

# **Rural Transition: Agricultural Development and Tenure Rights**

**A case study in the Senegal River Valley**

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Note: In order to best understand the tenure system of the Senegal River Valley, it is necessary to identify and explain the many cultural differences inherent in traditional land rights. Because men have exclusionary rights over land tenure, the use of masculine pronouns throughout the paper is not a conscious attempt to undermine gender equality. The male dominated society is inherent in Islamic customs and there is limited place reserved on the farm for women, who generally do not have any rights over the land. However, women's rights are not completely marginalized. Such a system gives women certain economic rights, allowing them to control the financial management of the home and family. These important issues constitute a topic beyond the scope of this research.

## **Rural Transition: Agricultural Development and Tenure Rights**

### **A case study in the Senegal River Valley**

#### Introduction

Food crisis in the drought stricken Sahel is ushering forth a socioeconomic rural transformation. Stimulating agricultural production has required borrowed foreign concepts and ideologies that challenge Africa's conventional wisdom of an authentic path to social and economic development. Modernizing the agricultural sector is a politically volatile undertaking and risks disintegrating centuries-old patterns of social organization. Despite the risks, the transition to modernization with an increased dose of state intervention is irreversible. What needs to be addressed at this stage is how this transition can be peacefully managed. The purpose of this paper is to examine the role of land tenure in rural transition as a constraint to development both in a theoretical point of view and from experiences in Senegal. Using the Sub-Saharan food crisis and the need for agricultural growth, this research investigates various systems of land tenure as impediments to agricultural development. The dominant communal system of land management and socioeconomic organizations must be investigated in the context of contemporary conflict over land tenure and subsequent development stagnation. Finally, the paper will take an acute look into conflicts that have arisen over land tenure, traditional tenure in relation to Senegal's Law of National Domain, and ultimately the paper offers some recommendations that may alleviate some of the socioeconomic constraints of development with respect to land tenure.

For two decades there has been an extraordinary interest in Sub-Saharan African agricultural reform. Primarily agrarian economies, seventy percent of the population is considered to be among the rural poor supplying agricultural goods accounting for forty percent of Sub-Saharan Africa's exports (USAID, 1998). Over the last twenty-five years, agricultural production has increased by only 2 percent compared to an average population growth rate of 3.2 percent. This translates to an increase in the number of mouths to feed in Sub-Saharan Africa from 204 million in 1991 to 480 million in 2025 (Spencer & Badiane, 1995). Food production growth has lost ground to population growth and Sub-

Saharan Africa has witnessed a transformation from a net exporter in the 1960s to a net importer of food in the 1980s and 1990s (World Bank, 1999). This food shortage has brought worldwide attention to its cause and effect leading to structural reform policies promoted by the World Bank and other international financial lenders. Macroeconomic policies adjusting the exchange rates and "getting the prices right" have resulted in marginal gains those employed in the tradables sector (food exporters), but food production growth levels are still abysmally low. This may signal the need for a new era of increased attention on structural reform designed to increase incomes via productivity growth in the rural sectors.

Despite legendary failures of large and small irrigation schemes during the 1970s and early 1980s noted by Morris and Thom (1987), modernization is still considered complementary to macroeconomic reform. Confirmation of this can be seen throughout the Sahel, especially along the Senegal River Valley, where millions of dollars continue to be spent on irrigation. Transforming the rural peasantry by introducing modern technology is seen by many as the link to overall economic growth. Evidence lends strong support to the close relationship between sustainable agricultural development providing the basis for industrialization as the mechanism of economic growth. From the 1960s to the early 1990s, Sahelian GDPs grew at a paltry annual level of 1 percent substantiating the correlation of low agricultural growth and overall economic development in all sectors (Spencer & Badiane, 1995). Advocates of agricultural-led economic growth espouse the idea that demand carried forth by the heavily populated rural sector is the means to stimulate industrial production. Considering well over one-half of Senegal's population is considered rural, it follows that any increased demand in this sector can dramatically stimulate economic output. Finally, studies by Timmer (1988) show that a high level of agricultural development immediately preceded industrialization in most European countries. In an effort to remove agriculture as the weak link to the rest of the economy, the World Bank and other donor agencies have invested billions of dollars into agricultural reform. Commercialization through modernization is currently the mantra of agricultural development in much of Sub-Saharan Africa. Even with the factors of macroeconomic reform and modernization, however, production levels are considerably below what is needed for real agricultural growth. The most basic need of agricultural reform is a substantial sustained acceleration in

the agricultural growth. The argument this paper proposes is that there are additional socioeconomic factors that arrest production growth rates unacknowledged or misunderstood by neoclassical prescriptions. The problem for the researcher is pinpointing with any accuracy these constraints within the system.

## **Food Crisis**

Essential to understanding the reasons for agricultural reform, one must appreciate the gravity of the food crisis in Senegal (and most of the Sahel). Beginning in 1968, a major drought wiped away any production gains since independence and led to a severe food crisis in Senegal and most of the Sahel. Senegal's imports of rice and other food commodities increased by as much as 80 percent by 1971, and a lack of any state sponsored relief mechanisms contributed to a famine that followed in 1973 (Mackintosh, 1987). State coffers suffered dramatically. Before the drought, 80 percent of Senegal's government revenue came from its primary export: peanuts. By 1971, peanut production dropped so much that it only accounted for 36 percent of government revenue (Mackintosh, 1987). Ultimately culminating in a nationwide famine, pressure from a starving, despondent population and increasing criticism from international aid agencies pushed Senegal to instigate further reforms to stimulate agricultural production and resolve the food crisis.

In the early 1970s, Senegal's reaction to the drought and famine was a pledge of food self-sufficiency. Using international investment as the propellant, Senegal embarked on an ambitious project of agribusiness investment tied to the guiding principles of Senegal's coveted land reform, the Law of National Domain instituted in 1964. Investing in agricultural modernization while simultaneously promoting his idea of "African socialism," President Léopold Senghor, the author of the Law, predicted a future of agricultural production solely reliant upon domestic capabilities stimulated by Senegal's communal spirit and improved production techniques.

These idealistic visions have been sobered by unimpressive or stagnant growth over the past thirty years. A steady decline of the world peanut prices during the 1970s devastated Senegal's

government revenue for the second time in twenty years. Consequently the national deficit ballooned to 15.8 percent of the gross domestic product by 1980. A few years later, Senegal was supplying only 52 percent of its total food demand while prices for export goods such as cotton and peanuts continued their decline with subsidies the government could ill afford (Husain, 1994). Given such dire macroeconomic conditions, Senegal's emphasis on stimulating exportables through subsidies was a short-term remedy to maintain enough foreign exchange for its import bill. What policy makers failed to see, however, was that this import bill was increasing faster than its export revenues. Domestic food production growth was severely lagging behind population growth - even when one accounts for donor assistance accounting for 8 percent of Senegal's food supply (Magistro, 1988). This financial burden on state coffers was bound to lead to severe economic collapse. The price controls via agricultural subsidies ignored the fundamental problem of stagnant production levels. With 70 percent of the population engaged in agricultural production, it is now clear that such emphasis on artificially low export prices was counterproductive. Since groundnut yields account for less than 15 percent of total agricultural output, focusing on such a small sub-sector completely ignored the majority of the rural population (World Bank, 1997). Therefore, increasing subsidies to groundnut farmers designed to bring domestic prices closer to or lower than competitive world prices not only further burdened government expenditures but also did nothing to increase overall income levels, and hence purchasing power of the entire population.

As a result of this tunneled focus on fiscal policy adjustment, agricultural reform in Senegal has little to boast when looking at the rising food imports and paltry production growth levels. In the early 1990s, one-third of Senegal's cereal consumption was composed of commercial imports growing at an annual rate of 3.4 percent. This dependency was accelerated with a negative growth rate in domestic cereal production of 0.5 percent (Badian, 1992). Modest gains in peanut export earnings have been reported in the past 5 years, but these improvements are barely due to a dramatic improvement in production capacity. The 1994 50 percent CFA devaluation, favorable weather, and recent legislation in 1996 allowing the deregulation of marketing boards and privatization of export trade markets receive the accolades for growth seen in the latter half of this decade. Stimulating production growth is a different

animal. It is clear that the gap between domestic agricultural supply and demand is not closing. Recent studies of population growth and consumption patterns report that if production is to ever meet the levels of domestic consumption, the agricultural sector must maintain (a rather optimistic) growth rate of over three percent for the next ten years (Ly, 1998). These statistics cloud any promise of meeting self-sufficiency anytime soon, if ever. Making matters worse, the advancement of the Sahara Desert, wind and water erosion, and a declining soil fertility offset minimal gains in annual food production growth (USAID, 1997).

Hindsight has depicted a series of missed opportunities and failed policies. Economists, politicians, and development specialists must be wondering what has gone wrong. For decades, reports have shown that Senegal does in fact have the natural resources to lessen its burden on food imports and even meet its domestic food demand. Warm weather year round and irrigation potential along three major rivers - the Senegal, the Casamance, and the Gambia - offer a comparative advantage in food production. World Bank surveys in 1974 estimated that up to 50% of Senegal's cultivatable land remained unused (World Bank, 1974). Studies between 1980 and 1994 reported virtually the same land use patterns seen ten and twenty years ago (World Bank, 1997). One of the only areas witnessing an increase in cropland use since the study in the 1970s has been the Senegal River basin - but this is a small percentage of the uncultivated arable land throughout the country. If Senegal does in fact possess the ability to accelerate agricultural growth, the defeat witnessed in the past three decades must be attributed to problems in reaching marginalized populations that have gone unnoticed and/or unacknowledged.

For years, as one can now see, Senegal's focus on agricultural development has touted structural adjustment, international investment, and market regulation as the panacea to the food crisis (Platteau, 1992). Senegal's 1964 land reform in combination with millions of dollars worth of multinational assistance in the past decade is falling short of meeting the common objectives of increased agricultural production. Failures to increase food production through these means substantiate a core problem deeper than the constraints within the Law of National Domain and beyond the reach of macroeconomic fiscal controls on prices, and market regulation. This contemporary era offers the researcher a unique

interpretive window of social and political development caught between tradition and modernization. As a result, there is a wide investigation into two distinct logics on the ground: the logic of past traditional systems and the logic of modernization through the introduction of agricultural technology. Thirty-five years after President Senghor revolutionized African land tenure, Senegal's interim period of land reform is facing its first significant challenge. The much anticipated multi-million dollar dam and irrigation project in the Senegal River valley has finally begun. With modernization now a reality, the Law of National Domain can (or cannot) be held up to its claims as a superior tenure system for African development. Critical to Senegal's desire in becoming food self-sufficient, the valley is now the lynchpin of agricultural development. A growing population in the urban centers is demanding more agricultural goods than the country is currently producing. The constraints to development are the economic costs of modernization; restiveness throughout the valley is increasing as customs and traditions are overturned systematically. Thirty years ago, the valley was not burdened with the task of feeding 8.3 million people (USAID, 1998). Now it is being tapped as one of the richest agricultural production regions in the country. How this socioeconomic transformation progresses will determine the production capabilities of not only the region but also the entire country of Senegal.

### **Rural Transition in Ross Béthio**

Focusing on the Rural Community of Ross Béthio in the Senegal River Valley, this paper will look further into politically unacknowledged development constraints as the underlying factor of Senegal's food crisis. In a relatively short period of ten years, this region has received massive infrastructure investment that has pitted traditional and modern tenure systems face to face. More specifically, the research investigates the consequences of the dynamic changes upon the traditional, social, and political environment of Ross Béthio's peasantry over time. By looking at this particular subset (sub-society) within a multiethnic state, one can more easily identify an organizational pattern directed by rational and comprehensible norms and values. Understanding the dynamics of an evolving sub-society and its effect on its organizational structure are necessary to identify constraints within its

own development and ultimately its similarities to other Sub-Saharan countries facing similar problems. Like all human societies, the tenure system is a product of history and understanding how the past evolved helps to understand the present and hopefully improve the future (Caverivier et al, 1998).

