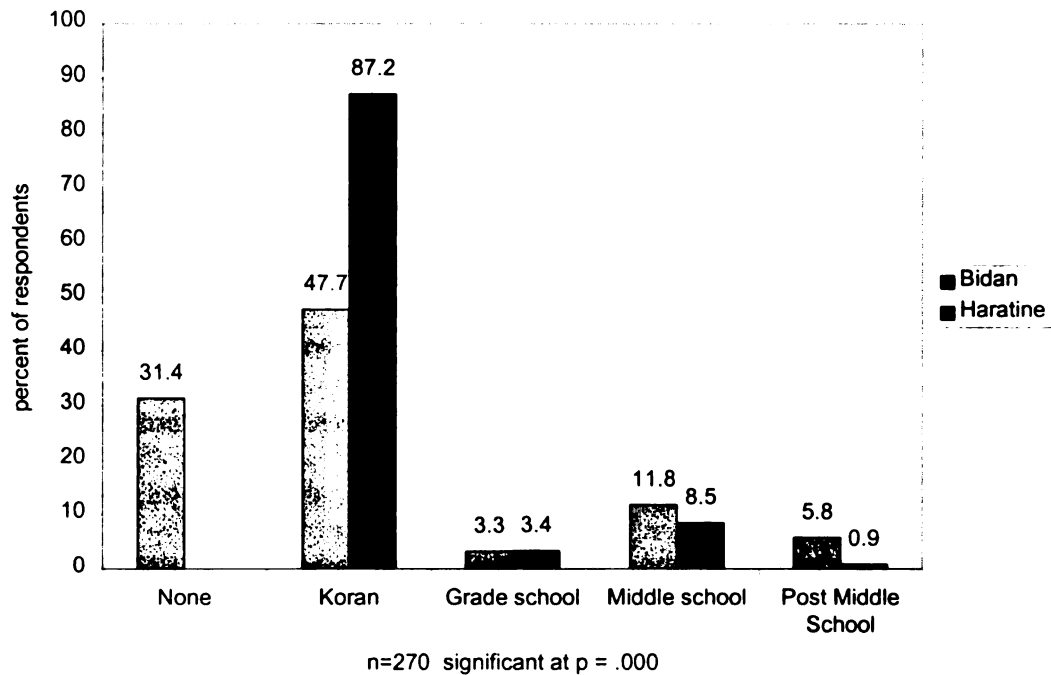
5.4. Land Tenure Laws

A second important political event after independence was the abolition of traditional tenure. The land tenure law announced on 5 June 1983 asserts in Article 3 (see Appendix One) "the traditional land tenure system is abolished." In its first article, the law states that land belongs to the nation and that all people can, without discrimination, within the law become owners of the land. Article 6 specifies that where traditional collectives governed the land, those who have improved the land (by installing fences, sowing agricultural fields, etc) can take private ownership of the land. All wells and grazing land situated outside of private property are declared to be the property of the state.

The principle of the new law on paper seems to favor Haratines. The majority of Haratines practice agriculture, which is on land that noble Bidan still consider theirs. Thus, this law has the potential to dramatically improve the tenure security of Haratines. As cultivators, they are constantly working the land; therefore, in theory, under the new law they should be able to appropriate the land upon which they have been working as their own. However, the law leaves a loophole that allows for the perpetuation of kabila owned territory. In Article 5 the ordinance states that tenure rights registered in the name of kabila leaders and nobles is reputed to have the consensus of the kabila leaders. Furthermore, in Article 23 the ordinance states that there can be a village territory, which is neither state nor individually owned (Ould Cheikh 1997). Thus, kabila leaders who traditionally controlled all land can now legally register this land.

The 1983 land tenure law provides a legal base for profound social change that Mauritania already had been experiencing since political independence and a prolonged period of drought. The law abolished traditional tenure and provided the legal framework for all those who were previously marginalized within the kabila system to gain access to resources independently.

The 1983 law provides opportunity for private ownership in areas previously controlled by kabila territory. The most secure tenure offered by the law is in the form of individual title to land, which was not possible within the kabila territory system of resource control. This title provides to the title holder the right of access to resources, withdrawal of the resources, and the ability to make management decisions regarding the resources. Furthermore, those with

title can exclude others from using the resources and can sell the land. This type of tenure is the most comprehensive and is, in addition, more secure because it is backed by a legal document authorized by the Mauritanian government. Most frequently, people gain individual title through the legal system. The legal system formally recognizes private owners of resources through an investigation of their prior customary tenure of the land. Private land is purchased only when a recognized customary user or legal owner already has rights to the land. More commonly, the person who wishes to gain title only needs to prove their customary use of the land. Cash purchase provides only marginally more secure tenure than does a land title gained through customary user rights because both can be contested on the same grounds.

Resources can be owned collectively under the new law, which can also provide secure tenure. Although most of the same rights apply to the collective as to the individual, due to the nature of a collective (often based upon kabila groups) tenure rights must be exercised as a group. Due to the nature of group dynamics where unanimous decisions are rarely made, all members of the collective will not be able to always manage, use and control resources in their preferred manner.

Membership within a collective that has gained title to land most often is based on membership in a village or a kabila. The group of people or the plot of land is usually connected to village territory, and can have the entire village as members, not usually more than 1,000 people. Although the name 'collective' suggests an equal distribution of resources among collective members, in fact

the division often closely mirrors the hierarchy of the kabila. Where powerful

Bidan are involved, the resources often were divided long ago among the

wealthy families in the area. These traditional divisions often remain the way by

which the cooperative resources are divided. Thus, the 'collectives' set forth in

the 1983 law are most often in name only substitutes for the traditional kabila

communal territory systems.

Non-agricultural resources such as fodder and forest resources are

typically 'unimproved,' meaning that no person has invested inputs of labor or

materials and thus are technically state property that everyone can use within the

limits of the law. The law limits important activities traditionally practiced by

Haratines such as cutting wood and harvesting Arabic gum. However, locally,

the traditional user rights of Haratines to continue these activities are informally

recognized until their value increases to the point of interesting others and

increasing competition for this activity. Water sources are state controlled,

guaranteeing equal access to everyone except in cases where a water source

such as a well is constructed on private property. The implementation and

impact of this law will be explored in greater depth in chapters six, seven and

eight.

5.5. International Monetary Fund Structural Adjustment Plan in Mauritania

Mauritania achieved independence in 1960 and subsequently entered into

a period of nationalist development planning, which was centered on the

development of national industries such as fishing and mining and the strong

regulation of foreign trade. During this period, Mauritania withdrew from the West African currency system of former French colonies (the CFA zone) and created its own currency, the Ougiya. This nation-building attempt was severely challenged by a fiscal crisis of the late 1970's fueled by a recession in Europe's steel industry, the main buyer for Mauritania's iron ore. Additionally, recurring drought after the long drought ending in 1973, pushed the country into crisis. The severity of the crisis fueled a series of military coups, which continued into 1984. The new military government in 1984 adopted "without hesitation or ambiguity" a full-scale structural adjustment program in collaboration with the IMF and the World Bank (Ould Mey 1996:87).

On April 12, 1985 in Washington, the Mauritanian government signed a short-term standby arrangement of $12 million. Subsequently, the World Bank provided several sectoral loans, including a $20 million loan signed in January 1986. This adjustment and development package was based on the analysis and projections by IMF and the World Bank trained experts. Thus began the transition in Mauritania from a national state-centered economic plan to a world-centered economic planning system. This is a new 'global command' economy in which the government has "...less control in policy formation, articulation of development strategies, the engineering of fiscal policy, the management of foreign debt, and the design of public investment programs" (Ould Mey 1996:89).

It is the World Bank, not the government that did the diagnosis and prescribed the solution in both the economic and institutional arenas. The Mauritanian state issued the necessary decrees and regulations and set up the

appropriate government structures, units, and ad hoc committees for the

implementation of economic and institutional reforms that are based on studies

and evaluations conducted by international consulting firms approved by the

World Bank. All development projects within the framework of adjustment are

identified and implemented in this way, which leaves an auxiliary role to the

government in terms of policy formulation. By losing the ability to formulate

policy, the state lost an important tenet of sovereignty and statehood. The

economic and sectoral memoranda allow the World Bank to maintain a

continuous dialogue with government officials and further penetrate the state

bureaucracy to formulate policies and ultimately to shape the strategy of

development at both the central and sectoral levels (Ould Mey 1996:103).

Common to all structural adjustment programs is the implementation of

austerity programs that divert funds away from the public sector. This diversion

of funds produces negative impacts on employment and standards of living. The

austerity program incurred the resistance of many social groups "...and the social

policy of adjustment all brought about deep sociopolitical adjustments, the most

dramatic of which remains the process of democratization and sociopolitical

fragmentation" (Ould Mey 1996:195). Unemployment rose, and Mauritanians

with connections outside the country rose in power.

One important result of the IMF and World Bank involvement in Mauritania

is the increasing emphasis on democratization and a multi-party state. The

concept of democracy and the process of democratization are very much in

fashion around the Western world today both intellectually and politically (Ould

Mey 1996:213). As in much of Africa, governments introduce political reforms with external factors serving as precipitating conditions (Bratton 1992:420). "In the end, African governments moved to multipartyism to keep the flow of Western loans and grants and to avoid defamatory reports on human rights violations" (Ould Mey:1996:215).

The decentralization of power has been an important change in rural areas. By 1989 there were mayors not only in cities but also in Moughtaa[12] and in rural communes. Importantly, rural people then had a closer connection to the government. As the mayor of the rural commune of Sevaa explained (personal interview December 1999),

> It is very important for the rural population to have a connection to the government. Before, their only connection was the Hakem[13] and back then many people would die before they would ever see the Hakem. They never traveled to the Moughtaa you see. He was so far away and was in charge of so many people.

However, it is also argued that democratization in Mauritania has led to increased tribalism. As democratic leaders must receive votes in order to be elected, politicians in Mauritania must solicit votes from constituents. The kabila is the most organized system in the country, and politicians are playing to different kabilas to request their support in elections. Thus, in Mauritania, where government must cater to the kabila system to maintain power, in effect it loses power by empowering the kabila. "Thus, the question remains, how can you build democracy in Mauritania and a strong central government that is lacking at the same time?" (interview with World Bank agronomist in Nouakchott, July 1999).

Although they have a role in the present day governmental power system, traditional kabila leaders feel that their power has been diminished since independence. An interview with the traditional leader of an influential and wealthy kabila fraction in Benamane reveals his interpretation of his changed role as the mayor of a rural commune. He explained to me that he had lost his traditional powers and now must rely on democratic processes to maintain power. "My father was the Cheikh , I am just the mayor" (interview Nov 1999).

External pressure exerted by the IMF and World Bank pushing for decentralization has also come in the form of development assistance. As will be explored in greater length in Chapter Seven, the increasing amounts of development investment poured into the country in projects centered around CBNRM has also served to increase the power of kabila elites. The mayor mentioned above now controls significant development investment in his town. Thus development investment is introducing new and powerful resources into rural areas. The increase in resources increases the power of local leaders.

5.6. Women in Contemporary Mauritanian Society

Mauritanian Bidan women have long been reputed for being strong and for the respect they invoke from their families. The changes in Mauritanian society have served to increase women's status in some ways as they begin participating in the increasing market economy. However, Bidan and Haratine women still live in a patriarchal society, and their gains in the current economy frequently have been less substantial than the gains of men. Still, in comparison

with other Arab women, Bidan women have a significant amount of freedom and influence. A Hassinya proverb states, "On what the braids spent the night, the beard will do in the morning," i.e., what the woman decided during the night, the man will act upon the following day (Simard 1996:83). Although women's power in Mauritania is not significant in macroeconomic statistics due to their sparse involvement in the public sphere, Simard (1996) outlines several important dimensions of the power and prestige of Moor women. For example, although Islam allows polygamy, even the richest families are monogamous because Moor women demand monogamy as a precondition to marriage. In the marriage contract, women often are divorce initiators, and the divorce rate is 37%, much higher than in other Arab countries. Importantly, the rate of remarriage is 72.5%. Additionally, there is no dowry reimbursement custom by the woman's family if there is a divorce. A wealthy Bidan woman in Nouakchott explained the benefits of divorce for women.

> I am married now, but I am sure I will get married at least four more times. Each time you marry, you get more presents. Men try to give you things to keep you. But it only makes other men want you more. I have already divorced twice and each time I came away with a lot more than I started with. Why would you want to stay with one man all your life? You would gain nothing and you would get bored (interview July 1999).

Domestic violence is rare in Mauritania, and women often are seen to contradict their husbands in public. Women are not required to contribute to the family, which allows them to accumulate wealth when they engage in economic activity. In recent times women have had more opportunity to do this, resulting in an increase in their power. However, as the market economy becomes more

and more important, women still have limited ways to participate. Women are uniquely disadvantaged by the increased importance of the market economy. Men's greater association with herding and formal political processes was traditionally balanced by women's domestic responsibilities and by their participation in herd-related tasks, which granted them a measure of autonomy and social status. Cultural values attached to marriage, fecundity, and seniority further legitimized women's power. However, as in other agro-pastoral societies, the increased importance of commercial production and changes in household labor and herd composition have paralleled a steady erosion of traditional female rights and a marked increase in gender-based differential access to property and cash (Talle 1988).

Growing commercialization has strengthened opportunities for men, while women's social networks upon which they depend have declined (Rocheleau 1996:290). Money has always been considered men's responsibility, but now men have greater opportunities to earn cash while women continue to be inhibited by cultural and structural prohibitions from gaining access to new opportunities generated by the cash economy (Mehta 1996:182). These changes in economic opportunities and constraints often are rendering women's work invisible, which is increasing spatial and gender division and affecting relationships within and between households. These changes are shaped in part by the structure of local gender roles as they allocate authority and responsibilities. They also are shaped by class, race, and ethnicity (Thomas-Slayter 1995:91).

In addition to meal preparation, women also were in charge of milk and the care of sick animals. Most Bidan women had workers to help them who performed the most menial tasks. However, only the most wealthy were afforded the luxury of complete inactivity, burdened only with supervision of the many workers. Less wealthy Bidan women would help, completing activities that were less labor intensive. Many women emphasized the improvement in their lives, but some expressed regret at losing the active role they once played in nomadic life. A Bidan woman in Gongel explained (interview Nov 1999),

> Life is much better now. We didn't used to know houses. We were very tired from moving. We didn't know doctors. People would just die, or, if God willed, they would live because there was nothing you could do. We didn't know schools or anything. Camels were our only transport. But you know we were healthier then because we were more active. We were in charge of many things. We knew how to do many things that are not important anymore. Now, we don't do anything; we just sit and get weak like me.

With the attention given to women in Mauritanian Bidan society, women still live in a patriarchal society. Residence and inheritance are firmly rooted in the patriarchal system, and there is a belief that women are a danger to social order. Hassinya proverbs show the distrust of women such as "ask for women's advice and do the opposite" and "the turban precedes the braids", i.e. men are superior to women (Simard 1996:88).

Thus, Bidan women's power and respect exist but in gendered ways. One such example is that of force-feeding. Females are given the best portions of food, and women constantly look after their daughters to be sure that they have eaten well. It is desirable for women to gain weight, while men are thin. Girls eat

before boys and are fed several snacks throughout the day. The focus on women and girls eating enough food is seemingly a positive deviation from cultures in which women often sacrifice their own nutrition by giving the best food to their husbands and sons. However, the obsession with women's excessive weight leads to abuse as girls are forcibly fed often using painful reprimands when they do not eat 'enough.' Girls are often force-fed to the point of tears and vomiting. Additionally, Bidan women suffer from health problems due to their extreme inactivity and obesity.

Indeed, these ideas remain today. Wealthy Bidan women retain the ideal that women should have no physical activity. As one Bidan woman explained (Benamane Nov 1999):

> We don't have to do anything that we don't want to do because we are a big tent . We just sit and others wait on us. An important woman should never have to get up to do anything. She should sit and just distribute all the wealth she has among the dependents. Khadamas (workers) do all of the hard work like washing cooking. I just sit and say, 'bring me this and bring me that'. I have never cooked rice in my life. I have never prepared one meal. But we eat well, and we can always rest.

In contrast to their Bidan counterparts, rather than worrying if they can become obese, many Haratine women work hard to be sure that their family has enough to eat. Many Haratine families eat only one or two meals per day, even while working a full day in extreme heat in the fields. Haratine women farm along side their husbands, performing most of the same tasks as their husbands. Among the farming tasks, only the clearing of land or the building of earthen bunds is traditionally reserved for men. Haratine women are expected to work on

their husband's field. In addition, they farm their own fields. To earn extra money, women often pound grain for Bidan in the area. Haratine women have gained the most through their increasing independence. However, their gains have been in relation to the Bidan due to their increased freedom, rather than increased equality with men. A Haratine woman in Boichiche explained (September 1999):

> We work so much more than they (our parents) used to work. We do agriculture, and we collect forest products and wood. We do so much more. Before, just herding for the whites was easier. But still today is better. There is no comparison. We used to work under the rule of the white people. We would put up their tents and pound their grain and answer their beck and call. Now, we work harder, but the work is for us, not for them. We can be proud to be working for ourselves and we can see the results of our labor. We are independent.

There have been substantial changes in Mauritania since the arrival of Independence in 1960. Mauritania still lives with strong traditions of hierarchy and difference. Yet, the structures bolstering the hierarchy are showing signs of decay, and some have already given way. New government policies and increasing international involvement in Mauritania have laid the groundwork for substantial change. However, Mauritania's social hierarchy is very influential and the powerful have been able to adapt themselves to the changing economic and political climates to maintain power.

CHAPTER SIX
COMMUNITY BASED NATURAL RESOURCE MANAGEMENT

After many decades of failed attempts to reverse rangeland degradation, there has been a surge in interest in community management approaches to rangeland resources (Joekes 1996:38). This decentralization of natural resource management assumes that homogenous communities will make jointly beneficial decisions regarding the use and management of natural resources. However, in reality, in each community there are many differing livelihood strategies that are dependent upon the same natural resources. "Participatory management" initiatives often ignore or mute the fundamental difference in environmental relations caused by the strict status and gendered division of labor in nomadic societies and the inequality of access to and tenure over natural resources. Community based natural resource management development approaches implemented in Mauritania by international development agencies provide alternative avenues for power and control over resources that have the potential to be more inclusive but often become yet another mechanism for the traditional elite to gain control over more natural resources. Additionally, the development investment that usually accompanies these externally created associations adds value to resources thus increasing the competition for often previously neglected natural resources. The unequal participation in externally created community based organizations has significant resource tenure implications favoring a settled elite able to manipulate the new system of governance.

6.1. Community Based Natural Resource Management as a Development Tool

The World Bank funded Mauritanian Rainfed Natural Resource Management (RNRM) project provides an important and interesting example of CBRNM implementation and impacts due to Mauritania's extremely hierarchical society that is economically and socially tied to movement. Important legal change in tenure that contradicts traditional practices complicates this initiative. The focus of this chapter will be on the tenure implications of CBRNM in Mauritania and the impacts of CBNRM on different sectors of the population.

The Mauritanian Rainfed Natural Resource Management project aims to improve herding and agricultural production combined with range conservation through a village based territory management (*gestion de terroir villageoise* or GTV). The project has been designed upon the premise of CBRNM supporters that those living near natural resources will be better equipped and will have more incentive to protect the resources. Under this GTV version of CBRNM, a village territory is delineated with the help of village residents. Within the territory designated as village territory, the village is responsible for making decisions regarding improving the health of their natural resources and the use of the resources for subsistence or economic gain. GTV removes state control of empty lands surrounding the village, which is thought to improve the environmental management of these lands. As is examined in greater depth in Chapter Four, the 1983 resource tenure law designated all unimproved land to the state. The GTV village territory was designed to take control over the land

through the 1983 law provision for collectives (in this case villages) registering

land as a group and thus taking away state control of the land. Rather than the

state poorly controlling important resources (often wood) and inviting illegal

cutting and often bribery, village control would allow the village to profit while

taking care of their resources in their best interest.

