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CGIAR Systemwide Program on Collective Action and Property Rights



Secretariat: International Food Policy Research Institute 2033 K Street, N.W. Washington, D.C. 20006 U.S.A.

ENVIRONMENT AND PRODUCTION TECHNOLOGY DIVISION

JANUARY 2006

CAPRi Working Paper # 46

Subdividing the Commons: The Politics of Property Rights Transformation in Kenya's Maasailand

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ACKNOWLEDGMENTS

This research was supported by the American Association of University Women, the Compton Foundation, the Institute for the Study of World Politics and the National Science Foundation. Useful comments were received from Jessica Athens, Stephan Dohrn, Kathryn Firmin-Sellers, Clark Gibson, P.J. Hill, Gary Libecap, Roger Meiners, Ruth Meinzen-Dick and Elinor Ostrom. Errors are all mine.

ABSTRACT

This paper discusses the internal processes and decisions that characterized the transition from collectively held group ranches to individualized property systems among the Maasai pastoralists of Kajiado district in Kenya. It addresses the question of why group ranch members would demand individualized property systems, but then turn against the outcome. In addressing this puzzle the paper discusses the process of land allocation and distribution during group ranch subdivision. It examines who the main actors were during subdivision, their degree of latitude in crafting and changing rules, and the interactions between Maasai and state institutions. Findings suggest that, because the process by which property rights change is so intertwined with politics, we may need to move beyond economic models of relative price changes and state enforcement in order to better understand such transitions. Models that accommodate competition by actors and the possibility that state actors may not provide the arbitration or enforcement that is often taken for granted are more useful for analyzing the complexities of shifting property rights. When the possibility for conflict and competition is factored into the property rights equation, the relative gains from privatizing/individualizing may not be as large or as obvious as anticipated.

Keywords: Commons, Policy process, Property rights, Kenya, Land tenure, Pastoralism, Group ranches

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1. INTRODUCTION

Much effort has been spent in identifying factors that motivate the transformation of property rights towards increased privatization, or in explicating the desirable outcomes of such transitions (deAlessi 2003; Anderson and Hill 2003, 1975; North and Thomas, 1975; Demsetz, 1967). Considerably less information exists on the processes that translate individual or group motivations into outcomes (Banner 2002; Neale 1998; Bardhan, 1989; Feeny, 1988). The forces underlying property rights transformations have been found to be largely economic such as relative price changes or technological innovation (Ruttan 1997; North 1990; Hayami and Ruttan 1985; Boserup 1965), and state enforcement of the new property structure has been taken as a given. There is less understanding, however, of how the solution of individual property is reached or what makes the new property assignment binding. A better understanding of process may help in the assessment of gains made by the transformation to individual property structure. Some scholars indicate that the process of defining property rights may preclude any gains realized by the establishment of such rights (Libecap 2003; Anderson and Hill 1975). More generally, understanding change processes not only provide a basis for interpreting policy outcomes, but also establishes a locus for informing intended reform processes with particular reference to broad goals, such as equity, efficiency, or both.

This paper discusses the internal processes and decisions that characterized the transition from collectively held group ranches¹ to individualized property systems among the Maasai pastoralists of Kajiado district in Kenya. It addresses the question of why group ranch members would demand individualized property systems, but then turn against the outcome. How could rational individuals, who made measured and thoughtful decisions to achieve a desired outcome, fail to achieve their outcome of interest? In addressing this puzzle the paper discusses the process of land allocation and distribution during group ranch subdivision. It examines who the main actors were during subdivision, their degree of latitude in crafting and changing rules, and the interactions between Maasai and state institutions.

It finds that even though ordinary Maasai initially controlled the decision of whether or not to subdivide their collective holdings, once the decision was taken, control was ceded to an elected and powerful management committee that primarily catered for its own interests. Prior rules designed by government to guide the process of group ranch subdivision entrenched the influence of the management committee in land allocation. Moreover, a lack of accountability amongst state actors, including the judiciary, undermined the ability of ordinary Maasai to address distributional conflicts emerging out of the allocation process.

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¹ A group ranch is land that has been demarcated and legally allocated to a group such as a tribe, a clan, section, family or other group of persons (Kenya, Republic of, 1968a). The group ranch is composed of a body of members to whom legal title has been jointly awarded, and a management committee that is elected by the body of members. The management committee is responsible for coordinating and implementing development projects on the group ranch. Although land is held in common by all group members, certain rights, such as residency rights, are assigned to individuals. The group as a corporate body also retains some rights such as control over grazing rights, tillage and water resources. Group ranches were introduced in 1968 by the Kenya Government in an attempt to control environmental degradation and to increase herd productivity in Kenya's semi-arid areas.

Findings suggest that, because the process by which property rights change is so intertwined with politics, we may need to move beyond economic models of relative price changes and state enforcement to understand the process more clearly. Models that accommodate competition by actors and the possibility that state actors may not provide the arbitration or enforcement that is often taken for granted are perhaps more appropriate for analyzing the complexities of shifting property rights. When the possibility for conflict and competition is factored into the property rights equation, the relative gains from privatizing/individualizing may be not be as large or as obvious as previously indicated.

The first section of this paper presents a theoretical characterization of the process of property rights transformation. This section is followed be a description of the group ranches and reasons for their creation. Explanations for their dissolution are also discussed. The third part of the paper presents the methods used in the study. This is followed by a presentation of the empirical results that include a discussion of the subdivision procedures, the outcomes of the allocation process, and the emerging arrangements following subdivision. The final sections of this paper discuss the findings and offer broader policy implications from this case study.

2. THE PROCESS OF CHANGE: A DISTRIBUTIONAL ARGUMENT TO PROPERTY RIGHTS TRANSFORMATIONS

Attempts to explain why property regimes may move towards greater privatization have generally crystallized around notions of efficiency. Efficiency arguments suggest that rational actors will respond to beneficial changes in the external economy (e.g. changing factor prices, technology) by seeking to internalize these new

gains, especially when they perceive the gains to exceed the costs (negotiation, enforcement) of implementing the privatized structure (Demsetz 1967; North and Thomas 1973, 1977, 1981). However, economic gains on their own are not necessary or sufficient to induce the implementation of alternative property rights arrangements and institutions are not always created to be socially efficient (Eggertsson 1990; North 1990).

Because a rearrangement of property rights involves a reassignment of ownership of valuable assets and a re-allocation of decision-making authority, distributional issues over the allocation of benefits, such as wealth and power, will be a fundamental concern in the transformation of property rights (Platteau 2000, 1998; Firmin-Sellers 1995; Knight 1995; Eggertsson 1990; North 1990; Libecap 2003 1998, 1989). Actors in the political milieu will compete to define and re-define the distribution of wealth and power in their favor under the new arrangement.

Potential losers and winners will attempt to protect their benefits under the status quo or seek new advantages promised by the new structure. Societal actors with varying capacities to influence outcomes will engage in bargaining and negotiation to assert their claims and to influence outcomes. Negotiation and bargaining over property rights may occur in diverse arenas such as courts, village hearings, local councils, or any societal institution that is approached to lend authority to certain property arrangements (Lund 2002). Thus a careful analysis of this distributional conflict and how it is resolved will provide a better understanding of the evolution of property institutions (Libecap 1989; Knight 1992; Firmin-Sellers 1996).