The intent of the Law of National Domain was to create a synthesis of local customs and modern technology in order to lessen Senegal's grain import dependency. Contrary to the intent of the Law, few regions in Senegal have yet to experience any significant transition to modern technology. The introduction of chemical fertilizers is the extent of technology for the majority of farmers. Irrigation, double cropping, and mechanized production is exclusively limited to small pockets throughout the country. One of these pockets is Ross Béthio in the Senegal River valley. The introduction of irrigation in the past ten years is making an impact on the landscape. Capital investment is moving into a highly labor-intensive agricultural sector. The thousands of peasants who call this region home must now share the land with thousands more attracted by the region's irrigated cultivation and technologically advanced mechanization. The result is a fast changing economy that is threatening the stability of traditional and communal tenure systems. A number of original inhabitants perceive their system of cultivation as uncompetitive and overrun by an otherwise prohibitive capital-intensive system. It is not surprising, therefore, to see peasants provoke a rejection to the valley's transformation. Modern tenure methods are threatening the values and organizational structure of the valley's original peasants.

Development constraints in the Senegal River valley include natural phenomena like drought, locusts, and desertification. Science technology has yet to find appropriate mechanisms to decrease the severity of any of these. Common among developing countries, especially within Africa's arbitrary colonial borders, the valley is also home to countless social and political constraints that have yet to be resolved. The past two decades have seen conflicts in the valley increasingly turn to violent confrontation taking the lives of its inhabitants. All too often, the most inflexible obstacles to a peaceful development have been the unanticipated consequences of modernization: socioeconomic transition, conflicts over land usage rights, and the tenants of the interpretations and effects of the Law of National Domain. In effect, to the researcher of political science and/or anthropology, this region offers a wide array of

socioeconomic factors of rural transition. As social relations and organizations evolve over centuries, the task of identifying transition factors is ambiguous at best. The Senegal River valley, on the other hand, provides a rare and clear opportunity to witness firsthand simultaneous rural transition due to contemporary land right conflicts and reform. It is even fair to say that many of the sociological constraints seen throughout most of valley, including the recurring Senegalese/Mauritanian border conflict, can be attributed to this transition and its impact on social relations. In many respects, the river valley with particular emphasis on the region of Ross Béthio is a microcosm of development constrained by customary logic. Understanding how constraints evolve in space and time, how they are avoided, and what lessons can be learned will help formulate mechanisms that allow more efficient and welcome development.

### **Transition in Ross Béthio**

Seated fifty-five kilometers east of Saint-Louis, the Rural Community of Ross Béthio is the largest administrative jurisdiction in the delta region, accounting for 2050 km<sup>2</sup> out of a total 3500 km<sup>2</sup>. There are 103 villages and hamlets with the commercial and administrative hub in the village of Ross Béthio. The Senegal River borders to the north, the Keur Momar Sarr and Rao districts to the south, the rural community Rosso Senegal to the east, and the districts Mbane and Rao to the west. There are two distinct natural zones in the region distinguished by their soil quality: the *walo*, and the *jeeri*. The seasonally flooded *walo* lands are very fertile and limited to the banks of the river. The sediment deposits left behind after the receded floods provide a nutrient rich and humid soil. This zone can be cultivated year-round due to its proximity to the river. The *jeeri* lands extend through the upland plains of the valley reaching to the southern frontier of the Ross Béthio. Irregular rainfall and recurrent locusts are common to this zone. Without irrigation, the *jeeri* requires long periods of fallow until the rainy season between July and November (*Plan quinquennal du développement*, 1999).

There are essentially two modes of agriculture in the region: seasonal rain and flood dependent cultivation, and the newly introduced system of modern irrigation. The summer rains provide the sandy

soil of the *jeeri* an adequate environment for grain agriculture and herding. Strictly limited to one-harvest production during the rainy season, traditional cultivation includes peanuts, sorghum, corn, and niebé (a local bean). Economic activity in Ross Béthio is now led by rice production, replacing traditional grain cultivation, herding, and fishing. There is also a small light-industry sector, led by the tomato paste production facility, SOCAS. Current and future transformation and commercialization of resources depends on increasing the region's agricultural economic activity.

Ross Béthio, and most of the Sahel, has only recently begun to emerge from the grips of the latest drought in 1983. Traditional farmers are beginning to reach pre-drought production levels but eclipsing this is the rapid pace of modernization in Ross Béthio's *walo* zone. This situation of modern agriculture and traditional farming side-by-side provides an ideal environment for the researcher. The return of the seasonal rains and subsequent flooding is supplying ample water for corn, sorghum, and niebé for the traditional peasant. In addition small, natural basins act as water reservoirs enabling the farmer to practice traditional hand irrigation during the dry season. With the introduction of mechanized canal irrigation, Ross Béthio is supporting modernization and traditional tenure; two logics of agriculture are coexisting simultaneously. Other regions in Senegal can boast dual agricultural systems, but none can match the amount of donor investment and the numerous obstacles that have been met in Ross Béthio. For this reason, the rural transition is creating quite of bit of excitement among multilateral aid organizations, international donor agencies, researchers, and especially the Senegalese who live in Ross Béthio.

Although no where near a majority, a growing population in Ross Béthio is dependent on irrigation as the primary method of agricultural production. Before its implementation, farmers in the region initially supported the project because such development activities came with the promise of increased production. Although the first phase of the irrigation project is nearly complete only a hand full of participating farmers have achieved the promised double cropping. The major complaint among the farmers is the cost of inputs required to repay loans to the valley's state-run rural land management authority, *Société d'Aménagement et d'Exploitation des terres du Delta du fleuve Sénégal et des vallées du*

*fleuve Sénégal et de la Falémé*, SAED. In an average year, the costs of labor and inputs (seeds and fertilizer), consume as much as 30 to 40 percent of the harvest returns. The reason for such high costs, according to the farmers, is the limited physical size of allocated perimeters that range between .8 and 1 ha per family (Park, 1993). The largest plot in the Ross Béthio region is only four hectares (N'Dao, interview, 1999). There is simply no room for economies of scale. The limited size, however, has more to do with a traditionally labor-intensive practice than ill intentions on behalf of the state. The larger the field, the more labor that is required - this naturally limits the size of typical perimeters. In effect, the maximum size of a field usually does not exceed the amount of physical labor a family can provide. The size of the perimeter is in proportion with the available inputs. Having to rely on existing labor, the farmer understands his environmental constraints and limits of his abilities. The underlying principle is that these small holdings are designed to absorb available labor rather than maximize production (Magistro, 1988). Of course there are exceptions and families can hire wage-labor, but this is only possible if there is a labor supply and if the family can afford it. Even still, land perimeters have only been decreasing since the valley's original settlers arrived. As land is passed from generation to generation, it is continually divided up among surviving relatives (usually sons). Eventually, however, the division must stop at a minimum size sufficient to meet subsistence needs - near the existing 1 ha. per family.

These same small plots now require much higher input costs if one chooses to grow rice or any other commercial grain. Land from Ross Béthio's Rural Council is obtained free of charge, but to have it connected to the irrigation network, the farmer faces an annual tax of 45,000 - 65,000 CFA/year depending on the terrain size. If the peasant chooses to irrigate and rent capital intensive tillers, tractors, and combines, his annual expenditures double. The introduction of irrigation and Western farming practices has thus required a change in strategy from labor-intensive farming to capital-intensive farming. Some peasants are learning to accommodate to the changes; the returns for some of the more productive farmers during favorable seasons have allowed some village peasants to reach an income level sufficient enough to purchase household consumables previously unaffordable like televisions, VCRs, telephones, and even automobiles. On the other hand, the majority of peasants still feel the state-set input costs are

restrictively high relative to the maximum revenues a farmer can receive from a typical harvest. One hectare of land can yield 65 - 100 sacs of rice selling at a maximum price of 10,000 CFA/sac in May and a minimum price of 6,000 CFA/sac in September. A farmer with off-season storage capacity can earn 650,000 - 1,000,000 CFA from one harvest. An efficient farmer who exploits a second off-season harvest can double his seasonal revenue. Very few peasants have the capability to achieve this given a credit crunch and restrictive costs of such capital investments. Most take in an annual revenue of 390,000 - 600,000 CFA at the end of the wet-season harvest. Taking into account average fixed input expenditures near 100,000 CFA, plus the obligation to cover costs of maintenance and repair, a peasant's annual income is not significantly more than what it was before irrigation. For this reason, some of the original inhabitants of the region lament to the extent of regretting their participation with irrigation farming, and wish to return to traditional *walo* and/or *jeeri* cultivation dependent on river hand irrigation and/or annual flooding. On the other hand, the high costs are an incentive towards efficient production. The peasants that understand a system of individual accountability, are generally the most successful (N'Dao, interview, 1999). For many, this is an altogether new concept after years of continuing state-controlled pricing and marketing mechanisms.

Another concern for the region is the paradoxical dependence on the state supported input services. The ubiquity of the state supply network managed by SAED has made it a virtually monopsony provider of seed and fertilizer. The government's emphasis on irrigated, mono-crop rice production has led Senegalese peasants to abandon traditional markets of supply and demand. Farmers no longer face seasonal decisions as to what crop to plant based on community needs and/or tradition. Whereas the state has gotten out of the business of setting grain export prices, it now feels obligated to set input prices - intentionally determining what grain will be cultivated. Such intervention is a double edged sword; as the primary guaranteed supplier of inputs while boosting rice production the state is crowding out a local supply network because it cannot compete with subsidized pricing (Park, 1993). From an economic standpoint, there is little argument that this practice is eliminating jobs, rather than creating them. This is

the antithesis of conventional agricultural-led economic growth theory. Here there is an opportunity for the private sector to provide a supply network for the rural sector and it is being prevented by the state.

The valley peasants who consider themselves the original inhabitants by right of birth worry about outsiders influencing traditional tenure practices. With the customary system threatened by state control and pressure to integrate into a much larger economic market, certain peasants find mutual security by organizing themselves into defensive units. It is not uncommon to find peasants reinforcing their own rights and their own control over land management by creating new forms of organization, political interest groups, or labor/farmer unions. The objective of such reorganization is to formalize traditional rights fencing off outside influences from permeating and corrupting accepted norms and values. This is a concerted effort to protect their rights from disappearing and becoming mere historical footmarks in the valley's development. Popular in Ross Béthio among many farmers is the refusal to register land with the Rural Community. As long as the state has no record of their tenure, they perceive immunity from any state mandate. And more importantly, they feel that they cannot face expropriation of their land (Mathieu & Freudenberger, 1998). Such efforts are in vain because of their limited capacity to thwart migration. Unfortunately for these stalwart protectionists, development in the valley is drawing hundreds, and perhaps thousands, of new peasants every year. The Rural Councils need up-to-date surveys and availability of the land when appropriating parcels to the new migrants who are entitled land by right. Problems arise when land is assigned according to "official" registration records despite habitation or existing claims on the land. And when customary rights over the land are understood by one party as superior to the state's, there is obvious room for contention.

Modernization is a steamroller through Ross Béthio and its momentum is not in check. Unofficial estimates place the number of migrant farmers employing modern techniques in the region beginning to surpass the original valley peasantry espousing customary techniques. As this population gap widens even further, a power shift will irreversibly favor those who practice irrigation techniques thus marginalizing a proportionately smaller indigenous peasantry. Fearing this transition during the late

1980s some of these peasants began an eastward migration up-river to other lesser-developed zones. Those left behind now find themselves even further neglected (N'Dao, interview, 1999).

### **History of Land Tenure and Agricultural Reform in the Valley**

Nestled within the harsh confines of the Saharan desert's westernmost front, the Senegal River's fertile valley has been a host of various political claims and kingdoms. The first inhabitants of the valley, long before the arrival of the first European navigators around the middle of the 15<sup>th</sup> century, were the Peulh (Toucouleur) emigrants of the Diaogo, Manna, Tondiong, and Laam ethnicities. Found on both sides of the Senegal River Valley, they inhabited a narrow strip of land over 600 km in distance stretching from the Atlantic Ocean inland. Legend has it that the land was first apportioned by the "master of fire," the original land settler who claimed as much land as he could clear in one burning. Forever after, the *laman*, the descendant of the original land settler, would carry spiritual nobility and authority over the land serving as a divine intermediary between the existing tenants of the land and the master of fire. Given greater privileges over the land than the common peasant, this marked the beginning of the highly stratified social hierarchy that still exists today.