The increased participation of local people in pastoral development

projects is an important step. The RNRM project has made a conscious effort to

address participation in newly created institutions more appropriately than

previous projects. "During project identification and preparation, this participatory

method was tested with the aid of participatory rural appraisal tools (e.g. social

assessment) that made it possible to establish a dialogue with some future

beneficiaries..."(World Bank 1997:13). Before beginning work in a village,

RNRM staff meet with villagers to conduct an in-depth Participatory Rural

Appraisal (PRA) where villagers and project staff identify village strengths,

opportunities and needs. Although a positive step towards participation, the

often rushed nature of these activities, as well as a failure on the part of the staff

to talk separately to different sectors of the population limits its effect. For

instance, in one village where I was present for the initial village contact, PRA

activities were always village wide and were not divided by gender or social

status. After two days of PRA activities, artisan community members

(considered to be of lower status) explained to me that all of the activities

revolved around agriculture and thus had little relevance for them. Furthermore,

they explained how they did not feel comfortable expressing their concerns in

such large groups.

Newly strengthened local institutions, especially those involved with common pool resources have tended to be dominated by local elites, often interested in their own self-promotion (McCay 1996:117). Moreover, as Adams (1992:195) reminds us, development problems are often not technical but social and increased knowledge from local decision-making may not reverse inequalities. The kind of participation people are involved in should be examined. In Mauritania, it is unlikely that noble elites will share decisions with other subservient locals at the bottom of the hierarchical system. The discussion of CBRNM evokes a fundamental question. Who is participating? For development to be meaningful, it must be open and participatory and reflect on the needs of several different groups, which are often not compatible (Adams 1992:205).

The general character of the RNRM project is in theory participatory, yet it suffers from the same top-down character that has been prevalent in other World Bank Projects (Shanmugaratnam 1992:24). Indeed, the Bank writes of needing to avoid the mistakes of previous top down development design (IBRD 1997:9), although there is no set strategy for an improved participatory CBA strategy.

Additional concerns are that participation is often used to cast a positive light on the failure of the government to provide services. The transfer of social services from the government to the private sector is a familiar pattern that is forced upon countries by structural adjustment policies that necessitate severe reduction in government services across many sectors. These 'participatory' CBNRM associations prescribed by the World Bank in Mauritania will now be in

charge of supplying veterinary services and maintaining wells. These formerly

state provided services have in effect been privatized. While it is good for people

to be involved with the services and activities they require, the negative

consequence of such moves are many. As the government absolves itself of

social spending responsibilities, poorer people will now have to pay for vital

services that they often cannot afford.

> Faced with a serious economic crisis, the government has adopted
> a policy of privatization of the livestock sector, encouraging private
> individuals and institutions to assume greater responsibilities for
> livestock development activities. Policy levels have thus been
> compelled to address pastoral institution building as a serious issue
> (Shanmugaratnam 1992:23).

6.2. Community in Eastern Mauritania

Although there are problems with equal participation, CBRNM is a positive

step towards more inclusive environmental management. However, especially in

the case of Mauritania with a hierarchical nomadic system, the concept of the

local must also be questioned. Current attempts to institutionalize customary

tenure in practical applications of CBRNM in the field are experiencing difficulty in

defining community (Benjaminsen 1997). Within this delineation, power relations

are involved. By defining one group as 'community' and excluding others,

usually the nomadic people, state or development agencies give those included

in the community power. The *gestion de terroir villageoise* (GTV), approach

often is implemented in areas where villagers and nomadic pastoralists

frequently use the same resources. Because pastoralists are typically nomadic,

they are not defined as belonging to the village territory because their use of the

land is not always continuous. This arrangement is problematic because sedentary villagers under the *gestion de terroir* management scheme now have the right to exclude pastoralists from using the resources in their villages to which they have always had customary temporary access. This program is threatening pastoralists' reliance on opportunistic grazing strategies that necessitate occasional access to resources over a large area and that reduce risk in spatially and temporally varied landscapes.

The concept of 'community' upon which CBNRM is based draws from a narrow, western, and traditional definition of community that is often no longer appropriate to present day realities in rural Africa, or perhaps was never appropriate. As rural Africa has been seen by western development scholars to be less developed or less modern than the west, they envision community in a very traditional sense. As has been described by Tonnies's (1963) concept of Gemeinschaft, a 'traditional' community is territorially grounded and is "...a relatively self-contained social environment supplying its members with a wide range of services" (Effrat 1974:5). Although there has been much sociological work analyzing the further complexities of community beyond Tonnies's Gemeinschaft, development practitioners have designed their CBNRM around this concept of traditional community. Community organizations are created within this framework where a community is assumed to be confined to a small geographical area and where the social environment is also contained in that area.

Sociologists have broadened the concept of community with theories that differ in their views on two questions. Effrat (1974) groups community theories according to their views on two dichotomies: 1)community as society versus community as territory and 2)community as provider of many functions versus community as provider of few functions. The first group of theories is called the "Compleat Territorial Community" in which territorial grounding is necessary and the community performs many functions. The community is a relatively self-contained social environment that supplies its members with a wide range of services (Effrat 1974:5). Tonnies' Gemeinschaft fits well into this category, as does the community as microcosm, human ecology, and the rural-urban continuum. On the other end of the number of functions axis is the "Community of Limited Liability" in which territorial grounding is necessary, but the number of functions performed by the community are relatively few. Janowitz created this theory which showed that the "...urban neighborhood was becoming a more specialized, more voluntaristic, and a more partial institution" (Effrat 1974:15). Of those theories that did not believe in the necessity of territorial grounding, a portion believed that the community had little function. The "Personal Community" theory has primarily been pursued through research on informal participation in voluntary organizations and interaction with friends, and social networks. Finally, the "Community as Society" theorists assumed that community provided its members with many functions although territory was not a defining variable. Weber and Durkheim are some of the well known theorists in this category.

It is difficult to translate the word 'community' into the context of eastern Mauritania. The Arabic word for community is rarely used in the local dialect of Arabic, Hassinya. Instead, people refer to their kabila or to subdivisions within the kabila when speaking of groups to which they belong. The kabila is based primarily on family, but also on social, political, and territorial linkages.

Territory has traditionally been important and remains important to the kabila today even in the face of substantial legal changes. Territory is based on the kabila and access to territory is dependent first on membership in the kabila. However, territory as a place in the nomadic herding economy of eastern Mauritania is not small and confined to one village. A territory is traditionally based upon a large area stretching hundreds of kilometers that is required for extensive seasonal migrations. Although important to herding life and kabila identity, territory boundaries were always fluid. Not only did kabila members travel throughout the large territory of their kabila (often over hundreds of kilometers from one end to the other), but kabila members regularly moved their herds in and out of their territory, depending upon seasonal migration routes and alliances with neighboring people. Territorial boundaries would often shift with the military rise and fall of kabilas. Territorial boundaries no longer change with warrior might and the 1983 law has abolished traditional tenure based upon kabila territories.

Although the centrality of the kabila to mainstream life argues against a geographically based definition of community in eastern Mauritania, increasing sedentarization is placing more importance on place as the village become an

important part of life. Kabila membership is still the central determinant for land tenure and for social identity and traditional kabila controlled territories are still a reality in eastern Mauritania. I often asked who owns this hill, this grazing land, this wetland, or these fields. People always responded with kabila names. Indeed, local authorities explained to me that the kabila is still important in settling territory disputes. In Mauritania, access to resources is still dependent upon kabila membership, regardless of geographical location within the kabila territory. Although people have recently begun to settle near a resource to have greater access, other nomadic and sedentary kabila members still have a traditional right to the resource. Membership in the kabila has traditionally been and is still commonly believed to be the criteria for resource access and thus for community membership. A man from Chara explained:

> You know, when we wanted to settle here, we had to ask the kabila
> fraction leader for this area. This area is his land and if we want to
> live here we have to get his permission. Otherwise he would see to
> it that we leave. There is no other way we could stay here.

In summary, the simplistic definition of community upon which CBNRM activities are based does not match the basis upon which tenure is based in Mauritania. The two level problem of a fluid kabila based society where kinship is crucial to life within a history of territory now exists in the context of increasing sedentarization. The historical tie to territory and place is becoming more rigid as the village gains in importance. Thus, any definition of community in eastern Mauritania must be complex enough to account for the kinship and place bases upon which society is currently based.

6.3. Tenure Implications of a Village Centered Project

The assumption of the RNRM project that people living near a resource will manage it better has led to a project design that forms associations within project villages. However, as is discussed above, many resource users who do not have sedentary houses within the project village nearest the resource are excluded from project decisions and attractive outside financial and material resources. 87.4% of the villages surveyed[14] in eastern Mauritania have been settled since independence in 1960, and 42% of the villages surveyed have only been settled since 1980. Although these figures show that many villages have been recently settled, villagers have been given managerial control by the RNRM over their proximate resources excluding others that have not yet chosen to settle. This control has been given regardless of the traditional and seasonal rights of many others who do not reside in the village. For example, two villages border the wetland of Chlim with a population of around 500 inhabitants. However, on average 1,687 cows drank from the wetland daily during 1999-2000 (Shine 2002). Most of the cattle belong to people who do not live in the village. A village based structure is clearly not adequate to represent the interests of people from all over the region that depend upon the wetland for their survival.

The RNRM project has conducted a legal consultancy to explore land tenure issues. The findings of this consultancy maintain that the current regulatory framework of laws and regulations allows for the allocation of land, water and vegetation (rangeland, fuelwood) to well identified users' groups under certain conditions and the government has acknowledged the existence of this

legislation, and has committed itself to implementation under the project

(Abdelkader 1996). However, in addition to mobile users being excluded from

village controlled resources, the project does not consider customary rights to

resources, especially for Haratines. One notable example is the newly

formalized access to gum Arabic. Harvesting gum is traditionally a job for

Haratines and is still looked upon as an undesirable task fit only for Haratines.

Kabila territory traditionally allowed Haratines to freely harvest gum. Even as the

state strictly regulated gum harvesting as it began protecting the forests since

independence, it was commonly understood that Haratines did harvest the gum

and some even looked the other way to allow the Haratines to continue

collecting.

Villages located near large gum Arabic forests have incorporated the trees

into their village territory thus making them eligible for project funds. In two of the

sample villages, the project financed the fencing of gum forests thus protecting

them from grazing. Additional gum trees were also in the process of being

planted. The increased development investment made more attractive the

harvesting of gum as the trees were likely to be in better health when protected

from animals and harvested responsibly. More importantly, the involvement of

the development project created Community Development Association (CDA)

changed the tenure of the trees. Although it had long been illegal to harvest

gum, poor Haratines would illegally harvest their gum without much reprimand.

After the involvement of the CDA, which organized work parties to plant trees

and install project-financed fences, the forests became CDA property. The CDA

was now allowed to harvest their forests legally for the first time. The gum that is harvested is set aside to fund village development activities. Although Haratines explained that they would probably still be expected to harvest the gum (as a Bidan would never lower himself to do this menial task), they would no longer keep the profit. They did not see the 'village development fund' as a good substitute for their earnings from gum harvests. One important source of income for very poor people has been eliminated in some villages by the project. A Bidan in Gongel explained:

> Nobody was ever interested in harvesting our big gum forest before the project came. It was looked down upon. It was really just the work of blacks that had no animals or other source of income that would sneak around illegally to harvest the gum or to make charcoal. They would do it at night, and either try to sell it in our village or they would even take it to Aioun[15] to make money and not get caught. But now we have the power to regulate this practice.

In this quote we see not only the change in interest in the use of gum, but also the increased regulatory power that has come to the village via the CDA.

In addition to territorial misconceptions regarding community, CBNRM development interventions have not examined the heterogeneity of communities. The hierarchical and gender based divisions within communities have important implications for development projects that are communally managed. Within the kabila there are nobles, and then tributaries of several forms, including Haratines who are among the least powerful tributaries. Although in some way they are members of the kabila, they are secondary members. This secondary status may be in the process of evolving, yet it is still entrenched in tradition and is a reality when development project financing is invested. No matter how well the

association is designed it is difficult to ensure equal participation by noble Bidan kabila members and Haratines, as their membership in the kabila was never equal.

It is hoped that legal reforms and the creation of local governing bodies will decrease the impact of the hierarchical kabila system. The integration into a global economy has been assumed to weaken communal systems of stratification although in fact they typically serve to increase stratification within populations, reinforcing and intensifying traditional wealth and power divisions (Gusfield 1975:79). In Mauritania, rather than replacing kabila hierarchies, the CDA provides a new forum in which the customary kabila can assert its power.

6.4. The Creation of New Institutions

In addition to the problems encountered when trying to delineate a community, the creation by outsiders of a new association is not without difficulty. A development worker explained to me that Mauritania is a 'graveyard' of associations created by numerous development projects. He explained that if all of the previously created associations were actually functional and members attended their meetings, people in the area would not have any time to conduct their livelihood activities.

As the RNRM project is still in its implementation phase, it is yet to be seen if the CDAs organized by the project will remain after project funding and follow up is discontinued. However, to date, they are active at least in their implementation of project activities. Among my sample of those with CDA in their

village (n=120), 62.4% of the people interviewed participated in the CDA in their village. Although the project extension agents who helped to organize the associations provided guidelines and oversaw the writing of a constitution for the association, each CDA acted differently. In some villages, board members were elected. In other villages, the council of elders nominated board members. On average, there were 10 board members in jobs such as external relations, secretary, president and so on. In some villages, all village residents were invited to meetings. In other villages, representatives were selected to attend meetings. An CDA officer in Chilkha explained:

> The CDA has totally changed the mentality of people here. You
> see, it's the young people who can really get things done in this
> village and now we are organized. We have the energy and the will
> to do good work for our village. Now we have an organization that
> is independent of the traditional council of elders of the village. The
> ministry of the interior gave the CDA the power to really take
> charge of the village. For example, we have the right to catch
> poachers in our forest. The traditional chief didn't have the power
> to do that, but we do. Also the traditional chiefs didn't have the
> power to oblige the villagers to work. For example, if we wanted to
> build a dam, the chief could tell people to go to work on the dam,
> but no one would go and the chiefs couldn't do anything. But now
> we can really get people out there to work. Because they know that
> this is for the good of the village, but also because we have
> instituted a fine system and they know that they will have to pay if
> they don't go to work. It's the organization that makes this project
> good. If it only does this, it has done something good for us. We
> used to have occasional meetings about our village development,
> but it was nothing like it is now.

However, other in-depth interviews revealed more complexity in villagers' attitudes towards the CDA (interview September 1999, Gongel). "We are just stuck in the sand with all of the project activities. I just see us sunk in deep sand. I don't see any results yet."

Many people were very positive about the role of the CDA in terms of creating an alternative governing system. The president of the CDA in Gongel explained that in order to implement the project a new organized body was necessary (interview September 1999).

> The cheikhs are too old to run around and do all the work that this project requires. I have worked with all of the projects that have come here because I am young and I can do the work that it takes. When the RNRM first came here, I spent one whole week going around to talk to every family in Gongel in order to explain the project to them. The people all know that I am serious and that I will be careful with the project resources. You see, it's the young people who really want to work and who have the energy so that is why they have to work with the projects, not the cheikhs.

Another interview with the secretary general of the Chilkha CDA (and also director of the local school) expressed a similar sentiment (interview November 1999),

> The role of the CDA is to develop into an institution, and this has really happened here in Chilkha. Little by little, the CDA is changing how people think about development. We can already see change because the cheikhs were not chosen to run the CDA, people in the village chose young good honest people who they knew would work. The CDA has brought us rules and a structure at a time when the traditional kabila leadership was becoming less powerful. This is really good for the village. Through the association, we can get people to do community work. We have imposed fines on those who don't work, and this has helped to motivate people to come work. I am sure that after the project, the CDA will continue to be an important institution in the village.

Indeed, a World Bank employee in Mauritania (interview June 1999) explained that it is necessary to create a new association because the local tribal councils are not legally recognized. The CDA brings a legally recognized structure to the people within which they can go to the law if they have problems.

The CDA broadens the traditional government and brings in the young, the women and the disadvantaged groups. There has been a rejuvenation of local politics and the inclusion of younger people in association structures; however it is not clear that the participation is widening beyond the families that have traditionally dominated local politics for generations.

Village associations have made documented legal gains. With the help of the project and since organizing the CDA in Gongel, the association has obtained a paper from the government that gives them the power to run their own forest. Because most forests in the country are under the domain of the state, this new legal right is important for the village as they have a lucrative gum Arabic forest that could bring substantial income if properly used and maintained. According to one board member, this new legal right obtained by the CDA is one of the biggest advantages. Now they have the power to really manage their territory, which they didn't before. "Before this legal right, even the village chief did not have the power to catch violators of their territory." The village now plans to harvest the gum trees and to use the money for community development activities, or use the money to help poor people of the village. As examined earlier in the chapter, the new collective rights can displace other informal rights upon which the marginalized often depend.

Although we have seen increased legal recognition and a rejuvenation of local politics in some villages, other villages have had different experiences. The village of Benamane has an incredibly strong and powerful traditional leader. As the chief of a very wealthy and well-revered fraction of an important kabila in

eastern Mauritania, the traditional power structure of Benamane has remained strong and relatively unchanged. Membership in the traditional council and the CDA is very similar and the traditional leader has the final say in the CDA. An interview with the traditional chief and current CDA president revealed that he was happy to have new legal recognition, similar to others with whom I talked in other villages. "You see, as the chief I am not legally recognized, but now as the president of the CDA it is easier for me to accomplish the tasks I have in mind for the village." Yet, the management structure in Benamane in the CDA in reality functions almost identically to the management structure of the traditional governance in Benamane.

The above example illustrates that the possibility of creating a CDA that is more inclusive is greater when traditional power structures are less entrenched. However, both in the case of the village with the strong traditional leader and the villages where traditional leadership has a weakening power structure, we are left with the question of who exactly is participating in the CDA. Although perhaps expanded to younger people of the village, the next section will examine the notion of who is participating. The difference in participation between Bidan and Haratines in Bidan controlled villages indicates that the inclusion of new members is not substantially changing the village power structure. Rather it is merely including younger members of customarily powerful families. For the CDAs to truly be more inclusive, they must include and distribute power among all sectors of society residing within one village territory.

6.5. Participation in Community Based Natural Resource Management

Project goals show a bottom-up commitment, even through a fundamental part of the project (such as the decision to have a project, project objectives, and CDA formation) did not involve local participation. However, 71% of the people interviewed reported that the CDA represented the interest of the village. Key elements of the project, such as natural resource management plans are in principle decided by the associations. "Under the NRM approach, the final choice of technologies to be implemented in each community is made by the community concerned, based on its own goals and ecological constraints" (World Bank 1997:14). Dissatisfied villagers and my own observation of project operations in the field dispute this claim from project documents.

A resident in Gongel expressed frustration that although the project talks of participation, it seems that the project has its own agenda independent of the wishes of the villagers. Although many initially responded that the CDA represents village interests when asked a simple question in the survey, deeper probing in in-depth interviews revealed more negative answers. People have long figured out that development projects avoid villages that have become labeled 'problem' villages and thus may have intentionally biased their answers to avoid such categorization. To provide an example, it is a RNRM policy that if villagers cannot agree on tenure or other issues, the project will cease working in the village. Thus, where entrenched hierarchies are questioned and conflict arises, the project will withdraw development investment. Because villagers want to maintain the reputation of being an 'easy' village to work with so as to keep

development funds, there is an incentive to suppress dissent and to agree to the priority activities of the Bank project rather than insist upon their own village plan. Village leaders often agreed to participate in activities that were not high on their priority list.

The RNRM detailed a list of first projects that they themselves could easily implement in accordance with their ability to ship materials and provide support during the proper seasons (e.g., rainy season for tree planting, dry season for dam building). Tree planting was the first activity in all of the villages I visited due to several convenience factors. Project staff did not invite input. Rather, they informed villagers of their first activities and explained that the activities in which they expressed interest would follow as time and materials allowed. Villagers were given the opportunity to opt out of the first tree planting activity. Many villagers felt that if they did not express gratitude for the first activity, others in which they were more interested were unlikely to follow. Although the tree planting activity involved a substantial commitment of time and labor on the part of the villagers, few could explain why this was good for the village. In fact, due to a lack of interest on the part of the villagers, and often inappropriate planting timing, many tree planting activities were a dismal failure. In three villages the seedlings in the tree nurseries created to facilitate to planting of trees were dead. Nobody would take responsibility for watering the seedlings after the project extensionists left. One participant expressed his frustration:

> The project talks of their participatory philosophy; that we will create
> our own project with our own needs, ideas and work. But they just
> say that and then they do what they want. I won't say that we don't
> want this tree plantation. Of course it may ultimately be good for

the village, but it isn't our priority. The project (officials) wrote down all our priorities and then they just do what they want. We are herders here. That is how we live primarily. We just need our health and our animals' health. Our priority is clean drinking water. Our wells are flooded by the wetland and so we have to drink the water from the wetland. You have seen it; you know that it's not good to drink. The entire village is sick; you see that house, those people left to go to Aioun because they said they could not stand to drink the water anymore. We just need clean water. If we are sick, we can't do anything. But the project doesn't make that their priority.

