The Emergence of the Village and the Erosion of Traditional Institutions: A Case Study from Northern Tanzania (DRAFT)

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Introduction

In 2008/2009 the rangelands of northern Tanzania and southern Kenya experienced one of the worst droughts in living memory – at least as far as the consequences of drought were concerned. There was large-scale migration of people and cattle from the Tanzania/Kenya border south in search of pasture and water, but despite this migration there was massive loss of livestock among communities located along the Tanzania / Kenyan border and into southern Kenya.

Meanwhile, in the Simanjiro plains in northern Tanzania, there was enough grass and water for livestock in communities east of Tarangire National Park. Here, tens of thousands, perhaps hundreds of thousands of cattle, along with herders migrated into these villages overwhelming the capacity of the natural resource based to cope with the newcomers. In an interview conducted in 2015 a local leader said: "What could we do – we could not refuse them, they were all Maasai, and when the grass was gone we had to migrate all together to where we could find pasture and water." Following the return of the migrants north many of communities in both the Simanjiro plains, and in communities along the border, changed the rules governing access to local resources; for the first time away from traditional institutions that allowed outsiders access to resources, to village-based rules that restricted access based on land-use plans and village by-laws.

Drought is a common occurrence in the semi-arid rangelands of Africa, and this drought, while severe, was not of historic dimensions in terms of lack of precipitation - so why was this particular drought so transformative? This was the research question colleagues Paul Leslie, Alicia Davis and I posed in our current study funded by the National Science Foundation. The theoretical context was based on the literature of extreme events and resilience, but as our work has progressed one of the most important conclusions has been that this shift from informal ethnically based traditional institutions that managed resource use in Tanzania's northern rangelands to formalized village based institutions was the outcome of a process that began in 1967 and is still evolving today. Understanding the process of institutional transformation is the subject of this paper.

Before beginning I want to point out that I am not an expert in institutional analysis or of property rights, even though I have been studying how people live and manage resources in northern Kenya (Turkana) and northern Tanzania (Maasai) since 1980. Both live in rangelands managed as common pool resources (CPR), but the theoretical focus of my work has been how ecological theory, (non-equilibruim ecosystem dynamics and resilience theory) help us understand human behavior and decision-making. I have tried to contextualize the case study presented here in the relevant literature relating to privatization of common pool resources, especially in East Africa, but realize that I may not be able to address some of the debates and controversies in the wider literature of property rights.

Importance of African Rangelands and the Diversification of Pastoral Economies

Rangelands are defined as: "Land on which the indigenous vegetation is predominately grasses, grass-like plants, forbs or shrubs that are grazed or have the potential to be grazed, and which is used as a natural ecosystem for the production of grazing livestock and wildlife" (Allen

et.al 2011). Rangelands cover more of the earth's land surface than any other than any other type of land (Reid et al, 2014). In Africa it is estimated that rangelands cover about 40 % of the land mass (Mwangi,2009), and are home to approximately 30 million people who practice pastoralism or agro pastoralism as their primary livelihood (Homewood (2008). There are various definitions for pastoral people, but common elements of most definitions include a dependence on livestock for subsistence, often coupled with raising of crops in areas where rainfall is sufficient; a cultural attachment to the raising of livestock; and the use of mobility to cope with a harsh and unpredictable climate, where the availability of resources is both spatially and temporally variable.