While Europe was passing through the Middle ages, pre-colonial Senegal had seen the rise and fall of great kingdoms of the Sudanic state and these villages and towns were incorporated into the dominant political units of the time. One of Senegal's oldest and most prominent states during the tenth and thirteenth centuries was the Tekrur. This kingdom prospered from the trans-Saharan trade between North and West Africa, which involved gold and slaves moving north and cowries, salt, and weapons coming south. During the eleventh century, the Tekrur leader War Jabi, came under the influence of Muslim traders and missionaries from North Africa. The great majority of the Tekrur people followed his lead and the kingdom became the first Senegalese state to embrace Islam. The densely populated Tekrur kingdom lasted until the thirteenth century when it succumbed to the Mandinka Mali Empire to the east. To the south of the river, during the same period, the Wolof were being unified under the leadership of the legendary Ndiadiane N'Diaye which soon claimed rule over the smaller Wolof states of Walo, Cayor,

and Baol uniting them to form the Djolof kingdom at the end of the thirteenth century (Caverivier et al, 1998).

At the local level, most villages and communities enjoyed a considerable amount of autonomy from the political transformations - as long as they acknowledged the authority of the ruling kingdom. The trans-Saharan trade that undergirded the political kingdoms, was far removed from the daily tasks of village life. Subsistence living dictated an economy based on agriculture, herding, and fishing. Because land was plentiful and the political rulers were more concerned with exacting tribute from as many people as possible, local villages established a clear institutional understanding of land rights without political interference. This helped shaped a protective system of land rights based on ancestral relations as opposed to political power and control. Two regimes of land tenure, therefore, evolved side-by-side: large estates managed by the political leaders and small family plots at the local level. Today, very few of the large estates remain due to periodic invasions and seizure dating back to the Foutanké kingdom installed during the sixteenth century. A few existing estates have weathered the test of time and one can find some that date back to the earliest dynasties that ruled over the valley prior to the sixteenth century, most notably the Lam Terness of the fifteenth century (Caverivier et al, 1998).

The period between the eleventh and eighteen centuries brought another transformation to the valley. With the Tukrur kingdom's embrace of Islam, it was inevitable that institutionalized religion would play an ever-expanding role in peripheral regions. Unlike the arrival of the European traders who settled along the coast, Islam swept through from the north without missing any of the inland kingdoms. For those unreformed regions, the first defense was a reorganization of the Peulh societies into political units. Able to absorb migrating peasants with little difficulty up to this point, the arrival of the northern Maure missionaries threatened the valley's social organization unlike the feudal regimes of the kingdoms. The security of the society was manifested through a heightened reverence to ancestral ties, as a wall of defense to overtly exclude outsiders. Effectively preserving land rights, a new era of tenure emerged

based on tight collective control of the land and political authority based on family and ethnic relations<sup>1</sup>. By the time the French established Saint-Louis as the West African colonial capital in later half of the nineteenth century, the peasants along valley inland through the Sahara Desert had firmly established indigenous local political institutions with ancestral lineage serving as the supreme authority regarding land issues (État & Société, 1991).

The initial impact of the European arrival around the middle of the fifteenth century on the region's tenure system was strictly limited to peasants along the river in the coastal region. The most dramatic introduction was an economic exchange for agricultural produce thus placing a new value on the land's output. Harvests now had a monetary value that in exchange could be used to buy imported goods from traders as far away as the Netherlands, France, or Portugal. Soon the valley's most influential princes and chiefs realized the increased worth of the regions production and used it to increase their strength and control over their kingdoms. The peasant populations became, in essence, intermediaries in charge of increasing the wealth and power of the regional chiefs now emboldened with new means of political power like horses and guns that allowed them to centralize their kingdoms with an army and administrative unit. Scattered land holdings along the river became more than supply sources of subsistence living as the economic value of land increased. Subsequently, more administrative control by regional political bodies emerged. With the spread of Islam, this tightening and centralization of power served to endorse the tenure system based on family lineage as a cultural norm (Le Roy, 1987). Not until the ultimate colonial conquest and complete tenure overhaul in much of West Africa by the end of the nineteenth century did this system begin to disintegrate. In the meantime, the various kingdoms, invaders, and irrevocable spread of Islam served to preserve traditional tenure based on hereditary and family lineage.

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<sup>1</sup> Not all of Senegal reacted the same way to the spread of Islam. The emergence of the religiously, politically, and socially powerful Marabouts in the central peanut basin is essentially a unique acculturation of Islam. Peasants pay reverence in the form of land offerings and harvest yields in exchange for spiritual tribute performed by the Marabouts on behalf of the donors (Caverivier et al, 1998).

As French colonial posts were slowly being installed, so too were governmental and judicial techniques of their metropole in Paris. In 1830, the French West African governor in Saint-Louis at the mouth of the Senegal river, declared the Civil Code over all territorial possessions. By colonial fiat, French legal rights would now supercede aboriginal rights. And starting in 1850, the French colonial policy began to transform from trading to political dominance. An era of territorial occupation and exploitation began to spread French domination along the entire coast, and up the Senegal and Saloum rivers. By the early 1860s, Governor Faidherbe installed military posts in Casamance and forced treaties subjecting the ancient kingdoms to a protectorate regime. The conquest was completed by the turn of the century and in 1904 the colonial government began a land tenure reform that gave French citizens incontestable rights over the land. For quite some time the French colonialists had already considered unregistered land as property of the state. Thus virtually guaranteeing the distribution of the land among French settlers, the colonialist used land as a tool to civilize the Africans – a tool of domination to generate export commodities for the European market (Caverivier et al, 1998).

One of the biggest hardships for peasant farmers during the colonial regime was the requirement of land registration with the colonial administration. The Civil Code, an extension of French civil rights, allowed land ownership to anyone as long as the land in question was registered with the state. As for the peasants who had held their land for generations according to their traditional system, they now had to register and substantiate their tenure with appropriate legal documentation - a complete subordination of their norms and values. In order to preserve and maintain the centuries-old hold on their land, a peasant was required to identify proof of tenure before the colonial administration would respect this holding or not. An inherent problem most peasants faced was that their land claims were based on either ancestral ties or verbal rental contracts with other Senegalese landholders who in turn had ancestral ties. A network of well-understood customary verbal agreements and hereditary ties to the land made it very difficult, in the eyes of the French, to establish and confirm who had legitimate claims. To make matters worse, the colonial administration worked only in French and considered all documents in any other language null and void. For these peasants, written documentation of past transactions was therefore impossible. All

this worked to the favor of the colonial regime who in turn transferred much of the land to their own interests, displacing peasants to inferior lands.

The colonial power, assuming control over all "conquered" lands, presupposed their own rights to install their own form of land management directed by the metropole in Paris. Little regard was paid to the diverse and respected indigenous land tenure system that had its own history of evolution in the valley long before colonial arrival. Unwilling to recognize a system of traditional tenure, the French colonialists confirmed an absence of local tenure organization in a law signed in 1862 paving the way for complete French territorial domination. Three years later, the French passed a Customary Law in French West Africa cementing by decree all colonial land concessions from Senegalese peasants (Le Roy, 1987). This legislation gave French settlers favorable access to exploit the land by implementing French law, stripping the Senegalese peasant farmers of their traditional rights. Angered by a complete disregard to their own laws and customs, the peasants viewed such esoteric laws as inferior to their own organizational system. The new "invader," buoyed by military might and a philosophy of controlling the spoils of conquest, installed a tenure system that completely overturned the social fabric of the Senegal River valley. A longer-term impact, however, came from the introduction of the centralized state - very much still directly influencing contemporary political development. Ideologies and political control have changed from the colonial regime to a sovereign state, but the permeation of the state in social and economic affairs remains.

Not until independence in 1960 could the Senegalese effectively address the tumultuous effects of the colonial tenure system. Assessing the damage left behind by the colonialists, President Senghor wrote and adopted the Law of National Domain on June 17, 1964. His objective was to sever the colonial tenure system while renewing the best traditional (customary) practices opening the door for modernization. Thus began another chapter in Senegal's tenure system, predated by the original Puelh settlers, numerous kingdoms, the influence of Islam, and the tumultuous years of colonization. Yet each of these land management schemes did not succeed each other without a period of overlapping ideas and

values. Such ideas and values of one regime have been adopted that seem akin to those of a previous regime. In this respect, despite its condemnation of colonial tenure, the Law today contains much of the same language as the French system. The most notable similarity, and in discord with customary traditions, is the registration of land according to a systematic parceling of Senegal's surface area. Protest withstanding, the Law is being introduced while customary traditions still reign (Caverivier et al, 1998). For this reason, this paper argues that despite the enactment of the Law of Nation Domain in 1964, tenure practice and policy is still in an era of transition.

There are acute differences, though. Independence in 1960 brought the peasants back to the lands they had left behind during colonial rule. As many of the French left, the peasants reassumed the land they considered to be originally theirs. To reverse the injustices of the colonial regime, the Law of National Domain forbids individual/private land holdings. The Law seeks to redistribute and legitimize traditional holdings, but with a few modifications. No longer is the *laman* considered the supreme holder of the land; the state assumes this responsibility. Although anyone has the right to farm (therein a codification of traditional tenure), state management requires accurate records of land registration - a reversion to some of the difficulties faced by peasants during the colonial administration. Thus, the administrative necessities belie many of the utopian visions of Senghor's Law.

### **Theory of Land Tenure and Differences of Systems**

The claim that traditional African tenure is contradictory to its counterpart in Western society, without being totally wrong, should be examined more closely. To begin with, when discussing non-Western land tenure systems, one must avoid Western terms like 'freehold' or 'ownership.' Such western concepts only distort the Senegalese meaning of the term *tenure*. Understanding cultures and sociological practices requires the observer to interpret behavior in a context removed from one's culture. For many this is difficult to achieve. We are immersed in a world of familiar social behavior to such a great extent we fail to recognize that the behaviors of others are just as natural albeit foreign (Bohannan, 1963).

Despite the acute differences between "Western" tenure and "African" tenure, the objectives are the same: the most efficient exploitation of the land allowable contained by the preservation of customs and values.

As these customs and values evolve over time, the attributed rights within the society also change. Tenure rights, therefore, define themselves by the way in which they control and manage the use of the land in a particular place and time (Le Roy, 1987). Western political thought follows neoclassical economics upholding tenure rights as an individual exclusive possession, similar to any other property that is an absolute, transferable, and inalienable but divisible item. The emphasis is on the individual who, by reliance on the market system, ensures the wellbeing of society. The African system, on the other hand, is more closely related to philosophies of socialism than neoclassical economics designed to serve a communal unit rather than a larger society. African traditional tenure emphasizes the collectivity of the land, its importance to family and community, and the relations that maintain its health and peace. The means are achieved by elevating the rights of the collective group above the individual, contradictory to Western thought.

All societies, whether a centuries-old civilization or relocated migrant ethnic group, have organized a unique management system over land and space where they generate their subsistence. Each adheres to a natural appropriation of land resources that caters to the best of their interests and social reproduction. These evolutionary values are adopted via the choices and constraints of the society, the modes of production, and the political and religious norms that cement the society together. In order to produce the most efficient land production capabilities, societies respect an identifiable system of rules and management. Without such rules, the norms and values are violated and the system is disrupted. Any imbalance to the system is a constraint to its own maintenance and development, thus ushering forth conflict (Le Roy, 1987).

Anthropologic studies of various land tenure systems show that agricultural societies throughout the world share a similar "spatial control" or topographic governance over their land. Despite the differences outlined above, all societies have a common agricultural activity that they identify and carry from one generation to another. Whatever such activity the society practices, there are identical cross-

cultural traits to secure its preservation. Bohannan has identified three essential universal characteristics of social organization with respect to land tenure. First, each group or society has a territorial 'map' that represents the limits of their domain. This 'map' is very easily confused with a Western notion of a surveyed piece of land with precise demarcated boundaries. Such precision is not a trait of customary domain in most of Africa - and it is most often beyond technological capacity. A map in this context refers to the space necessary to meet the needs of the community, growing and shrinking with variable food demand and labor supply. Second, each society or group has a well-understood lexicon for dealing with relations between themselves and the land. All societies have a unique means of land management, regulation, and authority to preserve the system. As noted earlier, the Senegal River Valley employs the concept of ancestral ties to preserve tenure rights. And finally, each society or group ensures a method of recognition "in word or deed" of their spatial environment. Spiritual reverence to ancestors serves as the supreme authority over land disputes according to Valley customs. Traditional customs and/or religious beliefs highlight a unique set of norms and values that have shaped the system's evolution over time, distinguishing it from neighboring or far removed systems (Le Roy, 1987).

