Subsistence and land tenure in the Sahel

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Abstract. Field research on customary land tenure conducted in two villages in Eastern Senegal suggests that the existing tenure regime places a higher value on access than on security, long considered a cornerstone of investment in increased agricultural productivity. The underlying reasons point to tenure's cultural dimensions. Interview accounts and observation are used to develop the cultural link between tenure and subsistence, and to describe the underlying social relations and processes through which a "subsistence ethic" is expressed. Such an "embedded" approach to land tenure analysis implies that understanding tenure dynamics and social change is a complex challenge, one benefiting from a sociological perspective that goes beyond behavior models that treat tenure as a primarily economic phenomenon. Land use and customary tenure are dynamic phenomena, but their responsiveness to economic forces is tempered by the importance of household interdependence and the harsh material realities of living on the environmental margins. Market-based interventions that would use security as a means to effect land use change may generate more social or spatial problems than they solve.

Key words: Bush fallow, Land tenure, Senegal, Subsistence ethic, Tenure security

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Introduction

In geographic areas such as the West African Sahel, rural agrarian traditions have persisted amid often harsh environmental realities. Yet, one group's enduring institutions may resemble another's development liabilities. Specifically, customary land tenure is often portrayed as a barrier to greater agricultural productivity and the latter's presumed contribution to economic development. Conventional economic theory argues that customary tenure may fail to provide enterprising farmers with adequate assurances that returns on investment will be realized by the investor (e.g., Johnson, 1972). Greater tenure security – which implies the right to exclude others from the use of a resource or parcel, to avoid eviction, or reduce risk of loss (Bruce, 1998) – is seen as critical, either as a precondition to, or as a consequence of, land or resource-related improvements (e.g., Ault and Rutman, 1979; Bruce, 1993; Feder et al., 1988; Uchendu, 1970).

However, efforts to enhance tenure security, or to cultivate an economic environment conducive to farmers' security-increasing measures, for instance through registration or titling, have met with limited success (Allan, 1965; Barrows and Roth, 1990; Carter et al., 1994; Haugerud, 1989; Migot-Adholla et al., 1994a,b; Shipton, 1989). More recent scholarship calls for "regularizing" rights through cadastral registries and land information systems to clarify rights and stimulate land markets (Riddell, 2000).

While different approaches have been taken, they all define the problem as an economic one. Findings from this study of two villages in eastern Senegal provide a cultural perspective, and describe influences of culture on customary tenure. Specifically, the notion that land and property should be made available for use, regardless of who claims it – a notion that in this study is referred to as a subsistence ethic – helps address important tenure-related questions from a local, rather than economic, perspective. For instance, why would farmers make their fallow claims available to others, even where good reasons exist for restricting access, or why would villagers make few efforts to exclude outsiders from exploiting a resource base that even they characterize as undergoing a process of degradation? In addition, an understanding of customary tenure's cultural embeddedness provides glimpses of the potential effectiveness of initiatives designed to increase security and investment, and casts doubt on the universal ability of market-driven policies...
to adequately address cultural or ecological constraints facing rural producers.

This paper attempts to: 1) describe the influence of the subsistence ethic on customary land tenure; 2) examine the context and underlying social relationships through which this influence is expressed; 3) discuss its perceived effects on wealth distribution, conflict management, and resource use, and; 4) assess how planned or unplanned changes may alter the tenure-subsistence relationship.

Background: Some key definitions

Tenure refers to a bundle of rights, in this case to land and the resources it is capable of producing. These rights include creation, use, control over access, transfer (including alienation), and adjudication of disputes (see Shipton, 1989). A right implies the ability to exclude others’ claims on resources, in the absence of which exists only privilege (Bromley, 1989). Customary tenure refers to rights that are transmitted through social, rather than legal mechanisms, the legitimacy of which is rooted in tradition, rather than legal statute (see Weber, 1978: 226–229). Specific bundles of rights may be held by individuals, households, descent groups, even entire communities. Customary tenure in Africa has a distinctly communal character.

Tenure, economics, and security

Tenure’s place in development policy is important, and has been exhaustively addressed in Africa, where increasing agricultural productivity – and generation of surplus – is touted as the vehicle to economic transformation and higher living standards. Customary tenure is seen as an obstacle where it does not afford adequate tenure security. The logic of this argument is built on the assumption that enterprising farmers, given the proper incentives, would invest in land improvements that increased their income. However, communal tenure, or a lack of clearly definable rights, raises uncertainties about who will reap returns on investments. In addition, gaining clear uncontested tenure rights (presumably through privatization or titling initiatives) is thought to reduce conflict and provide collateral needed to improve farmers’ access to credit (e.g., see Shipton, 1989).