Rangelands make up over 80% of the land surface in Kenya and approximately 50% of the land surface in Tanzania, and pastoralism is the predominant production system in East African rangelands (Odhiambo 2006, cited in Mwangi 2009). Throughout much of the 20th century pastoral systems were seen to be mismanaged leading to inevitable environmental degradation (Lamprey 1983) and pastoral peoples were considered "irrational" with an unhealthy attachment to livestock and large herds (ibid). These beliefs were theoretically underpinned by Hardin's famous 1968 article "The Tragedy of the Commons". In this article Hardin argued that a resource that was managed as a common resource by individuals with private assets will overuse the resource based on the individual's self-interest. He used a communally managed pasture used by individual livestock keepers as an example where the benefits of adding more cattle to the pasture will be gained by the individual owner, but the costs "(degradation) will be shared by all. Despite the critiques which followed its publication (Mwangi 2005, Ostrom 2005, Ostrom 2009, McCabe 1990) this argument resonated with policy makers in many parts of the world and certainly in East Africa. One of the major critiques was that Hardin confused an open

access system with a system of communal management with rules, rights, and obligations that define access to resources. However, for an example where an open access system does not lead to environmental degradation see Moritz (2013).

This commonly accepted view of pastoralism, referred to as the "Mainstream" view (McCabe 2004), has gradually been replaced by the "Alternative" (ibid) view which argues that traditional pastoralism is environmentally benign and sustainable. This reversal of the mainstream view is captured in the following statement: ...it is clear that pastoralism is one of the most efficient ways to turn sunlight into food in marginal lands" (Reid et al 2014:221).

Diversification

Although East African pastoralists are often associated with what is referred to as "pure" pastoralism (an economy based exclusively on the raising of livestock), most pastoral peoples now have a diversified economy. The causes that have influenced pastoralists to diversify their economies and the consequences of this diversification have been the focus of much of the literature for the last two decades. One aspect of this literature concerns the adoption of cultivation (O'Malley 2000, Brockington 2001, McCabe 2003, Homewood et al. 2005, Fratkin and Roth 2005, McCabe, Leslie and DeLuca 2010); another important component of livelihood diversification relates to the temporary migration out of the pastoral sector (Batterbury 2001, May and McCabe 2004, Lesorogol 2008, Homewood et al 2009, McCabe et al 2014 Smith 2012). The alienation of rangelands due to parks and protected areas is viewed as another important factor driving the need for pastoralists to diversify their economy (Homewood and Brockington 1999, McCabe 2003, Igoe 2003, Goldman 2003); also important is gradual impoverishment due to an increasing human population and fluctuating or declining livestock population and the desire to be "modern" (McCabe, Leslie and DeLuca 2014). The

consequences of livelihood diversification have included better nutrition for pastoral families (McCabe 2003, McCabe, Leslie and DeLuca 2010); but also land fragmentation and a decline in ecosystem services (Burnsilver et.al. 2008, Galvin 2009)

Despite the focus on livelihood diversification, very little has been written about how institutional changes have influenced diversification or how diversification has contributed to institutional change. Exceptions to this come primarily from the work of Mwangi (2005) among the Maasai of southern Kenya, of Ensminger of the Orma of eastern Kenya (1992) and of Lesorogol (2008) among the Samburu of central Kenya. Mwangi's work has examined the formation of Maasai group ranches and the reasons that Maasai accepted them; and the causes for their eventual dissolution into private holdings. Ensminger discusses the institutional changes which occurred as the Orma moved from subsistence pastoralism to commercial livestock production. Lesorogol has concentrated on the privatization of land among Samburu pastoralists, how young men who had migrated out and learned new skills and were able to influence land use decisions at the village level, and the consequences of privatization for individual families and the rangeland ecosystem. In summarizing the literature on diversification, Homewood (2008:238) identifies three dimensions of this phenomenon among pastoral peoples: "poverty strategies driven by necessity; risk-management strategies making the best of difficult unpredictably changing ecologies and economies; and strategies of wealth investment and accumulation."

The Wider Literature on Common Property

Although the literature most relevant to this case study is that which pertains to Eastern Africa, there is a much wider literature that examines common property regimes though out the world. The most common topics in the study of common property fall into what van Laerhoven and Ostrom (2007) refer to as the big five: fisheries, forestry, irrigation, water management, and animal husbandry. Although Hardin's Tragedy of the Commons article used a commonly managed pasture to illustrate how common pool resources could be overexploited and degraded, the argument had relevance to each of the "big five" topics mentioned above.