The nature and intensity of distributional conflict is influenced by whether benefits in the new arrangement will be concentrated and on how diverse the interests of

the bargaining parties are (Libecap 1989). Both these aspects are heavily dependent on the formula used to allocate and distribute benefits. Rents can be divided among customary users in proportion to their respective rates of use in the status quo arrangement or they can be divided equally among previous rights holders (Platteau 2000). Proportional division, having higher information requirements, disadvantages low-intensity users whose membership in the group entitles them to equal use of collective resources. Though equal division has low information requirements, it is likely to generate intense opposition from individuals who are benefiting disproportionately from high-intensity usage of community resources. Scholars seem to suggest that proportional division is a more politically desirable alternative (Libecap 1989; Roemer 1989). Others would argue that this is an empirical determination that is very much dependent on social norms of equity and fairness (Ensminger 1992).

The outcomes of political bargaining will thus depend both on the power and influence of actors as well as on how the proposed distribution of wealth and power will blend in with prevailing institutional norms. Institutional change may be slowed and indeed blocked if the proposed distribution in the new arrangement is very concentrated (Libecap 2003, 1989).

How is conflict resolved so that the new property rights structure is implemented? Some actors may invoke the authority of the state to terminate severe conflicts over distribution (Firmin-Sellers 1996). In other cases, powerful actors with a relative bargaining advantage are able to constrain others to comply with new institutional rules (Knight 1992). How do they do this? Knight argues that the relative bargaining power of actors, itself a function of the resources available to actors, affects the credibility of

commitments during bargaining. Weaker parties with less resources, who face higher costs in case of extended or a breakdown in bargaining, are less likely to challenge a stronger party's commitment. In addition, threats of retaliatory action from a stronger person, though less desirable, may serve to increase pressure on the weaker party to adopt a less-preferred alternative. Thus outside of direct state intervention power asymmetries can resolve conflicts in social interactions. Nonetheless Knight recognizes the possibility of weaker parties having marginal influence, in which case conflict is not resolved and instead recurs.

The above theoretical framework creates several expectations. These include:

- Distributional conflict, determined by the mode of allocation chosen, is greatest
 where the new arrangement concentrates benefits in the hands of a few interests,
 particularly where social norms of fairness dictate a more equitable if not equal
 solution;
- 2. Actors utilize a variety of political institutions, formal and customary, to assert their claims so as to achieve the assignment of their preferred property rights;
- 3. Conflict is resolved either through coercion using the instruments of the state or through a more decentralized bargaining process among societal actors, but the process nonetheless is characterized by an asymmetry of power among the actors. The more powerful actors are then able to constrain the choices of weaker ones thus forcing compliance to the new institutional rules.

THE MAASAI GROUP RANCHES

The Maasai group ranches are the last of a series of state-driven land interventions in Maasailand that began in the early 20th century.² Group ranches were created with the expectation that they would provide tenure security and create incentives for the Maasai to invest in range improvement and ultimately to reduce the tendency to over-accumulate livestock (Republic of Kenya 1974). The program entailed a shift in land tenure from one in which the range was under traditional common ownership, to one in which the land was sub-divided into portions owned by groups, each of which held title to its own group ranch. To implement this development program the Kenyan government sought loans and grants from international agencies such as the World Bank, USAID, Swedish aid agency, Canadian development agency, and the United Kingdom. The loans were granted under the auspices of the Kenya Livestock Development Program (KLDP).

The objectives of group ranches were to be achieved through:

- Registration of permanent members of each ranch who were thus to be excluded from other ranches;
- Allocation of grazing quotas to members to limit animal numbers to not exceed the carrying capacity of the ranches;
- Development of shared ranch infrastructure (such as water points, dips, stock handling facilities and fire breaks) using loans. Members would pay user fees and be collectively responsible for loan repayment; and
- Member management of their own livestock, with the ability to obtain loans for purchasing breeding stock and cattle for fattening.
- A group ranch committee elected to manage all group ranch affairs including:
 - Overseeing infrastructure development and loan repayments;
 - Enforcing grazing quotas and grazing management; and

² The history of Maasai land relations and state intervention has been recounted by various authors: see Halderman, 1989 and Kipury, 1989.

• Maintaining the integrity of the group ranch boundary.

Group ranches do not fall under corporate law in Kenya. A separate law, the Land Groups (Representatives) Act of 1968, was passed to provide a legal framework for ranch operation. This Act provides for greater simplicity, lower costs and lower tax rates in handling of group ranch affairs. The entire group holds the title to the ranch, which cannot be sold by any of its members. Each individual has residency rights, but the group as a corporate body controls the means of production, i.e. grazing, water, and tillage and may establish mechanisms for the allocation of the means of production. This it does via the elected group ranch committee. The Department of Land Adjudication and the Registrar of Group Representatives, both in the Ministry of Lands and Settlement were extensively involved in the initial establishment of group ranches. The Range Management division of the Ministry of Agriculture played a key role in drawing up group ranch development plans. The Ministry of Water Development coordinated water development and the Agricultural Finance Corporation administered the loans provided by the funders.

The group ranch concept is now close to its fourth decade, yet there is consensus among scholars and planners that this policy innovation is a dismal failure (Galaty and Ole Munei 1999; Rutten 1992; Munei 1991). Not only has it failed to meet its stated objectives but it has also jeopardized the socio-economic welfare of the Maasai (Kipuri 1989; Kituyi 1990; Fratkin 1994). There is a growing trend toward subdivision of group into individual ranches, and frequent sale of portions of individual holdings to prevent foreclosure on development loans (Galaty 1988; Kimani and Pickard 1998). This disintegration began as early as the mid-1970s for the Kaputiei ranches of northeastern

Kajiado district. Demands for subdivision in other parts of the district gained momentum by the mid-1980s. By 1985, 22 group ranches had resolved to subdivide; 7 did so (Munei 1987). By 1996, these 22 group ranches had actually subdivided and individual land titles begun to be issued (Kimani and Pickard 1998). 11 other group ranches were in various stages of subdivision. By 2000, 31 group ranches had subdivided and been issued titles (Mwangi 2003). 14 others resolved to subdivide and were being surveyed and demarcated. Only 12 had resisted subdivision.

Recent research in different group ranch areas in Kajiado District point to a diverse set of pressures that motivated Maasai to press for the subdivision of their group ranches. Researchers working in the better watered areas of the District, indicate that individuals were eager to acquire individual land titles which they would use to access capital markets (Galaty 1999, 1980; Kimani and Pickard 1998; Rutten 1992; Grandin 1987). However, an increasing sense of uncertainty as internal population increased the number of individuals entitled to a share in a limited land resource, was also a motivator for subdivision (Galaty 1999, 1994, 1993; Kimani and Pickard 1998). This sense of insecurity was heightened when outsiders or individuals with no legitimate claim to group ranch land were registered and allocated parcels in certain cases where they were able to influence the management committee (Ole Simel 1999; Galaty 1993, 1992; Rutten 1992). Yet in one arid area demands for subdivision are closely tied to the development and success of irrigated, commercialized agriculture by resident non-Massai (Southgate and Woodhouse 2000; Woodhouse 1997). The most recent work in four group ranches suggests that while subdivision may have provided a way to access land titles, or a response to increasing population within the group ranch, other factors were also

important in motivating the transition (Mwangi, forthcoming; Mwangi 2005; Mwangi 2003). Not only were group ranches beset by internal governance pressures and difficulties in enforcing collective interests for resource allocation, subdivision appeared to be an expedient strategy for protecting individuals' land claims against threats of appropriation by both internal and external actors.