Table 1 summarizes general economic perspectives on tenure and the role of security. The privatization thesis – that private property will stimulate investment – lacks empirical support from Kenya, the country with the most experience with privatization efforts (Barrows and Roth, 1990; Coldham, 1978; Haugerud, 1989; Shipton, 1989). The individualization thesis – that greater security will result from investment (placing emphasis on economic/market stimuli) – has been supported in some areas (Allan, 1965; Ault and Rutman, 1979; Bruce, 1993; Cohen, 1980; Hill, 1963; Migot-Adholla et al., 1991; Uchendu, 1970); not in others (Weissman, 1990). Boserup’s intensification thesis – that population pressure drives agricultural intensification and leads to subsequent efforts to protect investments (essentially, that changes in land use change property rights) – receives some support (e.g., Matlon, 1994; Migot-Adholla et al., 1994b; Netting, 1993), however, as Turner et al. (1992) and Netting (1993: 275) point out, “the statistical relationship between population density and intensity is strongest in those cases where environmental constraints on land quality are moderate – that is, where labor, skill, and technology can effectively raise land productivity or carrying capacity.”

A more recent, more sophisticated treatment of security issues can be found in Bruce and Migot-Adholla (1994), a compilation of studies, some conducted by the World Bank and others by the Land Tenure Center. Evidence suggests that the relationship between tenure security and investment is more complex than often hypothesized, and that factors other than security may be more important for investment, such as access to markets, market conditions, population density, plot size, and ecological conditions (Blarel, 1994; Matlon, 1994; Migot-Adholla et al., 1994a,b; Roth et al., 1994). There is also evidence of a transition in farming systems, which will likely lead to tenure changes (e.g., Matlon, 1994). In Senegal, there is little evidence that titling has encouraged investment, or that it has reduced the level of conflict between property claimants (Golan, 1994). Further, the law of National Domain in Senegal appears to have undermined tenure security in some areas (Golan, 1994: 248).

More generally, titling and privatization initiatives have had the effects of increasing land-related conflict while concentrating rights in the hands of the politically connected, or in the patriarchy (e.g., Blarel, 1994; Carter et al., 1994; Dickerman, 1989; Roth et al., 1994; Shipton, 1989). Bruce and Migot-Adholla’s (1994) edited volume provides compelling evidence that national-level titling initiatives do little to change behavior, at least in intended ways.

Culture and the tenure debate

Many characterizations of customary tenure highlight cultural dimensions (Bohannan, 1963; Cramb and Willis, 1990; see Firey’s [1960] discussion of the Tiv; Gershenberg, 1971; Polanyi, 1957; Scott, 1976). The
Table 1. Economic perspectives on tenure dynamics.

<table>
<thead>
<tr>
<th>Perspective</th>
<th>View of tenure dynamics</th>
<th>Driving force of change</th>
<th>Predicted outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>private property (neoclassical, e.g., Johnson, 1972)</td>
<td>Inflexible – group-based rights kill individual incentive to innovate</td>
<td>Political intervention (in form of individualized, private property regime) leading to greater individual tenure security</td>
<td>Increased investment by individuals in commercial agriculture</td>
</tr>
<tr>
<td>individualization thesis (e.g., Ault and Rutman, 1972)</td>
<td>Dynamic – greater individual security is result, not cause, of investment</td>
<td>Changing economic conditions (that may stimulate investment in commercial agriculture)</td>
<td>Incentive to protect investment leads to assertion of more restrictive rights by innovators, investors</td>
</tr>
<tr>
<td>intensification thesis [Boserup’s (1965) agricultural change model]</td>
<td>Dynamic – change is a result of agricultural intensification</td>
<td>Increase in population density (leads to labor intensive production system and higher output/unit area)</td>
<td>Move by households to assert more restrictive rights to improved landholdings</td>
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The importance of land to an agrarian society also suggests that customary land tenure may be an expression of the culture in which it is embedded, and that efforts to understand it without reference to its sociocultural context are incomplete.

James Scott’s work in Southeast Asia (Scott, 1976) is particularly relevant for the cases described in this paper. He focused on subsistence, reciprocity, and redistribution as they relate to landlord-peasant relationships and tenure regimes. Citing Polanyi’s (1957) “Great Transformation” as one of his theoretical antecedents, Scott (1976: 5) questions the completeness of behavior models portraying farmers as self-interested economic actors, instead arguing for a “safety first” approach to understanding “technical, social, and moral arrangements of a pre-capitalist agrarian order”: To begin instead with the need for a reliable subsistence as the primordial goal of the peasant cultivator and then to examine his relationships to his neighbors, to elites, and to the state in terms of whether they aid or hinder him in meeting that need, is to recast many issues (Scott, 1976: 5).

The “safety first” perspective is what Scott refers to as the subsistence ethic. According to Scott, tenure (in one form or another) is a right of social citizenship. His research suggested peasants claimed a right to subsistence, expressing itself in a landlord/tenant relationship as a guaranteed minimum living standard. In abundant times, the landlord reaped the peasants’ surpluses; in lean years, he was still expected to guarantee the peasants’ subsistence. Peasants were more willing to forego this right of subsistence, shifting to a tenure system where rent was either based on a percentage of production or was fixed, in environments where weather and harvests were more predictable, suggesting a relationship between risk, tenure, and subsistence. The right to subsistence claimed by peasantry is bundled up in Scott’s moral economy argument.