Before discussing some of the pertinent aspects of this literature to the case study a few concepts need to be defined. The first is institutions, both formal and informal. There are a number of ways that institutions are conceptualized but as pointed out by Yami et. al. (2009) common to most definitions are "structures, mechanisms and processes as well as rules and norms that govern human behavior" (Yami et.al. 2009: 154). He bases his definition on the work of Douglas North (2009) and goes on to define informal institutions as: systems of rules and decision-making procedures which have evolved from endogenous sociocultural codes and give rise to social practices, assign roles to participants and guide interactions among common pool resources users"; and formal institutions as: the rules that guide access, control and management of common pool resources, and which are backed up and enforced by the state" Yami et.al 2009: 154).

The second is social-ecological systems. Social-ecological systems have been defined by Anderies et al. (2004: 18) as: social systems in which some of the interdependent relationships among humans are mediated through interactions with biophysical and non-human biological units". Ostrom and Cox point out that:" A primary interest of scholars focusing on SESs have been examining their ability to sustain themselves in the face of disturbances over time, a feature

which has been referred to by a wide range of concepts, including adaptive capacity, resilience, robustness, stability and transformability" (Ostrom and Cox 2010: 456)

Today I think that it is safe to say that the most influential research, teaching, and mentoring relating to how successful common property resources are managed, and why they fail, is seen in the work of Elinor Ostrom and those researchers who have trained under her guidance. One of her first contributions was the critique of the tragedy of the commons argument. After examining the literature available concerning the management of CPR, she proposed eight design principles that are common to successful common property regimes Ostrom 1990)¹. These principles have guided research over the decades and have also been used to design policy.

Of particular importance to the case study presented here is the centrality of trust and reciprocity to the successful management of a commons (Ostrom 2003). In discussing the "enduring" lessons Ostrom taught her students concerning social science research, Frischmann writes: " embrace complexity and context – or simply, *reality*; avoid distorting reductionism, and overstated gains from simple models" (Frischmann 2013: 388).

One of the major arguments in the property rights literature is that privatization increases efficiency. Mwangi (2005) points out that the efficiency argument is based on the notion that private property encourages production by individuals and a more efficient use of resources and that institutions will always evolve towards greater efficiency. Changes in property rights can be "triggered by changes in the economy, changes in relative scarcity and the creation of new

¹ Araral summarized these as follows: (1) well defined boundaries; (2) congruence between appropriation and provision rules and local conditions; (3) collective-choice arrangements; (4) monitoring; (5) graduated sanctions; (6) low cost conflict resolution; (7) minimum recognition of rights; and nested enterprises (Araral 2014: 17).

markets. She also points out that this argument is incomplete and that a fuller understanding of property rights must include politics, State interventions, and the distributional consequences of private property.

Recently, Bollig and Lesorogol (2016) edited a special edition of the International Journal of the Commons, based on the idea that a "new commons" has recently evolved. In Eastern and Southern Africa, these new commons were established by the state. Agrawal (2003) first identified these new commons in which the state ceded partial control over resources to local communities. Bollig and Lesorogol adopt a definition proposed by Hesse (2008) as "various types of shared resources that have recently evolved or have been recognized as commons. They are commons without pre-existing rules or clear institutional arrangements." Bollig and Lesorogol point out that the new commons are based on the idea that natural resources should be commodified to the benefit of rural resource users and that they require a negotiation between the older forms of commons management and new forms. This is similar to the notion of a hybrid form of governance and Cleaver's use of "institutional bricolage" in which new institutions are based on adapting and incorporating existing institutions (Cleaver et al 2013).

I will return to this literature following the presentation of the case study.