6.5.1. Gender and Participation

There has been a special focus of gender and participation in the RNRM project documentation. The Bank acknowledges that the increase in male migration to the cities makes women even more important resource managers. The RNRM project aims to make gender a daily concern for project staff. Women will have their own technical committees at the village level and key decisions such as location and operation of water points. Project documents state that land-use planning, the movement and management of livestock, and the choice, location and operation of collective food-processing equipment will only be made after being discussed and accepted by these women's committees. The document further states that women's participation in the village level implementation process will be facilitated by a project commitment to hire female extension agents (World Bank 1997:44).

The focus on differences in resource use is important. Great differences exist in modes of natural resource investment and exploitation among subgroups within the communities. For example, the women, environment, and development (WDE) scholars maintain that, among the many users of natural

resources, it is women whose responsibilities make them especially dependent upon natural resources and therefore women who are particularly invested in the stewardship of natural resources. Women are responsible for important tasks in agropastoral production, such as vegetable gardening, the collection of animal fodder and the watering and feeding of small ruminants and both young and sick large livestock. They also collect water and fuelwood and often are involved in tree planting and management (Shanmugaratnam 1992:50).

A community-based approach to natural resource management that fails to assure women's access to decision-making structures will most likely move in directions that do not benefit women. And in addition to affecting subsets of the local population differently, the lack of full participation by all members of a community also results in poor managerial performance in general. Gender-blind approaches to local institution-building may not incorporate the resources of women's labor, skill, and knowledge (Joekes et al. 1996). If local communities are to become the foundation of decentralized natural resource management, then local institutions must be configured in such a way that each of the community subgroups - defined by gender, class, or mode of production - must be assured equitable access to collective decision-making structures. The exclusion of women and other marginalized user groups from decision making processes is likely to result in less effective decision-making structures because the structure will lack legitimacy among users. If local communities are to become the foundation of decentralized natural resource management, then local institutions must be configured in such a way that each of the community

subgroups - defined by gender, class, or mode of production - are assured equitable access to collective decision-making structures.

The "Social Impact Study" conducted by the World Bank prior to the project, acknowledges potential conflict over village delineation, access to water, access to rangelands, and competition over natural resources within the community itself and between the community and outsiders. But it also asserts that the project will protect the women and the poor (World Bank 1997:34). It has proven to be difficult for this project to ensure equal treatment of groups that have been severely discriminated against in existing social hierarchies. Redclift (1995:13) asserts that "It is ultimately the agency of local people and the existing institutional structure that determines social conflict and the way the environment is managed." The World Bank has little control over agency after it has attempted to put institutions in place.

There is no significant difference between the level of participation in CDA by gender. There was also no significant difference between the belief that the CDA represented the village's interests by gender. However, many women expressed privately to me later that the only reason they participated was because of their husbands. Undoubtedly, men asked their wives to come knowing that the project placed an emphasis on gender participation. However, they were enticed to participate and even if the depth of their participation can be questioned, women attending CDA meetings has been an important step.

Currently, in my sample (n=120) there was only one woman in a position of leadership of a CDA. Not by coincidence alone, her husband was the

president of the CDA and his wife was nominated to be in charge of 'women's affairs.' Although the RNRM project documents the importance of considering gender in project activities, women must be better included in positions of decision-making power within village associations.

Many women also explained to me the benefits of the cooperative businesses that were begun with the project. Although participation in the associations has not been equal, women have made some gains through the new trend towards associations and the RNRM project. The formation of cooperatives as part of a village management plan has become a favorite tool of development agencies. The new women's cooperative movement has had significant implications for their members. Through the newly formed cooperatives growing in numbers, women have gained formal recognition of their networks, most importantly through development investment. Most development organizations working in Mauritania have an employee or a project targeting women's cooperatives. This formal recognition provides them with funding for their activities and technical support often in the form of agricultural extension and marketing techniques. Often their status as a cooperative can give them access to credit, which many women expressed as a great benefit. Furthermore, through legal bodies such as CDA created by development projects women are now guaranteed a seat and a voice.

Although their inclusion is often symbolic or forced, the success and growth of the number of women's cooperatives has led to their increased participation in legal and development networks. The creation of institutions of

which women are leaders and through which women can become involved in the larger economic world has been a significant factor leading to women gaining independence and access to resources. The new law has enabled women to organize not only politically but also with some land to reinforce their unity and possessions.

6.5.2. Social Stratification and Participation

While optimistically reviewing the project's design, it is important to remember that efforts to achieve wider participation have well entrenched obstacles in Mauritania. Mauritanian society is based upon unequal social stratification in addition to unequal gender relations, which discourages democratic processes. Community Based Associations are formed using a mix of traditional organizations and new organizations. The potential is that these associations will be able to draw upon local experience and will to manage their natural resources sustainability within a system that fits today's reality. The project-imposed structure has attempted to achieve greater equity by widening participation. The mix of old and new organizations has the potential to draw upon past indigenous knowledge and expertise, yet can attempt to equalize some the marked social inequalities that have existed in Mauritania.

The pattern of existing social stratification in Mauritania does not lend itself to equal participation in CBA activities. This finding is consistent with the writings by Michels explored by Edwards and Hulme (1996) in their book, "Beyond the Magic Bullet. Michels asserts that organizations tend to oligarchy. Michaels

found that the longer someone remains in a leadership position, the greater will be the gap between leaders and members (now transformed into followers) in terms of economic, social, and informational resources. This is happening to CBAs as the traditionally wealthy noble herding class assume leadership positions (Shanmugaratnam 1992:27) and then have the potential to secure access to resources from which to increase their own wealth, without regard for the association as a whole. The more power outside agencies give to such organizations, the more benefits may be skimmed off for people in leadership positions or those they favor.

Figure 5. Participation in Community Development Associations

n=120   Participation in CDA among Bidan and Haratines in Bidan
          Controlled Villages Sig at p=0.024
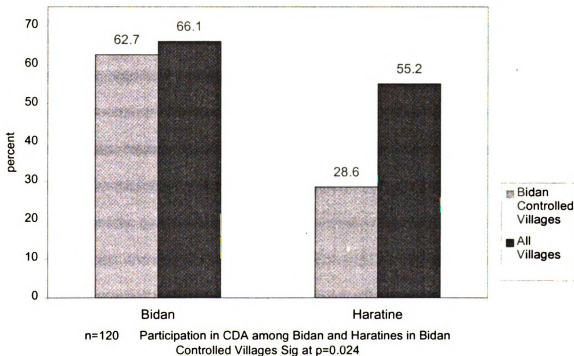
In the overall sample of those with project-created community

development associations (n=120), there was not a significant difference in the participation in CDA between Bidan and Haratine, with 66.1% of Bidans interviewed participating and 55.2% of Haratines participating (see Figure 5). These figures change when looking only at Bidan controlled villages where 62.7 % of Bidan participate and only 28.6% of Haratines participate (sig. at p=.024).

There are two predominant types of villages in eastern Mauritania. One type is the Bidan controlled village where Bidan and Haratine live together in one village. The other is the *eddabai* where only Haratines live. There are no Bidan only villages, due to the fact that wealthy Bidans do not traditionally engage in manual labor and Haratines must be present to perform menial tasks of the village. There is a great difference in autonomy between the Haratines living in their separate eddabai and those living in close proximity to Bidan who were most likely their former masters. Haratines who have placed geographical distance between themselves and their former masters or from Bidan in general have gained increased independence which can be seen by their participation levels in eddabai based CDA (85%). Those living in Bidan villages are more marginalized and do not have the same voice in village affairs.

Additionally, participant observation in project activities in both Bidan and Haratine villages showed clearly that in Bidan villages Haratines conducted the difficult manual labor for project activities where many Bidan only supervised, made a small show of labor for a few minutes or sat in the shade to make tea for the workers. Although some Bidan men (and even women) participated in manual labor, it was by no means equal. In the eddabai, village participation in

work activities was widespread with all members participating equally in labor tasks.

Although lauded as the new participatory method that will at the same time increase local agency and improve environmental management, CBNRM is a development tool that can impose significant changes in resource tenure especially in areas where village based management does not fit with the economic and social realities of the country. Additionally, these new institutions often provide additional avenues for the elite to increase their power. However, the World Bank CDAs have created some opportunity for Haratines and women to participate. Although far from competing with the hierarchical nature of Mauritania, these new institutions have an important role in providing new networks in which Haratines and women in particular can operate as more equal members.

CHAPTER SEVEN
CONCEPTS OF NATURAL RESOURCE TENURE

In eastern Mauritania, the 1983 land tenure law has not been implemented completely and important differences exist between the law and practice of tenure in reality. Within these differences, there are important distinctions between resource tenure concepts among different sectors of the population. The laws were created to govern land tenure and there are lengthy governmental procedures to determine ownership and the right of access to land. However, these processes remain ambiguous or simply ignored. There exists great uncertainty and difference of opinion about actual ownership and user rights to land. These differences of opinion regarding land rights are important because they highlight the ambiguous nature of the current land tenure situation. More importantly, these differing concepts of land ownership affect actual tenure practices because people often find themselves enforcing their own concept of property rights and regimes. Thus, a village that believes that only village residents are allowed to use their natural resources will cause problems for outsiders who want to use the resources, even if the village concerned has no legally recognized claims to exclusive use of these natural resources. In addition to varying interpretations of 'improved land' as defined by the law and sometimes multiple ownership claims to a single resource, the law has provided a 'cooperative' loophole through which the elite can maintain the status quo.

Great differences exist in modes of natural resource investment and exploitation among the population of eastern Mauritania. Within the territory of a village, for example, wetlands are used for farming, gardening, herding, domestic

purposes, and sometimes even fishing. Additionally, transhumant populations depend upon many wetlands strategically located along migration routes to provide them with water and high quality pasture during much of the year. The many subsistence and economic activities made possible by wetlands in eastern Mauritania enable diversification of livelihood strategies, not only within villages or nomadic regions but also within families.

Wetlands in eastern Mauritania are the keystone resource not only for human survival but also for the maintenance of biodiversity. The majority of wetland users in eastern Mauritania currently exploit their wetland using low impact, traditional systems. This traditional extensive use of resources supports many people with differing livelihood strategies and at present poses no real threat to the rich biodiversity centered in wetlands. According to the environmental characteristics of each wetland, some are used primarily for agriculture, and others are primarily reserved for herding; however most combine these activities. Thus, although conflicts do exist between those with differing livelihood strategies, using traditional low impact techniques there are enough resources to practice many activities within a single wetland, or within a region. Resource tenure in and around these wetlands is analyzed below.

7.1. General Tenure Concepts

The 1983 law has radically changed land tenure legally; however, on the ground realities differ from the legal prescription. Although the written law has had some impact on tenure realities, important differences remain. To

understand these differences I asked respondents how they viewed the tenure of the resources they used. The user's view and interpretation of tenure law and practice is important because beliefs determine how people use and access resources. Although concepts of resource tenure may differ from national laws, directives from local leaders, recognized customary rights, and the prevailing concepts of tenure dictate everyday use and access to the resources. In addition, the differences between resource tenure concepts, legal measures, and the concepts of local officials provide an important description of the influence of legal matters on the ground. Furthermore, disaggregation of resource tenure concept by status and the level of development investment will provide important insight into tenure realities on the ground.

I asked an open-ended question regarding the impact of tenure on four different resources; 1) animal drinking water, 2) agricultural fields, 3) forest by-products, and 4) wood. I later grouped these responses for ease of analysis into four categories that resemble Bromley's (1991) four categories of tenure: 1) open access, 2) communal property, 3) private property, and 4) state controlled. After reviewing the responses, I modified the categories to exclude state property and instead substituted 'use prohibited' because none of the respondents told me that the state actually 'owned' resources. When questioned further, some respondents would agree that state guards might prohibit the cutting of wood, but they would not go so far as to say that the state owned the resources, although by law the state does control most of them. Although the two categories are not mutually exclusive, I revised the categories to more accurately reflect the views

and concepts of the people I interviewed.

Figure 6. Concept of resource ownership
(all respondents)
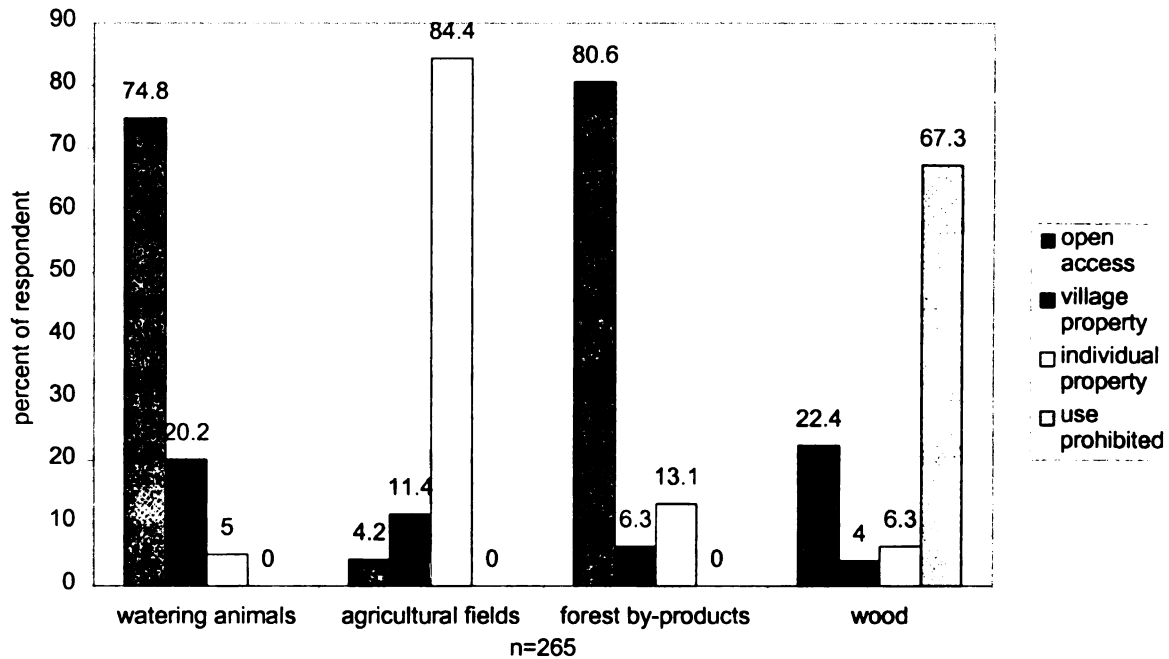
The concept of ownership changes for different types of natural resources

(see Figure 6). Sixty-seven percent of respondents reported that it was forbidden

to cut wood. Under the 1983 land tenure law, forests are state property and

people, even those living near the forest, are fined heavily for cutting this wood.

The state has regulatory powers and hires guards at some of the biggest forests

(e.g. Tamachekett). Although the law provides a means for groups to gain

ownership over their land in the form of cooperatives, few have been able to gain

the rights to their surrounding forests because it is more difficult to show land

improvement as is required by the law. In the face of widely-publicized natural

resource degradation that has been questionably blamed on over use rather than

simply on the drought, the government has been pursuing policies to limit the use of wood for any purpose. Although people need to obtain wood with which to cook and for the construction of their homes, in most cases obtaining this wood is illegal. On occasion, the government has given a community the rights to their forest usually after substantial investment in either tree planting or fencing. The views of 67% of respondents sampled are in accordance with the written law. However, as discussed above, respondents do not locate ownership with the state, rather they refer to the guards as policemen. Moreover, 22.4% of respondents reported, in sharp contradiction with the 1983 law, that cutting wood was open to all; 6.3% thought their wood was private property; and 4% thought wood was communal property.

Forest by-products and water for animals are resources that are predominately seen as open-access resources (80.6% and 74.8% of respondents respectively). Due to the nature of the resource, it is difficult to limit access to them. Additionally, especially in the case of water, use by one person does not usually limit the use by another person. Both water and forest product resources become scarce when there are many people using the resource or when drought occurs. Although technically state owned (excluding wells and other improved water sources on private property), the state has not made any attempt to limit access and thus for these resources, the law is not in contradiction with the views of the respondents on the realities of tenure.

Agricultural fields are commonly viewed as private property (84.4% of respondents). Due to the type of resource, it is logical that one person will invest

labor into one specific area and will not only reap the harvest of that year, but also will be able to farm in future years. As the 1983 law regards any improved land as the property of the person who worked to improve it, this finding shows that a large majority of the population view agricultural field tenure in accordance with the law. When asked to briefly state the nature of resource tenure for fields, water, wood, and forest products, the majority of respondents provided answers that fit well within the current laws regarding the tenure of the resources. Thus, a preliminary analysis leads to the conclusion that with the exception of wood, for which the state is referred to as a policing force rather than proprietor, tenure law and practice are the same or at least very similar.

7.2. Development Investment and Tenure Concepts

There was not complete agreement among respondents regarding the tenure of the resources around each wetland. One factor influencing tenure concepts is the level of development investment. Expensive development investments increase the value of a resource thereby making that resource eligible for exclusive ownership under the 1983 law; it also increases the competition for what now is a more valuable resource.

Figure 7: Resource Tenure Concept by Level of Development Investment

Open Access ■Communal □Private Property □Use prohibited

n=265 Level of development investment * Sig. at P=0.05
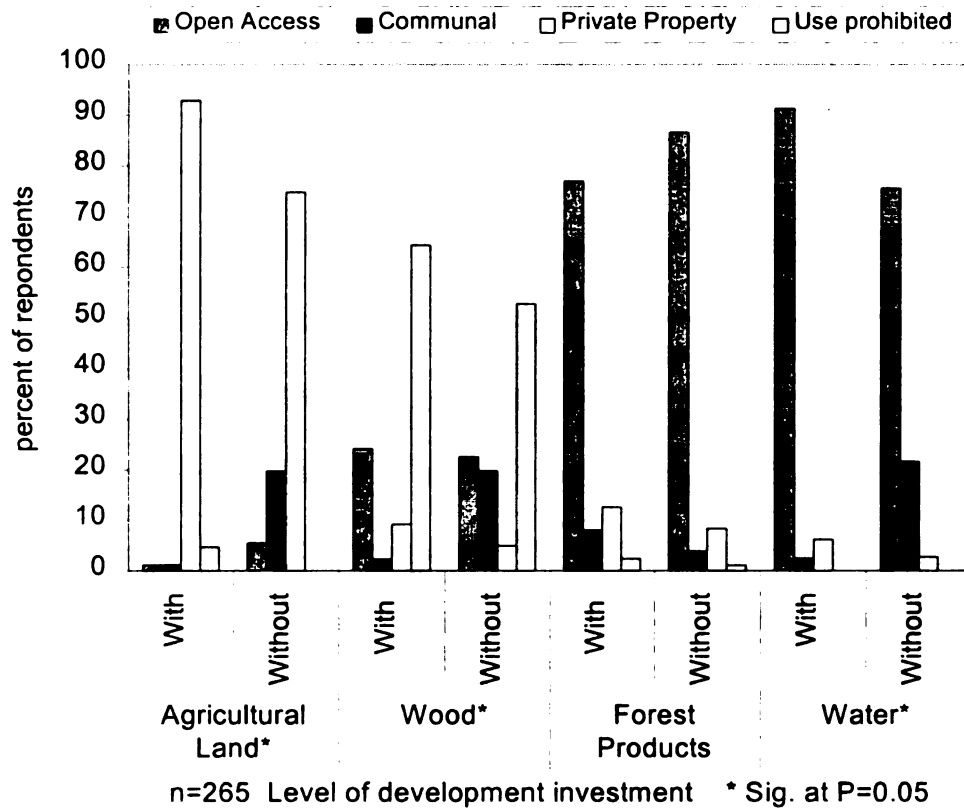
As is evidenced by the data in Figure 7, concepts of resource tenure differ significantly between respondents living in areas with substantial development investment and those living in areas without that investment. Substantial development investment is defined as outside financial resources invested in improving the economic viability or environmental sustainability of natural resources. Common examples are fencing around agricultural fields, clearing and damming of wetlands.

