

Creating Common Grazing Rights on Private Parcels: How new rules produce incentives for cooperative land management

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Abstract

Privatization of common lands shifts legal authority for land use decisions from communities to individual land owners. In so doing, privatization may undermine systems of rules regulating access to and use of common resources, such as grazing land among northern Kenya pastoralists. This study of privatization of pastoral land among the Samburu finds, however, that while individual land owners do claim a high level of autonomy over decision-making regarding their land, new social norms have emerged following privatization that promote the continued accessibility of private land for livestock grazing by neighbor's herds. These new rules stipulate, for example, that land owners who refuse others' access to grazing on their property will not be allowed to graze their livestock on any privately owned land in the community. In this way, communal sanctions are used to enforce cooperation in maintaining shared grazing rights, even on private parcels. Furthermore, these rules have differential effects on land owners depending on the number of livestock they own. Those with many livestock requiring greater access to pasture are encouraged to keep their land available to others, while those with few livestock may benefit by enclosing their land and leasing it for cultivation or grazing. Private ownership coupled with such norms regarding access creates varied incentives for land owners resulting in new patterns of land use. The emergence of new norms demonstrates the presence of institutional innovation at community level in the face of de jure shifts in ownership originating from national level policy. This case illustrates the important role of social sanctions in establishing and maintaining cooperation, and the dynamic interplay of public and private realms in Samburu land management.

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Introduction

African livestock herders depend on the natural environment to produce food, generate income, and build wealth, all of which are central to securing livelihoods of individuals and households. With limited, sporadic support from their governments and the international community, and living in fragile, semi-arid environments, pastoralist communities are particularly vulnerable to environmental risk, and their very survival hinges on how they manage their resources. The ways in which land and other natural resources are managed are therefore critical determinants of the well-being of people in these societies. Most pastoralist groups, like the Samburu of northern Kenya, have historically accessed natural resources such as pasture, forest, and water through communal management systems. Unlike open access systems, communal management systems consist of local institutions that regulate access to and use of resources by delimiting the user group, establishing rules for accessing and withdrawing resources, monitoring how resources are used, and sanctioning violations of rules (Ostrom 1990). These local institutions facilitate cooperation thus enabling pastoralists to survive in fragile environments subject to periodic crises such as drought and disease.

Such systems are not static, but rather have changed over time in response to both external and internal factors. In the Samburu case, the British colonial regime altered the pastoral system in the early 20th century through restrictions on grazing and limits on livestock holdings. Following Kenya's independence in 1963, the government instituted a process of land registration and titling that created possibilities for group and individual land tenure in some pastoral areas (Rutten 1992, Galaty 1994, Okoth-Ogendo 2000). While this led to the establishment of group ranches in most areas, another outcome of this policy was privatization of land in the early 1990s in a Samburu community, Siambu, into individual parcels of about 23 acres in size. Privatization shifts de jure control over land from the community to individual land owners, potentially undermining the former system of communal land management. Privatization also creates new possibilities for land use including enclosure, large-scale cultivation, rental, and sale of land.

The author's prior research in this Samburu community examined the complex effects of privatization on household well-being, individual behavior, and the authority of elders (Lesorogol 2003, 2005a, b, 2008). Recent work has revealed that in spite of the existence of individual land titles and a general recognition of individual rights to manage parcels, new rules regarding land use and management are emerging in this community. Preliminary findings indicate that these rules constitute a new impetus to re-establish communal influence over land use decisions even as these decisions remain under individual control. One of the new rules, for example, requires land owners to allow grazing on their land in order to access others' land for grazing. Conversely, individuals who fence their land or charge others to graze on it will be denied access to grazing on others' land. Such rules, if they gain wide acceptance and are effectively enforced, will enable the community to regulate individual land use decisions. This reassertion of communal power represents an intriguing case of institutional innovation that challenges standard economic thinking about the process of privatization of property rights. Additionally, these new rules create incentives for individual behavior with implications for patterns of land use and livestock movement

that will affect household well-being and the local environment. This paper presents preliminary research findings regarding the emergence and potential effects of the new land use rules situating the discussion within the theoretical literature on institutional change, cooperation, and property rights. While several potential explanations for the rise of the new rules exist, the most likely explanation is that wealthier herders are using their bargaining power to promote these rules which they perceive as beneficial.