3. THE STUDY SITES AND METHODS

The four study sites were selected from one ecological zone, where the conditions of soils, vegetation, geology and rainfall, as well as ethnic composition, are relatively homogeneous. Four group ranches were selected: Enkaroni group ranch area, Meto group ranch area, Nentanai group ranch area, and Torosei group ranch. These were selected to include variations in size and location, in proximity to the main livestock marketing center of Bissel, and in how far along each was in the subdivision process (See Table 1 below).

Table 1--Basic information for Enkaroni, Meto, Nentanai and Torosei Year GR Size **Members** Agreed to Titles Distance Incorporated Subdivide **Issued** from (ha) by Oct Bissel 2002 (Km) April 1975 356 May 1988 8 (5miles) Enkaroni 11,378 310 Meto December 28,928 Sept 1989 400 65 (40) 645 1977 Nentanai December 3696 57 March 42 18 (11) 1977 1987 June 1977 Sept 1989 45,445 Torosei 300 56 (35)

Fieldwork was conducted from January 2001 to January 2002 and from June to August of 2002. A total of 334 interviews were conducted with elders of different

categories, youths, widows and married women. The interviews sought to find out whether individuals participated in the decision to subdivide, how parcel sizes and locations were determined and distributed, whether dissatisfied individuals contested committee allocations, how they organized such contestation, and with what success.

Tables 2 and 3 illustrate the proportion of general membership interviewed in each group ranch.

Table 2--Proportion of group ranch members that were interviewed

	No. of Members				
	No. of Members	Interviewed	% Interviewed		
Enkaroni	356	48	13		
Meto	645	88	14		
Nentanai	57	30	53		
Torosei	300	64	21		

Table 3--Interviews by age set and gender

	Ilterito	Ilnyankusi	Iseuri	Ilkiseyia	Irang- Irang	Ilkingonde Ilkishili	Ilmajeshi	Ilkilaku Iltakeri	Widows	Married women
Enkaroni		4	11	20	8	12	2	1	3	17
Meto	1	6	17	22	13	22	-	1	15	12
Nentanai		5	10	6	4	1	-	-	6	6
Torosei		1	16	13	12	33	11	1	4	15
Total (334)	1	16	54	61	36	68	13	3	28	50
% of Total	0.30	4.79	16.17	18.26	10.78	20.36	3.89	0.90	8.38	14.97

Interviews were supplemented with archival material. Group Ranch files (both meetings and disputes files) were obtained from Kajiado District's Land Adjudication Department. Meetings files recorded minutes of group ranch Annual General Meetings, changes in membership, changes in committees, minutes of committee meetings, and communications from the Registrar of Group Ranches and from the Land Control Board. The disputes files held correspondence relating to group ranch boundary disputes, individual and group complaints over the conduct of subdivision, and minutes of arbitration meetings conducted under the umbrella of the District Commissioner's office. The archival search helped provide insights into the process of subdivision, to identify key actors and the controversies surrounding the process of subdivision and in particular to identify the roles of the different arms of government administration in the process. Analysis of interview data is largely qualitative and interpretive.

SUBDIVIDING THE GROUP RANCH: DECISIONS AND PROCEDURES

The four group ranches adopted similar decision rules and procedures for subdividing their lands. One set of procedures was crafted by the Registrar of Group Ranches, a government official in the Ministry of Lands and Settlement. The other set of procedures was designed and sanctioned by group ranch members when they resolved to subdivide.

Formal procedures from government

In accordance with the Group Ranch Act, the annual general meeting where group members voted to subdivide their group ranch was presided over by the Registrar of

group ranches or his representative. Here, the Registrar would outline the government's procedure for dissolution and subdivision as follows:

First, the official group ranch committee would make a formal application for the dissolution of their group ranch to the Registrar of group ranches, which would include a KShs 100 (about US\$1.20) processing fee and the minutes of the annual general meeting at which the majority of the members voted to dissolve their group ranch.

Second, after verifying that the group ranch title is not charged or borrowed against, the Registrar would consent to its subdivision, allowing the group ranch to begin survey and demarcation.

Third, the group ranch would then apply to the district's Land Control Board for further consent to subdivide. The Land Control Board, comprising between 8-12 individuals, is appointed by the Provincial Commissioner and gazetted by the Minister of Lands. It is chaired by the District Commissioner, who is also the head of government administration in the district. The secretary of the board is the district representative of the National Commissioner of Lands. Other technical individuals include the District Land Adjudication Officer, the District Land Registrar and a representative from the local authority, the Kajiado County Council. Landowners in the district must comprise three-quarters of the board and to include both men and women from the community.

At this stage, the Land Control Board has several responsibilities. It verifies whether or not the group ranch title deed is encumbered by loans; it confirms the size of land to be subdivided and reasons for its proposed subdivision; it establishes the number of parcels that will result from subdivision and whether/which public utilities will be set

aside from the land. If satisfied, the board awards its consent for the group ranch to undertake subdivision.

Fourth, after the group ranch has completed demarcation, survey and mapping, the Land Control Board provides its consent for the collective group ranch title to be discontinued and converted to a series of individual titles by the District Land Registrar. But before it does this, the Board must verify that all registered group members have been allocated parcels that are relatively equal. It must also determine that there is no dispute over the subdivision. It consults landowner representatives on the board and is open to disputing parties. The board must verify on the surveyor's site map that public utility areas such as schools, trading centers, water points, health centers, and access roads have been set aside. In all decisions the Board depends on advice from technical experts such as the District Surveyor and the District Land Adjudication Officer. If satisfied, the Board consents to the transfer of title from the collective to the individuals and the District Land Registrar is allowed to process land titles.

Group representatives, usually the committee chair, vice-chair and secretary sign the title transfers to individual members once each has paid the necessary processing fees. The District Land Registrar will witness this transfer process. Once all titles have been transferred, and every member has obtained a title, a meeting will be convened and the Registrar of Group Ranches will officially dissolve the incorporated group and its representatives.

Internal Group Ranch procedures for subdivision

First, members resolved that subdivision be conducted in such a way to ensure that all parcels were relatively equal in size except where land was distinctly marginal such as on hills on near stream beds, or for exceptionally large families in which case 16

larger parcels would be issued. This allocation formula draws from the Group (Land Representatives) Act, which specifies that group ranch land is the property of the registered collectivity, held by each member in *equal*, *undivided* shares. It also draws from shared customary understandings, which consider land an indivisible territory to which all recognized users have equal access.

Second, together with the officially elected committee, group ranch members selected an additional group of up to ten individuals to assist the official committee in the physical task of demarcating the group ranch. This demarcation committee lasted only for as long as it took to physically mark parcel boundaries.

Third, the group ranch members were to indicate to the official committee the areas, in which they preferred to have their parcels located.

Fourth, members resolved to remain at their current locations until completion of subdivision to safeguard against opportunistic relocation to choice areas prior to subdivision.

Fifth, after receiving the consent to subdivide from the Registrar, the group ranch engaged a certified surveyor to conduct the on-ground demarcation. Prior to this formal survey, however, the official committee and the temporary demarcation committee traversed the entire group ranch, marking out individual parcel boundaries using natural features such as trees, rivers, rocks and hills as markers. The surveyors then formalized and/or rectify these boundaries. Individuals were expected to pay surveyor fees as a precondition to being shown their parcels. The fees varied from 1500 KShs (i.e. about US\$19), in Enkaroni, which was surveyed by a government surveyor, to 4500 Ksh in

Meto and 5000 KSh in Nentanai, both of which were surveyed by private surveyors.³ The committee and the surveyor determined survey fees. After the official survey and mapping, the committee would then show those group ranch members that had paid survey fees the location of their parcels. Individuals would then seek their titles, at a fee, from the District Land Registrar.