Setting and People

The setting

The research reported on here took place in the rangelands of northern Tanzania. These landscapes are famous for their network of parks and protected areas and the large populations of charismatic wildlife. The presence of these parks, Tarangire, Manyara, Serengetti, Kilimanjaro, and the Ngorongoro Conservation Area, have alienated important resources from the Maasai people, and have restricted movements into what have traditionally been considered drought reserves.

The Simanjiro plains are part of the Massai Steppe or the Tarangire-Manyara ecosystem and have been referred to as one of the most biologically complex grassland systems in the world (Olson and Dinerstein 1988 quoted in Baird et al 2009). Vegetation consists of mixed woodlands and extensive grasslands. Rainfall averages between 575 to 650 mm per year with short rains occurring between December and February and the long rains from March to May. However, rainfall is unpredictable both spatially and temporally, and drought is a frequent and at times a severe environmental perturbation.

The rangelands along the Kenya/Tanzania border area are drier than in Simanjiro with rainfall averaging between 300 and 600 mm per year with the higher elevations receiving significantly more precipitation than the lowlands (Trench et al.2009). Due to the lack of rainfall, cultivation is less viable than in Simanjiro and people have a higher dependence on livestock as their principle livelihood strategy.

Map



The people

There has been much written about traditional Maasai social organization (Spencer, 1988, Homewood and Rodgers 1999, O'Malley 2000, Hodgson 2001, 20011, Mwangi 2005, Homewood et all 2009, Ndagala 1990), so here I present a brief overview on aspects of social organization that are relevant to the case presented. Maasai social organization is based on three interlinking institutions: territory, age sets/grades, and marriage and family.

The largest territorial unit is the section or *olosho* in Maa. Within this territorial unit grazing resources are available to all members of the section, but particular areas were set aside for dry season grazing while others were designated for use during the wet season. All people considered in this research were members of the Kisongo section of the Maasai. Within the section particular areas or "localities" *inkutot* (Mwangi 2005) are managed by a group of elder

men who decide on where livestock should be grazed and where cultivation will be allowed. The most basic unit of Maaasai social organization is the *enkaji*, which is the small house built by a married Maasai woman for herself and her children. There are often other houses that are associated with a married woman which can be co-wives, aunts, sisters or other dependent women. These units taken together are the *enkishomi (pl. inkishomin)*, or gate. This unit is what is most commonly referred to as a household and when taken together with all dependents is called an *olmaeri (pl.Ilmareita)*. Grouped together, within a single compound, surrounded by a thorn fence, these *Ilmlareita* form an *enkang* (pl. *inkangitie*). In common speech and writing the *enkang* is often referred to as a boma.

All Maasai men are members of a clan (*olgilata*), with the larger clans sub-divided into a number of smaller sub-clans. Each clan has a clan leader but most function on more circumscribed territorial areas, with local clan leaders. The clans are exogamous and function as a mutual aid group. Livestock are redistributed to impoverished clan members following a crisis and clan members may collect funds to help clan members facing particular challenges, such as hospital or school fees. Women leave the clan of their fathers at marriage and join the clan of their husbands. In addition to acting as a mutual aid group many water rights were managed by clans. Small streams, springs and occasionally dams were "owned" by particular clans and the rights concerning who could use them were the responsibility of the clan.

All Maasai adult men are also members of a particular age set which forms part of the age grade system. All Maasai men pass through a series of age grades from boys (although boys are not officially an age grade), to warriors, junior elders, senior elders and retired elders. During the time that young men are in the warrior (*Ilmurran*) age grade they are circumcised and a leader is chosen with the help of those in the junior elder age grade. This *Ilaiguenani* will serve

as the age set leader throughout his life. Also during the time that young men are in the warrior age grade a name is given to this age set. Members of this age set will have particular rights and obligations to each other throughout the course of their lives. All members of a particular age grade pass through a progression of stages together after approximately 10 to 14 years, and is triggered by the advancement of the warrior age grade to junior elders in the *olng'eserr* ceremony. Women are not members of any age grade/age set organization but young women often identify with those young men in the warrior age grade. Traditionally it was the age set leaders who advised people on day to day affairs and looked out for their economic and social welfare. This included defining wet and dry season grazing areas and when these would be opened and closed.