There is a significant difference between the tenure concept of people using resources with and without development investment. Those with significant development investment generally have a more exclusive view of their

tenure. 92.9% of respondents using resources with significant development investment reported that agricultural fields were owned privately. In contrast, only 74.8% of respondents using resources with minimal development investment reported that their fields were owned privately. Similarly, 64.4% of respondents using resources with significant development investment reported that trees were not for the general public to use and it was forbidden to cut down trees. A smaller percentage, 52.8% of those without significant development investment reported the same. Development investment increases the value of the resources, and thus it is logical that those using the resource will think of their resource in a more exclusive manner.

There was also a significant difference regarding water access; however, in this case those with more development investment reported a more inclusive access. 91.3% reported that water was open to all, where as only 75.6% of those without development investment reported the same. Although seemingly contradictory to the findings regarding agricultural fields and wood, the concept of water access that is more inclusive has an important connection to development investment. Many development projects have raised the question of water access with many users fearing that water access would be constricted after the implementation of the project. Agricultural project farmers especially have a keen desire to keep animals who need the water access far away from fields. However, herders have been very vocal and aggressive regarding their right to maintain their traditional access to water sources. Because of the well-known potential problems with this issue, those with development investment always

were quick to explain how the water has remained open access. There was no significant difference in the tenure concept of those with and without development investment regarding forest by-products.

One currently popular and sought after development investment is a fence that encircles the wetland. 56.6% of respondents reported that fencing was their first priority for development investment. Although many people are interested in this type of development intervention (both development organizations and populations living at the edge of wetlands), to date fencing has only completely encircled one wetland, Boichiche. This small wetland was fenced by a project over 15 years ago with the aim of protecting the wetland and ensuring the population benefits of forest products because the products are protected from animal grazing. Additionally, their fields would be protected from animals.[16] This fence around Boichiche has clearly affected the way people use this resource although officially, resource tenure remains unchanged. Gates on either end of the wetland are designated to allow important wetland access to all populations, although the fence clearly creates a barrier of access that a small gate will not rectify. Herders from the surrounding area with whom I spoke were very angry that the fence had been built. Several research visits in the fall of 1999 revealed that villagers consistently have problems with outsiders cutting their fence to let their cows and camels in to drink and graze. "We have been coming here for generations. Why would they put up a fence to stop us? We will keep coming, fence or no fence. It is our right." (interview with a herder near Boichiche, December 1999). Interviews with area residents suggest that the

construction of the fence has increased conflict among users of the wetland with differing livelihood strategies. Survey respondents' views of resource ownership clearly show how development intervention has influenced opinions about resource ownership. The chart below shows how residents of Boichiche believe that their resources are more exclusively owned. Consistently, survey respondents from Boichiche believed that they owned their resources more exclusively than the general population surveyed using wetlands not surrounded by a fence.

Table 2. Fencing and Resource Ownership n=265							
	Watering animals/fodder		Agricultural fields		Forest by-products		Wood	
percent (%)	all	Boichiche	all	Boichiche	all	Boichiche	all	Boichiche
open access	75	60	4	0	81	60	22	15
village property	20	15	11	5	6	15	4	10
individ property	5	25	84	95	13	25	6	25
Use forbidden	0	0	0	0	0	0	67	50

Fencing can prevent environmental degradation from overgrazing and can protect crops and forest products. However, tenure problems inherent with fencing (e.g., Boichiche) are dangerous for mobile populations central to the economy whose livelihood depends upon some access to these wetlands. Additionally, tenure conflicts, uncertainties or exclusivity of ownership in some cases can cause serious problems for the environmental health of the wetland. Low-impact, extensive agriculture as currently practiced poses little threat to the biodiversity and ecological health of wetlands. However, increasingly intensive

agriculture causes problems by cutting down trees to clear more fields in wetlands, which damages important forest resources. When there is not enough space around the wetlands, people create earthen bunds[17] outside the wetlands to trap enough water with which to farm. This diverts water from the wetland and, as a result, the wetland may not fill properly. Privatization through land improvement is one drive fueling increasing agriculture. An interview with the assistant Mayor of Sevaa near Tamachekett wetland (September 1999) reveals the increasingly common pro-development attitude towards the development of wetlands.

> Wetlands are for the general population who live around them. But if you improve the land around the wetlands, then it becomes your property. It used to be that kabilas cultivated the wetland areas and considered them to be their communal property. Then the French came, and then the modern state. Now we have passed a law that says when anyone improved the land it became theirs. So, in theory, if I can cultivate the entire wetland, the entire wetland should be mine. I can own the whole thing, and it will be my private property. But in reality, it is difficult to keep people out of the wetlands because people still have ideas about kabila territory. And many people say they need to use the wetlands. There are two ideas, one is that anyone can bring their animals to drink here, and the other is that people are afraid that animals will ruin their crops so they don't let animals drink in their wetlands. In reality, this happens, people keep others from drinking from their wetlands.

7.3. Status and Tenure Concepts

As examined in greater depth in chapter four, the 1983 land tenure laws produced mixed results for marginalized populations in Mauritania. To begin analysis of the differential impact of the law on varying sectors of the populations, it is first important to examine variations in the concept of resource tenure. There were significant differences between resource tenure concept

categories according to status.

Figure 8. Resource Tenure Concept by Status

Open Access ■ Communal □ Private Property □ Use prohibited

n=265 * = Significant at p<0.05
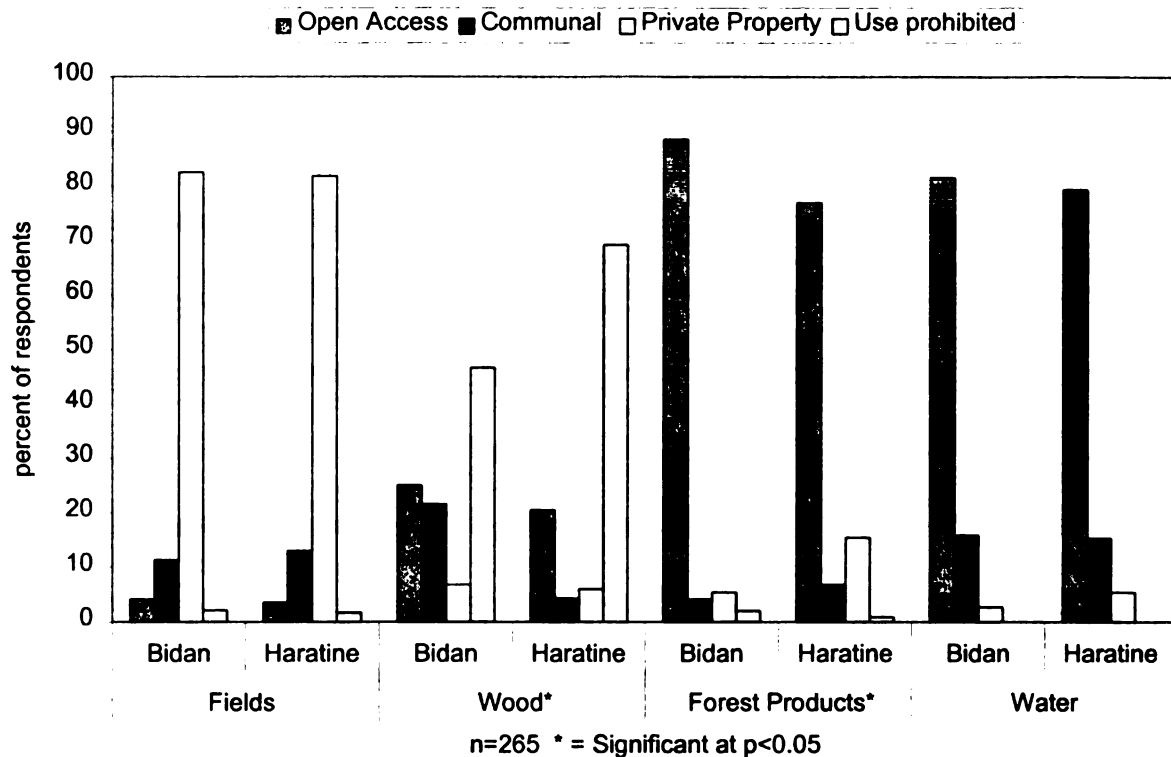
As is shown in Figure 8, the resource concept for wood and forest

products differs significantly by status. Of the four resources listed, wood and

forest products are two resources that traditionally have been left for Haratines.

The harvesting of these resources requires substantial manual labor, which was

thought not to be culturally appropriate for the prestigious Bidan and these

products do not readily produce large profits. 46.6% of Bidan reported that

wood-use was prohibited, whereas a greater number (69.2%) of Haratines

reported the same. Because Haratines are more familiar with wood harvesting

and, in many cases, are dependent upon this income for survival, Haratines have

a greater first-hand knowledge of the tenure of the resource. Haratines are more

likely to have been fined by forestry officials for cutting wood illegally because cutting wood generally is done by Haratines.

Forest products in Mauritania include fruits, seeds used for tanning leather, Arabic gum etc. Forest products are relied upon more heavily during difficult times and in times of drought. Haratines relied more heavily upon forest products in times of drought (14.4%) as opposed to the 7.4% of Bidan.[18] Although these figures might seem low, the poor returns and stigma of forest products result in people only turning to these products if there is great need. Those who are continually reliant upon these products to supplement their livelihood activities are among the poorest of the poor. 3% of Bidan reported supplementing their everyday livelihood activities with the collection of forest products and 15% of Haratines reported the same. Only one Haratine respondent out of a sample of 270 reported collecting forest products as a primary source of income or livelihood activity. Similar again to wood cutting, there is a significant difference between the Bidan and Haratine concept of forest product tenure. Again, Bidans who are less dependent upon the resources report that the resource is easier to access than report the Haratines. 88.5% of Bidan interviewed responded that forest products were open access, where as only 76.9% of Haratines had the same view.

There was not a significant difference between Haratine and Bidan concepts of agriculture field and water tenure. Although agriculture is a predominately Haratine activity, increasingly more Bidan are taking up agriculture and herding (of which animal drinking water is a crucial element) is increasingly

practiced by Haratines. In part due to the importance of water and agricultural fields for both Bidan and Haratines, there is no significant difference in their tenure concept regarding these resources.

7.4. The Complexities of Resource Tenure

The way in which I have categorized the data is a slight adaptation of Bromley's four category (1991) description of resource tenure. Bromley's categories aimed to allow for the important distinction between communal property and open access property. In contrast to Hardin's tragedy of the commons, Bromley has insightfully highlighted the difference between open access and communal property and has shown that communal property can be quite exclusionary and can indeed promote environmentally sustainable management of natural resources.

However, the categorization of resources into the four types of tenure patterns serves to hide important complexities of the tenure situation in Mauritania. One important example of the complexities hidden by such a narrow definition of tenure types is agricultural fields. When asked a short answer question, 84% of respondents reported that fields were individual property. Within the Bromley categorization, fields would then be classified as *private* property. However the term private property can be used in many ways. Only in two of the 12 villages in which I conducted my research were people allowed to sell their land. In a survey of 78 villages in eastern Mauritania, 20% reported that fields were individual property that remained the same from generation to

generation (this does not mean that people are allowed to sell their land) (McCracken 1999). 44% reported that their fields were divided between different families. 36% reported that fields were divided equally among kabila members. In this case, fields may be privately managed and can function like private property, yet if the wetland changes or there are new people who need fields, the chief will have to re-divide the fields to maintain equity among members. The difference between private property that includes selling rights and land which is managed privately but ultimately belongs to a larger group is one nuance that is lost in the simple category of private property.

There was no significant difference in the tenure concept of men and women when respondents were asked a short question. However, in-depth interviews with men and women revealed that while men saw that women controlled their own fields, women thought they were merely borrowing their husband's fields (this point is explored in greater depth in Chapter Eight). Thus, important differences in tenure are hidden by such simple categories. The remainder of the data analysis chapter will explore in greater depth the nuances of resources tenure in Mauritania. Through examining the avenues of power and negotiation that different sectors in the society actively pursue to gain access to more resources, I will show how ambiguous tenure can be, and how flexible are the rules for negotiation.

CHAPTER EIGHT
NEGOTIATIONS AND NETWORKS

Territory is more than a geographic grouping; in addition it is a value system that is based upon livelihood systems and social structure (Ould Cheikh 1985). Land use and land tenure are part of social organization. The new spatial division that is evolving in Mauritania is related to changing identities and changing social structures. The strong kabila identity in Mauritania is gradually opening to allow the establishment of identities independent of the hierarchical kabila structure. However slowly, social hierarchies are evolving, with traditionally marginalized groups such as women and Haratines gaining access to resources via avenues outside the hierarchical kabila structure. In the province of Hodh El Gharbi in eastern Mauritania, new avenues in the form of changing government policies for entry into new networks of influence and power for the traditionally marginalized has had some limited but positive effects by providing the marginalized more tools with which to negotiate. However, the political and economic structure through which access to new networks is gained is heavily influenced by the kabila system, thus perpetuating traditional hierarchies. Although kabila hierarchical influence remains strong, traditionally marginalized populations have made important gains regarding resource tenure. This section will focus on the ways in which those without power in the strong kabila system have negotiated to secure access to the natural resources upon which their livelihood and identity depend.

Social networks theorists argue that social networks are so strong that

externally imposed laws or economic changes cannot significantly impact
resource tenure. Berry (1993) argues that governments have had little success
in passing laws that substantially change land tenure. The 1983 land tenure law
in Mauritania is argued by many to be one such failed government attempt to
implement policy to change tenure. However, the experience in eastern
Mauritania shows that while laws do not radically alter the existing social
structure, resource tenure laws can play a role in providing small windows of
opportunity for the excluded. Results from research collected in Hodh El Gharbi
in eastern Mauritania (1999-2000) show that some women and Haratines have
been able to increase the security of their resource tenure. Women and
Haratines are gaining access to resources to own and to manage, thus allowing
them to gain access to new networks of identity and power existing somewhat
independently of their kabila status. However, their marginalized locus in the
social hierarchy makes these advances precarious and difficult to maintain in
times of resource competition.

As demonstrated in the previous chapters, often there is a disjuncture
between the legal framework and the actual practice of tenure on the ground. In
the case of Mauritania, the 1983 land tenure law provides enormous opportunity
for those sectors of society that had been excluded from equal access to natural
resources, especially regarding agricultural land. The law states that adding
value to land is a sufficient prerequisite to ownership; however, negotiations for
secure tenure are more complex. Often, villages negotiate for village owned
communal land. The 1983 law loophole that allows for land to be communally

owned by a village can increase tenure security for Haratine eddabai villages, or can reinforce the status quo as Bidan kabila leaders keep control of their village land. Private individual resource ownership requires more negotiation with the authorities and within village membership. Those that have added value to land do not necessarily gain private ownership unless they have influence to take advantage of new laws.

Sedentarization has been increasing at an unprecedented scale in part due to the prolonged drought as well as the changing economy in Mauritania. In addition, to negotiate the terms of the new 1983 law, land grabbing has become common. People have been settling on land to stake their claim to individual property not previously recognized in kabila-controlled areas. Similarly, entire villages have moved location to be closer to valuable resource in order to lay claim to it. People often make feeble attempts to show that they have 'improved' the land by fencing or marking the territory over which they wish to claim private tenure. Of increasing importance are wetlands, which provide vital water and pasture for animals and often provide good agricultural land. Even seasonal visitors to wetlands scurry to prove their permanent residence when development teams arrive. At the seasonal wetland of Boutiktik, a woman living in a tent who obviously camped in that area for the short rainy season attempted to claim ownership (October 1999).

> Oh no! We are here all year round. We do agriculture, and our
> animals are here all the time. We never move from this place. My
> parents have been coming here forever too. Ask anyone around
> and they'll tell you that we have always been here. We're always
> here.

In most cases, settling and improving the land to own must be done in conjunction with political and social negotiation that is still firmly connected to kabila hierarchy. The 1983 land tenure law policy has shifted emphasis away from the traditional kabila affiliation to a more independent social identity. As people are more able to claim rights to land and resources due to their own labor and placement and not merely through their affiliation with a kabila, they also are able to define themselves through their independent labor.

The vast majority of villages have taken advantage of the new law to obtain formal recognition of their customary rights to the land and resources surrounding the village. In a survey of 103 villages in the Hodh El Gharbi Province in eastern Mauritania, 71% reported having an official government document that proves their ownership to the land as a village. The remaining 29% of the villages surveyed have customary rights to the land surrounding their villages (McCracken 1999). The customary rights of the transitory herders and forest gathers are not recognized with the formal property designation obtained by 71% of the villages.

Often, more important than village ownership for disadvantaged members of the kabila is the way in which resources, particularly agricultural land, are divided among the community members. Only 20 % of the villages surveyed reported that land in their village was divided into recognized individual private property. 36 % of the villages surveyed reported that land within their village territory was communal and was divided evenly among kabila members. In 44% of the villages, land is divided among different families, although not evenly.

These data cannot be disaggregated to determine the types of villages concerned. However, among the 11 villages where I conducted my survey, the six Haratine eddabai villages divided their land equally among members. Of the remaining five Bidan controlled villages, four divided their land among different families in a manner that was not equal, and in the fifth village, land was divided into individual private property.

Within the Bidan controlled villages, land is divided unevenly, with the traditional kabila leaders controlling a much greater portion of the most valuable land in the wetlands. In my sample of farmers (n=153), on average Bidans (n=60) had fields in the more valuable wetland area equaling 50,000 meters squared. In contrast, Haratines (n=93) on average had a much smaller area to farm in the wetland of 30,412 meters squared (difference significant at p=.001). To provide another example of the inequality of distribution of land, of the 43% of the population surveyed who farm poor quality land in rainfed areas by constructing small, earthen dams to trap meager rainfall, 84% were Haratine.

Thus, in the majority of cases, the 1983 law has not been implemented to increase private property of those working on the land as was its original intention. In most cases, the law was used in a manner that would protect the interests of the elites, using the window provided by the provision for collectively owned land. Rather than opening tenure access to those who were traditionally excluded, Bidan were able to manipulate the law to benefit the status quo.

The system that is set up for the privatization of the land is not rigid. While

trying to implement the new laws of privatization, politicians and lawmakers have taken pains to recognize the importance of traditional tenure claims over land. Although in Article 3 the 1983 law states that the traditional system of land tenure is abolished, the implementation of the law emphasizes traditional claims to the land. People who have worked to add value to land have the right to bring their case to the provincial office. If the interested party does not already have some legal document linking them to this land, then the proposed site for privatization is posted outside the Hakem's office, and the public has 60 days in which to protest the official privatization of this land. If protesters have legal documentation proving the land already is theirs, then there is little problem resolving the dispute. However, more commonly, the protester merely believes that the land is his traditional land. In this more common case, it is difficult to settle disputes (interview with the Hakem of Aioun October 1999).

In the majority of tenure disagreements, the dispute involves one person's word against another. Typically, one person has begun to cultivate some land. When he approaches the Hakem for title to the land, the other man comes to say that this is his traditional land. In the case of contested land, the more powerful win disputes. The more powerful are more connected to the networks of politics and maneuver more freely in this arena.

The Hakem recognizes that it is difficult to make a decision. He maintains that the case is investigated with visits to the land and interviews with people surrounding each case. However, the Hakem laments that if they make a decision that is not popular among powerful people (Bidan elite), they have little

power with which to implement their decision. If people do not see a traditional link to the current laws regarding tenure, then these laws will be impossible to implement (interview with Hakem, Aioun[19] October 1999).