Institutional Change, Cooperation, and Property Rights

In the most general sense, social institutions such as laws, rules, norms and conventions (much of what we think of as “culture”) shape social interaction by increasing the predictability of others’ behavior, thus enabling interactions and transactions—social cooperation—of all kinds (Barth 1981, North 1990, Ostrom 2005). One only has to reflect on the challenges entailed in interpersonal interactions in a completely new setting (such as a new fieldwork location) where one does not understand the language, customs, and rules governing behavior to appreciate how critical institutions are to everyday life. They are so fundamental, in fact, that they are usually taken-for-granted and seem unremarkable, until they change or cease to function as expected. Several key characteristics of institutions need to be considered in analyzing how they enable and require cooperation, and also how processes of institutional change occur. First, they are shared. Members of the relevant social group can identify and agree (at least to a significant extent) on the content of important norms, values, and rules. This does not imply that institutions are entirely functional, uncontested, or unchanging, but it does imply that there is a considerable degree of consensus—in the sense of agreement on meaning—required for an institution to exist in the first instance.

A second characteristic of institutions is that there are means of monitoring and enforcing compliance to rules among group members, ranging from mild, informal sanctions to stringent, formal ones. Three levels of enforcement are possible: first person (internal feelings of guilt or shame from violating norms, for example), second person (sanctioning someone who has wronged you), and third person (an outsider to the interaction sanctions the rule violator). Third person, or third party, enforcement of rules requires collective action among members of the relevant community and may (as in the case of formal laws) involve legal bodies such as courts. How this collective action is achieved and maintained is an important question for research on institutions (Olson 1965, Chong 1991, Baland and Platteau 1996, Henrich et al. 2006, Baland, Bardhan, and Bowles 2007).

Third, institutions tend to distribute benefits unequally among group members. For example, in the Samburu system of land management all herders have access to pasture resources and they have obligations to help monitor and enforce rules regulating which pastures can be used at any particular time. Even this egalitarian rule of access, however, tends to benefit wealthy herders more than poor ones, since the wealthier herder requires more land on which to graze his livestock while he incurs about the same costs of monitoring and enforcement as other herders. In absolute terms, he consumes more of the common resource than poorer herders, but his contributions to common management are equivalent. While this inequity may not be noteworthy when pastures are ample compared to needs, it becomes more problematic as population pressure rises and available pasture reduces as happened

to the Samburu throughout the twentieth century. The result of unequal distribution of benefits from institutional arrangements is that those who benefit most have the highest stake in maintaining the status quo while those who benefit least may seek to change the rules to their advantage if opportunities to do so arise. This characteristic creates instability in institutional arrangements as unequal benefits may generate social conflicts leading to institutional change (Knight 1992, Ensminger and Knight 1997). Institutional change may also be stimulated by external factors that alter actors' incentives to abide by extant rules (Ullman-Margalit 1977, North and Thomas 1973) or the emergence of new attitudes and preferences (Chong 2000). As I will discuss below, both of these factors were important in the shift from communal to private land ownership among the Samburu, and also play a role in the newly emerging rules of land use.

The question of how social institutions change is here closely related to one particular class of institutions, property rights in pastoral systems. Property rights refer to the bundle of rights possessed by individuals or groups that determine their ability to access, use, and transfer resources to others (Meinzen-Dick et al. 1997, Gray and Kevane 1999). A system of rules and processes governs how rights are distributed within a community or society, and multiple parties may have different rights to the same resource. A case in point is women's use rights over cattle. In many pastoral systems women are allocated use rights over cattle at marriage; they milk animals, control the distribution of milk, own the hide or skin after an animal dies, and often control the use of meat from the animal. They do not, however, have the ability to transfer them outside the household without the husband's permission as this is a right reserved for men.² An important characteristic of property rights in many African pastoral systems is the communal nature of land management. Shared management of extensive, semi-arid rangelands enables people and livestock to move across wide distances to access pasture, water, and other critical resources. By facilitating mobility of herds, these cooperative arrangements allow a larger number of people and livestock to utilize the patchy environments characteristic of pastoral systems as compared to settled ranching systems where large amounts of land must be kept in reserve to guard against the risk of drought (Sandford 1983, Behnke, Scoones and Kerven 1993).