WHY DID GROUP RANCH MEMBERS EXPECT AN EQUAL SUBDIVISION?

Group ranch members endorsed the subdivision before obtaining unambiguous information and/or guarantees on the attributes of land that would be allocated to them. They also did not place restrictions on the bounds of committee action nor determine ways of bringing the committee to account in case it failed to fulfill their expectations. This is a significant omission because individuals' livelihoods and the viability of the livestock enterprise, both of which are dependent on access to adequate land resources, were at stake. Some insights can be gained from examining the criteria that members used to elect the official committee and later the demarcation committee.

In selecting their committees, both the official management committee mandated by the Group Ranch Act and the temporary demarcation committee, group members prized personal qualities such as honesty, integrity, sense of justice or fairness, industry, good behavior, and oratory skills, which they had observed from repeated interactions with the individuals. Some individuals elected to the committee were drawn from the

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³ Torosei has not yet engaged a surveyor—persistent droughts and heavy cattle losses have made it difficult for members to raise survey fees. The committee in Torosei is now approaching one wealthy Kajiado business man, who also owns land in Torosei to loan them an initial amount that would get the surveyor started on the ground. Nentanai members also had a problem raising survey and even title fees. The committee here received a loan from a neighboring cement manufacturer to get the survey process going. Those who could not afford to repay the loan were paid for by their friends and families in return for allowing the lender free grazing until the full amount is recovered. Some however opted to sell part or all of their land to those who paid the fees for them.

set leaders (*inkopirr*). Others were chosen because they were educated and had record-keeping skills which were considered critical for the group ranches' external relations with government and with financiers. This was usually the case for the positions of secretary and treasurer. Group ranch management committees were thus a unique blend of traditional/customary authority and formal legal authority given force by the Land Act. The management committees had also initiated, supervised, and maintained infrastructure projects within their respective group ranches and thus had a good track record.

The demarcation committee, which lasted only for as long as it took to physically demarcate boundary parcels, was selected using similar criteria to that of the official committee. Personal integrity, fairness, and industry were valued attributes. To these attributes were added other practical considerations such as achieving adequate clan and age set balance across both committees as well as ensuring that all the settlement regions within each group ranch were represented. Many individuals regarded the demarcation committee as an avenue to guard against any biases the management committee might have during subdivision.⁴

The criteria by which individuals were chosen to the two committees amount to a vetting procedure that, when combined with the bureaucratic controls of the district's Land Control Board, theoretically provided a sound way of reducing uncertainty and building confidence that outcomes would indeed meet individuals' expectations. Thus group ranch members, to the extent possible, established a system that was based on

⁴ Interviews: TORO/2/2002; TORO/9/2002; MET/7/2002; MET/12/2002

traditional norms⁵, reputation, and on past experience, which was expected to provide a measure of accountability among those they had entrusted with the responsibility of subdividing their land.

THE SUBDIVIDED GROUP RANCH: "FINGERS ON THE HAND ARE NOT EQUAL"

Table 4 below provides a synopsis of the parcel sizes and their distribution among group ranch members following subdivision.

Table 4--Summary of Parcel Sizes in Enkaroni, Meto and Nentanai

	Enkaroni	Meto	Nentanai
Area (ha)	11802.5	27358.02	4038.48
No. of Members	332	548	56
Average parcel size	35.56	49.92	72.12
after subdivision			
Largest Parcel (ha)	200.5	152.79	214
Smallest Parcel (ha)	3.6	4.27	14.21
Gini Coefficient	.380	.233	.399
Coefficient of	.877	.445	.743
variation			
Other Info:	64% of members have less than average parcel size. 25% of former group ranch land is now owned by 9% of the former members. 13 individuals with single digit parcels. Committee members (i.e. 10 individuals) own 9% of former group ranch land. Committee average= 100ha.	60% of members have less than average parcel size. 35% of former group ranch land is now owned by 9% of the former members. 1 individual with single digit parcel. Committee members (i.e. 10 individuals) own 4% of former group ranch land. Committee average= 113ha.	63% of members have less than average parcel size. 26% of former group ranch land is now owned by 9% of the former members. Committee members (i.e. 10 individuals) own 30% of former group ranch land. Committee average= 133ha.

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⁵ Spencer (1997) observes that kinship, age-set systems and networks of trust have provided constrains that curb the 'opportunities of individuals to exploit others for personal gain.' The concepts of trustworthiness or credibility reflect the reputations of individuals or families on which their future collaborations depend.

The results⁶ indicate that contrary to members' expectations the subdivision did not result in equal or near equal parcels. In all three group ranches where subdivision was completed and formalized via surveying, mapping, and the issuance of land titles (i.e. in Enkaroni, Meto, and Nentanai) 60 percent or more of the registered members have parcel sizes that fall below the averages. More than 25 percent of former group ranch land is now owned by 9 percent of its registered members. Moreover, committee members who spearheaded the subdivision exercise and who were expected to conduct the subdivision fairly, ended up owning between 4–30 percent of the land that they were entrusted to subdivide. The average sizes of committee members' parcels following subdivision were 100 ha for Enkaroni (as compared to an average of 36 ha), 113 ha for Meto (as compared to an average of 50 ha) and 133 ha for Nentanai (as compared to a 72 ha average). Committee parcels were thus more than twice the average size of ordinary members' parcels.

Committee members allocated large parcels to themselves, to individuals with close ties and affinities to committee members, and to wealthy individuals with large livestock herds, who were able to 'entertain' the committee by giving them gifts of livestock. Those who could not 'entertain' the committee, notably the poor livestock herders, did not succeed in negotiating a preferred parcel size and ended with considerably smaller sized parcels. Widows too received small parcels, as they were unable to defend their claims. Those with disagreements, personal or political, with the committee had no space to negotiate—they were punished with smaller sized parcels.

⁶ Torosei not included because they have not formally subdivided thus parcel sizes are not confirmed.

⁷ Interviews: ENK/70/2001, ENK/8/2001

⁸ Out of the 17 widows that were allocated land in Enkaroni, 12 have land below the group ranch average. Committee were hesitant to even issue land to widows because of the fear that in case the widow were to

The outcome of subdivision favored wealthy cattle owners and committee members. A simple Pearson's product moment correlation between land allocated after subdivision and livestock holdings suggests that both size of parcel and livestock holdings vary positively together in Enkaroni, Meto, and Nentanai (Table 5). For cattle, in particular, the association is always significant and relatively strong.

Table 5--Correlations between Land and Livestock

	Cows	Goats	Sheep	
Enkaroni				
Pearson correlation	.354*	.074	.200	
Sig. (2-tailed)	.023	.645	.216	
N	41	41	40	
Meto				
Pearson correlation	.568**	.170	.194	
Sig. (2-tailed)	.000	.175	.122	
N	65	65	65	
Nentanai				
Pearson correlation	.583**	.578**	.515*	
Sig. (2-tailed)	.003	.004	.012	
N	23	23	23	

^{*}correlation is significant at the 0.05 level (2-tailed).

Group ranch members' demands for equal allocation and distribution of land occurs against the backdrop of severe inequalities between families/households' livestock wealth. So why would they demand equal allocation? Inequalities in livestock holdings amongst Maasai are not a new phenomenon (Waller 1999; Bekure and Grandin 1991; Bill and Anderson 1980; Jahnke et al. 1972). But today's circumstance is radically different from that which prevailed in colonial or pre-colonial times, or possibly even during the phase of group ranching. In prior times, though livestock holdings were

remarry their land would be lost to the deceased's family. This fear was more acute in the event that the widow was re-married to an 'outsider.'