For land to be privatized under the 1983 law, the Bidan who had traditional control over kabila lands is given the task of dividing the land for individual title. Due to the serious internal conflicts that the government wanted to avoid, and in part because the Bidan did not usually want to give up their control over their kabila lands, most were only transferred to cooperatives.
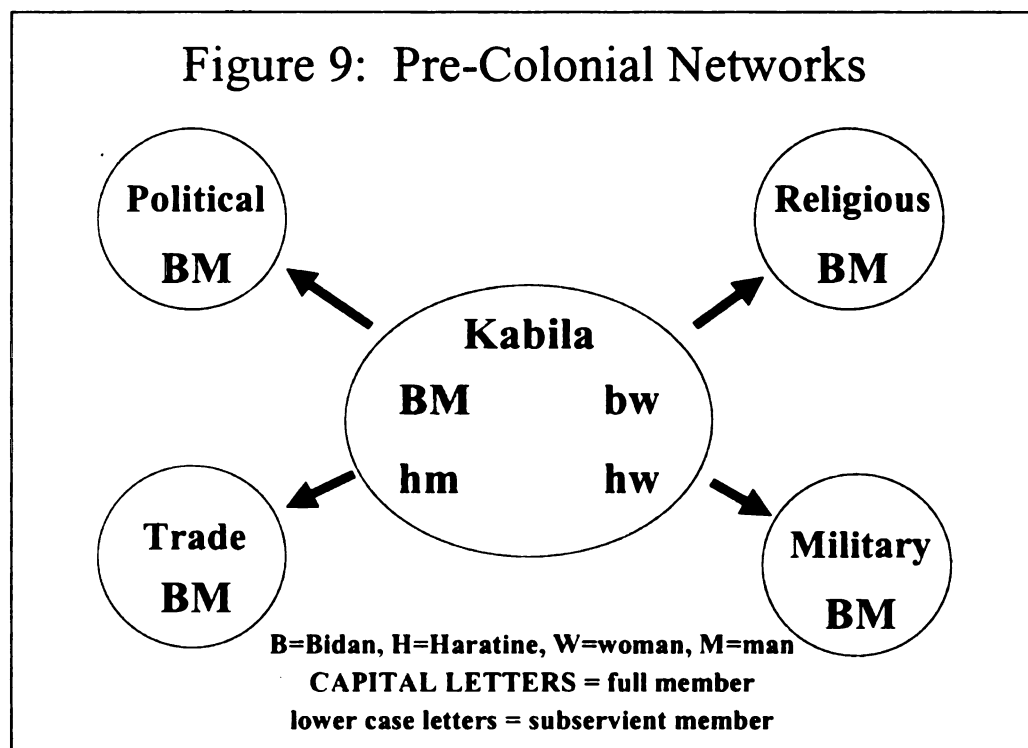
Not only did elite Bidan resist giving up their control over their kabila lands to individual members of the kabila, they also resisted giving up their territorial rights to grazing land. In a society that bases so much of its livelihood and revenue on herding, the seemingly worthless 'empty' unimproved land is extremely valuable. This wild brush feeds animals that make several people very rich in eastern Mauritania. To maintain control over these lands, many Kabilas registered all of their traditional land (including unimproved grazing lands and non-agricultural wetlands) in the name of their kabila leader in a village communal agreement (Interview with Hakem, Aioun August 1999). Under the law, only improved lands can be registered, yet these Bidan are able to evade this detail when registering their own land. According the Hakem of Aioun:

> People are accustomed to the way things used to be. They don't understand why the state wants to regulate their land or control the empty grazing land. They don't want people to be able to get individual plots because that goes against the nature of the kabila and its identity with its territory. It will be a long time before people change their mentality about these matters. Until the mentality of the people changes, there will be no change brought about as the 1983 law had intended. Still some change is happening.

In matters concerning land tenure, kabila networks and the social

hierarchies within them remain strong. The strength of the kabila network is

evidenced by its influence in the political and legal system through which the new

1983 law must be implemented and interpreted. Through the often-biased

interpretation of the new tenure law in favor of the traditionally-powerful Bidan,

Bidan are able to use the new law to increase their economic and political power

through the solidification and acquisition of important land resources in the area.

8.1. Social Hierarchy and the Implementation of New Land Tenure Laws

New laws and policies have been implemented in the context of massive

changes and upheavals and the hierarchical kabila system that still plays a

significant role in all aspects of Mauritanian political, economic, and social life.

Figure 9: Pre-Colonial Networks

Political
BM

Religious
BM

Kabila
BM   bw
hm   hw

Trade
BM

Military
BM

B=Bidan, H=Haratine, W=woman, M=man
CAPITAL LETTERS = full member
lower case letters = subservient member

Rather than an abstract discussion of power that allows elites to manipulate a

legal system to their advantage, Latour (1987) provides us with the opportunity to

provide a material conceptualization of power through the mapping of these networks. Figure 9 represents the networks that existed before independence in 1960.

The Kabila was the central network that provided access to all other networks. Bidan men were full members, and thus were allowed access to political, religious, economic and military networks. Bidan women and all Haratines were secondary kabila members and were denied access to other powerful networks portrayed in figure nine due to their inferior status in the kabila.

Figure 10: Contemporary Networks

National Political System BM, hm

Village BM, bw, HM, hw

Religious BM

Int'l Donor

Military BM, HM

Economic BM, bw HM, hw

Cooperative BM, BW, HM, HW

Kabila

BM   bw

hm   hw
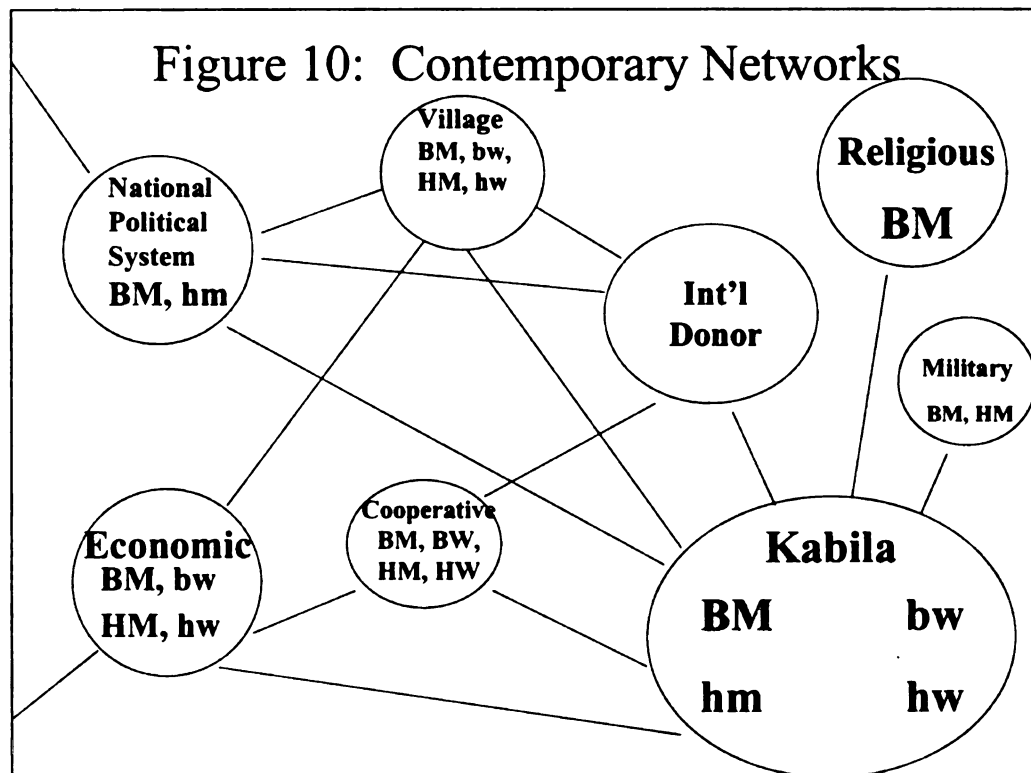
Today, the kabila is still the most dominant network in eastern Mauritania, and Bidan men and still the full members of the kabila. Bidan women and all Haratines have not been able to move into positions of authority within the kabila and are thus still excluded from the connections to other networks that full kabila

membership enables. However, in the context of increasing development

assistance, new laws and policies and economic globalization, women and

Haratines have been able to gain access to networks outside the kabila where

their membership is less dependent upon their subservient role within the kabila.

Most importantly, Haratine males have become political leaders within their own

eddabai villages. Additionally, women have become leaders within their

economic cooperatives. Leadership or even full membership in these networks

increases their negotiation power as their connection to other larger networks

increases. The remainder of this chapter treats findings related to increased

network access.

8.2. Tenure Security Gains for Disadvantaged Groups

Settling in villages is an important way to gain recognition independent of

the kabila. Villagers are recognized as being a member of a certain village as

well as holding membership and status within in the kabila. In a survey of 103

villages in Hodh El Gharbi,[20] 66% stated that they settled in their villages to gain

a political identity not offered within the larger kabila. As one resident of

Chilkha explained,

> With a central government, you have to settle, or else they won't
> know you. We wanted to be known. If there weren't Chilkha, a
> place where people knew we were, then you would never have
> come to visit us. You never would have come here. We wanted to
> profit from government services like schools.

In addition to political reorganization, people also settle to be close to

resources. Because wetlands are so rich in resources, these areas have been

increasingly settled. In addition to the ease of access that proximity allows for

those living next to the wetlands, settlement also is a key move in the struggle for

increasingly secure and exclusive tenure. Indeed, 57% of the villages surveyed[21]

in Hodh El Gharbi chose their locations due to the proximity to a wetland.

Villagers in Tamachekett explained, if the wetland did not exist, nobody would

live there. The Haratine village of Mzreiga actually moved closer to a wetland

and then changed their village name from Mzreiga to Chlim, naming themselves

after the wetland. The village chief explained that settlement in this location was

necessary because others were moving in and 'taking' land that they had

previously used and considered to be their own. This move made herders in the

area angry because they feared that their access to the wetland would become

more precarious with settlers claiming ownership. Indeed, this can cause

problems due to the competing interests of herders and agriculturalists. Both use

the wetlands, yet animals frequently damage crops as they graze in fields near

their watering sites. Additionally, villagers often become protective of the pasture

surrounding their village. One nomadic herder near Chlim explained (Sept 1999)

> It's not that there isn't enough pasture, but we have trouble
> navigating around fields and villages. Before there was more
> liberty, and you could go anywhere not worrying about fields or
> villagers chasing you away. Now many villages send us away
> because they don't want us to use the pasture near their village.
> They give us water from the well, but warn us not to set up camp.
> They can chase us away, or often they lock their wells so we won't
> use them, and they make sure we don't use the pasture near their
> village.

The new laws also provided Haratines with some legal avenues with

which to claim their legitimacy and rights to exist in roles not subservient to their

former masters or to the nobles to whom they have traditionally paid tribute financially, symbolically, or with their work. Even prior to the 1983 law, Haratines often moved away from the nobles with whom they were affiliated to live in Haratine-only eddabai villages near their fields. This small geographic distance allows Haratines some freedom from the hierarchy because they are too far away to respond to daily demands and reminders of their status. Haratines living in their own villages expressed great satisfaction with their relative independence. For example, a Haratine woman in the Tamachekett area[22] explained (November 1999):

> It's much better now because we work for ourselves with our own bodies. Now what we plant is for us, so even if we are poor, we can see the profits of our hard work. We used to work for the Bidan, but they only profited from our work, and they ordered us around all the time. Every second they would call us to come and do something else for them. Now we just get things and do things for ourselves.

Increasing sedentarization produced a great break with past tradition because it provided an outlet for political recognition that was not solely dependent upon the kabila hierarchy. The 1983 law legally recognized many sedentarization claims. This alternative political recognition is especially desirable for Haratines due to their marked subservience within the traditional hierarchical structure. According to a foreign grassroots development worker who has lived in the area for over five years and works primarily with Haratine farmers (interview August 1999):

> ...if [Haratines] want to get out of their feudal relationship with the Bidan, they have to remove themselves physically from their presence. No matter how much money they make or what they

have, they will always be subservient in the eyes of their masters, and that is impossible to shake unless they move.

Geographic distance from Bidan is essential for Haratines to gain access to networks outside the kabila. As shown in figure 10, the village is a new network in which Bidan and Haratine men both participate as full members. Although all villages are still considered to be part of one kabila or another, each village has political recognition in its own right. In Haratine-only eddabai villages, Haratine men are full leaders of their villages, although they do not have full membership within their kabila. For Haratine men who are leaders of their village, they are allowed access to political networks, as they become local political representatives. Village leaders are also the point of contact for international development agencies with substantial resources. Additionally, village leaders are involved with the organization of weekly markets that link them to economic networks. It is important to remember that the kabila is still the most powerful network in the area, and thus, Bidan village leaders are able to use their powerful position within the kabila to pursue even greater gains as village leaders themselves. However, the gains in relative independence from the hierarchical kabila made by Haratines are important and have contributed to their tenure security. The increased network membership of Haratines living independently and their tenure gains will be explored through case studies later in the chapter.

As described above, geographical distance is perhaps the most important element that adds to the relative independence of Haratines.

Haratines who can rely on themselves during times of trouble have also gained more independence. If Haratines do not have to receive loans, charity or favors during important events such as weddings or difficult times such as droughts, they are able to assert more independence. Additionally, the amount of time that Haratines have achieved a greater distance economically and geographically adds to the relative independence of the Haratines from the Bidan in their kabila.

Just being able to lay claim to some land in whatever form, whether formally recognized by the state or not, also provides a degree of geographic distance thus increasing Haratine independence. For example, in agriculturally rich zones such as Leweija, Haratines do not own land within the wetland, because this land was divided long ago among powerful Bidan kabilas. In Hodh El Gharbi, Leweija is known as one of three 'bread basket' areas where agriculture has been truly successful. Due to the past importance of this land, it was divided among people whose descendents are among the wealthiest in the area. Thus, many Bidan who own the land are not willing to farm the land themselves because farming is a task seen to be below their status. Due to their inability to find cheap labor that their former slaves previously provided, many Bidan elite infrequently farm their land. Thus, today land within this wetland is available to be loaned at no cost to willing farmers in the area. The land in the wetlands is reported by farmers to be three times more productive than land created outside the wetlands by earthen bunds. However, many Haratines that I interviewed resisted borrowing the Bidan land because of the

157

reinforcement of subservience that accepting this favor would entail.

Mohamadou's story in the following text box provides an in depth example of a

Haratine farmer's desire to claim his own land.

Land outside the wetland not only is less productive, but is extremely labor

intensive to create, necessitating the construction of large earthen dams to retain

moisture. Haratines explained to me that this was a small price to pay for a

chance to stake a claim to land that they could pass on to future generations,

land of which they could be proud.

In addition to being labor intensive, the creation of earthen bunds outside the

wetland can damage the productivity of the wetland. In several of the wetlands

in Hodh El Gharbi, there have been so many bunds created that rainwater that

normally fills the depression is diverted elsewhere, and the wetland below does

not fill properly. This not only impacts the wetland environment, it also reduces

the productivity of the fields in the wetlands because less water reaches the

wetland fields. In Leweija for example, farmers explained that the productivity

in the wetland has decreased significantly over the years due to the increase of

earthen dams. They say that the wetland fills with significant water only when it

is a heavy rainfall year, and the force of water breaks many of the earthen

dams. Several Bidan who have fields in Leweija protested against the earthen

bunds built by the Haratines (Nov 1999).

Mohamadou Farms His Own Land

Mohamadou is a Haratine farmer who grew up farming around the wetland of Leweija. During the dry season, he lives with his family in the Bidan village of Benemane, about 7 kilometers away. Benemane is located on a wetland that is only used for herding. But people come to Leweija to farm during the rainy season because it is reputed to be the best farmland in all of Hodh El Gharbi. For years, Mohamadou farmed millet in Leweija, with good returns for most years. Ever since he can remember, noble Bidan families owned all of the agricultural land within Leweija. Noble Bidan families typically do not farm and increasingly have had difficulty finding people to farm their land for them. Thus, it was always easy for Mohamadou and his family to find land to borrow for the growing season.

Although there was no official rent asked of those borrowing the land, Mohamadou and his family always gave a portion of the harvest to the people who lent them the land. Mohamadou claimed they donated a portion of their harvest 'To say thank you' and to 'give *zakat* (alms).' But as Mohamadou grew older and began to see his children grow up, he wanted more and more to be farming his own land so that he could give his children something. He wanted to find a way to become more independent. Because all of the land in Leweija was already 'owned', Mohamadou was forced to create a field outside of Leweija. With the help of some other Haratines from the village, Mohamadou built an earthen bund slightly above Leweija. The bund was build big enough to trap water to provide moisture to his fields. To better explain his reasons for giving up agriculture in the more productive wetland, he explained,

> I know that the land in Leweija produces a lot of millet. But it's not mine. I don't have any land there. I can make my own field here (in the higher land surrounding the wetland of Leweija) and then I don't have any problems with anyone. I don't want to borrow land; I want to create my own land so that I have something to pass onto my children.

People built earthen dams because they don't have land in Leweija. Big families yelled and protested when the digs were built, but the state can't tell the poor not to build the dams and do agriculture because it is their livelihood. There is the idea in the government that improving new land is good, and it allows you to gain title to property. The Haratines are encouraged by this new law that will allow them to gain title to land. The big tents went to the Hakem and to the mayor and protested, but they couldn't do anything.

The creation of earthen bunds emphasizes the point that Haratines have

made efforts to take advantage of the 1983 law even when strongly opposed by

more influential members of the community. With its provision for people to obtain legal title to the land they improve, Haratines are in theory well placed. Within their tradition of agriculture, they are most likely to improve land (as plowing fields is one of the easiest ways to improve land). However, as is seen in the case of Leweija, the most productive agricultural land is traditionally kabila property. When land is somewhat valuable, kabilas have easily been able to use the provision of the 1983 law for the collective ownership of kabila land. As seen in the above example, subservient members of the 'new collective' must be creative to obtain access to the resource. Haratines have been going outside the traditionally recognized agricultural land to farm new land that has not yet been claimed under the 1983 law due to its low productivity. Even when stepping outside the bounds of traditional agricultural land in eastern Mauritania, there has been resistance to the Haratine ownership of land. However, in cases where Haratines have established relative independence and have a very clear claim to resources, some have been able to stand their ground with the backing of the new 1983 law and a government favorable to the new appropriation of land. Although the potential exists for Haratine and women to obtain rights to their own land, women and Haratines must be creative to find ways to take advantage of the new law.

Legrayer Case Study: Haratines Successfully Holding their Ground

The above example illustrates the importance of gaining tenure, at any cost. The case of Legrayer (N'Diaye 2000) shows that in the case of a

strategically placed village with substantial time residing near and working on good wetland field, Haratines have been successful in obtaining secure tenure to their land. The village of Legrayer is situated on the banks of a seasonal wetland and it is one of three breadbaskets in Hodh El Gharbi (Leweija and Sawanaa are the other two). The colonial administration had divided the land in the area among the kabilas and Legrayer went to Ehel Jiddou of the Leghlal kabila leaders in the area. Although the French aimed to clearly divide the land to avoid further dispute, as time wore on the tenure situation outlined by the French was questioned. To solidify their claim to the land in the face of increasing challenge, the Leghlal leaders asked their Haratines to farm the land and to settle there. Thus, the current residents of Legrayer village moved to the Legrayer at the request of the nobles of their kabila.

Soon after moving next to Legrayer wetland in 1951, Legrayer residents constructed an earthen dam to transform the wetland into cultivable land. After constructing the dam, the Haratine village residents divided the farmland amongst themselves and began farming the entire wetland. The Spanish company ONATER reconstructed the dam in 1968. The new and improved cement dam greatly improved the agricultural possibilities of the wetland.

After the reconstruction of the dam, the nobles of the kabila then began protesting the division of the fields. They claimed that the fields should more appropriately be divided among all kabila members. The nobles were newly interested in land that had increased in value and now wanted to regain control over the land that they had given freely to the Haratine residents. The residents

of Legrayer village refused to give up any of their land, claiming that their labor had built the first dam, and they had worked to prepare the land for farming. The strong protest of the Haratines was important. Perhaps more influential was the Ehel Jiddou kabila leader who strongly defended the claims of the Haratines. With great effort, he was able to convince the nobles of the kabila that the Haratines did have a legitimate claim to the land because of their work and loyalty that was put into the creation of Legrayer as the breadbasket that it is known as today. The Haratines living in Legrayer have managed to register their land in the name of their village collective. This case study shows that it is possible for Haratines to secure tenure to the land upon which they have been working for generations. Geographic distance from their kabila leaders was an important element in their ability to negotiate more secure tenure.