Communal land ownership and management has been subject to critique, much of it based on misunderstanding the system. The "tragedy of the commons" argument popularized by Garrett Hardin (1968) posits that users of a common resource such as pasture will tend to overuse the resource since the benefits of doing so accrue to the individual user while the costs are spread across the group. This logic presumes that there are no constraints on individual users—that they are free to consume the resource indefinitely. That is indeed the case in "open access" systems but not those that are actively managed by groups of users who do impose limits on access and use of the resource. In spite of the flawed logic, the "tragedy of the commons" idea has been influential in both academic and policy circles leading to calls for the privatization

² There are some exceptions to this rule. Women have a stronger say over livestock they bring with them from their natal home and they generally have more rights over livestock they purchase with their own money. Some women's groups now engage in organized livestock trade and their right to do so and to control the proceeds is generally accepted in the community.

of communal resources in order to better specify property rights and ensure responsible management (see Platteau 1996 for an explanation and critique of this stance). The Kenyan government's policy of land adjudication in pastoral areas, developed in the 1960s and 1970s, was influenced by such arguments, leading to the establishment of group ranches and even total privatization as in Siambu (Mwangi 2007).

In the 1980s and 1990s a large body of research, much of it focused on pastoral systems, demonstrated that communities of resource users can successfully manage common resources, avoiding tragedies of overuse and degradation, (Ostrom 1990, McCabe 1990, Behnke, Scoones and Kerven 1993, Scoones 1994, Baland and Platteau 1996, Agrawal 1999, Berkes 1999). These studies show that successful management depends on cooperation and collective action by users of the resource to develop what Ostrom (1990) terms "design principles", which are rules regulating the use of the resource. Important design principles include defining the user group, creating rules of access and use of the resource, monitoring and enforcing these rules, and establishing a forum in which a broad range of resource users participate in formulating the rules themselves. These rules comprise local level social institutions that clarify the bundle of property rights over the communal resource of land, and they emerge through social processes. To better understand why some communities are more successful than others in managing common property, scholars have investigated factors that facilitate or hinder cooperation (in rule setting, monitoring, enforcement) including group size, heterogeneity, and relations of trust (Agrawal 2003, Ruttan 2006, Baland, Bardhan, and Bowles 2007, Janssen and Ostrom 2007). In general, small, homogeneous groups with high levels of trust will be more effective in establishing and maintaining cooperation and, by extension, a system of rules around land management. Conversely, larger, more heterogeneous and less trusting groups will encounter more difficulty in doing so, and may require a stronger third party to enforce compliance. As with all institutions, cooperation can be threatened by external factors such as changing relative prices, new market opportunities, or government policies that alter the costs and benefits of cooperation. To the degree that actors respond to such incentives, they may be less willing to cooperate than previously, which has important implications for maintaining a system premised on widespread cooperation.

According to these design principles and theory of collective action, many pastoral systems are examples of successful common property management. For example, the Samburu land management system is highly decentralized so that local groups of users (small, homogeneous groups) can decide which areas of pasture they will reserve for dry season grazing, when and to what degree water sources will be exploited, when forest areas will be opened and closed for grazing, etc. The same local group is able to relatively easily monitor use patterns and sanction those who violate the agreed-upon rules. All elder men (those older than about 30 years) are allowed to participate in local decision-making fora rendering the rule-making process highly democratic (for men, at least). The continued survival of pastoralists in difficult environments over hundreds of years (probably thousands) is a testament to their success in adapting to and managing their environment. Why, then, have some groups of pastoralists over the last few decades decided to partially or fully privatize

their land resources (Peters 1994, Rutten 1992, Galaty 1994, Mwangi 2007)? The next section provides an explanation of this process for the Samburu case as background to the analysis of the resurgence of communal influence over land use.

Privatization in Samburu: The Siambu Case

In the case of Samburu, privatization emerged out of social conflict among groups with different interests and differential bargaining power. Factors both internal and external to the community contributed to the push for change. Initially, a small group of individuals sought large parcels of land for themselves, but the outcome of the conflict resulted in equal sub-division of the land among all resident households (numbering about 240), which remains today. The internal factors that led to this change include a heightened awareness of inequality and a shift in the bargaining power of key social actors (see Lesorogol 2003, 2008 for details). As noted above, although Samburu have a very egalitarian rule of access to pasture, herders with more livestock tend to benefit disproportionately from access to pasture because their herds consume more of the resource while their obligations for monitoring and enforcement are similar to those of other herders. This inequity was not perceived as problematic when pastures were ample, but with growing populations and shrinking access to land due to creation of wildlife reserves, protected forests, and firmer borders with neighboring groups the differences between wealthier and poorer herders became increasingly apparent in the 1960s and 1970s. Many younger and poorer Samburu express the sentiment that private land holdings would be advantageous for them as they could exclude others from using the land and benefit more themselves, perhaps by raising fewer, more productive cattle (Lesorogol 2003: 533). Some individuals were motivated to pursue privatization as a means to reduce inequities among herders by securing greater rights to land.