Popkin’s (1979) study of communities and irrigation in Vietnam did not support Scott’s thesis. He contended that agrarian societies were not inherently risk-averse, nor were individuals incapable of income maximizing. However, Scott’s own work suggested regional variation, and it was only in the more ecologically marginal areas that the subsistence ethic persisted. The subsistence ethic provides a counterweight to perspectives that portray customary tenure as a primarily economic institution, and as a means to pursue economic development. Most authors acknowledge the cultural basis of decision making, but analyses that focus on individual farmers are ill-equipped to facilitate its explication.

The setting

The study was conducted from April through June of 1994\(^2\) in two villages adjacent to the (6 km apart), both within walking distance (10–15 km) from Tambacounda, the largest city in the region of eastern Senegal (with a regional population of 386,000 in 1988) (Pison et al., 1995: 40). Cekorobawkunda had a population of 80; Benbalayagubu’s was 450. The ethnic makeup of both villages is predominantly Mandé-speaking (Bambara, Jaxanké, and Mandinka). There are also Fulani villages in the area (sedentary herders/farmers), and a lesser number of Soninké villages (agricultural). Bush fallow agriculture is the principal land use, with fallow periods ranging from 3–25 years. The area is part of an ecological belt of dry woodland and natural and derived savanna that
stretches across the continent, and the portion in Mali and Senegal comprises many ethnic groups practicing variants of sedentary bush fallow. Rainfall averages can range from 500–1500 mm during a 3–5-month growing season, arranged along a north–south gradient (Walter, 1985).

Data collection

Sources of data collected and analyzed were primarily qualitative, and included interviews with household representatives (n = 53), key informants, and village groups, as well as observation of fields, fallow, and events that occurred during the study period. All data collection was conducted by the author. Key informants included both male and female respondents. Of the 53 villagers interviewed, 24 were female, 25 were household heads (one a widowed female). In the smaller village, with only 12 households, multiple members were interviewed. In the larger village, an attempt was made to represent as many households as possible. Group interviews were used to better understand how property is exchanged among age-graded groups. Interviews were tape-recorded, translated and transcribed, and entered into a database for analysis.

This paper presents findings distilled from a broader research project, the goals of which were to examine the nature and dynamics of customary tenure from villagers’ perspectives, and to assess potential effects on tenure of observed environmental, economic, and political changes taking place.3

Land tenure and the subsistence ethic

Evidence

Subsistence refers to the provision of material goods necessary for survival. An ethic refers to principles of conduct that guide the behavior of individuals or groups. The subsistence ethic emerges from an analysis of the close relationship between property rights – specifically land tenure – and the realities posed by farming in a marginal environment. Central to this relationship is food production, an activity organized at the household level. The Bambara language is replete with proverbs and metaphors reflecting the central role of food as social currency. The term *balo* (meaning “life”) is often used to connote household grain production. Typical statements about access to fallow included:

“If you want to clear land no one’s using, you should be able to.”

“The chief knows whose land is whose – people don’t worry about losing land they lend.”

“If land isn’t being farmed, you should give it to someone who will farm it, and you’ll have their gratitude.”

However, more than one respondent said that, regarding accepted convention for seeking or lending land, “people aren’t the same” (i.e., not everyone respects convention).

Access and control across land uses

Land, labor, and equipment are largely controlled by male household heads, who allocate them first and foremost to the cultivation of household grains. Household heads hold many tenure rights, including rights to control or transfer customary fallow or create tenure (clearing forestland), and the right to control access to claims made by household members and others on bush fallow lands, which comprise the vast majority of land devoted to household grain production. Transferring land outside a lineage was only reported in instances where land-rich households were helping a newly immigrated household settle into the village.

The subsistence ethic’s influence is visible across three types of land use: bush fallow, low-lying draw areas, and forestland (Figure 1). The *bush fallow* production regime is a variant of shifting cultivation practiced among sedentary villages in West Africa, comprising a patchwork of land in various stages of cultivation or fallow recovery. The cultivation cycle’s principal yields are millet and peanuts. During a fallow succession from grass species to woody vegetation, accumulation of biomass and greater nutrient retention in trees and shrubs represent the principal means of restoring soil fertility. The fallow cycle yields a wealth of “secondary” resources (e.g., fodder, fuel, food, construction materials) exploited both for local consumption and market sale. As Figure 1 illustrates, bush fallow as a land use is complemented by other land uses important to the productive enterprise, such as forestland, fenced gardens, “backyard” fields (*sokoforow*), and low-lying rainfed draw areas. The village chief may also designate livestock corridors in an effort to protect household grain fields during the growing season. Important but relatively low-impact uses may include sacred forests and cemeteries. Most households do some plowing and planting with animal-pulled devices, but cultivation is largely a manual undertaking using a *daba*, or shorthanded hoe.

Access to cultivable land is a right of community membership, and even newly settled households will be granted clearing rights to bush fallow, even if
they do not include long-term access to specific parcels. This highlights the importance of tenure duration (e.g., Place et al., 1994). Tenure security thus has an ultimate and a proximate dimension. Ultimate security implies long-term rights to control fallow claims, which are tied to the lineage (thus there were no reported transfers outside of the lineage). Proximate security implies rights to control land during active management periods (i.e., cultivation). The head of Household A can clear and cultivate his own fallow claims. He can also make a valid claim to clear and cultivate fallow (presumably in some stage of recovery) claimed by household B, but household A’s exclusive rights to that fallow are limited seasonally to the growing period and ultimately by declining soil fertility. The head of household B retains long-term rights to the fallow, but may find it difficult to refuse access to would-be tenants so long as the parcel is not currently under cultivation. Thus long-term tenure security may be punctuated by tenancies and crop rotations of varying frequencies. This would seemingly complicate any efforts to actively manage fallow.