Chara Case Study: Tenuous Tenure Gains

The Haratine village of Chara, has also been able to secure legal tenure to their land after the passing of the 1983 law. The people of Chara left the village of Agjert and the noble Bidan leaders of their Kabila fraction between 35 and 40 years ago to herd animals they had managed to obtain for themselves over the years. Thus, they had gained some independence as they had geographically removed themselves from their former masters early on. Finally, in 1981 they chose to settle in a small depression within their kabila fraction territory. They requested permission from their kabila leader to build a dam to create a semi-permanent wetland to increase their agricultural potential. With

the permission of their kabila and the Hakem, they were able to secure cooperative title to their land in 1984.

Mohamadi, a resident of Chara explained to me that they moved away from Agjert and eventually came to the place that became Chara because "...the fields we farmed weren't good, and there were too many animals there." However, the village chief, Mantalla, (see following text box) explained that with the agreement of all around "...we came here to work for ourselves." The following text box further describes his life and how he became chief. Upon questioning people about the tenure status of their village, the man who had been elected to represent their village presented the actual paper that gives them legal tenure to the land. With pride, he explained, "We have papers, we have the legal right to this land. This land is our land, and nobody can take it away from us." When I asked if the Kabila is involved in their ownership he replied, "No, this is our land for our village, see, it says it on the paper, can't you see?"

As I have shown, women and Haratines have made progress towards achieving some rights and independence, explicitly for access to natural resources. However, even when they have been able to gain access to land with legal tenure, this access remains precarious due to their subservient position in society. The most notable examples are Haratines and agricultural land. In the Haratine village of Chara, their legal tenure to their land proved to be weaker than their obligations to their Kabila and fraction.

In 1999, some powerful Bidan members of their fraction tired of the

nomadic life and looked for someplace to settle. Members of these Bidan tents

explained that they were tired of moving and wanted to settle to take advantage

of new political and schooling opportunities. Rich with animals, they needed a

place where they could settle and their animals could find water, at least during

much of the year. Because they were nobles of the kabila fraction that the

Haratines belong to, they came and placed their tents near the wetland on the

edge of Chara. Original Haratine residents of Chara protested. They had

obtained title to their land, and it was theirs. Diplomatically, Chara villagers

explained that they were proud to have their own land. But the Hakem

impressed upon them the fact that they should share with these people from their

own extended family. The Bidan refused to move and, after lengthy discussions

with the Hakem in the area (Kobeni), a portion of Chara's land was deeded over

to the nobles in 1999. One Chara villager explained,

> It is our land. We came here in the 1980s, and we have registered
> the land. We have worked with our muscles and sweat to clear the
> land and to build the dam that you see here. Without our hard work
> this place would be nothing. We moved far away to make our own
> way. But it was difficult to refuse this request of the Hakem. We
> had to let the Bidan come to live by us.

Thus, even though the people of Chara had legal tenure to their land, they

were bound by social tradition to let the Bidan nobles of their fraction settle and

take a portion of their land, regardless of the deed paper that was so proudly

displayed by their leader. With this act, the Haratines of Chara have given up a

portion of their land on which they worked hard for independence. Living in

closer proximity to the Bidan further embeds them in the subservient roles they

have been trying to escape for so long. More importantly, for their livelihood, the presence of the Bidan animals that drink from the same wetland around which the Haratine practice agriculture significantly harms their agricultural production. As is common in areas where both herding and agriculture are prominent, problems continually arise when animals eat the crops of farmers. Because the Bidan animals are drinking from the same seasonal wetland around which the Haratine are doing agriculture, the chance of crop loss due to animal grazing increases greatly. Any manure that might be dropped on the fields when animals graze is little compensation for the extensive crop damage. Agriculturalists are required to guard their fields during the day and herders watch over their animals at night. But conflicts are still frequent during periods of pasture scarcity (Shanmugaratnam 1992:24). The high cost of fencing makes guarding agricultural fields extremely difficult, especially when herders are minimally motivated to closely control their animals.

The ability of the Bidan nobles to obtain land that was already legally owned emphasizes the strength of traditional social hierarchies in Mauritania. Although the state may give the Haratines the legal right to their land, under the traditional tenure system they were 'given' this land by their kabila leaders who controlled the larger territory that included the land on which they settled. In all sample cases where Haratines or women were able to get land, the permission of Bidan leaders was necessary regardless of the law or whether or not the land was purchased. Especially because the residents of Chara did not buy this land, it was still a gift or a loan that does not come without its social obligations. Legal

deed cannot remove them from their social hierarchy and the from fact that, at some time, they may be called upon to repay the favor.

As we have seen in the Legrayer example, when development resources arrive in a village, competition increases for the natural resources that are now increasing in value. In Haratine villages, Bidan elite often appear when development resources are being distributed or new projects are being discussed. In Chara, Haratine village leaders were intimidated neither by the threats or the aggressive actions of the Bidans trying to get their share of the development project. Chara villagers refused to let the newly settled Bidan participate in the project labor, in order to lessen their claims to the profits of the project. As these and the above example portray, marginalized groups are using both overt and covert tactics to resist domination, especially with respect to access to resources. The case studies and research data show that Haratines living at a geographic distance from Bidan have more leverage in their negotiations for secure tenure but are not always successful.

Both Chara and Legrayer were Haratine villages that had established themselves at a geographic distance from their kabila leaders. Although both were successful in gaining tenure to the resources upon which they depended, Chara's tenure has been increasingly threatened by kabila leaders encroaching upon their land, and are thus less successful in their tenure negotiations. The fact that the residents of Legrayer had been living and working their land longer than the people of Chara is one contributing factor to their success. However, more importantly, the people of Legrayer received the backing of an important

166

Bidan kabila member who was able to help them in their negotiations. Again,

the strength of the kabila in negotiations is evident.

Mantalla: A Haratine Village Chief

Mantalla's father left their Bidan village of Agjert over 40 years ago. As a Haratine, he wanted to exercise his freedom and to be farther away from the Bidan. With a few animals he had acquired through his work as a herder, he set out with some other Haratines to begin herding on their own. As a teenager in 1983, Mantalla came to Chara wetland with his father to settle. After much work, they built an earthen dam to make the wetland suitable for farming. Although he lost his entire meager herd in the drought, he was able to continue farming. After years of hard work in the fields supplemented by trade and a small village bakery, Mantalla was able to buy a few animals. Last year he was chosen to lead the village after villagers decided that the last chief was not doing a good job. Villagers stated that "We chose Mantala because he is a hard worker and because he has a level head. But if we don't like what he is doing, we'll have another meeting and throw him out too!" Mantala said,

> I didn't really want to be village chief. The noble chief in Agjert was always our chief. But when we settled here we had to choose a leader to put on the land license. Se we got together as a group to choose someone to represent the authorities. When the project came to the village, the village thought that I would be a good, active person who could oversee the project activities and receive all of the guests that come. That's how I became village chief last year.

> Being village chief with the project has been very difficult. It's difficult because we are doing a project with two villages. The village of whites wants to be with us because they think they can profit from the project. Whites registered as CDA members since the beginning of the project, but they never wanted to be a part of this village until the project came. They just wanted the land. Now they want to be considered as the same village. I may be weak but my heart is strong. They will never take our village or our land.

8.3. Women Gaining Access to Resources Through Institutional Distance

As shown in above in the analysis of Haratines and negotiation for secure tenure, geographic distance is plays a central role in their success. Distance from the Bidan provides Haratines some avenue for access to a network with less influence of their subservient status as Haratines. Women live with men and thus are less able to distance themselves from men geographically. However, women have had some success in gaining access to networks other than the kabila network. Institutional distance in the form of economic cooperatives provides their access to networks with distant reaches..

Cooperatives are primarily small businesses jointly owned by a small group of usually not more than 30 people. Common cooperative activities are petty trade and vegetable gardening. Men and women, both Bidan and Haratine form cooperatives. However, the cooperative has been especially successful for women. Through the access it provides to development and larger economic market networks. The international development community has been promoting the formation of cooperatives. In fact, most development agencies have a person in charge of only cooperatives in each field office. Development resources aid in the formation of cooperatives by supplying of credit, providing of tools, training members in gardening techniques and business practices, etc.

36 percent of people surveyed (n=270) were members of cooperatives, and 70 percent of coop members were women. Cooperatives usually consist of 10-30 members. This formal organization has given status to the traditional network that existed among women. To obtain tenure, many women's

cooperatives pooled resources coming either from familial sources or from money they had earned themselves in petty trade to purchase plots of land on which they grow their vegetables. In some villages, women's cooperatives requested plots of land and were given them without charge to use for their gardening activities. However, when talking to the women who purchased their land, they expressed great pride in their ownership (interview in Gongel, Jan 2000).

> Now we are sure that this is our land and that no one can decide to use it next year. You know, we have put a lot of work into working the ground and fencing the area. We want to be sure that we can always use it.

The formation of cooperatives also is a way that women obtain access to land, because cooperatives gather resources and obtain rights to or finance the purchase of land. Also, their formal recognition by development associations provides them a more secure basis from which to gain tenure, financially and in regards to informal recognition. Often, women are able to use the money gained from these ventures to increase their status and generally make their lives easier.

> We feed our kids with this money, and we can buy clothes if we have any left over. Life is much better for women now. We were all nomads, and women only did the housework. They ground millet for cous cous. Women didn't have their own identity, or a personality. If her husband said, 'go to town', she went to town. If he said 'stay home', she stayed home. There were no questions asked. Now women are powerful. She does her own field, and she doesn't have to wait for a man to give her food and clothing. Women can be independent now (interview Jan 2000).

In some cases such as the village of Saveni (see the following text box on Aminata) where agricultural land was privatized, some women have

gathered money or loans to buy their own fields for sorghum or millet. The purchasing of land with money is quite important and was boasted by several women who had managed to do so. In the same village that divided their land into individual property units, women were very proud to explain to me that their cooperative bought land by obtaining a loan. In addition, several women had bought individual land on which they grew staple crops for their families and for sale. The ability to purchase land is very important because it formally legitimizes their claims to land. As seen in the quote above, if you have bought a piece of land, it is more certain that everyone recognizes the same claim. The example of Saveni shows that only slowly are women finding ways to take advantage of the 1983 law.

> **Aminata and Her Cooperative**
>
> Aminata, a Bidan woman from Saveni is a member of the village women's cooperative. The cooperative has 52 female members and focuses on vegetable gardening. The cooperative members learned how to do vegetable gardening from development agents who conducted trainings in the village. People did not grow vegetables before, and people were not used to eating them. Now, there are many people growing vegetables, and more and more people are using vegetables when they cook. Onions are especially popular, but squash, carrots and tomatoes are also increasing in demand. Their production of vegetables has been good and they have been earning money.
>
> Land is privately owned in Saveni. The cooperative had to buy its own land, which it did with the help of village leaders who identified a good piece of land for their vegetables, and the development agency that facilitated their loan for the land. Aminata and her fellow cooperative members are proud to have their own land and to have their own business.
>
> Aminata has used the money from her profits to invest in more money-making ventures. Although Bidan women do not traditionally farm, she has invested in her own individual plot of land that is 150 meters squared where she now grows sorghum. Aminata said that she began farming during the hard times following the 1985 drought when her family lost most of their animals. In order to make it through the hard times they had to learn to farm, a new activity for them. Her family did not want her to be working out in the fields, but their herd had become so small, they knew that they would need her help. Although she found the work difficult, it became evident that it was possible to make money by farming after the rains returned. As times improved she was able to borrow farmland to plant her own sorghum field. With the profits from this farming, she has saved and borrowed enough to purchase her own plot of land.
>
> Although her husband will not help with the farm labor on her own plot, she finds help among the cooperative members, and she helps many of them who also have their own fields. Saveni is the only village in my sample where women own their own land. Aminata keeps the money that she earns from her cooperative and from her own fields. She is not expected to contribute to the family needs. She has used her profits primarily to buy new clothes and to invest in future agricultural opportunities. She has contributed to the family by buying medicine and clothes for the children.

For the Bidan, farming of any type is completely new, but as evidenced

by Aminata's story above, Bidan women show a new willingness or perhaps

necessity submit to physical labor to increase income. As is seen in Figure 10,

forming a cooperative provides women not only with a way to make some

money, but also with a formal organization through which they can participate in

the rural economy as equal members.

In contrast to the few Bidan women who have very recently begun

farming, most Haratine women have grown up farming. Haratine women have

had to work very hard to contribute to their family's subsistence. Although

Haratine women traditionally work on their husband's plot of land along side

with their husband, women have also farmed fields by themselves. In the

village of Sawanaa, focus group interviews with village men revealed that

women have individual plots that are recognized as their own. However, focus

groups with women revealed that they did not see the land they farmed as their

own, rather they worked on their husband's land, and sometimes he gave them

fields to farm for themselves.

In Chlim, land is distributed by the village chief, and both men and

women alike explained that women are distributed fields towards the bottom of

the wetland. This land is highly undesirable because planting begins very late

and often has trouble coming to maturity before the weather becomes too hot

for the crops. Men explained that women could only farm this land because it

required less clearing. Land clearing reportedly is difficult work that requires the

strength of men. Women explained to me that (interview in Chlim, October

1999):

> ...of course we get the land at the bottom. We get what is left over
> after the men of the village have their land to farm. Its not usually a

problem until a wet year like this year when we can't plant until the season is over. This year we will have to rely on the rainfed crops over there.

Women use the proceeds from their fields to help out with the family's subsistence. "We throw all of the grain in together, and we keep what we need to eat, and sell what we can to buy supplies" (Chlm October 1999). However, women do have more control over the proceeds from the fields they farm. They are able to be sure that there is enough grain to eat during leaner periods and also they can sell some of their grain if they need to buy something important for the family.

The cooperative has provided the Haratine woman with an important avenue through which to enter into the economic realm, and to increase their family's often meager resources. Haratine women are not new to farming, yet they may be new to vegetable farming or to petty trade. These new skills enable Haratine women to play a more important role in the family income. Additionally, cooperatives have become more important to the village economy and village leaders are paying more attention to the need of these cooperatives to have their own resources.

The experience of Haratine women in Chlim and Sawana reiterate the importance of women's legal recognition, both in land ownership and in their cooperative organization. With the legal recognition of the cooperative as an institution independent of the kabila, it is much more difficult for their land to be taken away. Cooperatives are gaining recognition and prevalence with the ever-increasing presence of development projects. The entry into this network

is especially important because they receive important benefits such as agricultural loans, provision of seeds and farming equipment, and, often, (and perhaps most important) the tools with which to fence their fields from the ever present grazing animals.

8.4. Negotiations for Access: Contestation

Resource tenure is never secure as it will always be contested. The contestation of land tenure is rarely channeled through legal paper deeds. Although formal protests or claims to land are frequently submitted to the local authorities, most contestations are less formal. As is evidenced by the examples provided below, resource tenure is often challenged by the destructive use of a resource.

The Haratine village of Boichiche settled near this wetland because they were given permission by the traditional kabila territory controllers. They have lived on this land since the time of independence with few problems. However, in 1982, a development agency came to build a fence around the wetland. This fence greatly increased the security of tenure for the people of that village (as explored in Ch 6.1). Although the fence served many goals, it was designed to protect the valuable forest resources, upon which the poor villagers depend, from the animals that destroy them. However, the fence is routinely cut, allowing animals in to destroy the forest products. When I talked to villagers, they expressed disappointment in the destruction of valuable resources, but they explained to me that they were powerless to do anything about it. One villager

explained. "We can't go to the authorities, we don't want any trouble, you know."

Thus, challenges to tenure can be made outside the legal system. Merely by cutting a fence, frequently grazing animals, or using resources the Bidan assert their tenure rights by proving that there is no way to keep them from using resources thought to be controlled by others.

Although the membership in the Kabila network forms a tight web that invades all aspects of life in eastern Mauritania, there are visible forms of resistance to the kabila's control over natural resources, termed 'weapons of the weak' (Scott 1985). Haratines who go to great lengths to create land outside of the traditional agricultural fields that they can claim as their own is a major form of resistance. Rather than farm the more productive land of their former masters, Haratines prefer to assert their independence and also to obtain the more secure long-term tenure.

Another form of resistance existing in the Hodh El Gharbi is the 'animal prison' system organized by farmers in Sawanaa who were dismayed at having their crops destroyed by passing herds. Although, in theory, herders are responsible for keeping their animals out of agricultural fields, it is a difficult task. Furthermore, herders are typically Bidan and farmers are often Haratines, thus making herders less likely to respect the wishes of the farmers, knowing that they have little recourse or possible redress within the social structure. In an unusual course of events, the Haratine farmers in Sawanaa went to the Hakem and requested permission to detain in a gated area the animals that were destroying their crops, charging their owners a fine when they come to retrieve their

animals.[23] When this new 'policy' was implemented, herders were incensed and threatened the Haratine farmers. But the Haratine farmers of Sawanaa held their ground, citing permission from the legal authorities. After a few irate herders went to the authorities to complain without success, herders began paying the fines. As the news spread, Sawanaa residents found that there were fewer animals in or near their fields, and they had fewer animals to detain. Although not directly threatening their recognized tenure of their fields, the presence of animals eating their crops decreased the ability of Sawanaa farmers to harvest fields and thus decreased tenure security. To my knowledge, these are the first Haratines to find a successful method to protect their fields from animals without investing in very expensive fences that few farmers can afford. By keeping animals from destroying their crops, the farmers of Sawanaa have also increased their security of their tenure because they were able to control the access to their own fields.

The passing of the 1983 land tenure law has opened new networks and stages of influence that reach beyond the kabila system. For groups marginalized within the kabila system, new networks pose an important alternative to their low status within the traditional hierarchy. However, access to the new networks is heavily influenced by the hierarchical kabila system that still is heavily entrenched in the region. The women and Haratines who have gained land tenure in some small way have challenged the strongly influential kabila system to become landowners and increase their tenure security. The constant

contestation and negotiation for resources is continually testing the tenure gains

of marginalized groups. However, as I have shown in this chapter, the

opportunities to gain tenure and resist challenges have been increased as

women and Haratines have access to larger networks of power.

CHAPTER 9
CONCLUSION

Changes in natural resource access change power relations. Rather than the static, individualistic private property systems that are envisioned by western ideal, land tenure is a fluid process. Shipton and Green (1992 in Fortmann 1996:538) maintain that people use land "for many purposes; not just to produce the material conditions of survival and enrichment, but also to gain control over others and to define personal and social identities." Because different kinds of property systems benefit different people, power is central to the enforcement or imposition of property rights.

No matter how explicit the law, no matter how well documented, no matter how entrenched are user rights; natural resource tenure is not secure. Tenure will always be contested and those seeking more secure tenure will always have to negotiate and renegotiate the terms of their tenure. However, sometimes tenure is less secure and the avenues to secure tenure are more ambiguous than others. In Mauritania, strong customary tenure based upon strict hierarchical categories has been replaced by legislation that in theory promoted equal access to resources among those improving the land. The new law imposed upon customs deeply rooted in the society has multiplied the avenues for natural resource contestation. In the contestation and negotiation for more secure tenure and increased access rights to natural resources, membership in more networks provides a clear advantage due to the increased social resources upon which they have to draw.

As the ways in which to secure tenure have changed with increasing development investment and new laws, members of subservient kabila status levels have had mixed success in gaining more secure access to the natural resources upon which they depend. The contestations of natural resource tenure can be legal. Powerful people protesting to the political authorities, usually making claims of their kabila territory and the user rights to lands within the previously recognized kabila territory can seek to overturn seemingly secure tenure with legally recognized deeds. Similarly, kabila elite often claim that the person who tilled the soil for years was working for their family and thus their family should now be accorded title to the land.