Another internal factor was a shift in preferences among some men who had been exposed to farming in other areas of Kenya through experiences in education, employment, and military service. They came to associate private land ownership, the norm in those areas, with greater modernity and economic opportunity. Moreover, these experiences in themselves increased the relative bargaining power of these men. Younger men in Samburu society generally have less power than elders who control access to land, livestock, political authority, and marriageable women (Spencer 1965). These young men were able to challenge the status quo of communal land management, however, through their greater understanding of government regulations regarding land adjudication and better access to government officers through knowledge of the national language and bureaucracy. Using these skills—their newly acquired bargaining power—they successfully lodged claims for private land during the adjudication of the area into a group ranch.

External factors also played a role in advancing privatization in Siambu. The government's land adjudication policy created the opportunity for challenging communal management, at least for those savvy enough to realize that there was a provision for making individual claims during the group ranch adjudication process. The local government land officers also exhibited a bias in favor of private land ownership and tended to favor the individual claimants over opposition from the elders and even the local land committee (Lesorogol 2003, 2008). Another important external factor was the increasing relative price of land in Siambu at this time. Located

in the highest elevation part of Samburu district on a broad flat plain, the area has some potential for commercial wheat production. Just as adjudication was getting underway in the early 1980s, a commercial wheat farmer approached the community offering to lease the land to grow wheat. This sudden increase in the value of land encouraged those who already wanted private parcels to seek even greater acreages while it stimulated the elders in the area to resist losing this fertile land to individual ownership. What ensued was a conflict between these two groups that lasted about five years, pitting the younger educated group against the elders who mobilized the community against the individual claimants. Ultimately, this conflict was resolved in a compromise solution brokered by the government and local leaders that granted each household in the community a parcel of privately owned land of about 23 acres, while some of the less desirable land remained a group ranch with joint access by all community members.

After Privatization: Greater Autonomy and Control over Individual Parcels

The decision to legally privatize land in Siambu transferred authority for land use decisions from the local council of elders to individual land owners, a dramatic shift considering the history of communal management here. Considering the conflict that had taken place over privatization, I expected to find at least a residue of resistance to privatization among members of the community. I did not. Instead, virtually all informants explained that they were very satisfied with private land ownership—even those who initially opposed privatization. Interestingly, they were most positive about privatization because of the added autonomy they had over land use decisions and the inability of elders to interfere with their choices about how to use their land. They could grow crops, fence, lease, or even sell the land and there was nothing the elders could do about it, they told me. Some made comparisons with neighboring Samburu living on communal or group ranch land highlighting how elders' control impeded their freedom of choice and even prevented them from developing. Elsewhere I have discussed how this rhetoric of control and autonomy has been used to re-assert the leading role of the Lmasula clan, the majority in Siambu, by asserting their greater modernity (Lesorogol 2003, 2008). Here, I want to underscore the strength of feelings about individual control over land use and opposition to control by elders within the community. Indeed, experimental games conducted in 2001 revealed a tendency to discount elders' authority (Lesorogol 2005a).

Actual land use practices in Siambu in the early 2000s were not entirely consistent with the rhetoric about modernizing pastoral production, although there were signs of change. Cultivation did increase, with about two-thirds of households engaging in some crop farming, more than half of whom began farming following privatization. Most people grew maize, beans, and potatoes for home consumption and sale on fields of one to two acres. About a third of the 100 surveyed households leased out land to the wheat farmer. Selling land was much less common. Only about ten percent of the surveyed households had sold land and in total land sales in the first decade following privatization comprised only about two percent of the total privatized area (modest compared to the rate of sales among the southern Maasai, among whom privatization has also occurred, see Rutten 1992, Galaty 1994, Mwangi 2007). Enclosing land was even less common. While fences are the quintessential marker of private property, there are only four or five individuals (out of 240) who have fenced

their parcels since privatization. Even without fences, however, private rights are clearly recognized in the community. Land owners are able to sell not only their land, but also increasingly the resources on the property such as timber or even firewood (water remains a public good at present). In an interesting twist, the council of elders has begun to enforce individual land rights, penalizing herders whose livestock wander into cultivated fields and destroy crops.³