When speaking of land tenure, one must first identify what the society means by 'land.' Familiar with its own ethnocentric conceptualization of land, western society has come to view the earth and its surface area in a logical grid-like pattern - dividing up the land in a rigid manner. We have become so efficient (in our pattern of logic) that technological advances permit precise calculations when mapping and surveying our surface in relation to not only every physical feature on the planet but also the stars. Our system of measurement even allows us to identify changes in the earth well below the surface. As complex as this mathematical and technical process is, dividing the surface area up into rigid parcels is the essential component of the Western notion tenure and our administration of land. On the other hand, the African concept of 'land' has a not only a different definition but a different purpose (Bohannan, 1963).

The western philosophy of land tenure perceives a divisible parcel of land as a tangible object and a unit of property. Like anything one 'owns', it can be 'sold' or 'traded.' These are cultural attributes of

tenure our language has attributed to the concept of tenure - whether it is a physical object like a car or a spatial object such as land. Students of African law and land, on the other hand, view 'tenure' as the rights one has over the land with respect to others. There is not a similar notion of 'possession.' Likewise, the usage of words such as 'sale,' and 'ownership' are rarely understood when given in the context of land tenure. It is simply a cultural mismatch of ideas (Bohannon, 1963). In the context of the Senegal River Valley, land is viewed as a public good inasmuch as it serves the needs of the community. Any other use, according to orthodox customs, is deemed inappropriate.

Understanding land tenure, from a Western school of thought, requires the disposition of three preconceived judgements identified by Bohannon. The first to dispel is the idea that all land fits in a *nicely* mapped area. This cultural bias is a major stumbling block that severely distorts cross-cultural tenure systems. The second erroneous judgement is the concept that 'property' is transferable to everything. As highlighted earlier, the cultural differences of 'rights' delineate the distinctions between societal relations as in the African context and the omnipresent Western concept of individualism. The third, and perhaps most relevant, misjudgment is that contract negotiation via rigid adherence to the rule of law is the only justifiable means of property succession in such spatial contexts as land (Bohannon, 1963). Social relationships and the succession of property, in western thought, cannot circumvent a legal framework. Because the rights over land are assumed to be the same as those rights over physical objects, a legal foundation directs the process of transfer. On the contrary, such 'property' rights are not transferable in African society.

The notion of 'rights' as used in the definition of African tenure has more to do with social relations and community survival than personal prosperity. Rights in the African definition represent an ecumenical social unit rather than individual self-identity. African rights are attributed to the social group rather than the individual. For example, westerners pay more attention to individual merits like employment and material worth than family lineage and where one was born. The Western interpretation of 'rights' assumes that individuals have supreme authority over that which one possesses - including physical space and the environment. These rights are not understood as a description of where and who

we are in relation to others, they are a description of where and who we are in relation to what we possess (Bohannan, 1963). Thus, having rights of tenure in a Western context carry with it the rights to exploit all that one wishes regarding this 'property.' In addition, land tenure rights in a Western context are more concerned with physical possession of land and its productive capacity to generate profits. It is a system designed to create an output greater than a community's subsistence needs.

## **Collectivity**

Thus said, one of the few congruencies between the Law and traditional rights is the condemnation of the Western concept of freehold tenure. For development strategists, this cultural bias can be an obstacle in its own right. The question is ultimately asked as to why collectivity is so important. The sale of land and freehold tenure, pure and simple, is forbidden not only under the Law but also under traditional rights. It is considered egotistical and contrary to familiar solidarity (Traore, interview, 1999). Dismissed as inconceivable in both logics, land cannot be an object of individual appropriation in the Western sense, but only a collective holding. In the traditional system individuals are given rights to cultivate land under a rental contract with the *laman*, but the land relation never implicates one person but rather the village and/or community in its totality. One's service on the land is in relation to the needs of the community. Freehold tenure, therefore, is considered as undermining the heart of the system (Traore, 1991).

One of the keys to the maintenance of the valley's tenure system is the institutionalization of a highly stratified tenure system that preserves the social and political organization of the society. A complex set of elaborate rules dictates social behavior that would endanger the collectively of the society if disobeyed. It is the collectivity, or the concept of common property, that is most easily misunderstood with a Western ethnocentric view. The traditional system never permits decision making at the individual level - only insignificant decisions are made at the immediate household level. These collective holdings are generally large and include many individuals with various roles and decision-making responsibilities (Le Roy, 1987). It is not sufficient to speak of land tenure solely in terms of Western political thought.

Customary systems must be seen in their own political and social environment apart from outside influences.

Land is not a tradable good, but a social property at the disposition of the community (by grace of the founding fathers and/or Allah) in order that each member can meet survival requirements and reproduce in time and space. It is not simply a rejection of individualism but rather a system consumed with a strong and reverent belief in the merits of collective organization in a physically harsh environment (both by nature and man). It is a system that turns the community towards a common respect of the land and its sacredness to peasant livelihood. This brings five fundamental reasons why societies organize themselves collectively (each of which are found in the valley): limited resources, a desire for interdependence of the members, the need to protect resources from outsiders, intracommunity conflict management, and finally a means of authoritative government.

The following sections examine these characteristics of communal property - the heart of traditional Senegalese land tenure and to some extent the Law of National Domain. Any agricultural/tenure reform must not only recognize customary social organizations but also understand why and how they developed. Collectivity is a fundamental principle within the Law of National Domain, but as this paper demonstrates later, the Law's interpretation of collectivity does not accord with the communal property beliefs on a village level. Both condemn freehold tenure, but there the similarities part company. Consequently, the differing ideologies arouse contentions among many peasants in the Senegal River valley (Mathieu & Freudenberg, 1998). The socioeconomic transformation in the valley with the introduction of modernization and agribusiness is another point of peasant concern. This is viewed by many as an attempt to impose Western economic philosophy (individualism) upon a traditional respect for the land and therefore it is being met by suspicion, restiveness, and conflict.

### ***1. Limited Resources***

There are certain conditions that incline a society to coordinate their actions in a collective manner. For a small society that resides within a limited space given limited vital resources in their

immediate proximity, the more probable it is that a system of communal resource management will emerge. Throughout the Sahel, extremely harsh climatic conditions make arable land a scarce resource in question (Mathieu & Freudenberger, 1998). Such conditions require a high input-intensive process given the poor fertility and fragility of arable soils and the often high, but greatly variable, rainfall. Collectivity then is a response to a volatile environment with virtually no resources other than land and labor. In addition, drought, flooding, desertification, and plagues of locusts embattle the rural communities. This difficult environment encourages parallel objectives between the group and the individual. When everyone shares the same interests with regard to vital resources and believes that their own individual survival depends on the survival of the community, an organizational system of communal property develops. In effect, by collectivizing the land, the community is diversifying risk among all the members to ensure everyone's subsistence needs are met.

## ***II. Interdependence***

It is also important to acknowledge the interdependence between individual interest and communal interest. For the valley's tenure systems, individual households are responsible for the upkeep, maintenance, and harvest of their own perimeter. The peasant understands that seasonal, short-term, security of the whole community is dependent on his contribution. If for any reason a farmer disrespects collective rules regarding the usage of the resource, the community's food supply is at even greater risk. The communal interest, on the other hand, represents a long-term objective of the group: its own reproduction. The ancestral bond that ties the peasantry to the land is the principle-motivating factor to maintain the health and reproduction of the society (Mathieu & Freudenberger, 1998). Any disruption to the order is considered disrespectful to not only the existing community, but also the ancestors who toiled under the same conditions making it possible for future generations to farm.

### ***III. Protection***

The perceived fragility of the system leads to a defensive modus operandi towards the outside world. A fundamental aspect of resource control within any society is the preferred exclusion of non-members. Especially with a vitally scarce resource such as arable land, the community perceives any threat to its supply as a threat to the community's survival. When an external agent, such as the state, attempts to employ the community's resources, the subordination of collective rights breaks the bond between the society and the land. In the valley, collectivity is an effort to safeguard the community, current landholders, and peasants from being infiltrated by such outsiders. This attitude in the valley traces itself back centuries as it fended off or assimilated migration. The peasant societies reorganized themselves into political units in order to safeguard their access to limited resources. Strengthening traditional values is therefore more than a respect to culture; it is a protection of a way of life and for peasants, a means of self-sufficiency. In the harsh confines of a developing country like Senegal, there are very few employment alternatives to farming that can provide as much food security if this defense were abandoned.

### ***IV. Conflict Management***

In the same vein, communal arrangements also serve as a means of conflict management. When there is an economic shortage of a vital resource, competition for its control can lead to contentious relations within the community. Any individual desiring an inequitable share of arable land in a small community in an effort to increase its demand is doing so to the detriment of the entire group. This is a primary fear among opponents of freehold land tenure; those with a disproportionate hold on the land can control the agricultural economy. Disturbing the fragile balance between the community and the land jeopardizes the reproduction and welfare of the society. To avoid being ostracized from the group, by undermining the highly regarded social relations between members and the mythical ties to their ancestors, individuals choose to preserve the sanctity of the system (Mathieu & Freudenberg, 1998).

## **V. Authority**

All systems of resource management must rely on some authoritative regime in order to uphold the rights and objectives of the community. Collective organization assumes equal rights among the members but within these rights is a complex organizational pattern of authority. This internal hierarchy does not imply a vertical economic stratification based on individual merit like Western society, rather, a vertical social stratification determined by lineage as a divine, God-given responsibility in the community. A peasant in the valley sees his responsibilities in a timeless connection with his lineage, whereas most people in Western society see themselves as an individual in a restricted space and time with no connection to any other world but their own. In Western society, this allows leadership and authoritative responsibility to arise from within an individual and not from without. There is no spiritual connection that determines a person's role in Western society like that seen in societal relations in the valley (Le Roy, 1987).

The entire communal group has a responsibility of exploiting the land, contributing to the security of the community. As for enforcing the rules, the system refers this duty to a respected member. In effect, this is an acknowledgement that respect for the rules of the system cannot be guaranteed by the voluntary benevolent behavior of individual members. The system also cannot rely uniquely on an informal social surveillance network and moral pressure. A capable member, therefore, is awarded privileged rights with explicit authoritative power necessary to ensure the community's objective and to pass judgement over infringements. Along the valley, this role is given to the *laman*. Other communal societies throughout Sub-Saharan Africa depend on the *chef de village* or *chef de terre*, each serving a similar purpose. The *laman's* ancestral lineage dating back to the master of fire accords him the honor and responsibility of maintaining a sacred respect for the land. This authority is considered to be of particularly high status because the mystical powers of the ancestors are the guiding principle of the society (Mathieu & Freudenberg, 1998).

Traditionally, field rights are determined seasonally within the collective. This system most efficiently distributes annual labor resources according to ecological variability - annual flooding and rain. It is important to determine what land and what fields will receive the collectivity's available labor supply, what land (if any) will lie in fallow, what will be planted, and whether any land will be offered in a usufruct transaction to a non-collective member. Directed by the *laman*, it is a communal task to annually appraise the land after each year to determine the following year's potential for production. Once these appraisals are made, the land is allocated according to social status. Age is particularly relevant, an older man with relatively high status, for example, would not receive the same size plot as a young man. Allocations are not the same from one year to the next, although they are consistent in comparable quality. The *laman's* decision of who farms what perimeter is detrimental to the survival of the community. Each individual is accountable for his contribution to the collective, but the *laman* is responsible for ensuring this individual has in mind the best interests of the society and respects collective core values and beliefs.

### **Two ideas of Collectivity: The Law vs. Tradition**

The Law of National Domain promotes the idea of "African Socialism" with a belief that the nation-state of Senegal is the highest collective society. This logic is breaking down a unique local system of collective organization and actually transferring it to a higher level. Before colonialism and the Law of National Domain, every member of a family or community worked for the good of his/her social unit. The Law is transforming a connection between collective society and the land to a connection between individual and the nation-state. No longer is a collective unit determining how the land will be exploited - that right is being usurped by the state. Through the Law, the state increasingly decides not only how the land will be exploited but who will tend the land. Intended to mirror the small-scale collectives on a national scale, this logic is anathema to the fundamental reasons for organizing in a collective manner. (Traore, 1991).