Contestations of natural resource tenure can also take other forms. Continuous and unauthorized used of resources is not only destructive, but also makes a claim against the tenure security of the resource. For example, when herders graze their animals inside a farmer's field, the farmer suffers great crop damage and thus does not have secure tenure over the field because it is impossible to protect the field and prohibit access. Other ways to diminish tenure security are to levy a tax or strongly suggest a donation of the benefits from the production on the land. The expected 'donation' to Bidan from Haratine farmers not only diminishes their production take home, but it is also a symbolic reminder of their subservience and tenuous tenure on their land within the kabila system. Most contestations of natural resource tenure are based upon traditional user rights within the hierarchical kabila structure.

Customarily, membership in a kabila, and membership in a hierarchical

level within that kabila were the most important networks to which to belong. Bidan members were not only the leaders of the kabila and were solely responsible for politics. Membership in the Bidan network also accorded entry into the religious and warrior networks, both of which were very powerful. Being a woman or a Haratine did not allow for full membership in such powerful networks. Haratines were members of the kabila network in that they shared their harvests with the kabila, and wealthier members of the kabila would help them with resources to help them survive during especially difficult times. However, Haratines were not allowed membership in the important and powerful religious, military, and political networks. Women participated in subsistence activities and were restricted close to home.

Since the time of independence, more networks are now appearing with new ways to become members of all types of networks. With the increase in sedentarization, villages are now an important political entity and the leaders of each village can now represent the people of their village in political affairs. The increase in CBRNM schemes is also increasing the importance of the village because now it not only provides access to political networks, but to the international development community as well.

Due to their position of power within the traditional hierarchy, Bidans are well placed to increase their influence and power by entering into new networks. Their prestige is a key factor in influencing development projects to seek their help to implement a development project. Traditional kabila leaders easily become government officials. In fact, the increasingly popular Western ideal of

decentralization and democratization pushed by international development agencies has opened the door for an increasingly strengthened hierarchical kabila system. As power, decisions, and influence are returned to local regional decision-making arenas, the kabila is the most recognized structure within which to fit the process of decentralization and democratization. The newly created mayoral positions first in regional cities, then in all rural areas are posts naturally occupied by known leaders of powerful kabilas. Thus, rather than relying on traditional avenues of power, newly sanctioned democratic processes aimed to broaden the power base in may centralized government in the developing world have in fact served to solidify traditional avenues of power.

Although Haratines are still disadvantaged by their membership in the subservient Haratine status, they have also been able to increase their power and influence by gaining access to membership in some new networks. In Haratine-only eddabai villages, the Haratine leader has gained entry into a political network as the leader of a village. In eddabai where development agencies have invested, they are also members of the development network, with connections to far away development agencies with substantial resources. The entry into development networks has been formalized with the creation of community development associations responsible for natural resource management and development investment and projects. Community development associations located in Haratine only villages with a more homogeneous status, wealth and livelihood systems result in the ability of the association to better represent what might be the interests of the village. Due to

the value of the resources and the power to which this network is connected, membership in this network greatly increases negotiation power. Thus, the trend towards decentralization and democratization increased network opportunities and has increased the ability of Haratines to secure tenure over the resources they use. When tenure contestations arise, Haratines in their own villages have been more successful in retaining their tenure.

Haratines living in Bidan-controlled villages do not have the advantage of geographical distance and have been less successful in securing resource tenure. Living in close contact with the Bidan, they are more entrenched in traditional hierarchies. Thus, their membership in the subservient Haratine network defines how they interact with other networks. As subservient members of the village, their contact with politics and with development is not in leadership roles and thus they are not accorded membership in these important networks. They have few social resources upon which to call when their tenure to a certain resource is threatened. Additionally, although they are often members of the community development associations created by development interventions, their participation is minimal or disregarded and the associations are less responsive to their needs.

Because women live in villages with men, they do not have the opportunity to distance themselves geographically from men who dominate tenure decisions and negotiation. Distance plays an important role in excluding the more powerful Bidan from taking over key leadership roles in eddabai thus allowing Haratines to take over key leadership and network entrance positions. Although not

geographic, the formations of 'women's cooperatives' by development agencies has provided women with the institutional 'distance' from men with which to organize themselves and to take leadership roles in institutions recognized within development organizations and to a lesser degree in political networks. To date, Haratines living within Bidan villages have not yet achieved institutional distance from the Bidan. Development intervention targeted specifically at Haratines would be a political and sensitive subject that would meet with much resistance.

The restriction of some projects to 'women only' has general support. Although targeting of special development assistance to women in some cases marginalizes their membership and participation in the mainstream development network, the creation of women only institutions is important because it guarantees them direct access to development networks. Women would almost certainly be denied full access if they were only left to participate in mainstream development activities that are controlled by men. Additionally, through these cooperatives, women also enter into economic and trade networks through the sale of their goods in local markets and in village based stores. When connected to cooperative activities, women have in many cases been successful in securing tenure over land they use for farming or vegetable gardening. Without these cooperatives, it is still rare to see women farming land they consider to be their own. Thus, the cooperative has enabled significant tenure gains for women members. However, because this gain is limited to cooperative activities, women have not been as successful as Haratines in obtaining more secure tenure in the context of new laws, policies and development interventions.

The 1983 land tenure law opens the door for the contestation of customary tenure. The fundamental changes occurring in Mauritania since the time of independence have increased the opportunity of disadvantaged groups to gain membership in political, economic and development networks. Through their increased access to networks and the increased negotiation power that this brings, Haratines and women have made important gains using the provisions of the new law to gain secure tenure to natural resources. By doing this, they have then accorded themselves membership in land owning networks.

However, although the law increases opportunities for subservient groups to gain tenure notwithstanding their kabila status, opportunities for powerful elite to further increase their tenure and power over resources have also increased. The new networks available to women and Haratines are also available to Bidan men. Due to their superior position in the kabila, they are well placed to take advantage of new avenues for power. However, the liberating aspects of new networks for women and Haratines are having a greater impact on the empowerment of women and Haratines. This impact outweighs the additional gains made by the traditional elite, the Bidan.

Change no matter how positive will always be accompanied by tragedy for some. In the case of Mauritania and land tenure changes, the increased ability of disadvantaged groups to manage their own resource independent of their kabila status is an extremely important step towards lessening the subservience of disadvantaged groups. This gain outweighs the tragedy that the Bidan will also be able to increase their power. It also outweighs the tragedy that CBRNM

systems are focused on static geographic areas that do not suit the fluid nature of the resources being managed. The advances made in Mauritania will be enhanced if the tragedies of the advances are translated into lessons learned for the future.

This study has focused on eastern Mauritania, which is a rural area still entrenched in tradition. I have found that disadvantaged groups are more able to become members in new networks that increase influence and power if they are able to gain relative independence economically and geographically. The increasing urbanization of Mauritania provides new arenas where people can contest for jobs and patronage further distant from their kabila hierarchy. Ethnicities and status in Nouakchott have evolved as people look for new ways to reorganize in ways that are less dependent upon their kabila. Future research should compare the existence of and the ability of disadvantaged groups to gain access to new networks that increase power and influence in regard to land tenure between those who still reside in their traditionally held kabila territory, and those who have migrated.

ENDNOTES

[1] 'Haratine' means free person of second class in Arabic. The majority of Haratines were former slaves and occupy a low position within Moorish hierarchies, second only to actual slaves (slavery was officially abolished in 1980).

[2] This technique is called recession agriculture. Soil that was formerly under water remains wet even after the water recedes. Seeds planted in the soil will grow using moisture remaining in the soil.

[3] Bidan is the Hassiniya Mauritanian Arabic word for Moor. The word is derived from the Arabic word meaning 'white.'

[4] Nomadism: a term often used as shorthand for pastoral nomadism, which implies both subsistence herding and wide spatial mobility, often in cyclic movements (Windstrand 1975).

[5] Blood money is paid by the kabila of a person who killed a member of another tribe. Blood money is paid to maintain peace and to avoid killing retribution.

[6] Research methods are explained in Chapter Four.

[7] I use the term 'informal' to describe an institution that is not legally recognized on a national level, and 'formal' to describe an institution that is legally recognized at the a national level.

[8] Abbreviated as GTV, meaning village territory management.

[9] The type of resources that share the following characteristics are often called common property resources: 1) it is costly to develop institutions to exclude potential beneficiaries from the resource and 2) the resource obtained by someone or some group is not available to others (Ostrom 1996). However, Ostrom (1977 in McCay 1996) makes the case for the labeling them "common pool resources." This corrects a common error that confuses the natural characteristics of a resource and the social and cultural arrangements that people devise to lay claim to these resources (McCay 1996:112). Although these resources may physically lend themselves more easily to a common property claim, societies may enter into other contractual relationships regarding common pool resources.

[10] Term coined by Sinha, Gururani and Greenberg 1997.
This technique is called recession agriculture. Soil that was formerly under water remains wet even after the water recedes.

186

[11] Bidan and Haratines refer to each other as family, even if they are not related by blood, they are related by hierarchical bonds.

[12] A political boundary equivalent to a county.

[13] A political leader of a *Moghtaa*.

[14] Data gathered by McCracken in 1999. n= 103 villages.

[15] Provincial capital of Hodh El Gharbi.

[16] It is interesting to note that although the fencing installed around Boichiche fully encloses their fields, 50% of respondents stated that fencing was the development intervention they most desired in Boichiche. The current fencing around the entire wetland is sufficient to keep camels and cows (the most destructive to agriculture) out of their fields, but is not tightly woven enough to keep away goats and sheep which are also capable of inflicting considerable crop damage.

[17] Earthen bunds are small dams or mounds of dirt laid across a sloped field designed to trap water.

[18] Difference significant at $p=.000$.

[19] Aioun El Atrouss is the provincial capital of Hodh El Gharbi.

[20] Data gathered by Steve McCracken in 1999 for Projet GIRNEM of the GTZ.

[21] Data gathered by Steve McCracken in 1999 for Projet GIRNEM of the GTZ.

[22] Interview Sept 27, 1999.

[23] Cows in particular are left to graze and wander on their own without supervision. Often a herder goes for days without seeing their cows, making supervision very difficult.

BIBLIOGRAPHY

1997. "Islamic Republic of Mauritania Rainfed Natural Resources Management Project: Staff Appraisal Report". Washington D.C.: The World Bank.

Abdelkader, Isslemlou. 1996. "Gestion des Ressources Naturelles en Zone Pluviale Mauritanienne: Aspects Juridiques Institutionnels et Communautaires." Nouakchott: Ministère du Développement Rurale et de l'Environnement.

Adams, W.M. 1992. *Wasting the Rain: Rivers, People and Planning in Africa.* Minneapolis: University of Minnesota Press.

Agarwal, Arun and Jesse C. Ribot. Unpublished. "Accountability in Decentralization: A Framework with South Asian and West African Cases".

Agarwal, Bina. 1998. "Environmental Management, Equity and Ecofeminism: Debating India's Experience." *The Journal of Peasant Studies* 25:55-95.

—. 1994. "Gender, Resistance and Land: Interlinked Struggles Over Resources and Meanings in South Asia." *The Journal of Peasant Studies* 22:81-125.

—. 1994. "Gender and Command Over Property: A Critical Gap in Economic Analysis and Policy in South Asia." *World Development* 22:1455-1478.

Arkell, Thomas. 1991. "The Decline in Pastoral Nomadism in the Western Sahara." *Geography Magazine* 76:162-166.

Ault, D. and Rudman G. 1979. "The Development of Individual Rights to Property in Tribal Africa." *Journal of Law and Economics* 22.

Baland, Jean-Marie and Jean-Philippe Platteau. 1996. *Halting Degradation of Natural Resources.* Oxford: Clarendon Press.

Bates, Robert. 1989. *Beyond the Miracle of the Market.* Cambridge: Cambridge University Press.

Behnke, Roy. 1995. "Natural Resource Management in Pastoral Africa." in *Social Aspects of Sustainable Dryland Management,* edited by Daniel Stiles. New York: Wiley and Sons.

Benjaminsen, Tor A. 1997. "Natural Resource Management, Paradigm Shifts, and the Decentralization Reform in Mali." *Human Ecology* 25:121-143.

Bennett, John W. 1988. "The Political Ecology and Economic Development of Migratory Pastoralist Societies in Eastern Africa." in *Power and Poverty: Development and Development Projects in the Third World*, edited by D. W. Atwood et al. Boulder: Westview Press.

Berry, Leonard, David Campbell and R.J. Harrison Church. 1977. "Trends in Man-Land Interaction in the West African Sahel." in *Drought in Africa*, edited by D. Dalby et al. Accra: International African Institute.

Berry, Sara. 1993. *No Condition is Permanent: The Social Dynamics of Agrarian Change in Sub-Saharan Africa*. Madison: University of Wisconsin Press.

—. 1989. "Access, Control and Use of Resources in African Agriculture: An Introduction." *Africa* 59:141-5.

—. 1989. "Social Institutions and Access to Resources." *Africa* 59:41-55.

—. 1988. "Concentration without Privatization? Some Consequences of Changing Patterns of Rural Land Control in Africa." in *Land and Society in Contemporary Africa*, edited by R.E. Downs and S.P. Reyna. Hanover: University of New England Press.

Bonte, Pierre. 1987. "L'herbe ou le Sol? L'évolution du Système Foncier Pastoral en Mauritanie du Sud-Ouest." in *Hériter en Pays Musulman*, edited by Marceau Gast. Paris: Centre National de la Recherche Scientifique.

Bonte, Pierre. 1981. "Ecological and Economic Factors in the Determination of Pastoral Specialization." *Journal of Asian and African Studies* xvi:34.

Brhane, Meskrem. 1997. "Narratives of the Past, Politics of the Present: Identity, Subordination and the Haratines of Mauritania." in *Political Science*. Chicago: University of Chicago.

Bromley, Daniel W. 1991. *Environment and Economy*. Cambridge: Blackwell Publishers.

Campbell, David and Jennifer Olson. 1991. "Framework for Development: The Kite." in *Center for Advanced Study of International Development Occasional Paper Series*. East Lansing: Michigan State University.

Caratini, Sophie. 1989. *Les Rgaybat*. Paris: Harmattan.

Carney, Diana and J. Farrington. 1998. *Natural Resource Management and Institutional Change*. New York: Routledge.

Carney, Judith A. 1996. "Converting the Wetlands, Engendering the Environment." in *Liberation Ecologies: Environment, Development, Social Movements*, edited by Richard Peet and Michael Watts. New York: Routledge.

Chanock, Martin. 1991. "Paradigms, Policies and Property: A Review of the Customary Law of Land Tenure." in *Law in Colonial Africa*, edited by K. Mann and R. Roberts. London: Heinemann and James Currey.

Cleaver, Frances and Diane Elson. 1995. "Women and Water Resources: Continued Marginalization and New Policies." *International Institute for Environment and Development Gatekeeper Series* 49.

Colson, Elizabeth. 1971. "The Impact of the Colonial Period on the Definition of Land Rights." in *Profiles of Change: African Society and Colonial Rule*, edited by Victor Turner. Cambridge: Cambridge University Press.

Cousins, Ben. 2000. "Uncertainty and Institutional Design: Proposals for Tenure Reform in South Africa." in *8th Biennial Conference of the International Association for the Study of Common Property*. Bloomington, Indiana.

Davies, Susanna. 1996. *Adaptable Livelihoods: Coping with Food Insecurity in the Malian Sahel*. New York: St. Martin's Press.

Deininger, Klaus and Hans Binswanger. 1999. "The Evolution of the World Bank's Land Policy: Principles, Experience and Future Challenges." *The World Bank Research Observer* 14.

Doornbos, Martin and J. Markakis. 1990. "The Crises of Pastoralism and the Role of the State: Trends and Issues." in *Pastoral Economies in Africa and Long-Term Responses to Drought*, edited by J.C. Stone. Aberdeen: Aberdeen University African Studies Group.

Edwards, Michael and David Hulme. 1996. *Beyond the Magic Bullet: NGO Performance and Accountability in the Post-Cold War World*. West Hartford: Kumarian Press.

Effrat, Marcia (Ed.). 1974. *The Community: Approaches and Applications*. New York: Free Press.

Ensminger, Jean. 1996. "Culture and Property Rights." in *Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment*, edited by Carl Folke, Karl-Goran Maler and Susan S. Hanna. Washington D.C.: Island Press.

Evers, Yvette D. 1995. "Supporting Local Natural Resource Management

Institutions: Experience Gained and Guiding Principles." in *Social Aspects of Sustainable Dryland Management*, edited by Daniel Stiles. New York: Wiley and Sons.

Feder, Gershon and David Feeny. 1991. "Land Tenure and Property Rights: Theory and Implications for Development Policy." *The World Bank Economic Review* 5:135-153.

Feder, Gershon and R. Noronha. 1987. "Land Rights, Sytems and Agricultural Development." *The World Bank Research Observer* 2:143.

Feeney, Daive, Firket Berkes, Bonnie J. McCay and James M. Acheson. 1990. "The Tragedy of the Commons: Twenty-Two Years Later." *Human Ecology* 18:1-19.

Fortmann, Louise. 1996. "Bonanza! The Unasked Questions: Domestic Land Tenure Through International Lenses." *Society and Natural Resources* 9.

Gadgil, Madhav and Prema Iyer. 1989. "On the Diversification of Common-Property Resources Use by Indian Society." in *Common Property Resources: Ecology and Community Based Sustainable Development*, edited by Fikret Berkes. London: Belhaven Press.

Gadgil, Madhav and Ramachandra Guha. 1992. *This Fissured Land: An Ecological History of India*. Los Angeles: University of California Press.

Galaty, John G. and Douglass L. Johnson (Ed.). 1990. *The World of Pastoralism*. New York: Guilford Press.

Galaty, John G. and Pierre Bonte (Ed.). 1991. *Herders, Warriors and Traders: Pastoralism in Africa*. Boulder: Westveiw Press.

Gray, Leslie and Michael Kevane. 1999. "Diminished Access, Diverted Exclusion: Women and Land Tenure in Sub-Saharan Africa." *African Studies Review*. 42:15-39.

Grayzel, John. 1988. "Land Tenure and Development in Mauritania: The Causes and Consequences of Legal Modernization in a National Context." in *Land and Society in Contemporary Africa*, edited by R.E. Downs and S.P. Reyna. Hanover: University of New England Press.

Gusfield, Joseph R. 1975. *Community: A Critical Response*. New York: Harper and Row.

—. 1967. "Tradition and Modernity: Misplaced Polarities in the Study of Social Change." *American Journal of Sociology* 72:351-362.

Hames, Constant. 1979. "L'évolution des Emirats Maures Sous l'effet du Capitalisme Marchand Européen." in *Pastoral Production and Society*, edited by Gallaty J. New York: Cambridge University Press.

Hardin, Garrett. 1968. "The Tragedy of the Commons." *Science* 162.

Hodges, Tony. 1983. *Western Sahara: The Roots of a Desert War*. Westport: Lawrence Hill and Company.

Jarosz, Lucy. 1999. "Women as Rice Sharecroppers in Madagascar." Pp. 127-138 in *Women Working in the Environment*, edited by Carolyn E. Sachs. Washington DC: Taylor and Francis.

Jodha, Narpat S. 1996. "Property Rights and Development." in *Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment*, edited by Carl Folke and Karl-Goran Maler Susan S. Hanna. Washington D.C.: Island Press.

Joekes, Susan, Cathy Green and Melissa Leach. 1996. *Integrating Gender Into Environmental Research and Policy*. Sussex: Institute of Development Studies.

Katz, Elizabeth G. 2000. "Social Capital and Natural Capital: A Comparative Analysis of Land Tenure and Natural Resource Management in Guatemala." *Land Economics* 76:114-132.

Kepe, Thembela and Ian Scoones. 1999. "Creating Grasslands: Social Institutions and Environmental Change in Mkambati Area, South Africa." *Human Ecology* 27:29-53.

Kishwar, Madhu. 1987. "Toiling without Rights: Ho Women of Singhbhum." *Economic and Political Weekly* 22:95-102.

Kleymeyer, Charles D. 1994. "Cultural Traditions and Community-Based Conservation." in *Natural Connections: Perspectives in Community-Based Conservation*, edited by David Western and R. Michael Wright. Washington, D.C.: Island Press.

Lane, Charles. 1998. "Introduction: Overview of the Pastoral Problematic." in *Custodians of the Commons*, edited by Charles Lane. London: Earthscan.

Lane, Charles and Richard Moorehead. 1994. "New Direction in Rangeland Resource Tenure and Policy." in *Living with Uncertainty: New Directions in Pastoral Development in Africa*, edited by Ian Scoones. London: Intermediate Technology Publications.