In the midst of these changes in land use, livestock continued to be grazed in Siambu, both on the private parcels and also in Porokwai, the less desirable area over the escarpment that had been declared a group ranch at the same time the private plots were demarcated. In addition, there is a government forest adjacent to Siambu and many herders took their livestock there to graze, especially in the dry season or in low rainfall years. Herders could also take their livestock further away for grazing, requiring them to negotiate with neighboring communities for access. While it was clear that livestock continued to graze in the privatized area of Siambu, in the early 2000s there did not appear to be any particular set of rules regulating grazing access. Rather, herders either grazed on their own land, or made bilateral arrangements with others in order to bring their livestock to graze on those parcels. In the last one to two years, however, new rules have begun to emerge that promise a greater degree of communal control over grazing access in the privatized area.

A Re-emerging Commons?

Two events indicated to me that new grazing rules were emerging in Siambu. The first was when I heard from one of my key informants that there had been some disputes in the community over public pathways. When land was divided into individual plots, public paths were demarcated in between the plots. He told me that in a few cases, people had planted crops over these paths leading to complaints to the area elders and government-appointed chief. This event, while not directly related to grazing per se, signaled that the elders were being called upon to intervene to defend community rights over this public good. Also, since it was very unusual to hear about disputes of any kind over land, this indicated to me that there were still some contentious issues regarding land.

The second event I heard about was disagreement over the use of wheat stubble. As noted above, many people in Siambu rent out their land for wheat farming. This land is not fenced, though there is general agreement that livestock should not graze on the wheat. The wheat farmer has used watchmen to guard the wheat, although this practice appears to be on the wane. Although there may be some problems with livestock grazing on growing wheat, it does not seem to be a significant issue. After the wheat is harvested, there is stubble remaining on the fields. The disputes revolved around the use of the stubble. According to several informants, it used to be that anyone could graze their cattle on the wheat stubble, but then in the last couple of years a few “young and clever” land owners decided to increase their profits by renting out the stubble for grazing. This way, they would earn money from wheat twice—once for the lease to the wheat farmer, and now the grazing fees

³ This is especially noteworthy since the elders resisted those who began farming in the area in the 1960s and 1970s. One of their methods was to force their livestock onto cultivated fields, destroying them. There was no recourse for those early farmers who were in fact being sanctioned for taking valuable pasture land out of use.

charged for the stubble. Interestingly, while there was no resistance against people leasing out their land for cultivation, leasing the wheat stubble led to considerable dissatisfaction in the community.

The argument against leasing the stubble ran something like this: these individuals were leasing out their whole parcel for stubble-grazing, and then taking their own livestock and grazing them on others' private parcels. Thus, they were benefitting from free access to others' land while they were reaping private rents from others grazing on their own parcel. A classic case of free-riding, except that in this case the "commons" was made up of the combined private parcels of other land owners. Some elders opposed these individuals renting out their wheat stubble. But there was a problem. They could not prevent them from doing so, since the individuals have the right to use their land any way they want. What they might be able to do, though, was to prevent those land owners from grazing their own livestock on others' private parcels. They could use the sanction of prohibiting them from grazing on others' land, unless they allowed grazing on their own parcel (i.e. free access to the stubble rather than charging). Thus, it appears that out of this dispute over stubble emerged new rules over grazing access. Further research is required to investigate the process through which these disputes were actually transformed into a set of proposed rules and how and to what extent those rules have been adopted and are actively enforced. It was clear to me, though, through conversations with a number of informants that by the summer of 2007 there was a fairly broad recognition that such rules existed.

From this preliminary research, the new rules could be stated as follows:⁴

1. Reciprocal grazing access: anyone who wants to graze their livestock on others' private parcels must allow others' to graze their livestock on his parcel.
2. Enclosure is a two-way process: if someone fences their parcel, they may exclude others from grazing on it or charge a fee for grazing access. However, that individual cannot freely graze their livestock on others' parcels.