No respondents interviewed expressed an interest in intensive fallow management, however. The relative merits of shifting cultivation were noted by 11 different respondents: improving the soil is costly, weeds seem to increase over time, and in general “it’s better to move around than to stay in one place.” Moreover, household heads often seek to farm communal grain fields on lands adjacent to one another, often requiring an area of fallow that could span several customary claims (the following section discusses reasons for this), putting a premium on access. Thus while the extent of customary claims plays a role in where people farm, all respondents reported that they have regularly sought to clear and cultivate land claimed by others.

The subsistence ethic also affects tenure in draw areas (the lowest lying areas where rains drain into seasonal streams and rivers). In the larger village (Benbaliyabugu), women were occupying small, adjacent plots in distant draws, where residual moisture from rains was conducive to their vegetable gardening. Because space was limited and valued, they were willing to haul buckets of manure 5–6 km on their heads to improve soil fertility. If they did not do this, other women would have sought access, and it would have been difficult to refuse them if the plots were not in production. Yet while they could retain proximate control over their plots, as a group the women were vulnerable to mass eviction by the customary claimants in the draw (with ultimate control). In practice, though, it was reportedly very difficult for a household head to evict the women en masse, in part because of sheer numbers, in part because of pressure from other husbands who wished to avoid any migration to their fallow claims. In the one reported instance where eviction occurred, the claimant invoked his need to farm grain for the household.

Distant land or areas with poorer soils generally are more heavily wooded, and access to their resources relatively open to villagers from surrounding areas.
Forestland yields important resources and serves as an economic "safety valve" of income-generating forest products. Both men and women said that its products should be available to those who need them. A woman from Cekorobawkunda, after harvesting the last fruit from a *Parkia biglobosa* with women from other villages, said matter-of-factly "we’re all after the same thing – nafo (benefit, value). No one is chased off. No one is excluded. We’ll collect until it’s all gone.”

The two areas of conflict observed were with poachers and individuals in Fulani communities (Fulani are sedentary herders and farmers). There was some fuelwood poaching and fugitive charcoal making occurring on forestland, reported by people operating out of Tambacounda, some 8–12 km away. Also, some Fulani were reportedly uprooting tuber plants to feed their livestock (the complaint being the plants would not regenerate).

The influence of the subsistence ethic over tenure is evident in “backyard fields” (*sokoféfornow*). These fields are along the residential periphery of the village, and valued because of proximity and the manure they receive from dry season pasturage of livestock. Household heads consistently reported, though, that to avoid others seeking access to these fields, they were forced to cultivate them annually (a requirement in any case, to reduce fuel loads near the village and minimize risks of dry season wildfires).

In essence, labor creates certain tenure rights – clearing or improvements provide at least short-term security. The right to control access to clear and cultivate in the longer term, however, is a function of lineage relations between households. Rights to other resources on fallow lands (timber, fodder, thatch, fuelwood, etc.) may have a seasonal or cyclical dimension, and customary claimants’ abilities to control these or engage in active management are limited – appeals to subsistence take precedence. Villagers reported this has led to overharvest of specific products and plant species.

**The context**

The Sahel is a region that has suffered from disasters driven by both human and natural causes, the most spectacular in recent memory being the famine that occurred from 1969 through the mid-1970s. Drought is a recurring phenomenon, as is wildfire late in the 8-month dry season. The tenure regimes, and the importance of subsistence, in part reflect the environmental uncertainties that make survival for many households a year-to-year proposition. Villagers’ organizational responses to this productive challenge reflect the patriarchal authority of the household. Land inheritance is patrilineal, and residence patrilocal. Thus, effects of the subsistence ethic are best understood when placed within broader contexts of environmental uncertainty and patriarchy (see Grigsby, 1995, unpublished manuscript, 2001). In addition, villagers reported increasing pressure on land, for three reasons: more people are participating in household subsistence activities, village populations are growing, and some households have increased hectarage via animal traction and plow farming.

**Underlying social arrangements**

**Role of reciprocity**

The subsistence ethic implies mutual acceptance of the importance of resource access to household subsistence. Between household heads, the claimant who grants clearing rights does so with the expectation that the tenant would reciprocate should circumstances reverse themselves.