Latour, Bruno. 1987. *Science in Action*. Cambridge: Harvard University Press.

Leach, Melissa, Robin Mearns and Ian Scoones. 1999. "Environmental Entitlements: Dynamics and Institutions in Community-Based Natural Resource Management." *World Development* 27:225 -247.

Levroissier. 1987. "Pratique et Abolition de L'esclavage en Mauritanie." in *Social Anthropology*. Paris: Université René Descartes Paris V.

Lovejoy, PE and S. Baier. 1976. "The Desert-Side Economy of the Central Sudan." in *The Politics of Natural Disaster: The Case of the Sahel Drought*, edited by M. H. Glantz. Westport: Praeger Publishers.

McCracken, Steven. 1999. "Village Settlement Study of Hodh El Gharbi Province, Mauritania." Aioun: Cooperation Mauritano-Allemande.

Mackenzie, Fiona. 1988. "Land and Territory: The Interface Between Two Systems of Land Tenure, Murang'a District, Kenya." *Africa* 59:91-109.

Marchesin, Phillippe. 1992. *Tribus, Ethnies et Pouvoir en Mauritanie*. Paris: Karthala.

McCay, Bonnie J. 1996. "Common and Private Concerns." in *Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment*, edited by Carl Folke and Karl-Goran Maler Susan S. Hanna. Washington D.C.: Island Press.

McCay, Bonnie J. amd Svein Jentoft. 1998. "Market or Community Failure? Critical Perspective on Common Property Research." *Human Organization* 57:21-29.

Mehta, Lyla, Melissa Leach, Peter Newell, Ian Scoones, K. Sivaramakrishnan and Sally-Anne Way. 1999. "Exploring Understanding of Institutions and Uncertainty: New Directions in Natural Resource Management." in *IDS Discussion Paper, Institute of Development Studies*.

Migot-Adholla, Shem, Peter Hazell, Benoit Blarel, and Frank Place. 1991. "Indigenous Land Rights Systems in Sub-Saharan Africa: A Constraint on Productivity?" *The World Bank Economic Review* 5:155-175.

Moorehead, Richard. 1989. "Changes Taking Place in Common-Property Resource Management in the Inland Niger Delta of Mali." in *Common Property Resources: Ecology and Community-Based Sustainable Development*, edited by Firket Birkes. London: Belhaven Press.

N'Diaye, Mohamed El Moctar. 2000. "Rapport d'Analyse des Questions Foncieres et Conflits lies a l'Eploitation de quelques Zones Humides au Niveau du Hodh El Gharbi." Aioun: Cooperation Mauritano-Allemande.

Norgaard, Richard. 1994. *Development Betrayed. The End of Progress and a Coevolutionary Revisioning of the Future*. New York: Routledge.

Ostrom, Elinor. 1997. "Institutional Rational Choice: An Assessment of the IAD Framework." in *Theories of the Policy Process*, edited by Paul Sabatier. Boulder: Westview Press.

—. 1996. "The Formation of Property Rights." in *Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment*, edited by Carl Folke and Karl-Goran Maler Susan S. Hanna. Washington D.C.: Island Press.

—. 1990. *Governing the Commons*. New York: Cambridge University Press.

—. 1987. "Institutional Arrangements for Resolving the Commons Dilemma." in *The Question of the Commons*, edited by Bonnie McCay and James Acheson. Tucson: University of Arizona Press.

Ould Al-Barra, Yahya and Abdel Wedoud Ould Cheikh. 1996. "Il Faut qu'une Terre Soit Ouverte ou Fermée." *Revu des Mondes Musulmans et de la Méditerranée* 79:157-180.

Ould Cheikh, Abdel Wedoud. 1997. "Terroir, Nomadisme et Sédentarité en Mauritanie." *Décentralisation de la Gestion Locale des Ressources Naturelles*.

Ould Cheikh, Abdel Wedoud. 1991. "The Evolution of Moorish Society." in *Herders, Warriors and Traders: Pastoralism in Africa*, edited by John G. Galaty and Pierre Bonte. Boulder: Westview Press.

—. 1986. *Les Problèmes Actuels du Nomadisme Sahélien: Le Cas de la Mauritanie*. Nouakchott: Institut Mauritanien de Recherche Scientifique.

—. 1985. "Nomadisme, Islam et Pouvoir Politique dans la Société Maure Pré Coloniale." in *Sociolgy*. Paris: Université de Paris.

Ould Mey, Mohameden. 1996. *Global Restructuring and Peripheral States: The Carrot and the Stick in Mauritania*. London: Littlefield Adams Books.

Ould Zeidane, Mohammed. 1998. "Overview of the Pastoral Problematic: Mauritania." in *Custodians of the Commons*, edited by Charles Lane. London: Earthscan Publications.

Pearce, David. 1988. "The Sustainable Use of Natural Resources in Developing Countries." Pp. 102-117 in *Sustainable Environment Management: Principles and Practice*, edited by R. Kerry Turner. Boulder: Wetsview Press.

Peters, Pauline E. 1987. "Embedded Systems and Rooted Models: The Grazing Lands of Botswana and the Commons Debate." Pp. 171-194 in *The Question of the Commons*, edited by Bonnie McCay and James Acheson. Tucson: University of Arizona Press.

Platteau, Jean-Philippe. 1996. "The Evolutionary Theory of Land Rights as Applied to Sub-Saharan Africa: A Critical Assessment." *Development and Change* 22:29-86.

Raven, Peter H. 1991. "Winners and Losers in the Twentieth-Century Struggle to Survive." Pp. 269-267 in *Resources, Environment and Population*, edited by Kingsley Davis and Mikhail Bernstam. New York: Oxford University Press.

Raynaut, Claude. 1988. "Aspects of the Problem of Land Concentration in Niger." in *Land and Society in Contemporary Africa*, edited by R.E. Downs and S.P. Reyna. Hanover: University of New England Press.

Redclift. 1995. *Sustainable Development: Exploring the Contradictions*. New York: Routledge.

Rocheleau, Dianne, Barbara Thomas-Slayter, and Esther Wangari. 1996. "Gender and Environment: A Feminist Political Ecology Perspective." Pp. 180-208 in *Feminist Political Ecology*, edited by Barbara Thomas-Slayter and Esther Wangari Dianne Rocheleau. New York: Routledge.

Rostow, W.W. 1993. "Modernization: Stages of Growth." in *Social Theory*, edited by Charles Lemert. Boulder: Westview Press.

Runge, Carlisle Ford. 1986. "Common Property and Collective Action in Economic Development." *World Development* 14:623-635.

—. 1981. "Common Property Externalities: Isolation, Assurance, and Resource Depletion in a Traditional Grazing Context." *American Journal of Agricultural Economics* 63:595-606.

Sachs, Carolyn E. 1999. "Introduction: Connecting Women and the Environment." Pp. 127-138 in *Women Working in the Environment*, edited by Carolyn E. Sachs. Washington DC: Taylor and Francis.

195

Salihi, Dah. 1996. "Pastoralism and Desertification in Mauritania." in *The North African Environment at Rist*, edited by Will D. Swearingen and Abdellatif Bencherifa. Boulder: Westview Press.

Sandford, Stephen. 1983. *Management of Pastoral Societies in the Third World*. Chichester: John Wiley and Sons.

Sarin, Madhu. 1998. "Community Forest Management: Whose Participation?" in *The Myth of Community: Gender Issues in Participatory Development*, edited by Irene Guijit and Meera Kaul Shah. London: Intermediate Technology Publications.

Scott, James C. 1985. *Weapons of the Weak: Everyday Forms of Peasant Resistance*. New Haven: Yale University Press.

Sensenbrenner, J. and A. Portes. 1996. "Embeddedness and Immigration." *American Journal of Sociology* 98.

Shanmugaratnam, Nadarajah. 1992. "Resource Management and Pastoral Institution Building in the West African Sahel." in *World Bank Discussion Papers*. Washington, D.C.: The International Bank for Reconstruction and Development.

Shine, Tara. 2002. "Ephemeral Wetlands in Eastern Mauritania": Ecosystem Descriptions and Options for Integrated Management.' In *The Department of Life and Health Sciences*. Coleraine: University of Ulster, Northern Ireland.

Shipton, Parker. 1988. "The Kenyan Land Tenure Reform: Misunderstandings in the Public Creation of Private Property." in *Land and Society in Contemporary Africa*, edited by R.E. Downs and S.P. Reyna. Hanover: University of New England Press.

Shiva, Vandana. 1988. *Staying Alive*. London: Zed Books.

Sillitoe, Paul. 1999. "Beating the Boundaries: Land Tenure and Identity in the Papua New Guinea Highlands." *Journal of Anthropological Research* 55:331-360.

Simard, Gisele. 1996. *Petites Commercantes de Mauritanie*. Paris: Karthala.

Sinha, Subir, Shubhra Gururani and Brian Greenberg. 1997. "The 'New Traditionalist' Discourse of Indian Environmentalism." *The Journal of Peasant Studies* 24:65-99.

Stewart, Charles. 1973. *Islam and Social Order in Mauritania*. Oxford: Clarendon

Press.

—. 1972. "Political Authority and Social Stratification in Mauritania." in *Arabs and Berbers: From Tribe to Nation in North Africa*, edited by Ernest Gellner and Charles Micaud. Toronto: Lexington Books.

Sylla, Djeidi. 1994. "Pastoral Organizations for Uncertain Environments." in *Living with Uncertainty: New Directions in Pastoral Development in Africa*, edited by Ian Scoones. London: Intermediate Technology Publications.

Talle, Aud. 1988. *Women at a Loss*. Stockholm: Stockholm Studies in Anthropology.

Thebaud, Brigitte. 1995. "Land Tenure, Environmental Degradation and Desertification ini Africa." *International Institute for Environment and Development Drylands Programme Issue Paper 57*.

Thomas-Slayter, Barbara and Dianne Rocheleau. 1995. "Research Frontiers at the Nexus of Gender, Environment and Development: Linking Household Community, and Ecosystem." in *Women and International Development Annual*, edited by Rita Gallin and Janice Harper Anne Ferguson. Boulder: Westview Press.

Tonnies, F. 1963. *Community and Society*. New York: Harper and Row.

Toupet, Charles. 1977. *Sedentarization des Nomades*. Paris: Librarie Honore Champion.

Van Den Breemer, J.P.M., C.A. Drijver, and L.B. Venema (Ed.). 1995. *Local Resource Management in Africa*. New York: Wiley and Sons.

Wallerstein, Immanuel. 1993. "The Modern World-System." in *Social Theory*, edited by Charles Lemert. Boulder: Westview Press.

Windstrand, Carl G. 1975. "The Rationale of the Nomad Economy." *Ambio* IV:146-153.

APPENDICES

**Ordonnance 83-127
Portant Réorganisation Fornicère et domaniale**

Le Comité Militaire de Salut National
À déliberé et adopté;
Chef de l'Etat, promulgué

L'ordonnance don't la Teneur suit:

Article 1:
La terre appartient à la nation et tout Mauritanien, sans discrimination d'aucune sorte, peut, en se conformant à la loi, en devenir propriétaire, pour partie.

Article 2:
L'Etat reconnaît et garantit la propriété foncière privée qui doit, conformément à la Chariaa, contribuer au développement économique et social du pays.

Article 3:
Le système de la tenure traditionnelle du sol est aboli.

Article 4:
Tout droit de propriété que ne se rattache pas directement à une personne physique ou morale et qui ne résulte pas d'une mise en valeur juridiquement protégée est inexistant.

Article 5:
Les immatriculations foncières prises au nom des chefs et notables sont reputées avoir été consenties à la collectivité traditionnelle de rattachement.

Article 6:
Les droits collectifs légitimement acquis sous le régime antérieur, préalablement cantonnés auz terres de culture, bénéficient à tous ceux qui, soit participé à la mise en valeur initiale, soit contribué à la périnnité de l'exploitation. L'individualisation est de droit. A défaut d'accord sur le partage, et si l'ordre sociale l'exige, les opérations de redistribution seront réalisées par l'administration.

Article 7:
Les actions foncières collectives sont irrecevables en justice.
Les affaires de même nature actuellement pendantes devant les cours et
tribunaux seront radiés des rôles sur décision spéciale de la juridiction saisie.
Les arrêts ou jugements de radiation sont inattaquables.

Article 8:
Toute forme d'affermage de la terre non conforme à la Chariaa est prohibée ; les
parties ne peuvent, par leurs conventions ,déroger à cette disposition d'ordre
public.

Article 9:
Les terres « mortes » sont la propriété de l'Etat.
Sont réputées mortes les terres qui n'ont jamais été mises en valeur ou dont la
mise en valeur n'a plus laissé de traces évidentes.
L'extinction du droit de propriété par « l'indirass » est opposable aussi bien au
propriétaire initiale qu'à ses ayants droit, mais ne s'applique pas bien au
propriétaire initial qu'à ses ayants droit, mais ne s'applique pas bien au
propriétaire initia qu'à ses ayants droit, mais ne s'applique pas cependant aux
immeubles immatriculés.

Article 10:
Les terres qui ont appartenu à l'Etat en vertu des dispositions de la loi 60 139 du
2 Août 1960 demeurent domaniales, et les prescriptions des articles 12 et 13 ci-
dessous leur sont applicables.

Article 11:
Les biens fonciers vacants et sans maître sont acquis à l'Etat dans les conditions
définies par la Chariaa.

Article 12:
Quiconque désire accéder à la propriété d'une terre domaniale doit
impérativement en obtenir au préalable la concession.

Article 13:
La mise en valeur d'une terre domaniale sans concessions préalable ne confère
aucun droit de propriété à celui que l'a faite.
En pareil cas, l'Etat peut soit reprendre le terrain soit régulariser l'occupation.
Lorsque le terrain ne comporte pas de plantations, constructions ou ouvrages, la
reprise n'ouvre droit à aucune indemnité.
Dans le cas contraire, l'occuant irrégulier sera indemnisé pour ses impenses, à
moins qu'il ne préfère enlever ou détruire à ses frais sses plantations,
constructions ou ouvrages.
Dans tous les cas et conformément à la Chariaa, l'indemnisations tien
uniquement compte des matériauz pouvant être récupérés après enlèvement ou
destruction de l'immeuble.

A défaut d'accord amiable sur le montant de l'indemnité, celle-ci est fixée par la juridiction civile compétente saisie à la diligence de l'occupant évincé.

Article 14:
L'Etat procède par voie administrative pour la préservation de ses droits fonciers. Il appartient à celui que en conteste l'existence de se pourvoir en justice pour faire le preuve que le terrain n'est pas domanial. L'action en contestation doit être impérativement introduite, sous peine de déchéance, dans un délai d'un mois après la notification de la mise en demeure de libérer les lieux.
Le demandeur en contestation dispose seulement de deux mois pour produire ses moyens de preuve ; ce délai de forclusion ne peur être prorogé.
Les jugements rendus sur la contestation ne sont pas susceptible d'appel.
Le pourvoi en cassation formé contre ces décisions n'a pas d'effet suspensif.

Article 15:
L'Etat est obligatoirement cité en qualité de partie intervenante dans toute instance visant à faire reconnaître à des particuliers des droits de propriété sur le sol.
Cette règle ne s'applique pas, et l'Etat n'a pas à ête cité, lorsque le terrain a déjà fait l'objet d'une cession domaniale devenue définitive.

Article 16:
Les tribunaux doivent se déclarer imcompétents toutes les fois que la revendication porte sur une terre domaniale.

Article 17:
L'exception tirée du caractère domanial du terrain litigieux peur etre proposée concurremment par l'Administration ou par les défenseurs en revendication, le juge peur aussi la soulever d'office.
A défaut d'acquiescement, le tribunal doit surseoir à statuer au fond et renvoyer les parties devant la juridiction compétente pour la solution de cette question préjudicielle. La juridiction de renvoi est saisie en contestation de domanialité, à la diligence du demandeur en revendication.

Article 18:
Le juge des contestations se limite à dire si la terre est domaniale ou ne l'est pas. Défense lui est faite dans ce dernier cas de se prononcer sur le droit de propriété et d'en désigner, même indirectement, le titulaire.

Article 19:
Les jugements rendus en application des articles 14 et 17 ci-dessus ne sont contradictoires à l'égard de l'Etat que si l'administration a été représentée ou a déposé des conclusions écrites.

Articles 20:
Les concessions de grande superficie ne seront accordées que si l'investissement projeté présente un impact économique et social appréciable et seulement dans la mesure où les intérêts légitimes des petits propriétaires sont sauvegardés.

Article 21:
Le droit de propriété ne peut empêcher la réalisation d'un projet d'intérêt national ou régional et ne saurait en particulier entraver l'expansion harmonieuse d'une agglomération urbaine.
Nul ne pourra cependant être contraint de céder ses droits si ce n'est pour cause d'utilité publique et moyennant une juste compensation.

Article 22:
Tous puits et forage situés en dehors des propriétés privées sont déclarés d'utilité et l'usage publique.

Article 23:
L'espace vital des agglomérations rurales est protégé. Les modalités de cette protection seront précisées par voie réglementaire.

Article 24:
Les droits individuels régulièrement constitués sur des fond de terre de toute nature sont facultativement soumis au régime de l'immatriculation.
L'immatriculation devient cependant obligatoire à l'occasion de certains transferts de propriété limitavement énumérés par la réglementations foncière.

Article 25:
Les droits qui ne résultent pas d'une concession définitive sont assujettis, préalablement à leur inscription, à une procédure administrative de vérification.

Article 26:
Les contestations domaniales relèvent exclusivement de la compétence des chambres mixtes des tribunaux régionaux.
Les règles de la procédures civile ordinaire s'appliqueront chaque fois qu'elles ne sont pas contraires aux dispositions sus-énoncées.

Article 27:
Le régime juridique de la propriété foncière demeure fixé par la Chariaa pour tout ce qui n'a pas été réglé par la présente ordonnance.

Article 28:
Des décrets pris en Conseil des Ministres préciseront en tant que de besoin les modalités d'application de cette ordonnance, qui abroge et remplace la loi 60-139 du 2 août 1960.

Article 29:
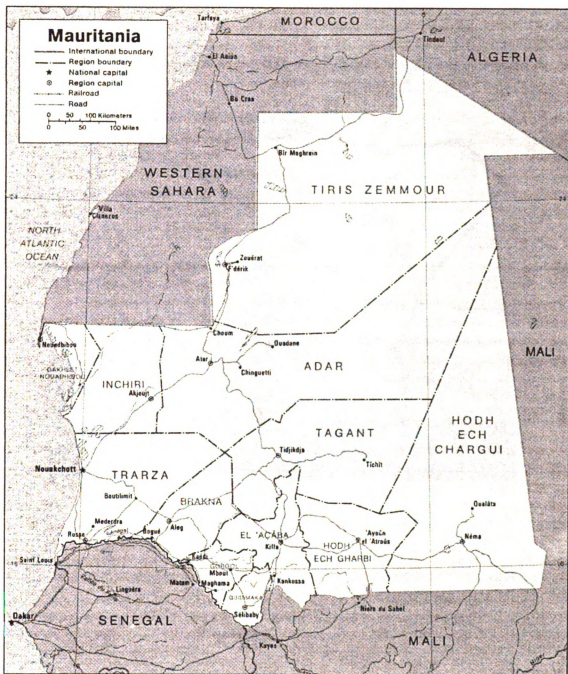La présente ordonnance sera publiée suivant la procédure d'urgence et exécutée comme loi de l'Etat.

Nouakchott, le 5 juin 1983
Pour le Comité Militaire de Salut National
Le Président
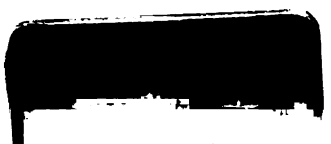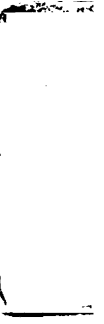Lt. Colonel Mohamed Khouna Ould Haidallah

Tamachekett

Legrayer

'Ayoûn
el 'Atroûs

HODH

Boichiche

ECH GHARBI Chlim

Gongel Chara
Benamane
Chilkha

kossa Leweija

Fali Sawanaa