While the first rule stipulates something approaching free access to grazing on others' parcels, the reality seems to be that access to grazing on any particular parcel involves agreement between the owner of the parcel and the individual desiring to graze his livestock. What is significant is that these agreements should not involve exclusive grazing rights or the charging of fees. They are more akin to the kinds of negotiations pastoralists normally engage in when seeking access to grazing beyond their home area. The principle is one of reciprocity, not market exchange. That said, I also observed and heard about herders sneaking their livestock onto others' land for grazing without negotiating permission, a practice that appeared to be tolerated much of the time. Such sneaking could be a rule violation if the one doing the sneaking does not allow access to his land for grazing. Sneaking by those who do allow grazing on their parcels might be a strategy to reduce the transaction costs of negotiating access to daily grazing.

⁴ This is my current understanding of the rules. It's quite possible that there are nuances or even other rules that I have not yet discovered. To my knowledge, the rules are not written down anywhere.

These rules are quite consistent with efforts to combat free-riding on the commons, with the twist that the commons in this case is not legally a commons at all, because it is made up of privately owned parcels. If a land owner takes his plot out of the commons, by enclosing it or otherwise refusing others' access, then he is not entitled to access the remaining commons through others' plots. Although the elders cannot prevent someone from leasing their land (either for wheat, maize, or stubble) they may be able to prevent him from grazing his livestock on others' land, but only with a high degree of cooperation among all the land owners. Since the elders do not have authority to regulate individual land use decisions, the only way these new rules can be enforced is if all land owners agree to enforce them by either individually refusing access to their land by rule violators, or by reporting violations and then imposing collective punishments on violators. Ironically, then, rules that govern this commons require all community members to take parallel, but individual, actions, for effective enforcement.

Incentives Created by the New Rules

The emergence of the new rules—assuming they can be effectively enforced—creates differential incentives for community members. Examining these incentives may provide clues about the origins of the rules as well as their likely effects. What we are considering here are the distributional implications of the new institutions—who gains and who loses under the new rules? According to institutional theory, those who perceive they will gain by new institutional arrangements are more likely to support change in that direction, while those who stand to lose will resist.⁵

The effects of the new rules are clearest for wealthier and poorer pastoralists, creating incentives for each group to engage in particular kinds of land use. Take wealthier herders with many livestock, perhaps as many as 100 cows and 200 sheep. The 23 acres they were allocated during privatization are inadequate to provide year-round grazing for all their livestock. In order to support their herd, they must have access to additional grazing beyond their own parcel. For them, maintaining reciprocity among parcels will provide access to more grazing land than they have in their single parcel, even though they will at times need to provide others access to their own land. They also have the choice to graze their livestock beyond Siambu in Porokwai, the adjacent government forest, or group ranches further afield. These options entail additional costs, however. In the case of Porokwai, the grazing is often inferior to that in the privatized area of Siambu and there is a high level of insecurity in the area due to neighboring Pokot pastoralists who often raid Samburu herds. Grazing in Porokwai requires investment in security—older herders, possibly armed—and suffers more seasonal fluctuation than Siambu. As for the forest, grazing there is technically illegal and there is some risk of being fined by Forest Department guards. Furthermore, the forest is less desirable grazing, especially for cattle, compared to the flat plains of Siambu. Greater herding skill is required to navigate herds through the forest. Taking livestock beyond these areas entails even higher costs as the herder must negotiate access, must travel and live far from home for extended periods, and

⁵ Lacking more detailed information about how the rules themselves were proposed and promoted, considering the incentive effects is a way to build a hypothesis about which groups may have supported the new rules, or at least are likely to support their continuation. The hypothesis can then be assessed in further research into the origins of the rules.

requires older boys or warriors to accompany the herds. Thus, access to grazing on the private parcels in Siambu has many advantages over these other areas. Rules that help ensure continued access to this re-constituted commons have considerable appeal to wealthier livestock owners who stand to benefit substantially from lowered costs of grazing.

What about poorer pastoralists? Individuals with few or no livestock face a very different calculus than the wealthy herders. They do not require as much land to graze their few livestock and may be able to survive most of the year on their own parcel. With a very small herd, it is even more difficult for them to move away to utilize distant pastures, however, since they will have difficulty surviving on the products of their herd. In such cases, poorer pastoralists often combine their herds with those of wealthier pastoralists, perhaps providing some labor in the form of a herder. Retaining reciprocal access to parcels has less appeal to a very poor herder, since they will not make much use of others' parcels, but will be subject to others' demands for access to their land. For them, other land uses such as cultivation and leasing may be more attractive since they can produce food and cash on their own land even with few livestock. The new rules create an incentive for them to take their land out of the new commons, freeing them to devote it fully to other uses. Doing so, especially if they opt to fence their parcel, may make it difficult for them to rejoin the commons later, raising questions about what such an individual would do if they were to become better off and begin to invest in livestock and build up a herd (the ideal trajectory for a pastoralist, after all).