The Law of National Domain is strong enough to weaken the inherent structural components of collectivity stated above. The integration of a small local economy to a much larger and dynamic economy lessens the homogeneity of the group and the interdependence of the community members with respect to the same basic resources. This has the effect of separating the parallel individual interests from those of the group. Members will be more inclined to switch to a more profitable and stable external market when access is available. With community cohesion weakened, the local authoritative capacity diminishes and there are no mechanisms of conflict management. The most vital resources then, become sources of supply for the external state market. And replacing an emasculated local authority, the Rural Council takes full control of administrative authority (Mathieu & Freudenberger, 1998). The omnipotent state, therefore, is a major threat to traditional customs and social organization. If the state were to choose not to recognize traditional rights in its legislation, the stability of the customary organizational structure becomes highly vulnerable. Senegal's Law of National Domain poses such a challenge to traditional rural respect of the land. Notably in the case of herding, the Law ignores customary rights as vestiges of the past and an obstacle to modernization (Mathieu & Freudenberger, 1998). Disabled and vulnerable, the traditional organizational structure can either succumb to oblivion or defend its rights through protective, and at times, violent measures.

### **Traditional Tenure Under Fire**

Throughout the Senegal River Valley, the authority that the *laman* wields is the closest thing to the Western concept of "ownership." For centuries, as population growth and migratory patterns bring new people to uncultivated areas, the *laman* has provided surplus land to those who that needed it. New settlers would be given usufruct rights over the land in exchange of negotiated payments to the *laman's* lineage – the incarnate owner of the land. In most villages this payment, known as a *Rem-Peeeen*, was a small portion of the land's annual yield (Galvan, 1997). Tradition continues and this form of sharecropping based on ancestral ties is still respected today and is at the core of social organization in the valley. Ancestors hold a supernatural power or "mystical heritage" over the land for eternity (Raynaut,

1976). Even if a temporary transfer of land occurs, a member of the original family, by lineage, has the right to take it back - sometimes decades and generations later (Galvan, 1997).

In respect to his ancestors who cleared the land before him, the *laman's* seasonal objective is full exploitation of his land less plots in fallow - climatic conditions permitting. Sometimes, this requires an outside labor supply to which the *laman* extends rental contracts. To the benefit of the land master, the more contracts he offers on the land, limited by his physical perimeter, the more services that are rendered to him (and hence a higher social ranking). Contracts and compensation, based on oral agreements, vary depending on the labor supply in the village. Compensation for land must always be acceptable to the *laman* but never in cash. Many times work services are required for a fixed number of days during the month or week. These tasks involve clearing the fields, sowing, weeding, or harvesting. Other agreements may require ceding between ten and fifty percent of the season's harvest to either the *laman*, his family, or to an Imam as a religious contribution on behalf of the master (an *assakat*<sup>2</sup>). The fundamental difference between this and sharecropping is that this is not always indentured servitude. Despite the fact that these arrangements have the ability to accentuate tenure privileges of a minority, the peasants in the valley consider this a sacred system under ancestral control and it faces no fundamental opposition (Traore, 1991).

Most rental agreements are one-year contracts with an option given to the *laman* to annually renegotiate. Depending on the seasonal flooding, rain, and/or drought he may decide to shuffle land holdings among his renters in order to obtain the highest yield and pay respect to those of variable social rank. Based on location, soil quality, and/or proximity to a water source, the land one is given access to rent is determined by social rank. Those of higher social status always cultivate the better terrain. Longer-term contracts are also available. These are generally set up between parties in order to maintain privileged relations - many times a form of conflict management between villages. A reciprocal arrangement on land use between villages is a foundation of amicable relations (Traore, 1991). Peasants

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<sup>2</sup> An *assakat* is the annual Islamic obligation of redistributing a tenth of the harvest to the poor and needy.

are either exchanged or given to villages in the interest of maintaining or improving cross-village relations.

There are other conditions besides compensation that the renters must obey. *Lamans* can obligate renters to sow a certain grain depending on the previous year's harvest and climatic conditions. This can vary from perimeter to perimeter. Long-term contracts between villages to maintain amicable relations could easily be excluded from such conditions. The surface area to be farmed is not determined until the *laman* knows at the beginning of the season what land will be available. Depending on the previous season's harvest, quality of the soil (its humidity and nutrient content), and predictions for rain, the *laman* makes an annual decision as to what grain will be most productive and where. If possible, some part of his land is left in fallow for a season. A poor millet harvest from the year before, for example, would encourage the *laman* to either leave this particular plot in fallow or cultivate something else. There is another condition that must be respected; renters have no right to cede their land holding to a third person or party except under explicit authorization of the *laman*. Such decisions are the sole responsibility of the ancestral lineage. Any violation to this is considered a violation upon sacred ground. Finally, any contract agreement that is not respected for any reason is cause for termination and is grounds for eviction from the land. In this context, western-perceived property rights are extremely limited. There is no universal or regional law that can be followed when rental contracts are abridged. Renters who wish to challenge the *laman* can do so by an appeal to a village council of elders. The means of judgement and punishment vary from village to village (Traore, 1991).

Land tenure in the Valley is more precisely viewed as an obligation more than a right. Rather than a system of regulation, customary land tenure is a means of conserving resources for the benefit of the community. The colonial law of individual tenure and the recent reforms of modernization violate three obligations (or duties) of the traditional peasant. The first and most important objective is a duty to God (or Allah) - an assimilation during the region's conversion to Islam between the eleventh and eighteenth centuries. Land owes its productivity and existence to Allah, the supreme *provider* of the land (whereas the *laman* provides its *security*). In order to ensure respect of the land in reverence to Allah,

many villages appoint a community member of the highest religious rank to oversee the maintenance of the land. Similar to the *laman*, his duty is passed on through lineage. Following generations would preserve land holdings according to fundamental religious beliefs of the community. If for any reason the land is repartitioned, such "land administrators" guarantee the tenure lineage is respected and is in accordance with the needs of the community, and utmost Allah.

The second obligation is a duty to maintain the productivity of the land for the benefit of the community. Maximum exploitation of the land, given available resources, is the only way to meet the food needs of the society. Having the highest authoritative position in the community and considered to be an intermediary between Allah and man, the *laman* ensures the land is being cultivated in order to maintain the society's food supply and due respect is given to his ancestors who cleared Allah's land. The productivity of the land also preserves social stability and procreation. Collectivity binds the community together in an area of harsh environmental conditions. (Caverivier, 1998).

The third duty is to protect the integrity of the *laman*, his family, and his progeny. Landholdings are considered conditionally inalienable, so long as a sovereign payment to the *laman* is made. With respect to the original clearer of the land, the living ancestral lineage must be paid the annual rent (or *Rem-Peceed*). This mythological obligation supports the belief that the spirits of the ancestors never leave the land. These spirits protect and preserve the land and control the fate of the harvest. If the system is disrupted, the fate of the land may turn for the worst (Boutillier, 1963).

Another essential aspect of the valley's tenure system is a unique cohabitation between farmers and herders that have organized themselves into loosely knit federations. Each identifies a topographical region defining their specific practice. Even though both groups use some the same land in question, it is at different times of the year - a system of time-sharing. Joint use of land is practiced only during the after-harvest, nonagricultural, season. The farmer would otherwise jeopardize his entire yield to a hungry herd of cattle. As for as the land that is not shared, the herders have semi-permanent water points (wells) in arid lands not suitable for farming and the farmers have sacred land where certain natural formations (trees, hills, etc) receive and guard ancestral spirits where herding is unacceptable. Shared field access

solidifies social and economic ties between the two distinct groups. The herder has access to the remaining stocks (stubble) of the harvested cereal. The farmer then benefits from the manure as a source of fertilizer and receives milk products in exchange for grain (Le Roy, 1987). This system is repeated annually and any break in the cycle would be a detriment to social relations between the two parties.

### **The Evolving Conflict in the Valley**

Neglect of traditional organizational systems is a common oversight of political development and nation building and can too often be an indirect cause of conflict and strife. The complementary relationship between herders and cultivators in the valley has helped shape organizational relations over centuries, evolving and developing gradually over time. This pattern of relation building has also had a long history of relative stability despite the dual use system of fertile land as a scarce resource between herder and cultivator. The surge of violence in the valley in 1989 marked a dramatic departure from an accepted norm of mutual land use rights. On April 9, 1989 in the middle-valley village of Diarwa, Senegal, Mauritanian soldiers crossed the Senegal River to the south and killed two Senegalese peasants on their own land. Upon return, the Mauritanian military took hostage, imprisoned, and mistreated thirteen Senegalese living north of the river. The anger that spawned led to riots in the respective capitals and ultimately the rupture of diplomatic ties (Xinhua, 1989). Diverting from traditional relations in the valley, the incident that caused this *mêlée* was a Senegalese peasant/Mauritanian herder confrontation a few days earlier. The Mauritanian decision to send troops to the border was in reaction to Senegalese peasants trying to run-off Mauritanian herders from a soon-to-be-harvested field.

The Diarwa incident is often presented as a tinderbox continually fueling interstate problems heightened by an underlying power rivalry between Senegal and Mauritania. Especially in Africa, it is not uncommon to see neighboring countries express a need to determine rank and regional influence with each other with a demonstration of cross-border skirmishes. This pattern of power relations between Senegal and Mauritania pits two growing countries together struggling in a fight over ideology and integrity. Intensifying the problem is the recent extension of state control (agricultural reform and

investment) to territorial peripheries where the boundary itself is only a recent phenomenon (Zartman, 1989). Caught in the middle, the small village of Diarwa unknowingly played a part in political development and state-building. The conflict between the two sovereign nations overshadows two underlying factors. On the Senegalese side, the Diarwa incident underscored the socioeconomic transformation the valley is undergoing. On the Mauritanian side, it is less directly understood as an interstate rivalry, but rather a spillover of the process of building social and political relations. Regardless, in light of recent agricultural reform and the new debate over land use and management in the valley, this herder/peasant conflict has an even much deeper resonance than attributed.

For centuries the Senegal River valley has been a symbiotic cross-border "family." Senegalese and Mauritians along the river valley have inter-married and co-existed with few problems. There have been long established and respected rights supporting dual-national historical claims to land in the valley. During colonial rule, the French even instituted legislative cross-border tenure rights along the Senegal River. The 1905 *arrêté* established the boundary between the two territories and the right of either citizen to cultivate on both sides of the river (Park, 1993). Until 1989, neither government had ever challenged this piece of legislation. Crying foul over Senegal's condemnation of the Diarwa deaths, Mauritania deported imprisoned Senegalese peasants (and consequently all Senegalese nationals) living north of the river. Senegal reacted in a like manner and thus the two neighbors breached their international accord and a codified norm terminated (Park, 1993).

For the first time in history, the valley had been politically divided overnight by powers located hundreds of miles away north and south. What is significant about this feud for the purposes of this study is determining why the farmers, at his particular time, chose to break the norm of dual land usage and cohesion. The answer lies in the rural transition of the valley with the introduction of modernization, state control, and opposing land tenure rights. The completion of the Diama and Manantali<sup>3</sup> dams by the end of the 1980s and the simultaneous multinational donor-led irrigation investment on both sides of the

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<sup>3</sup> The Manantali dam is located in the middle valley region near the village of Diarwa. Here, there are similar yet smaller irrigation projects like those seen near the Diama dam in the delta region.

border preceded authoritative control mechanisms and began a process of dismantling a centuries-old tenure system. The productive capacity potential of the land improved dramatically. The massive international investment project created thousands of hectares of valuable farmland via a network of canals and pumping stations carrying fresh water to drought stricken areas. The first to feel the squeeze were the nomadic herders suddenly denied access to land perceived to be more valuable with irrigation potential. Farmers previously limited to seasonal cultivation were now promised multiple crop harvests. No longer would some peasants need to leave their plots in fallow during the dry season. Traditionally open to grazing rights at this time, the herders now faced restricted land rights. The complementary relation between the two activities came to an end for many (Park, 1993).

As incoming peasants of both nationalities migrated towards the valley, tenure opportunities decreased as the demand for new land claims reached a limit. This migration glut transformed a once sparsely populated valley into a highly sought after locale for agricultural activity. Increased administrative intervention on behalf of the state ushered forth a political power shift into an environmentally and politically volatile society. With it came new laws and legislation without design and concern for the river societies. In previous years, conflicts such as Diarwa would have been resolved through traditional means but such systems in the region are no longer capable to handle change of this magnitude. Increased migration is overburdening local administrative institutions and there are few resources to manage heightened conflict. It is not surprising, therefore, that the valley is not immune to dispute. Modernization and state power are disintegrating customary tenure rights and social organization. And sharpening the tenuous divide, there are as of yet very few effectively established methods of conflict negotiation and resolution.