^{**}correlation is significant at the 0.01 level (2-tailed).

⁹ The size and distribution of holdings was derived directly by asking the interviewee. These have not been verified by direct census and must be treated with caution as it is fairly uncommon for the Maasai to reveal their true wealth.

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unequal, and though there was competition for prime grazing land and water among individuals, land was available and accessible to *all* Maasai as a birthright.

Though individual herds varied according to stochastic events such as drought, epidemics and raiding, and according to individual livestock management skills (Waller, personal communication 1999; Halderman 1989), land resources were available to all and the extent of mobility generally determined access. There was fluidity in livestock holdings among rich and poor herders alike. But with time, as significant portions of Maasailand were appropriated at different times by different actors for different reasons (Mwangi, forthcoming; Mwangi 2003; Campbell 1993; Rutten 1995, 1992; Halderman 1989), land became a scarce resource assuming an ever more critical role in the Maasai livestock economy. Where previously an individual may have had a fair chance of rapidly accumulating or losing herds on an available land base, currently an individual's ability to accumulate is strongly limited by the availability of land. The demand for equal land allocation is a strong reflection of this changed context and the cultural norm that land belongs to all Maasai as their birthright.

"Malalamiko ya Beacon:" Contesting the undesired outcome

In Enkaroni, those dissatisfied with the outcome organized to challenge the committee's allocations. They included widows, men with small-sized parcels, and others who had altogether missed being allocated parcels. This group of about 50 was referred to as the 'kikundi cha malalamiko ya beacon' or beacon complainants group. They approached the committee to re-negotiate parcel size but were told that 'the fingers on one hand are not equal.' How then did they expect everyone to get equal sized parcels? The committee was not willing to discuss the complaints of unequal sized parcels.

The complainants' group then approached the elders and asked them to appeal to the committee over the unequal allocations. The elders' *barazas* or public meetings were unfruitful. The elders did not have sufficient powers to overwrite committee decisions, and in any case they had a vested interest in the outcome.

They complainants then appealed to officials in the Department of Lands

Adjudication and Settlement. But the Department adopted an attitude of non-interference
in matters of group ranch subdivision. The District Land Adjudication Officer had on two
prior occasions stated that the determination of parcel sizes depended entirely on the
group ranch and that complaints be directed to the committee and not to his office
because 'all facts related to cases are present in Enkaroni.' The District Officer of
Kajiado Central Division reiterated this position.

Many individuals believed that their appeals to government officials went unheeded because of a lack of accountability. One letter of February 19, 1990 from a widow to the district commissioner is instructive. Not only does she complain of exceedingly small parcel size (her 15 hectares as compared to committee members' average of 300 acres), but cites that 'government officers are corrupt and take bribes.' 11 She also accused the committee of corruption and misuse of powers. General evidence of group ranch members' dissatisfaction comes from a letter dated February 9, 1990 written jointly by an unidentified number of members, which was addressed to a broad range of Government Officials including the District Range Officer, the District Commissioner, District Officer of Central Division, Member of Parliament of Kajiado central, the

¹⁰ Minutes, Enkaroni Annual General Meeting, 10th July 1991. Meetings File, Enkaroni Group Ranch. Department of Land Adjudication, Kajiado District

¹¹ Letter written by Nenkitai ene Lolkinyei, 19th February 1990. Disputes File, Enkaroni Group Ranch. Department of Land Adjudication, Kajiado District

location Councilor, District Land Adjudication officer and the Chief of Enkaroni location. In this letter the members complained that:¹²

- 1. People in leadership, i.e. committee and chiefs, have allocated themselves huge chunks of land;
- 2. Committee has failed to subdivide the ranch in an equitable manner;
- 3. Close friends, relatives, and in-laws of the committee are given bigger portions of land;
- 4. Committee never willing to listen to members' complaints (heavy-handedness);
- 5. Chiefs are blocking people from pursuing further measures (i.e. seeking redress at alternative fora);
- 6. The chairman is demanding that those with personal differences with him must kneel down and beg for mercy;
- 7. There is bribery;
- 8. Some members are allowed to participate in committees' private meetings; others are not; and
- 9. Some unregistered people have been given ranches by the committee without members' knowledge.

This letter went unheeded and the complainants appealed to the High Court as a final recourse to justice. On May 21, 1990 a lawyer, writing on their behalf to the group ranch chairman, cited that his clients had been allocated small pieces of land while some other group members had been allocated large chunks of land. The lawyer said that unless the chairman confirmed that their clients' complaints would be investigated within

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 $^{^{\}rm 12}$ Unnamed author, 9th February 1990. Disputes File, Enkaroni Group Ranch. Department of Land Adjudication, Kajiado District.

fourteen days from the receipt of his letter his clients would apply to the High Court for an injunction to terminate subdivision. In a rejoinder, dated May 24, 1990, the group ranch chairman acknowledged that complaints of unequal subdivision had been brought to his attention and to that of administrative authorities, but that he and his committee were 'unaware of your clients discontent.'

The chairman suggested that:

- 1. Clients bring specific grievances/complaints to the committee
- Failing 1 above to notify DC (District Commissioner) through area chiefs and locaDO (District Officer)
- 3. Revert to you and to communicate to us on your views

'In the case of a complete collapse of arbitration, the option of the court remains.'

From the previous accounts it is clear that the complainants had followed the channel suggested by the committee, and quite obviously had failed. Six members from this group did eventually launch their case in the High Court against the group ranch committee who are the legal representatives of Enkaroni group ranch.¹³ The plaintiffs' demands and accusations were as follows:

- 1. Land be allocated equally among all its members.
- 2. Land subdivision carried out on group ranch be declared null and void
- 3. Subdivision should be halted until suit is heard
- 4. That the group committee is subdividing land in a discriminatory manner.
- 5. Plaintiffs had been allocated small land parcels while other members had been allocated large parcels of land.

¹³ Plaint, Civil Suit 3956 of 1992, 22nd July 1992. High Court of Kenya.

A ruling by High Court justice Akilano Akiwumi dismissed, with cost, the plaintiffs' application for an injunction.¹⁴ The justice ruled that:

- 6. The plaintiffs should show, *prima facie*, why it is wrong that they have been allocated smaller land parcels than others. The burden is on the plaintiffs to show that the discriminatory subdivision is for some cogent reason for instance, wrong, unlawful, or contrary to the objections of the defendant. This has not been shown.
- 7. The annexure to the affidavit of the plaintiff seem to show that it is rather the District Land Adjudication and Survey Officer, the survey officer and the local chief who might be accused, if anything of unfair distribution of land, if it is so.
- 8. The plaintiff must show beyond mere allegation that they have been given smaller portions of land than those given to others. What are the actual sizes of the portions of land involved? There is no evidence of this.
- 9. The plaintiffs have not made out a *prima facie* case with a probability of success. They have shown no reason to support their allegation of discriminatory subdivision and why they should not have been allocated what they were given.
- 10. Plaintiffs' application for injunction dismissed with cost.

Following this ruling, which represented their final recourse to justice, the complainants conceded defeat. They did not re-organize to appeal the High Court's ruling, as they realized no help was forthcoming. Their advocate advised them to give up the case because 'everybody was against them including the registrar of the High Court who is a member of Enkaroni and whose *shamba* is among the big ones.' 15

During this contestation the committee threatened to withdraw land that had already been allocated to the complainants and their supporters, or to reduce further the

¹⁵ Interview: ENK/10/2002

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¹⁴ Ruling, Civil Case 3956 of 1992. 31st July 1992. High Court of Kenya.

size of parcels allocated to them. The committee also allegedly secretly increased the parcel sizes of some selected individuals within the group of complainants. These selective allocations eroded group cohesion and resulted in a systematic decline of the complainants' group size from about fifty individuals to about six individuals. This group of six is the one that eventually launched an appeal to the courts.