Reciprocity influences tenure in important ways. First, especially among neighbors and relatives thrust into frequent, even if casual, interaction, an unacceptable refusal to grant fallow clearing rights may carry uncertain future consequences (e.g., Axelrod and Hamilton, 1981). Second, household heads often try to clear fields adjacent to one another. A large group farming adjacent fallow claims increases the likelihood that, should livestock stray into the area (a common occurrence), crop damage will be more evenly distributed among several households, or better someone will be present to chase the animals away and prevent, or at least minimize, damage. Capital-poor household heads may also engage in labor-for-equipment exchange with better-endowed households, facilitated by the close proximity. However, the area required for multiple households to farm contiguously could span two or three separate fallow claims, making fairly unrestricted — though controlled — access an essential feature of customary tenure. Third, reciprocity helps explain the persistence of open access to fodder and forest resources on fallow and forestland. Reciprocal relations and the web of kinship ties between adjacent villages make it difficult to restrict outsiders’ (or even to define the term) use of another village’s resource base. Though reciprocity may undergird many common property institutions (e.g., Ostrom, 1993; Runge, 1984), findings from this study suggest that reciprocity can also erode efforts at self-governance and sustainable resource use. Greater security and the right to exclude must be weighed against the heterogeneous distribution of economically valuable plant species on the landscape.
Economic strategies favoring longer-term investment, and implying a more economic notion of security, may not be well-received. Household accumulation of wealth is not without social pressures. A key informant noted that “the owners of wealth never get a break” (from requests to use property). Reciprocal relations may seem asymmetrical, even coercive, to those resource-rich households against whose land, equipment, etc., a valid use claim can be made. Yet “opting out” of reciprocal networks, or refusing cultivation rights, may pose social costs.

*Siginyogonya*

*Siginyogon* is a Bambara term referring to neighbors. Adding ye transforms it into a concept, one that conveys a shared understanding of how living in close confines affects social relations. Because households live in close proximity, and inevitably must interact, and because of possible kin ties, economic associations, or even conflicts between household members, villagers are extremely sensitive to interhousehold relations. Reciprocity’s importance is magnified because of *siginyogonya*, and perhaps more characteristic of social relations than specific exchanges. For instance, said the chief of Benbaliyabugu, “if my neighbor asks for clearing rights to my fallow and I refuse, and next year my son is caught stealing his cow, what’s to stop him from sending my son to the gendarmeres?”

*Siginyogonya* can be contrasted with *nyangoya*, a term referring to self-interest, used to describe the actions of individuals who put their own self-interest or those of their households ahead of the broader interests of the village and its member households. This could refer both to a fallow claimant who lies about the availability of his land, or to a villager seeking assistance who lies about his circumstances. In the study villages, at issue was the communal right to the means of subsistence — there was no community-wide obligation to support failing households. Thus reciprocity expresses itself as a set of exchanges and relationships between specific households, some of which may be held together by the subsistence ethic.

*Reinforcing mechanisms*

The social costs of conflict over land are perceived to be high by many villagers. Several respondents expressed the sentiment that one should not fight over land. One woman, speaking about eviction and refusal to grant cultivation or clearing rights, said if that happened between neighbors living so close together “we’d descend on each other.” Withholding the means of subsistence could engender conflict that might threaten the peaceful co-existence of interdependent, closely-spaced households within the village.

There are normative social pressures to make fallow accessible. Several respondents embraced the availability of fallow as “good for the village.” Others cited the incentive to avoid fights over land. A common statement was that fights over land “saps its fertility.” However, while few were willing to elaborate, among fallow claimants a key concern was that refusing cultivation rights might leave them open to fetish (sorcery) reprisals. As one long-time resident with considerable fallow claims said,

*Interviewer (I):* Anyone ever clear your fallow without asking?
*Respondent (R):* All the time.
*I:* What do you say?
*R:* Nothing. He’ll say “I cleared your fallow, I want to farm it.” I’ll say no problem. If I discover someone clearing my fallow, I’ll say “you cleared my field. I wanted to farm it this year.” He’ll say “take it.” If you take it, you won’t get any harvest. He’ll ruin your field. I could plant peanuts, millet — they’ll ruin it and it won’t produce. So I let him farm it. When he’s finished, I’ll take my fallow back. That’s how it is here. Sorcery. Understand?

*Conflict management and musalaha*

The term *musalaha* is used by villagers to describe the mechanism and process used to negotiate property claims. Though difficult to translate, the general phrases reportedly used to negotiate cultivation rights should provide a sense of its meaning and how it relates to the subsistence ethic.

Means of seeking access to fallow include (italicized phrases do not meet musalaha “standards”):

PT (prospective tenant): Are you clearing your fallow this year, because if not I’d like to farm it.
PT: Are you going to make it to your fallow (in some particular area)?

Sometimes a PT will just clear someone’s fallow without asking permission, hoping not to be discovered

PT [caught clearing without permission]: I thought you weren’t going to farm here . . .

**Affirmative responses** from fallow claimants include:

FC (fallow claimant): Go ahead and clear it.
FC: Go ahead and clear it, but I’m lending it, not giving it to you.
FC: Go ahead and clear it, but when I’m ready for it, I’m going to take it back.

**Negative responses** from fallow claimants include:

FC: I’m planning to clear there.
FC: I’m farming there this year.
FC: I’m farming a maize field (“kabaforo”) there (kabaforo is a synonym for household grain farming).

Discouraging responses from fallow claimants include:

FC: Go ahead, farm peanuts this year, but I’m going to farm millet here next year.
FC: You can farm it for two years (the PT will likely decline both of these offers, first because a fertile fallow area will sustain a three to five year production cycle, and second because millet reportedly yields well after a previous year’s peanut crop).