### **Law of National Domain**

The current Law of National Domain is the governing constitution of land regulation in Senegal and is arguably one of the most original tenure system in Africa. Upon its decree on June 17, 1964 President Senghor explained the law; "...It means very simply to come back from the Roman law to

African, from the bourgeoisie conception of tenure ownership to the socialist conception that is traditionally African." Its goal is to renew the best aspects of traditional tenure before colonialism and ally it with the best practices of modernization (Caverivier et al, 1998). Private ownership or freehold land tenure, the Law argues, is depicted as a bleak revision to feudalism that allows the proprietor to manage land solely for personal gain in direct contradiction to what is best for society. Private ownership denies the nation and its subjects a divine right to farm for self-sufficiency, understood in the Law as an inherent Senegalese right. The law even argues the disastrous potential of speculative land barons holding vast tracts of empty land for profit-driven, selfish remuneration – literally starving the population. The Law of National Domain prevents such failings by providing land to any citizen who desires (Platteau, 1992).

Ninety-five percent of all the land in Senegal is under the jurisdiction of the Law of National Domain<sup>4</sup>. Only the state has legal jurisdiction over the land, presumably in the best interest of the nation while preserving equitable distribution. Commercial activity (private, cooperative, or multinational) has few legal rights over the land. No matter who is exploiting the land, the state is the ultimate managing body determining the status of the land and how it can be used. The state, therefore, serves as the political voice of reason ensuring everyone has access to the land. Adherents of the Law endorse its preservation of traditional tenure systems and categorically denounce private ownership as symptomatic of "egotistical capitalism." In this view, the Law is the embodiment of the concept of collectivism on a higher level.

The Law of National Domain is also a reorientation of the radically enforced land laws of French colonisation, reversing the French Civil Code and the colonialist "right of conquest." French civil code was implemented harshly on local chiefs by "right of conquest." The Law of National Domain explicitly criticises the colonial policy by accusing the colonial system as favouring only a "certain minority of well-informed men . . .delivering unto themselves a veritable land speculation" (Faye, 1980). Although

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<sup>4</sup> The remaining five percent is entrusted to exclusive state control and private landholders with specious political ties.

France ultimately did loosen some of these imperialistic land tenure regulations just prior to Senegal's independence in 1960, colonialism and many of its imported laws were viewed as an affront to national sovereignty and soon annulled.

The crafters and supporters of the Law believe it is fundamentally democratic and liberal. Rural farmers maintain authority over their land, but its management is dictated by the state – a fundamental tenet of what proponents of the Law deem as African socialism. This is done through a two-thirds publicly elected Rural Community. Serving as a modern *laman* or *Chef de Terre*, the Rural Community is in charge of disseminating land to those that want it - even non-native farmers are free to request land through the same channels as a native Senegalese. Land grants are determined by the size of the family and what acreage is necessary to yield a “sufficient” level of food (Faye, 1980). This is a complete diversion from customary tenure that ensured the protection of the land via its collectivization within the community where all land appropriations and expropriations were made in the best interest of the local community. Reversing some of the protectionist characteristics of traditional collectivism, the Law of National Domain guarantees land for everyone regardless of lineage and even nationality - supported by the fact that there are even a few French farmers that can be found in the valley (Traore, interview, 1999). Holding land is made easier because the state is considered the manager of the land and not the owner, therefore there is no cost besides an insignificant administrative (one-time only) fee. In Ross Béthio, this fee is 4000 CFA (Diop, 1999, interview). When a farmer requests land, he is not purchasing the land but rather committing himself to its exploitation. This idea of *mise en valeur*, enforceable by law, is the one condition of the landholder designed to ensure the land's productivity in terms of agricultural output. The Rural Community reserves the right to expropriate land if at any time it determines the land is not being used in an appropriate manner.

The 1964 Law is the oldest existing land reform in Africa. Its evolution, conception, and application is as significant as the law itself. Begun in 1959, led by the soon-to-be president Senghor and an inter-ministry committee, the tenure reform text was originally tailored to the peanut basin of central Senegal. After 1962, the reform was redrawn to fit the entire country and place the majority of the land

under national domain - endorsing broad collective rights of the newly independent sovereign nation above individual, ethnic, and locally-based collective rights. President Senghor's intention of the Law was to promote it as a third voice "equally far from leveling socialism and egotistical capitalism" (Le Roy, 1987). However, unforeseen imperfections in many of the Law's seventeen articles ensured a period of experimentation and adjustment that continue today. Immediately upon its mandate, the entrusted Territory Management committee setup to oversee Senegal's seven regions (1965 to 1969), identified numerous conflicts of interest and interpretations of the law. Resolving few of the constitutional challenges, the committee was removed from the reform in 1970 and replaced by the Ministry of the Interior. The only significant impact was a small transfer of state control to the Rural Communities. This reform of 1972 entrusted the local administration units with minimal autonomy from state control, fewer legislative requirements for the allocation and termination of tenure, and the ability to manage local budgets and tax collection. Although this was considered as progressive reform, the most influential Rural Community members were in fact appointed by the state. As a consequence, the Law had even more control and influence in the more productive regions in the country like the Cape Vert peninsula and the peanut basin<sup>5</sup> (Platteau, 1992). Sparsely populated rural areas with little agricultural importance on the other hand were virtually neglected by the Law. As a result, peasants were more apt to hold on to strict traditional customs as opposed to adopting and enforcing the Law of National Domain. Very little of their production ever made it to commercial centers so there was less incentive to accommodate an imported state system into their own (Le Roy, 1987).

The Law of National Domain is an attempt to uphold the traditional universal social link to the land. This political ideology was essentially an extension of the traditional farming community where each individual is responsible for the wellbeing of the collective whole. Members of these collectives relied on each other for subsistence-level needs and everyone shared an equal burden of risk and an equal proportion of surplus. Promoting this concept to a higher level, President Senghor perceived the nation-

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<sup>5</sup> The Cape Vert peninsula provides the majority of the market produce for Dakar and the peanut basin produces foreign exchange from cash crop exports.

state of Senegal itself as an outgrowth of the multiple collective communities that dotted the countryside and the rich fertile valleys of the Senegal and Casamance Rivers. Whereas the concept of a traditional communal society was limited to the village or region, the Law views the entire nation as the communal society. A farmer in the Senegal River valley, therefore, should not fret over producing goods for a non-farmer in Dakar because the two belong to the same "community." Whether the two come from different ethnicities or religions, they are both citizens of Senegal and should feel obligated to indirectly (or directly) work for each other.

Besides "African Socialism" as the primary tenet of the Law of National Domain there are mechanisms designed to develop and protect certain ecological and environmental regions within the country. The Law classifies the land into four zones: *Urbaines*, *pionnières*, *terroirs*, and *classées*. The *zones urbaines*, managed by municipalities, and *zones classées*, managed by the Forest Administration, do not have any agricultural purpose and are set aside for urban and forestry use respectively. The *zones classées* classification is a relatively recent addition to the Law, adopted April 11, 1995. The two classifications that are fundamentally used for all agricultural development are the *zones terroirs*, managed by rural communities, and *zones pionnières*, managed by development societies. The *zones terroirs* are the most highly cultivated land in Senegal. Most of these lands are inhabited by peasants who can trace the roots of the *laman* to the original "master of fire."

The *zones pionnières*, on the other hand, are not as well defined. These lands are typically sparsely inhabited and far from commercial markets. The federal government decides the fate of such lands. These lands, according to the Law of National Domain, "constitute any reserves to be directed by the State through development plans and management programs" (excerpt from the Law of National Domain). The Senegal River Basin, for example, was originally classified as *zones pionnières* prior to the irrigation development seen today. The most sparsely inhabited regions of the country, the *zones pionnières* are typically managed under traditional tenure (if there is any cultivation at all) without much government intervention. There has been a growing interest to develop these lands due to the growing population and recent droughts in the central peanut basin. After the drought of 1983/84, the government

had received over 1000 applications to farm within *zones pionnières*. The majority of these applications have come from Mouride peanut farmers stuck by the harsh drought with the desire to expand their plantations to fertile ground (Bloch, 1986).

A lack of widespread knowledge and acceptance is the biggest constraint the Law faces, especially in the newly converted land in the Senegal River Valley. Most indigenous peasants are not aware of the law and rarely adhere to its legalities if they are. There are many legitimate reasons explaining this behavior. Peasants fear registering their land and ultimately relinquishing a title to the state. They see this as disrespectful and an affront to traditional, fundamental beliefs that for generations have bound the land to their ancestors. Breaking this link disrupts their relation with the spirits of their forefathers. Especially in the case of death, landholders are concerned about the transfer of land to an heir and subsequent security from state repossession. Passing tenure to an heir was never a question in the previous, established system but is now considered to be uncertain. Others fear that, upon registration, the state will inevitably take it back in favor of outside, financially profitable, interests - a genuine distrust of the state and its motives. Still, many are ignorant of the regulations that have not been adequately disseminated or thoroughly explained in remote areas. Subsequently, registering the land is made terribly difficult when the state authority has no accurate record of new holdings.

In addition, certain religious beliefs make appropriation and expropriation more difficult for the state. Senegal's overwhelmingly Muslim population provides endorsement for squatters' rights over the land according to Shari'ia law without attention to contemporary legal requirements (Park, 1993). This is a marked constraint especially in the valley where the population has changed dramatically over the past ten years. Thousands of Mauritians have been deported leaving behind hundreds of hectares of vacant land. And thousands of emigrating peasants have come to the valley to participate in the irrigation project. Most new arrivals simply settle on unclaimed land without first consulting with the Rural Community supported by Shari'ia Law. Codifying this practice into federal law is the next step. This task requires a detailed census (recently begun) to determine who has claim over the land and where they came from (Traore, interview, 1999).

## **The Need for Flexible Agricultural/Land Reform**

Societies and cultures evolve over time so it is important not to cement a universal reform to a particular circumstance dominated by contemporary problems and challenges. This poses a challenge for the Law of National Domain. Very few amendments to the original law have been introduced that address the vicissitudes of an evolving tenure system, especially the system found in the river valley. One weak link of the Law is that it does not reflect and endorse universal behaviors of the population over time. For instance, upon the introduction of modernization (dams and irrigated cultivation) very little regard was given to traditional tenure systems in the valley that antedated the Law of National Domain by centuries. The state installed the Law of National Domain *prima facie*. The restiveness and/or ignorance among the valley peasantry toward Law underscores this. Rigidity in law must ensure the preservation of certain values and norms within a generation without underestimating social dynamics and economic evolution for the next generation (Le Roy, 1987). As customs, behaviors, and values change, so should legislation. Thus, a legislative mechanism providing for a degree of legal flexibility ensures that laws reflect the times - an avenue not clearly marked within the Law of National Domain.

The Law needs within itself a constituency that can understand the importance of agriculture with respect to overall economic growth. The complex socioeconomic environment requires institutional channels supported by national aspirations, political continuity, pluralism, and democracy. Fulfilling an important role of allocating goods and raw materials necessary for industrialization, the agricultural sector must have an enlightened political lobby to secure resources and attention to problems of its own sustainable growth. In addition, the importance of research and education must not be understated as an instrument designed only for increased production. Meeting sustainable growth levels require an informed decision making process with the capabilities to promote progressive legal codes in order to accommodate the majority of the population that is engaged in agricultural production. Because agriculture is the main source of income for most of the country, it is only logical to accommodate as many farmers as possible under legal reforms.

Having the courage to understand the need for further reform, politicians have forwarded a series of decentralization measures passed in 1996 that have resulted in a power shift from the state dominated Law of National Domain to the locally administered Rural Communities (Diop, interview, 1999). As far as Ross Béthio is concerned, the most significant aspect of this legislation has been the unintended effect of giving the Rural Community power to voluntarily restrain enforcement of the Law. Local authorities, given the ability to hear and see first-hand the varied constraints in the region, can better identify what measures in the Law need not be applied. If a local administration feels very strongly against a certain passage inscribed within the Law, it now has the freedom to withhold enforcement. Successfully distributing power more equitably between the state and regional administrations, decentralization, therefore, resulted in the emasculation of the Law. The section in this paper, Ross Béthio Reform, describes some of the specific powers given to the Rural Community after decentralization.

### **Investment Constraints**

Increasing rural incomes require that investments be made in infrastructure and input institutions to reduce the costs to the rural peasantry. A widespread constraint to modernization throughout the valley (and much of Africa) is the lack of private investment either from foreign capital flows or domestic redistribution of capital. Given a domestic credit crunch, the only source of capital for rural projects is via foreign direct investment, FDI. Political and sovereign risk, in concert with the price tag of projects like the Senegal River Valley, discourages private FDI. These large-scale rural project, therefore, are impossible without multilateral public funding.