In Meto, individuals dissatisfied with their parcel sizes complained individually. Those who confronted the committee were threatened that their parcels would be withdrawn and re-distributed to others or that their parcels would be further reduced. Some individuals chose not to confront the committee because they found others with even smaller parcels, and felt they were better off not to complain. The Meto group ranch committee also reminded group ranch members that by raising objections subdivision might be suspended as in several neighboring group ranches. Organizing to contest committee decisions was a big challenge in Meto, not only because of committee intimidation but also because it is a large group ranch over which people are thinly scattered.

In Nentanai, individuals did not contest their committees' unequal allocation. The Nentanai group ranch neighbors the Ilpartimaru group ranch, where the process of subdivision has been delayed for close to a decade owing to distributional conflict. Indeed, Nentanai has provided refuge to residents fleeing escalating conflict in Ilpartimaru. Even if discontented individuals wanted to organize, it would have been difficult. Many of those allocated small parcels were the poorest and had migrated to urban areas where they were pursuing alternative livelihoods.

BEYOND INEQUALITY: RE-AGGREGATING INDIVIDUALIZED PARCELS

An emerging post-subdivision strategy is the re-negotiation of access rights to resources (such as pasture) that have now been individualized and secured under a single, titled owner. Individuals are pursuing several distinct strategies, separately or concurrently. They are re-aggregating their individualized parcels and pursing joint pasturing and herd management, primarily amongst neighbors, within families, and in some instances amongst friends whose parcels are not necessarily adjacent to each other. In addition, some individuals with small herds and excess pastures now lease out parts of their parcels to those with insufficient pasture resources. Parcel owners have also continued with the Maasai practice of re-distributing herds amongst friends and kin. Table 6 below provides a summary of these arrangements and their frequencies in the individualized areas of Enkaroni, Meto, and Nentanai.

Table 6--Post-subdivision arrangements*

Arrangement	Enkaroni	Meto	Nentanai
	(N=46)	(N=76)	(N=25)
Re-aggregating parcels between friends, neighbors, family, in-laws.	6 (13%)	42 (55%)	11 (44%)
Don't have sharing arrangements.	40 (87%)	32 (42%)	9 (33%) (an additional 4 don't live on their parcels and neighbors graze freely)
Pasture Leases.	8 (17%)	4 (5%)	0 (0%)
Re-distributed herds with	20 (43%)	29 (38%)	9 (36%)
friends, family, in-laws.		(2 not indicated)	(1 not indicated)

^{*}Most interviewees admitted to allowing others into their pastures during times of drought and stress.

Those individuals who did not opt for joint management actively enforced their boundaries. Because livestock and land were unequal, they feared joint strategies would leave them open to exploitation by those with larger herds. By re-aggregating, and collectively rotating livestock between different parts of the joint pasture at different

times, those individuals that pursued a re-aggregation strategy are attempting to access the complement of pasture and water they find necessary for livestock production under a radically altered property structure.

Though the content of the leasing and sharing arrangements beg for greater elaboration, these findings are instructive. First, they reinforce arguments made elsewhere that subdivision may have been a defensive strategy to protect against unsanctioned appropriations. Maximizing production may not be the only or primary reason that individuals privatize resource rights. Second, the transition to individual units in an environment that is characterized by variability is inherently unstable. In their attempts to enhance the viability of their production system in such an ecologically fragile circumstance, Maasai are beginning to renegotiate and trade their rights of access, of resource withdrawal, and resource management amongst themselves. Each individual title holder retains the right to dispose/alienate his resource.

4. DISCUSSION

Subdividing a total of about 90,000 hectares of variously endowed group ranch land among 1,400 registered members by about 40–80 committee members of the respective group ranches of Enkaroni, Meto, Nentanai, and Torosei was a difficult task. However, when the exercise was completed, parcels were found to be unequal, with more than 60 percent of registered members having holdings substantially smaller than the average. Land was concentrated in the hands of committee members, their friends, relatives, and wealthy herders. Group members dissatisfied with this outcome contested the decision by local means of arbitration such as appealing to the council of elders, to

government administration, and to the courts. They did not win. Others, fearing victimization by a vengeful committee, or due to lack of resources, did not organize to contest the outcomes.

This paper sought to answer the question of how group ranch members who supposedly carefully set up a subdivision process lost control of it and failed to achieve the outcomes they desired. As illustrated, the process of group ranch subdivision had components that were internal to the group ranch in which rules, procedures, and decisions were crafted by group members and/or their representatives. It also had an external component designed and controlled by state representatives and/or individuals selected by them. The external component included dispute resolution procedures in the High Court as an outcome of subdivision.

The internal processes were set in motion by a members' majority vote to subdivide. This included a shared understanding of the principles of subdivision that would lead to a desired outcome, an equal or near equal allocation of parcels. Members also endorsed representation by their management committee to oversee the process of subdivision, and a temporary demarcation committee to assist it. Customary norms of trust, reputation, and a good track record in implementing projects such as construction of earth dams and boreholes led members to believe that their expectations would be fulfilled.

The subdivision component external to the group ranch involved acquiring consent from relevant actors, primarily government officials, to enable the formal survey and the registration and titling of emerging individual parcels. The group ranch committee mediated between the internal and external components.

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Even though the initial choice to subdivide was made by group ranch members, critical decisions and rules were also made in the external process. The Land Control Board was expected to enforce equality or near equality of parcels and solve disputes over allocation prior to formalizing the subdivision. It failed to do this. Appeals to its members and other officials in government were fruitless. Considerable concern was expressed over the responsibility and accountability of these officials.

Failure of government left extensive discretion to the committee who unilaterally determined the sizes of land parcels, where to locate individuals after subdivision, and most importantly, ensured their role as signatories to the emerging land titles. The committee had legal recognition through the Group Ranch Act and state sponsorship. Its influence and authority also derived legitimacy from traditional customary institutions. Beyond this it had a privileged knowledge and understanding of the process; a process that is unprecedented in Maasai history.

Conflict over distribution in property rights assignment was terminated by a credible and powerful committee, which constrained ordinary group ranch members from pursuing their preferred solution. Where committee power was challenged, conflict was ended by invoking the coercive power of the state, forcing contesting individuals to comply with the new assignment.

Yet the new structure saw rational individuals, including the losers, "cutting their losses" (predicted as a post-transformational outcome by Firmin-Sellers 1996, 1995) and choosing to re-contract their bundles of rights to suit their production system. The process of transformation did not necessarily end with the acquisition of titles. This recontracting of unstable individual rights raises the possibility that the transition from

common to private property may not represent a more efficient form of rights in certain situations. Equally significantly it reiterates the fact that property rights comprise a *bundle* of rights—including even private, individual property (Meinzen-Dick et al 1997; Ostrom 1992; Bromley 1991).

5. CONCLUSION

That the process of land allocation would be captured by the elite in society is not surprising. Bates (1989) shows that during land registration in colonial Kenya, educated and administrative elites were allocated larger land units. They understood the colonizers' language and law. In Botswana, leaseholds were granted to large livestock owners (Thomas et al. 2000; Little 1999; Peters 1987); in Rajasthan in India, the land reforms of 1952 resulted in former common lands being transferred to wealthy families (Jodha 1992, 1987); in Senegal range privatization advantaged wealthy cattle owners (Thebaud et al. 1995), just as it did in Cameroon (Goheen 1988).