For both wealthier and poorer herders, the new rules create incentives to pursue particular land use options. Wealthier herders stand to benefit most from retaining reciprocal access to private parcels—the new commons—while poorer herders can benefit by enclosing their parcel and using it for farming, leasing, or grazing their own livestock. While this looks like it might be a win-win situation, there are some unknowns worth considering. First, what will be the mix of land use practices if individuals follow these incentives? If many poorer herders take their land out of the commons, will what remains be adequate for the needs of the wealthier herders? How will these practices combine spatially? Wealthy and poor are not segregated in separate areas of Siambu, so individual decisions may result in a patchwork of open and closed parcels possibly reducing the overall efficiency of any particular land use. Second, what are middle-wealth herders likely to do under the new rules? Their incentives are less obvious as they need grazing land but also may want to devote land to other uses for which enclosure is desirable. These questions are the subject of further research.

Explanations for the Emerging Rules

In this final section, three possible explanations for the emergence of the new rules are considered in light of available evidence and theories of institutional change. The first candidate explanation is that the people in Siambu are re-asserting communal control over their land as an act of resistance against government-imposed land reform that they never supported in the first place. This explanation has a certain appeal in its assertion of people acting to defend their way of life against a neoliberal government bent on its destruction (or at least transformation into modern, settled ranching and farming). There is indeed a history of the government trying to change

pastoralists into something else, and exhortations for them to stop wandering around with their livestock are still heard today. For their part, pastoralists have resisted such attempts. The Samburu cursed the British grazing schemes of the colonial era, and in many parts of the district that are adjudicated as group ranches, there has been no discernible change in land management practices. In Siambu, too, many community members strongly resisted privatization of land. I reject this explanation, however, for a couple of reasons. First, although many did resist privatization, in the end they overwhelmingly agreed to the compromise solution of equal sub-division of land and participated willingly in the process of land demarcation. Today, you would be hard-pressed to find someone in Siambu who wants to give up their title to land and transform the area to group ranch status.⁶ You are more likely to find, as noted above, many people who think private ownership is superior to group ranch or trust land status and that it should be spread to other parts of the district. It appears unlikely, then, that the current re-constitution of the commons is an act of resistance against *de jure* privatization.

The second candidate explanation is that people in Siambu are re-asserting communal control to combat economic distress caused by privatization. This explanation has a basis in the research of ecologists and anthropologists demonstrating that extensive pastoralism is the best use of semi-arid rangelands (see, for example, Behnke, Kerven, and Scoones 1993). As we have seen above, extensive pastoralism requires access to large tracts of land. Accordingly, breaking up that land into small individual parcels should undermine the basis for extensive production leading to economic decline. Indeed, there is some evidence that fencing smaller and smaller parcels will ultimately lead to an inability to support livestock herds (Boone and Hobbs 2004). The problem with this explanation is there is no evidence of significant economic decline in Siambu following privatization. Household surveys conducted by the author in 2000-01 and 2005 indicate that levels of wealth and income in Siambu are comparable to those in a similar community where privatization did not take place. The trend over time is one of relative stability with average levels of wealth increasing slightly and income remaining steady (Lesorogol 2005b, in press). Privatization has not caused wholesale economic collapse in part because livestock production has continued and alternative land uses have provided additional sources of food and income that may actually buffer households to some extent against periodic shocks. A growing body of research examines processes of livelihood diversification among pastoralists due to shifts in land use, increasing sedentarization, and/or new economic opportunities (see Little et al. 2001, McCabe 2003, Fratkin and Roth 2005, Adriansen 2006, Thornton et al. 2007). The effects of diversification are varied, depending on local circumstances, but in a number of cases diversification provides additional opportunities to the poor helping to offset the loss of livestock that many poor pastoralists have experienced over the last few decades. Many Siambu residents argue that privatization has helped the poor by providing them with new sources of income from alternative land uses such as leasing and cultivation that were not available when land was communally managed. The current state of evidence on household well-being does not support the idea that people in Siambu are attempting to re-create the commons in order to stave off economic decline due to privatization.

⁶ Perhaps some of the oldest women in the area would support this position.