To date all investment, led by the French Government, has been from multilateral lending agencies like the World Bank, USAID, FED (Fonds Européens de Développement), GTZ, as well as Japanese and Italian aid. However, the initial multimillion-dollar price tag of the valley's infrastructure is not the only cost to be incurred. If the valley wishes to increase production at sustainable levels, millions more must be spent on the maintenance and upkeep of the irrigation network requiring more capital flows

that the multilateral lenders are exhausting rapidly. The problem, therein, is where to find the needed capital before the existing infrastructure crumbles.

The inflow of capital is changing mentalities in the valley to a more market-orientated system. Rural Communities, villages, and farmers themselves are beginning to understand their position in the world grain market and the concept of competitive grain prices. Although cost prohibitive to most, some farmers are finding technological innovations and mechanization more productive. Yet even still, a few costs are decreasing with an improved and more reliable transportation network with higher quality roads and trucks. Competitive advantages can also be found with increased storage facilities and an improved processing and manufacturing sector (mills, packaging, canning, etc.). As this reaches more farmers with costs continuing to decline and productivity increasing, it will be the rural peasantry that emerges as the stakeholder in maintaining the economic development of the valley. The opportunity for increased participatory roles among the peasantry with increased stakes in the region, via regional investment is fast approaching. Multilateral lending agencies are nearing the ends of their purse strings and unless capital is reinvested into maintenance and improvement, the river valley risks losing all its gains. The problem however, is that there is no sign of this taking place and there is a dearth of investment generated by the peasantry (Traore, interview, 1999). Unless other means of investment (private or public) fill the gap, the project will disintegrate and the valley will be unable to maintain its long-term objectives of increased production. The onus is on the government to stimulate further investment either by loosening restrictions on foreign capital flows, adjusting domestic interest rates, or promoting investment via educational campaigns throughout rural areas.

Limited by its own budgetary constraints, the federal government of Senegal is hoping that the private sector (domestic and foreign) assumes the role of continued financing. Unfortunately, there are obstacles and disincentives preventing such measures. Farmers have a desire to invest in agricultural mechanization but have few alternatives to the frequently maligned credit schemes promoted by parastatal agencies. International investors perceive land tenure security to be tenuous at best, making such

ventures far too risky. There is not much of an incentive to invest in state owned or managed land for fear of state expropriation.

The overburdened Société National du Crédit Rural (SNCR), the monopoly state-run lending institution for the agricultural industry, has very few branches throughout the country. Currently, bank borrowing and lending rates are relatively low (6 percent annually) however this is offset by high transaction fees on borrowing that most peasants cannot afford. Making investment and borrowing even more restrictive, political loyalty is known to grease the wheels. These additional "under the table" fees render borrowing even more exclusionary (Diop, interview, 1999). From an international investor perspective, these low interest rates provide little incentive to invest given an unstable CFA in the world market - it was only six years ago that the CFA was devalued by fifty percent. The high lending transaction fees are therefore justifiable because the demand for capital is tight while monetary policy is kept rigid - meeting anti-inflationary targets. But market-savvy peasants have a way of circumventing imperfections and the supply and demand for capital is developing its own burgeoning (black) market apart from state regulations. Lenders are disseminated throughout the countryside, making access relatively easier, however to protect increased risk, the borrowing rates are higher and still prohibitive for most.

International private investors, on the other hand, have few incentives to enter the market. Because the land is, in effect, controlled by the state there is no guarantee on an investment. In the Western neoclassical economic context, the Law of National Domain is itself a disincentive to invest in land and production improvements. Investors perceive the absence of freehold land tenure as a major obstacle. The fact that the state can expropriate land for any number of reasons completely undermines any security of the investment, making any investment highly risky. Private investors are justifiably shy to enter into a tenuous and undefined contract with the state. (IFAP, 1982). Furthermore, there is an added disincentive to invest in capital improvement because land cannot be bought or sold under the Law. When and if a farmer or investor decides to relinquish his land, it is incorporated in to the Law of National Domain without compensation (Loi No. 64-46, 1964). Likewise, due to the Law's condemnation

of "egotistical capitalism," land transactions between private individuals are forbidden; capital and value-added land improvements, therefore, go financially unrecognized. Finally, land is a valuable asset in neoclassical economics. It is a primary instrument as collateral when securing an investment loan. Under the Law, land is not recognized as an asset, and therefore cannot be used as collateral. In its stead, the most frequent alternative to secure a loan is to reluctantly dip into limited personal savings (Platteau, 1992).

The World Bank is heavily promoting, with financial incentives, the idea of freehold land tenure as a solution to the dearth of investment. In 1994, the state acquiesced with a symbolic gesture allowing (on paper) freehold land ownership (Loi 94-64, 1994). The legislative amendment specifically authorizes freehold tenure for commercial and/or industrial use however it was written extremely vague leaving many unanswered questions to languish among politicians and World Bank officials. How freehold tenure fits into a system that condemns "egotistical capitalism" and hereditary collectivism is not something that is expected to become embraced immediately (Traore, interview, 1999).

The amendment is not the result of a grassroots peasant campaign and there is little public knowledge. The few Senegalese proponents tend to be wealthy Dakarois, looking for outside investment opportunities (Douglas, 1999, interview). This is exactly the target market the World Bank is trying to attract into agriculture investment but building a wall of opposition is the state itself. The bureaucratic requirements (high fees, burdensome paperwork, and time) to obtain private freehold tenure are very prohibitive. The result of successful requests has been small insufficient plots with little commercial potential or value. In addition, there are no legal institutions providing protection and mediating disputes. This alone is disincentive enough for most entertaining the idea of freehold land ownership.

Nearly every Senegalese government official and academic scholar dismisses the law as a gesture to appease international donor agencies in exchange for financial assistance. Peasants and academia ridicule privatization measures as a worthless piece of legislation with no substance (Traore, interview, 1999). With the government essentially choking any momentum, it will be quite some time, if ever, constructive discussions on privatization are held. The reason for state disinterest, according to the

amendment's critics, is due to the Law's portrayed allegiance to traditional systems and communal property rights. Although modernization is welcome among advocates of the Law, there is no room for privatization, i.e., Westernization. The introduction of "speculative" land transactions only serve to undermine the strong belief that land belongs to everyone. It is an affront to the traditions and beliefs of Senegal and an indirect accusation that the indigenous system is inferior to that of the West (Douglas, 1999).

As the legal battle continues among the politicians, investment is stagnant. The reality on the ground is that something must be done to stimulate private investment if the government does not want to risk losing the productive potential of the valley. One shift of policy was an acknowledgement by former President Diouf calling for private-led investment by suggesting the idea of "investment zones." The details are yet to be worked out and it is too early to tell whether the recently installed Wade administration will follow through with this idea. A scheme that would allow private investment without the threat of land forfeiture to the state could attract the needed funds to maintain the irrigation infrastructure in the river valley (Traore, interview, 1999). Certainly this could bring in needed capital, yet the potential of favoritism lurks in the background as long as any such effort is not equitably accessible.

### **Ross Béthio Reform**

Understanding and efficiently exploiting the economic capabilities of the region is a priority of Ross Béthio's Rural Community. Avoiding violent conflict that has been seen in neighboring regions is even more important. To facilitate the planning of its economic growth and peaceful rural transition, the Rural Community drafted a "Constraint Diagnostic" in 1999 designed to bring attention to the various obstacles in the region's development. Acknowledging unique constraints faced by the Rural Community, the purpose of the Diagnostic is to identify development obstacles and concerns in order to manage the socioeconomic transformation of the region. The Diagnostic focuses on developmental constraints within

four economic activities and concerns in the region: Agriculture, Herding, Fishing, and the quality of the Environment.

### ***Agriculture***

The major constraints of agricultural development are threefold: technical, economic, and financial. The principle obstacles to technical development are linked to the deterioration, dilapidation, and natural erosion of infrastructure projects (primarily irrigation dikes, canals and pumps) created by the harsh desert conditions. The lack of sufficient follow-through investment opportunities deserves the blame for much of the deterioration of the irrigation system. Most peasants simply cannot afford capital investments and therefore leave broken pumps and damaged canals as is. This is particularly relevant because SAED reserves a limited responsibility for its initial installation of the irrigation system. In the effort to promote accountability and responsibility, peasants are responsible for the brunt of the irrigation upkeep and maintenance. Acknowledging this, peasants are demanding improved credit mechanisms, but as already highlighted, there is little effort on behalf of the state to mitigate this problem. Until they either earn enough income from their production with decreased input costs or have increased access to credit, this problem is expected to worsen.

Another concern for the agricultural sector in Ross Béthio is poor water access in the Dièri administrative zone due to its larger physical landmass and high cost of hydro-agriculture infrastructure extending to relatively remote areas. Expanding the irrigation system to Dièri is expected to cost much more than SAED can afford because most multinational assistance funds for the project are nearly exhausted. Economically, the region is also burdened by rising costs of agricultural machinery, storage, and maintenance. Existing storage facilities and harvesting and planting equipment are becoming dilapidated and subsequently the conservation of savings is becoming increasingly difficult.

Farmers in the region are demanding more organized market production planning and protection from the state (i.e., coordination among farmers and the state regarding national import and export levels of agricultural goods). It may seem ironical that peasants are asking for more autonomy from state

control yet simultaneously asking for market protection. However, there is little disclosure of nationwide and region production levels and how they affect local prices (Bouna, 1999). Farmers blame the state for decreasing world prices with little knowledge of domestic and African market supplies and demands and the trade restrictions Senegal faces with its primary trading partner, France. Transparent and publicly known macroeconomic conditions (simultaneous for all small country suppliers in Africa) could circumvent oversupply in the world grain market and direct production in more profitable yields. In addition, subsidized grain from donor countries at below market costs severely undercuts any market power local producers hold.

Because most peasants in the region choose to ignore many of the fundamental tenets of the Law of National Domain, it is not enforced to its fullest extent. These peasants, however, are still considered a vital component in the region's production and their economic contribution is an integral factor in the region's development. Infringements of the Law include maintaining unregistered plots, administering or working under illegal rental contracts, illegally tapping into the irrigation network, illegally trading with Mauritania, or herding cattle and/or farming on land zoned for other purposes. Despite overtly flouting the Law, the regional economy is dependent on all these activities and for this reason the Rural Community generally looks the other way unless there is an egregious violation. This will continue until an applicable code of legal standards is acceptable among both the traditional and modernized peasantry. Signs of reorganizing the legal structure of the valley can be seen in the rezoning of the region described in the following 'herding' section.

Finally, a low level of industrial agricultural commercialization and the nascent product transformation sector is blamed for an absence of agricultural diversification. An immature and inefficient track of production, compounded by a lack of private and public capital investment, leads to further disinterest in diversification. In addition, transportation routes are barely passable during the rainy season on the majority of roads. The peasant farmer is subject to fluctuating transportation costs dependent on the seasonal condition of the roads - higher costs during the rainy season relative to the dry

season. Caught in a catch 22 situation, such infrastructure problems only compound the need for more investment, yet at the same time discourage private FDI without sufficient capital markets reform.

### ***Herding***

The most visible constraint and/or concern for the herding/cattle industry is the decreasing available pastoral space (notably in the Yallar administrative zone). The primary reason for consternation is the implementation of hydro-agriculture project development over or on traditional livestock transmigration paths. This is leading to a relocation of herding activity most often to inferior terrain with limited water and fodder access. Traditionally a system of cohesion, pastoral and agricultural activities are now in direct competition over land usage rights. To the dismay of the herders, their traditional somewhat nomadic lifestyle is no longer welcome in the midst of capital intensive hydro-agricultural development. Reluctantly, herding is increasingly relocated to distant inferior terrain disrupting the stability in the region.

Burdened by limited access to water and discontinued use of traditional grazing pastures, the herders now find themselves forbidden from land that they have had access to for generations. Subsequently, the cost of herding has increased. Fodder must be purchased or grown by the herder himself because the lands he is restricted to offer little vegetation. Affecting an increasing number of herders each year, farmers no longer allow traditional methods of grazing on the post-harvest field stubble. Hydro-agriculture now allows the farmer multiple harvests via irrigation in the dry season, thus discontinuing the pastoral access to the fields once they are harvested. Forbidden to pass through irrigated fields, herders are hence prevented access to the river or its tributaries. The customary social structure and relationship between herder and cultivator is thus in jeopardy of unwinding.