An FC might also slash or cut a few trees on his fallow to make it look like he or someone is beginning to clear it, so that the PT will move on in search of other fallow and not initiate musalaha to seek access.

Responses from a claimant catching a PT clearing his fallow without permission include:

FC: Finish clearing it, but this is my fallow, and I’ll take it back when I’m ready to farm it.
FC: You can farm it for one year, and then I was planning to farm it.
FC: You should have asked me first; I’m farming here this year (claimants have been known to conveniently appropriate others’ labor in this way).

While the subsistence ethic puts pressure on claimants to make “unused” fallow available for cultivation, musalaha also offers customary claimants acceptable means to refuse – not surprisingly by invoking subsistence. In this case, the proper lie succeeds where the inappropriate truth flounders: the PT may suspect the claimant is lying (about using fallow), but reciting household grain farming obligations as the reason will usually prompt the PT to move on and seek access elsewhere without protest. Brevity in interaction is also important: the claimant who vacillates will continue to be pressed for access, with an equivocal refusal more likely to create ill will between the parties.

More generally, conflicts that spill over into the public arena bring a heightened level of uncertainty that accompanies outside intervention. The chief is the village-level arbiter, and the skill with which he performs his role can be critical. Because of reportedly high and growing government mistrust expressed by many respondents, most of it directed at officials perceived as shamelessly corruptible, a motivation exists to contain and settle disputes locally. There was also a general perception that government officials were susceptible to bribery and influence. Musalaha in this second sense was characterized explicitly as a mechanism for settling dispute, one involving compromise, reciprocity, and the shared knowledge that escalation of conflict poses risks with uncertain present and future consequences.

Effects of subsistence ethic

Through its influence over how property claims are made and negotiated, the subsistence ethic has an effect on wealth differences, land-related conflict, and the sustainability of resource use. While other forms of property may be subject to the subsistence ethic, land still provides the central source of wealth for households. By legitimizing claims to use others’ property – in essence tying certain duties to property rights [to use Bromley’s (1997) terminology], the subsistence ethic discourages overt accumulation of certain forms of wealth, and likely reduces wealth differences between households at any given time. This is not to suggest that there are not wealth differences in the study villages – there was wide variation reported in the number of household fallow claims. What it does suggest is that the distribution of property use was at any given time more equal than the distribution of property ownership or longer-term claims.

Wealth differences within households are also affected by the subsistence ethic, which can be conceived as having a distinctly gendered dimension. Men often invoke their need to farm household grain when evicting women from a parcel, devaluing their labor contributions as secondary to the subsistence enterprise (despite overwhelming evidence to the contrary – e.g., Grigsby, 1995). Defining subsistence as what men do marginalizes women’s access to resources, a topic explored in another paper (Grigsby, unpublished manuscript, 2001).

The mechanism of musalaha was perceived by villagers as critical for reducing the level of land-related conflict or confrontation between households, as well as for settling disputes. As one villager said, “It’s not good to argue over land. That’s why we use musalaha between ourselves.” While an imperfect mechanism, musalaha represents social capital villagers have cultivated to retain local control over issues affecting the community and relations between neighbors. Subsistence is central to the form musalaha has taken with respect to land – it is the reason cited for making resources widely available for people’s use, irrespective of who claims longer-term rights to them. Both wealthy and poor households have access to musalaha, although the logic underlying its misuse or avoidance is less clear. Villagers attribute it to self-interest (nyangoya, versus sigbyogonya); however,
any contention that benefits from a reduction in overt conflict would be equally distributed across poorer and wealthier households is best approached with some degree of skepticism.

The subsistence ethic also affects the sustainability of resource use. Forestland is essentially governed by open access de facto management, subject to the ebbs and cycles of resource and income needs of the local populations. The subsistence ethic would also make difficult any sort of active, or even passive, fallow management or productivity-increasing intensification. Dry season wildfire may also discourage long-term investment. Restricted access to bush fallow lands would conflict with the integrated, seasonal, and cyclic nature of the production system, affecting many of the secondary resources it yields (especially fuel and fodder).

The limited ability of claimants to control fallow access in the short-term has, according to villagers, led to overcultivation of closer-in fields. One of the strategies pursued by poorer households was to cultivate fields close to the village, which reduces travel time and allows for other economic activity during the growing season (e.g., cutting and marketing fuelwood). The potential to become caught in a self-reinforcing cycle of underproduction and depletion of forest resources is evident.

Most villagers perceived that an historical process of local environmental change was occurring. Their observations of change included: 1) increasingly erratic rainfall during the growing season; 2) depletion of the aquifer; 3) loss or reduction in occurrence of several plant species of economic value, both wild and cultivated; 4) overcultivation of fields close to the village; 5) increased mortality of fuel-yielding seral tree species. While the processes noted derive from villager observation and not more verifiable data sources, historical observations, especially of elders, cannot be summarily dismissed. Short of suggesting that the customary tenure regime facilitates the third, fourth, and fifth processes listed above, it would seem to do little to reduce their potential ecological impact.