But what can we make of this process of subdivision in the group ranches that were studied? And what are its broader implications? Regardless of the reasons motivating individuals to seek a reassignment of rights, the process of reassignment itself is characterized by conflict over the eventual distribution of rights because the 'losers' will contest the outcome. Similarly, those with power and influence will employ these resources to ensure their preferred outcome. In the end, it is this latter group that wins and prior collective resources become concentrated in the hands of a subset of the original claimants. Customary constraints by themselves are insufficient protection against self-interest where rule changes of this magnitude occur, particularly where rules governing

the process are crafted both by internal and external agents, and where the allocation process is one-off and conducted in secret. Indeed, when such a process is embedded in an administrative regime with a poor accountability record, a skewed allocation response can only be expected. State enforcement cannot be taken for granted; the activities of state actors may actively impede movement towards supposedly more 'efficient' systems.

How could outcomes have been improved? Methods of asset distribution exist that have promise for constraining self-interest and minimizing personal bias and prejudices. The lottery system is one avenue. In Mexico land allocation following the subdivision of Ejidos was conducted via a lottery system for land that was not variable in productivity, and allocation avoided altogether where resources were heterogeneous and unpredictable (Munoz-Pina et al 2003). In Senegal on the other hand, land of heterogeneous quality was also allocated via a lottery system, but with the added caveat that all rights holders received both good and poor quality land (Bloch 1993). Similar systems could have been employed to allocate group ranch land, qualified by family size. These observations in Mexico and Senegal, and the difficulties experienced during group ranch subdivision suggest that a politically favorable allocation outcome must be sensitive to spatial heterogeneities in resource distribution and must also reasonably conform to the differences in resource appropriation by the various production units. Indeed, it seems the case that post subdivision asset allocation is faced by strong pressures to maintain pre-subdivision wealth distributions. These economic pressures seem to override ideological notions of equality and fair play even in small societies where norms that structure interactions are fairly strong.

The general point of this paper is that the move to private, individualized land holdings that have been so important in the economic development of some societies is fraught with procedural problems that could undermine the potential economic gains that had been hoped for. Resources that could have been employed in productive activities are instead dissipated in the race to capture rents during the transition. Moreover, under variable ecological conditions, the allocation outcome itself might result in instability of holdings, necessitating re-contracting among individuals and groups, yet again questioning the very notion of efficiency that is closely associated with a shift towards greater exclusivity in property arrangements.

REFERENCES

- Alchian, A. and H. Demsetz. 1973. The property rights paradigm. *Journal of Economic History* 33:16-27.
- de Alessi, L. 2003. Gains from private property: The empirical evidence. In *Property rights: Cooperation, conflict, and law*, ed. Anderson, T. L. and F. S. McChesney. Princeton, N.J.: Princeton University Press.
- Anderson, T. L. and P. Hill. 2003. The evolution of property rights. In *Property rights:* cooperation, conflict, and law, ed. Anderson, T. L. and F. S. McChesney. Princeton, N.J.: Princeton University Press.
- Anderson, T. L. and P. Hill. 1975. The evolution of property rights: A study of the American West. *Journal of Law and Economics* 18 (1): 163-179.
- Baland, J-M and J-P, Platteau. 1998. Division of the Commons: A partial assessment of the new institutional economics of land rights. *American Journal of Agricultural Economics* 80: 644-650.
- Banner, S. 2002. Transitions between property regimes. *Journal of Legal Studies* XXXI: 359-371.
- Bardhan, P. 1989. Alternative approaches to the theory of institutions in economic development. In: *The economic theory of agrarian institutions*, ed Bardhan P. Oxford: Oxford University Press.
- Bates, R.1989. Beyond the miracle of the market: The political economy of agrarian development in Kenya. New York: Cambridge University Press.
- Bekure, S., P.N. de Leeuw, B.E. Grandin and P.J.H. Neate, eds. *Maasai herding: An analysis of the livestock production system of Maasai pastoralists in Eastern Kajiado district, Kenya*. ILCA Systems Study 4. Addis Ababa, Ethiopia: International Livestock Center for Africa.
- Bille, J.C. and Anderson, F.M. 1980. *Observations from Elangata Wuas group ranch in Kajiado district*. Nairobi, Kenya: International Livestock Center for Africa.
- Bloch, P. C. 1993. An egalitarian project in a stratified society: Who ends up with the land? In *Land in African agrarian systems*, ed. Bassett, T. J. and D. E. Crummey. Madison: University of Wisconsin Press.
- Boserup, E. 1965. *The conditions of agricultural growth: The economics of agriculture under population pressure*. Chicago: Aldine.
- Bromley, D.W. 1991. Property rights as authority systems: The role of rules in resource management. *Journal of Business Administration* 20 (1-2): 453-470.

- Demsetz, H. 1967. Toward a theory of property rights. *American Economic Review* 62:347-359.
- Eggertsson, T. 1998. The economic rationale of communal resources. In *Law and the* governance of renewable resources: Studies from northern Europe and Africa, ed. Berge, E. and C. Stenseth. Oakland, CA: ICS Press.
- Eggertsson, T. 1996. The economics of control and the cost of property rights. In *Rights to nature: Ecologic, economic, cultural and political principles of institutions for the environment*, ed. Hanna, S.S., C. Folke, and K. Maler. Washington D.C.: Island Press.
- Eggertsson, T. 1990. *Economic behavior and institutions*. Cambridge Surveys of Economic Literature. New York: Cambridge University Press.
- Ensminger, J. 1992. *Making a market: The institutional transformation of an African society*. New York: Cambridge University Press.
- Feeny, D. 1993. The demand for and supply of institutional arrangements. In *Rethinking institutional analysis and development*, ed. Ostrom, V., D. Feeny, and H. Picht. San Francisco: ICS press.
- Firmin-Sellers, K. 1996. The transformation of property rights in the Gold Coast: An empirical analysis applying rational choice theory. New York: Cambridge University Press.
- Firmin-Sellers, K. 1995. The politics of property rights. *American Political Science Review* 89(4): 867-881.
- Fratkin, E. 1994. Problems of pastoral land tenure in Kenya: Demographic, economic and political process among the Maasai, Samburu, Boran and Rendille, 1950-1990. Working Paper Number 177. African Studies Center, Boston University.
- Galaty, J. G. 1999a. Property in the strict sense of the term: The theory and rhetoric of land tenure in East Africa. ALARM Working Paper. August, 1999. Center for Basic Research.
- Galaty, J. G. 1999b. Grounding pastoralists: law, politics and dispossession in East Africa. *Nomadic Peoples* 3(2):56-73.
- Galaty, J. G. 1994a. Ha(l)ving land in Common: The subdivision of Maasai group ranches in Kenya. *Nomadic Peoples* 34/35:109-121.
- Galaty, J.G. 1994b. The pastoralist's dilemma: Common property and enclosure in Kenya's rangeland. In *Food systems under stress in Africa*, ed. R.Vernooy and K.M. Kealey. IDRC, Ottawa. Proceedings of a Workshop held in Ottawa, Ontario, Canada, November 7 8, 1993.