A final concern in the cattle industry includes rising incidences of disease leading to smaller stocks and/or lower quality of commercial value. Subsequently, the transformation of livestock to commercial production is hindered. One reason for the increased incidence of disease can be attributed to the abrupt change of grazing patterns and location. Relocated herds are in contact with other relocated

herds thus increasing the chances of disease. And with a dwindling, insecure food source, cattle are even more susceptible to disease.

The Rural Community of Ross Béthio deserves special attention to some of the mechanisms of conflict management in the process of being instituted. Designed by Samba Traore, a Professor of Law at the nearby University of Gaston Berger in Saint-Louis, the administration of Ross Béthio is attempting to rezone the region in order to balance the needs of the various resources - particularly the recently tenuous herder/peasant relationship. The unique aspect of this reform, relative to past reforms, is that both the Rural Council and the rural peasantry participated in the plan's design. The fundamental tenant is a spatial division appropriate to the needs of both the cultivator and the herder. The plan divided the region into three distinctive zones: *Zappa*, *Zappé*, and *Zappé Pastoral*. The first zone, *zappa*, is open to both cultivation and herding but with a priority to agriculture. Herding is allowed only after harvest and with the explicit permission of the cultivator. This is very similar to the customary system where herders grazed their cattle on recently harvested plots; now it is enforced with a penalty of 30,000 CFA if violated. The only restriction to the farmer is the burning of the fields, which is only allowed after the herder's grazing is complete. The second zone, *zappé*, is again open to both cultivation and herding but with a priority to herding. Cattle are free to roam and graze with very little restriction. Cultivators within this zone can only avoid grazing cattle by enclosing their territory. The final zone, *zappé pastoral*, is for the exclusive use of herding. Cultivation is not allowed and no rights are given to those who try.

Officially launched the summer of 1999, it is still too early to tell what impact, if any, such a reorganization of zoning will make. Inherent communication inefficiencies are sure to delay widespread dissemination of the new regulation throughout the region. Many peasants are still ignorant about the Law of National Domain that has been in effect for 35 years. In addition, farmers that are just arriving to the region are prone to settle on vacant land found in herder-zoned regions. Although there is not as much available land as there was 20 years ago, the remaining vacant land is zoned *zappé* or *zappé pastoral*. Until the zoning is widely understood, most new migrants will not be aware of any such regulations (Diop, interview, 1999). There are certainly other complications that will arise. *Zappa* land

could one day be entirely double-cropped, consequently squeezing out the herders from what access they now enjoy. The only alternative will be to transfer herding entirely to the other two zones. This could be detrimental to the fodder supply especially because most of the *zappé pastoral* zone is very arid with extremely poor cultivation potential and sparse access to water. Again, this brings rise to the issue of fairness. This reorganization may instill certain rules that resolve short-term problems, but it will not address long-term concerns over equitable distribution of land until everyone has equal rights over the same land, whether a herder or a peasant.

### ***Fishing***

The Senegal River delta is reporting historically low levels of annual fish yields. The construction of the Diama dam in the Senegal River delta in 1985 has resulted in a decrease in the annual fish yield. Certain species of fish are no longer able to follow sea to inland migration paths and consequently no longer inhabit the delta region. Due to the ecological transformation, the Rural Community wishes to revamp the fishing industry by reissuing use permits. Improved regulation and enforcement of permit requirements will decrease the frequency of illegal fishing and safeguard the remaining stock. The Rural Community also sees poor access to credit as an ancillary reason for the decreased productivity in the commercialization and transformation process of the industry. Other constraints include insufficient storage and conservation infrastructure, production flow obstacles due to inefficient transportation systems towards commercial centers, an inexistent fish farm industry, and finally water pollution poisoning as a result of waste disposal.

### ***Environment***

Desertification and drought throughout the Sahel are the principle reasons for modernization into hydro-agriculture with a vast array of canals, dikes, waterways, and pumping stations. To date, only a small percentage of the total land in the valley has access to such irrigation infrastructure yet the promise of modern agriculture farming is luring thousands of peasants to the valley every year. The consequence

is that there is not enough land to absorb the migration and peasants are settling on restricted land vulnerable to the ever-expanding Sahara desert. Unfortunately, there is little enforcement by the Rural Community authorities and even less of an effort to disseminate the problems of inhabiting these environmentally sensitive lands (Traore, interview, 1999). In order to protect the environment and contain deforestation, the population must be sensitized to the delicate balance of nature and its effects on regional climate patterns. The importance of wooded areas preventing further desertification needs to be promoted as having a direct link to soil conditions and weather patterns. Of lesser concern to the Rural Community but of greater concern to regional NGOs is the poor potable quality of the water. In addition, health professionals are already reporting subsequently higher levels of malaria. The network of canals and seasonal flooding of rice paddies is expanding the mosquito breeding grounds and threatening an epidemic.

### **Conclusion - Reforming the Existing Land Reform**

Senegal's Law of National Domain is Africa's first attempt at creating a tenure system founded upon an understood ideology of communal property. Its internal linkage with modernization sets a standard for other African tenure systems. The principle objective of food self-sufficiency in Senegal, however, is a long way away. Numerous shortcomings of the Law lead many to believe that it is the Law itself that is discouraging productivity growth. Land has been reclassified, dams have been built, irrigation has been introduced, but stagnant agricultural growth, a dearth of investment, and a heavy burden on imported food commodities continues to plague the country. Among the peasantry, there has been an aggregate spirit of disengagement from the state brought in part by persistent drought, a degradation of the environment, and above all an empty promise of a better lifestyle for the millions of Senegal's peasants as declared by the Law. Regardless of the developmental constraints, modernization and a consequential rural transition is on an irreversible course (Kanté, 1994).

As far as the Law of National Domain is concerned, Senghor's idealistic vision looked beyond the constraints Senegal would encounter. He never prophesized an apathetic peasantry unwilling to welcome

his "gift to Senegal" (Caverivier et al, 1998). If the state sincerely wishes to improve its production capacity it must forego its faith in the Law of National Domain as a sacred manifesto and embark upon an active dual directional policy of information gathering with actors and partners throughout every rural area of the country. Agricultural development is less constrained when all stakeholders participate. Beyond empowering the peasantry by helping to design land management that accords to higher productivity, influential decision-makers must acknowledge and become aware of the inadequacies of the Law with local realities. The academic community must promote public forums of the real problems facing the rural areas. This ensures a better integration of countryside organization within the institutional structures of the Law.

The Law must redefine the notion of the *mise en valeur* so that it meets the concerns of the rural population. The biggest contention among herders is that *mise en valeur* does not recognize cattle herding as a productive use of the land (Traore, 1993). According to the Law, the land must be cultivated in order to meet the condition of *mise en valeur*. Ironically, herding and its many byproducts is not considered a productive use of the land under the definition of the Law. A herder, therefore, can never become a landholder unless he is actively cultivating the land - an inferior livelihood among most herders. Rather than further limiting jurisdictional regions, the Law must recognize that this policy is inequitable and that herders and ranchers have as much right to the land as cultivators.

Simply adopting a Western notion of tenure is not the answer to the ills of low agricultural production. A burden of many reforms and/or legislation is the existence of inadequate laws to manage natural resources. This has been a constraint to African development since colonialism. Many African governments have adopted or appropriated colonial legal systems with unfavorable consequences. These codes are based on foreign Common Laws that took centuries to develop within an evolving civil society into what eventually became a legal set of codified norms. Common Law, therefore, is a legal recognition of reinforced values maintaining a system of managing conflict. Its longevity is testament to its widespread acceptance, however they are not universal. Neither Western law nor the Law of National Domain is a codified law in Senegalese society. Applicability of any law is its only requirement, and

neither of these two passes muster. The best law is one that allows traditional customs and evolutions therein to foster the changes necessary for improved living standards and economic development. This is a bottom-up approach that begins with the affected society rather than an elite class of politicians or development strategists. Developing countries face unique economic and social constraints that can only be remedied by endogenous efforts of resolve. Allowing the Law of National Domain to evolve should not be seen as an affront to great intentions, but rather as the necessary means to the objective of increased agricultural productivity.

Empowering the landholder with increased rights over the land needs to be the first step. Despite the assertion that the Law of National Domain is in the best interest of all Senegalese, the law in fact does not favor the landholder. The state has, in effect, stripped the peasantry of an essential element of their livelihood: the security of land tenure and the right of its transfer to an heir. The majority of the country is subject to state control and the fate of their own land is out of their reach. As for the customary system, when land is expropriated it is forfeited to the communal society. To the community this is nothing of significance because the land had always belonged to the community so any expropriation is not considered a loss. It is more an expulsion of the individual granted usage rights. Expropriation under the Law, on the other hand, results in indiscriminate land forfeiture to the state. Justifiably unacceptable to the collective, the socioeconomic reliance on the land is broken forever.

A convergence between the Law of National Domain and traditional systems must be codified into a legal standard. Most laws in any society are codified norms and values, legitimizing behavior and traditions via legal procedure. Sometimes it is difficult to know whether a law broadly reflects a norm within a society. One test whether a law is firmly established is how it stands up to criticism and challenge (Zartman, 1997). In Senegal, the Law of National Domain has seen few legal challenges in a court of law. Proponents of the Law view this statistic as a legitimate endorsement of a widely accepted code of values. The principle failure of this argument, however, is that there are indeed challenges to the system, but they exist outside of the judicial system. Most tenure-based conflicts never go beyond the immediate contact group involved for fear that either party will lose their land. Disputes that call for

mediation by the Rural Community are rarely reported to the federal government. The Rural Community does not want to risk what limited sovereignty it has earned (Diop, interview 1999).

A true reform must therefore determine to what degree the Law is being challenged on the local level and likewise where and when the Law is successful in representing a national, accepted code of values. From this diagnostic, a better understanding emerges about the Law of National Domain and its relation to customary tenure in the valley. The Rural Community in Ross Béthio is in such a position to challenge the Law. Irreversible modernization is transforming the region overnight and the absence of any effective reform has cleared the way for rural peasants to design a system that caters to their strengths and desires while helping to reach Senegal's increased food needs.

Because the law is not yet widely accepted or applied throughout Senegal, one can safely say it is still in a period of transition and introduction. A society that manages itself also establishes and ensures its own means of regulation and development that best suits the needs of the members. Imitating imported systems of agricultural/land reform too often lead to risky socioeconomic dysfunction. Resistance to the Law in the Senegal River valley is a prime example of the restive changes within the society. This research has demonstrated that the state is attempting to transform society to a logic considered contradictory. The state must release its structural grip on the agricultural sector, especially land tenure, and permit the flexibility to allow the system to be challenged in public and accept changes in the best interest of the farmers and not the state. Such a shift does not need to uproot the cherished ideas of African socialism. On the contrary, it is strengthening society itself by empowering individuals first and giving them the tools to direct national objectives according to widely-held beliefs, norms, and values.

**Appendix I - Regional Map of the Senegal River Valley**



## Appendix I- Ross Béthio Demographics

Zone	# of villages	# of hamlets	Total population of villages	Total population of hamlets	Total zone population
Ross Béthio	10	11	4448	1310	5758
Mboundoum	7	12	3536	705	4241
Dièri	39	65	7783	3995	11778
Yallar	39	30	8208	3027	11235
Total	95	118	23975	9037	33012

### Region land distribution

Zone	Total hectare area	Reserve and forest classified	SAED	Other
Ross Béthio	30200	2000	4477	23723
Mboundoum	52800	16000	3436	33364
Dièri	85500	46550*	-	38950
Yallar	51600	3200	-	48400
Total	220100	67750	7913	144437
Percentage	100%	30.78%	3.60%	65.62%

\*The majority of this area belongs to *le Parc National des Oiseaux du Djoudj*

Total cultivated and irrigated surface areas are difficult to estimate and especially variable from one year to the next. A census conducted in 1991/2 by ISRA reported land allocation for that year at 22,000 ha and the total surface area operated by hydro-agricultural cooperatives at 25,000 ha.

The phenomenon of land occupation without registered tenure is notable in the region. An active campaign of land registration found the follow data:

Zone	Registered Land (ha)	Unregistered Land (ha)
Ross Béthio	3270	10730
Mboundoum	8880	4816
Dièri	-	4639
Yallar	8835	3555
Total	20985	23740

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