Tenure change over time

There is ample evidence that change is endemic to customary tenure. Even the use of tagamasere (buried bottles with identifying script) to mark traditional lineage rights was reportedly instituted at the suggestion of colonial officials. Many older villagers also noted that it has only been in recent years that fallow access has been negotiated. Before that time, land was cleared without seeking permission, and any disputes were settled by the chief. This suggests a trend to more restrictive access to land—in essence a process from more to less communal access (i.e., “individualization”). One could argue that the subsistence ethic poses a barrier to extensive individualization. However, there was evidence of “defection” from adherence to the subsistence ethic, both on the part of fallow claimants and would-be tenants. In any event, villager accounts suggest that customary tenure is dynamic, and that the subsistence ethic’s influence over clearing rights and negotiating processes may be a relatively recent phenomenon.

Impacts of change

Outside change is coming to the region. Three processes around which evidence and observation converge are increasing penetration of the state in land-related issues, increasing penetration of markets, and a changing nature of subsistence.

Increasing government intervention

Villagers reported several instances of local government intervention in land-related transactions. These included mediating local disputes and administering titling initiatives. There were two instances reported in which local government officials were called in when villagers were unable to resolve tenure disputes—one between a herding and a farming village over territorial boundaries, the other involving well rights between an established village and a recently settled household. The government has also instituted a titling initiative, administered at the “Rural Council” level (a local political jurisdiction), which a handful of villagers had tried to use [see Golan (1994) for a description]. All applications had been pending for some time, and all were openly motivated by a desire to solidify lineage rights to prized parcels of land—not to gain greater security needed for investment. Other villagers reportedly were seeking clearing rights not through customary fallow claimants, but through a village representative to the Rural Council—part of a “devolution” movement (Thomson, 2000). In addition, in the area, two outsiders had reportedly received title independent of village mechanisms. One case involved a relatively large holding granted to an absentee landlord, who was a merchant in Tambacounda, and who hired supervisors and laborers to farm cash crops.

Increased government intervention within the rural sphere seemed likely to erode the subsistence ethic as a widely acceptable organizing principle governing tenure. While the government of Senegal claimed constitutional rights to all lands under the law of National Domain, for most villagers, de facto tenure has been decidedly customary and communal. National Domain
grants certain tenure rights to villagers, but extra-village adjudication of tenure disputes is reportedly uneven and subject to manipulation by elite individuals or groups (Furth, 1998). A greater role for government in the actual allocation of tenure rights on the ground is likely to increase village-level conflict (despite conventional economic assertions to the contrary), a relatively safe assertion supported by the findings of both Golan (1994) and Dickerman (1989). Scott (1976: 28) notes that the reliability of a given resource in times of need is often inversely proportional to its proximity — there are more reasons to engage in interhousehold reciprocity than to solicit government support. The likelihood of the government being able to provide any substantial social safety net for rural villagers is at present slim. Food aid in the region is reportedly irregular, and distributed through NGOs and multilateral relief agencies. Whether the government will possess either the resources or resolve to absorb an expanded role, irrespective of its perceived illegitimacy in this arena among many villagers, is suspect.

Market penetration

Economic changes reportedly occurring can be attributed in large part to increased participation in local markets by villagers (as sellers and buyers), an increased need for income to meet household needs, and a shift from dependence on rainy season production to dry season petty commerce (resale), selling of labor, renting of equipment, or harvesting of commons resources for sale. Structural Adjustment Lending policies in Senegal have opened markets (Weissman, 1990), and villagers reported an increasing array of imported goods available in Tambacounda. There has been dramatic bradie wealth inflation in the villages, reportedly driven by this process of market penetration, which has given young men incentive to cultivate cotton for the local monopoly. As it becomes reportedly more difficult, or at least relatively less remunerative, to secure subsistence through rainy season work, villagers are exploiting whatever market opportunities they perceive as available to them. Interestingly, records and reports from both villages showed decreasing participation in formal sector commercial crop campaigns (both peanuts and cotton), at a time when need for income was becoming more important.11 This increased non-crop market participation appears to be a key factor encouraging overcultivation of bush fallow and overharvest of commons resources, and could lead to a change in the way the concept of subsistence is used to make claims on property. Reciprocal grain exchanges have all but vanished, according to village elders (although house-

hold heads consistently reported that grain surpluses have also greatly diminished).

Implications

Government intervention, to the extent it imposes a conflict between de facto and de jure tenure regimes, will likely increase village-level conflict. Three instances had been reported in Benbaliyabug where villagers sought access to uncleared land not through the chief, but through the local representative of the Rural Council. While in each case the representative worked through the chief, the potential for conflict exists. In addition, because titling initiatives often require some capital (e.g., political connections, income for travel or bribery), those most likely to seek and obtain it are those that already enjoy considerable advantages. However, most with an opinion believed that, title or no, villagers would continue to seek access to land by invoking their needs for subsistence. As Matlon (1994) and Golan (1994) both point out, governments would be wise to seek ways to incorporate local social capital, such as musalaha, into any tenure-related schemes to increase security or stimulate investment. Efforts to explore the application of land information systems, or LIS (e.g., Riddell, 2000; Williamson, 1997), must address many potentially troubling issues, such as who would have access to LIS, how they would be used, what kinds of data would be collected, and how could they accommodate the inherent fluidity of customary tenure and land use (e.g., see Ezighalike et al., 1995).