- Galaty, J. G. 1992. The land is yours: Social and economic factors in the privatization, subdivision and sale of Maasai ranches. *Nomadic Peoples* 30:26-40.
- Galaty, J. and K. Ole Munei. 1999. Maasai, land, law and dispossession. *Cultural Survival Quarterly* 22 (4): Winter.
- Goheen, M. 1988. Land accumulation and local control: The manipulation of symbols and power in Nso, Cameroon. In *Land and society in contemporary Africa*, eds. R.E. Downs and S.P. Reyna. University of New Hampshire: University Press of New England.
- Grandin, B.E. 1986. Land tenure, subdivision and residential change on a Maasai group ranch. *Development Anthropology Network* 4 (2): 9-13.
- Hayami, Y. and V.W. Ruttan. 1985. *Agricultural development*. Baltimore: Johns Hopkins University Press.
- Jahnke, H., H. Ruthenberg and H.U. Thimm. 1972. Range development in Kenya: The Kenya livestock development project and its impact on rural development. Nairobi, Kenya: IBRD.
- Jodha, N.S. 1992. Common property resources: A missing dimension of development strategies. World Bank Discussion Paper 169. Washington, D.C: World Bank.
- Jodha, N.S. 1987. A Case study on the degradation of common property in India. In *Land degradation and society*, ed. Blaikie, P. and H. Brookfield. London: Methuen.
- Halderman, J.M. 1989. Development and famine risk in Kenya Maasailand. Unpublished PhD Dissertation. University of California, Berkeley.
- Kenya, Republic of. 1968. *Group (land) representatives act. Chapter 287 of the Laws of Kenya*. Nairobi, Kenya: Government Printer.
- Kimani, K. and J., Pickard.1998. Recent trends and implications of group ranch subdivision and fragmentation in Kajiado District, Kenya. *The Geographic Journal* 164 (2): 202-213.
- Kipuri, N. 1989. Maasai women in transition: Class and gender in the transformation of a pastoral society. Unpublished Ph.D. Dissertation, Temple University.
- Kituyi, M. 1990. Becoming Kenyans: Socio-EconomicTransformation of the Pastoral Maasai. Nairobi, Kenya: African Center for Technology Studies Press.
- Knight, J. 1992. *Institutions and social conflict*. New York: Cambridge University Press.

- Libecap, G.D. 2003. Contracting for property rights. In *Property rights: Cooperation, conflict, and law*, eds. T. L. Anderson and F. S. McChesney. Princeton, N.J.: Princeton University Press.
- Libecap, G. 1998. Distributional and political issues modifying traditional commonproperty institutions. In *Law and the governance of renewable resources: Studies* from Northern Europe and Africa, eds. E. Berge and C. Stenseth. Oakland, CA: ICS Press.
- Libecap, G. 1989. *Contracting for property rights*. New York: Cambridge University Press.
- Little, P. 1999. Living in risky environments: The political ecology of pastoralism in east Africa. In *African development in the 21st century*, ed. S. Taylor, G. White and E.Fratkin. Rochester, NY: University of Rochester Press.
- Lund, C. 2002. Negotiating property institutions: On the symbiosis of property and authority in Africa. In *Negotiating property in Africa*, eds. Juul, K. and C. Lund. Portsmouth, N.H.: Heinemann.
- Meinzen-Dick, R., L. Brown, H., Feldstein and A., Quisumbing.1997 Gender, property rights and natural resources. *World Development* 25(8):1305-1315.
- Munei, K. 1987. Grazing schemes and group ranches as models for developing pastoral lands in Kenya. In *Property, poverty and people: Changing rights in property and problems of pastoral development* ed. Baxter, P.T.W. and R., Hogg. Department of Social Anthropology and International Development. Manchester, England: University of Manchester.
- Munoz-Pina, C., A. de Janvry and E. Sadoulet. 2003 (forthcoming). Recrafting rights over common property resources in Mexico: Divide, incorporate and equalize. *Economic Development and Cultural Change* 51 (1).
- Mwangi, E (forthcoming, 2006). The footprints of history: path dependence in the transformation of property rights in Kenya's Maasailand. *Journal of Institutional Economics*.
- Mwangi, E. 2005. *The transformation of property rights in Kenya's Maasailand: Triggers and motivations.* CAPRi Working Paper No. 35. Washington DC: International Food Policy Research Institute.
- Mwangi, E. 2003. Institutional change and politics; the transformation of property rights in Kenya's Maasailand. Unpublished PhD Dissertation. Indiana University.
- Neale, W.C. 1998. Law, cotton-pickin' hands, and implicit cultural imperialism. In *Property in economic context. monographs in economic anthropology. No. 14*, ed. Hunt, R.C. and A. Gilman. Oxford, New York: University Press of America.

- North, D. 1990. *Institutions, institutional change and economic performance*. New York: Cambridge University Press.
- North, D. and R.B. Thomas. 1973. The rise of the western world: A New economic history. Cambridge: Cambridge University Press.
- Ostrom, E. 1990. Governing the Commons: The Evolution of institutions for collective action. Cambridge University Press.
- Peters, P.E. 1987. Embedded systems and rooted models: The grazing lands of Botswana and the Commons Debate. In *The question of the Commons: The culture and ecology of communal resources*, ed. McCay, B.J. and J.M. Acheson. Tucson, Arizona: University of Arizona Press.
- Platteau, J-P. 1992. Land reform and structural adjustment in Sub-Saharan Africa: controversies and guidelines. Report Prepared for the Policy Analysis Division of the Economic and Social Policy Division. United Nations Food and Agriculture Organization. Rome: FAO.
- Platteau, J-P. 2000. *Institutions, social norms and economic development: Fundamentals of development economics*. Amsterdam: Harwood Academic Publishers.
- Ruttan, V. 1997. Induced innovation, evolutionary theory and path dependence: Sources of technological change. *The Economic Journal* 107 (444): 1520-1529.
- Rutten, M.M.E.M. 1992. Selling wealth to buy poverty: The process of the individualization of landownership among the Maasai pastoralists of Kajiado district, Kenya, 1890-1900. *Nijmegen Studies in Development and Cultural Change* 10.
- Rutten, M.M.E.M. 1995. The tragedy of individualizing the Commons: The outcome of subdividing the Maasai pastoralist group ranches in Kajiado District, Kenya. Paper presented at the Fifth Common Property Conference: Reinventing the Commons. May 24-28, Bodo, Norway. International Association for the Study of Common Property.
- Schlager, E. and E. Ostrom. 1992. Property rights regimes and natural resources: A conceptual analysis. *Land Economics* 68 (3): 249-62.
- Simel, (O.) J. 1999. Premature land subdivision, encroachment of rights and manipulation in Maasailand-The Keekonyokie Clan Section. Arid Lands and Resource Management Network in Eastern Africa (AlARM). Working paper No. 8. Center for Basic Research. Kampala, Uganda
- Southgate, C. and D. Hulme. 2000. Uncommon property: The scramble for wetland in southern Kenya. In *African enclosures? The social dynamics of wetlands in drylands*, ed. Woodhouse, P., H. Bernstein, and D. Hulme. Oxford: James Curry.

- Spencer, P. 1988. *The Maasai of Matapato: A study of rituals and rebellions*. Bloomington: Indiana University Press.
- Thebaud, B., H., Grell, and S., Mieke. 1995. Recognizing the effectiveness of traditional pastoral practices: Lessons from a controlled grazing experiment in northern Senegal. Issue Paper Number 55. Drylands Program. London, England: International Institute for Environment and Development
- Thomas, D.S.G., D. Sporton, and J. Perkins. 2000. The environmental impact of livestock ranches in the Kalahari, Botswana: Natural resource use, ecological change and human response in a dynamic dryland system. *Land Degradation and Development* 11 (4): 327-341.
- Woodhouse, P. 1997. Governance and local environmental management in Africa. *Review of African Political Economy* 74:537-547.

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