The third candidate explanation is that wealthier herders in Siambu, seeking greater access to and lower costs of grazing have supported a re-constitution of the commons because it suits their own interests. This explanation is consistent with a bargaining power theory of institutional change that contends that social actors with greater power will be best placed to initiate and achieve changes in rules that they perceive as beneficial (Knight 1992, Ensminger and Knight 1997). Among Samburu, wealthier herders often garner more respect in the community as their wealth is taken as a signal of their success in achieving the ideals of pastoralism—a large herd, many wives, a large family, etc. It should be accompanied by proper attitudes, including generosity and a sense of respect (*nkanyit*) for oneself and others (Spencer 1965). Although Samburu society is relatively egalitarian in terms of participation in public decision-making, the “leaders among equals” are very often the wealthier members of the community. Whether wealthier herders still wield as much power and influence in Siambu as in other Samburu communities is a question requiring some investigation. The fact that all households in the area were allocated equal sized parcels of land and land consolidation has not occurred may balance to some extent differences in livestock wealth with equality in land ownership. On the other hand, the 2005 household survey revealed increasing stratification in Siambu with the wealthiest quintile experiencing large gains in per capita livestock ownership while other groups had modest gains and some suffered losses (Lesorogol in press). These gains may be temporary and restricted to a few individuals, so I do not want to overemphasize their significance, but it is likely that livestock wealth still translates into bargaining power in Siambu.

This explanation also seems to accord with the events that occurred around the wheat stubble incident, although more research is required to confirm whether it was indeed wealthier herders who supported the new rules and advocated for their adoption. Certainly, in the 1970s and ‘80s, wealthier herders in the area acted to ensure grazing access by sanctioning individual farmers. Currently, cultivation is accepted and even protected by the elders,⁷ but perhaps wealthier herders again fear that enclosing too much land threatens their interests. At this point, I posit this explanation as a hypothesis in need of further evidence. As shown above, it is relatively clear that wealthier herders stand to benefit from the new arrangements, but this fact alone does not establish their role in proposing the new rules. It is possible that elders (in general) supported the new rules in a nostalgia for the past, or as a way to re-assert their authority over land more generally, but I think these are more likely to be reasons that many of them agreed to the new rules rather than necessarily actively advocating for their adoption—a subtle but important difference. Further details about the events leading up to the formulation and agreement on the rules are needed before this explanation can be accepted or rejected.

Conclusion: Investigating Institutional Innovation

The emergence of new grazing rules in privatized Siambu is an intriguing case of institutional innovation. In contrast to standard economic theory suggesting that private rights are usually the most desirable and efficient, this case demonstrates the interplay of private and communal forms of management and authority. Although it is still too early to definitively explain precisely how the new rules were developed,

⁷ Herders whose livestock enter cultivated fields and consume crops are fined.

promoted, and (at least to some degree) accepted, the history of events in Siambu and the incentives created by the new rules hint that wealthier herders probably have the most to gain from the new rules. Poorer herders may also benefit, increasing the chances that the new rules will endure as they are more likely to do so if a broad range of community members abide by them and, perhaps more importantly, participate in their enforcement. The question of enforcement is very interesting in this case, because it entails collective agreement to act individually in order to sanction rule violators by denying them access to private parcels. Documenting the implementation and enforcement of the rules is another research priority likely to yield results that inform our understanding of the operation of collective action in this hybrid public-private situation.

The impact of the new rules on actual land use practice is another key area for further investigation. Much depends on the choices that land owners make in light of the rules. One possibility is a greater degree of openness of parcels, enabling easier and lower cost access of livestock to grazing. If the rules are well enforced, then cases of sneaking livestock unauthorized onto others' land will decline. While greater openness is one possibility, another is more enclosure as individuals opt to remove their parcels from the reconstituted commons. This may benefit particular individuals, but depending on the spatial distribution of these plots, more enclosure may result in a hodgepodge of open and closed small plots that raises the costs of mobility with negative effects for wealthier herders, or indeed anyone who needs to move livestock. More enclosure of plots also implies a need for greater vigilance in ensuring that those whose plots are taken out of the commons do not free ride by sneaking their livestock onto others' land—raising the cost of enforcing the rules. A bifurcation along these lines might also signal a move toward more stratification as wealthier and poorer households pursue different land uses and livelihood options with less overlap than at present. The economic and social consequences of such a change are hard to predict, but may have significant impact on well-being of Siambu residents.

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