Reconciling the tension between national, de jure claims to land and de facto customary tenure, would grant villages the security of tenure to protect their interests in land from resource poachers (seeking fuelwood for sale and to make charcoal). With respect to the woodland commons, despite the social forces that may work against sustainable management, the statutory recognition of village territorial claims would provide some incentive to explore the development of effective common property institutions. Senegal has made efforts in this direction (Furth, 1998), but has been more active in parcel-based tenure reform through titling. At the parcel level, however, the concept of security as a means to stimulate or protect investments conflicts with both prevailing land use and the subsistence ethic.12

Development of off-farm income sources has the potential of decreasing pressure on the local resource base. However, it does not affect the tenure regime's inability to address unsustainable resource use on forest and fallow land. In the absence of off-farm income sources, however, pressure on the resource base is likely to intensify. With respect to technology,
labor-saving practices (e.g., mechanization) are likely to exacerbate problems of unsustainability on bush fallow lands. Conversely, the opportunities presented by land-saving innovations (e.g., intensive fallow management), even where sufficient labor exists, and despite disincentives to such practices noted previously, may enjoy only marginal appeal if they do not address key ecological limitations, such as rainfall variability and dry season wildfire. Those farming commercially included young men seeking bridewealth price, and the wealthier households (labor or capital-rich). Even where household heads were farming commercially, it was a “surplus” use of household resources above and beyond those needed to cultivate the household grain crops.

Conclusion

It is fair to ask whether the findings can be generalized to larger geographic areas. The Tambacounda region of Senegal is probably more similar to eastern and central Mali than to the rest of Senegal, in terms of its climate, ecology, ethnic and religious composition, and infrastructure. Combined with eastern Mali as far as the capital of Bamako, it represents a land mass supporting well over two million inhabitants. While conditions in any given village may be different, and villages’ access to markets or the reach of government vary, regional similarities with the study villages outnumber differences.

An analysis of tenure in these villages as a primarily economic phenomenon yields insight into how farmers think, and is critical in helping determine what production alternatives they’re willing to consider, but is incomplete. Such an analysis might have identified something akin to a subsistence ethic, but it would not have made it a focal point of inquiry, nor would it incorporate it explicitly into any models of change. Reducing cultural factors to economic reasoning risks misunderstandings that affect policy outcomes (e.g., Van Dusen Lewis, 1978).

Future research

This research attempts to respond to two related questions: what constitutes the subsistence ethic, and from where does it come? It also generates at least two key questions: what might cause an erosion of the subsistence ethic, and what might be its consequences?

Something akin to the subsistence ethic likely exists in many areas of Africa, some of which have witnessed commercialization and tenure individualization. What is less clear is the extent of its influence regionally, among ethnic groups, or even within vil-
untested theory. Its deliberate diminution as a principle guiding land use and farmers’ interactions would be no small change.

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Notes

2. Mid-June is considered the “official” start of the four-month rainy season.
3. These included land registration efforts administered by the local government, market penetration and effects of structural adjustment policies, and perceptions of over-cultivation of bush fallow and overharvest on commons areas.
4. A household head may look for fallow in a certain area because of its physical characteristics, proximity to the village, size, or adjacent fallow claims (next to whom he might wish to farm). There are many reasons why he might seek to farm others’ fallow rather than clearing his own.
5. Men from both villages were involved in occasional forays to stop incursions from poachers based in Tambacounda. This suggests that the subsistence ethic has limits — for fallow, those spatial limits would seem to be community or kin membership. For commons, the social “scope” of usufruct is broader, but villagers still attempt to exclude strangers.
6. No one suggested that claims could be made on livestock in the same manner as fallow. However, informants stated that a cattle owner might be pressured to slaughter one of his animals should the village be visited by an important guest, for example.
7. Within households, affinal women have a right to clear land they need, but their subsistence contribution is often discounted by men and thus the quality of the parcels they’re given variable (Grigsby, 1995). In addition, the importance of subsistence and its conceptual appropriation by male household heads tends to devalue women’s considerable contributions to the productive enterprise, and constrain their access to land, labor, and capital. Subsistence as a gendered concept is the subject of another paper reporting on the findings of the research.
8. Efforts to quantify the differences were not reported because of reliability problems in trying to measure hectarage. Given limited resources, I chose to pursue other lines of inquiry and rely on respondents’ general accounts, which suggested a wide range with respect to fallow claims.
10. The population of the two study villages had increased an average of 10–15% over 10 years, based on unofficial counts from development agencies. Villagers insisted that the increased people were not a problem, but a disproportionate increase in the number of people who were clearing land for farming had occurred.
11. Household heads mentioned the “subsistence first” principle, and they along with others reported unfavorable terms of trade (expensive, privatized inputs for peanut production, cotton’s lack of drought tolerance).”
13. Lipton’s (1968) “survival algorithm” concept showed how microeconomic theory could address peasant rationality and aversion to maximizing production strategies.

References


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