These three institutions: the age grade/age set system, the relationships among family and clan members, and the territorial organization are the three pillars upon which Maasai society was traditionally organized. As we will see this traditional organization still functions, but it's importance has been eclipsed by formal village based institutions, at least with respect to land use and management.

Finally, there are ritual leaders referred to as *laibon (pl. olaiboni)*, whose function is to help provide for the spiritual well-being of a community. They are considered prophets, healers, soothsayers, and sorcerers. All *olaiboni* come from a particular clan and are always male. Not all male members of the clan will become a *laibon* but the ability to predict the future and interpret dreams emerges over time. Although the role of *laibon* was extremely important, their power and influence has been seriously diminished through the influence of the church and education, over the last decade.

The village

Village government consists of a village assembly that includes all individuals over the age of 18. Members of the village assembly elect a chair person (*mwene kiti*), secretary (*kitabu*), and treasurer while the village executive officer (*mtandaji*) is appointed by the District. Each village is divided into sub-villages (kitongoji-pl vitongoji), each of which also has a chairperson, and secretary. The village council is the real governing body of the village and consists of the chairperson, all sub-village chairpersons, and elected members that must include women. Within the village committee a series of smaller committees are formed to deal with such legislative matters as finance, social services, security, forest protection, water management and development, etc. In many villages where the principal livelihood activity is the raising of livestock, a livestock committee will have the responsibility for defining areas of wet and dry season grazing and sometimes defining the timing for opening dry season grazing to village members. Following the 2008/2009 drought we witnessed some livestock committees, or newly formed committees, assigned with examining the ability of village based resources to accommodate people and livestock that migrate into village lands, and to suggest changes in village by-laws and land use plans based on the availability of pasture and water resources.

I now turn to the case study and examine how the village became the principal governing body among the Maasai. It may seem obvious that once villages were formed then they would take over the role formerly played by traditional institutions but that is not the case. For decades after the formation of the villages, both the governmental purpose of the village – as well as village boundaries were largely ignored.

The Case Study – The Village in Northern Tanzania

The Evolution of the Village

I had mentioned earlier that in order to understand how the management of natural resources and the limitations on mobility are to be understood we need to go back to 1967. In 1967, Julius Nyerere delivered the now famous Arusha Declaration, in which he laid out his vision of a socialist agenda based on a system of rural villages with a central settlement area surrounded by farms and pastures. In these "*Ujamma*" villages (KiSwahili word for family ties, which has come to mean socialist) (O'Malley 2000), there was little consideration of the existing land tenure system, or community rights based on custom or tradition (Shivji 1998). Nevertheless, this policy was implemented across more than 8,000 villages throughout Tanzania.

It was not until 1974, that the *ujamma* villages began to be established among Maasai communities in northern Tanzania. In Maasai land, this policy became known as "Operation *Imparnati*" based on the Maasai word for settlement or permanent dwelling. The Maasai did not put up much resistance, as health dispensaries and primary schools were established. Also according to O'Malley (2000) people were convinced that the basic idea of permanent settlement was incompatible with a pastoral livelihood and that after a while people would return to their former ways of managing resources and seasonal migrations. Although there were new "villages," with permanent buildings and the provision of some basic services, most Maasai did return to their traditional livelihoods. As late as 1991 Homewood and Rodgers, concerning the Maasai living in the Ngorongoro Conservation Area, state:

"Overall these villages have had little lasting impact on patterns of settlement and seasonal movement, nor do they correspond with traditional economic or

leadership structures. Individual families still live in widely dispersed bomas. Seasonal movements crosscut village boundaries and different families using the same village in the dry season may move to different wet season pastures, each associated with quite different alternative villages. Alongside the imposed village structure, the traditional systems of section, clan, age-set and boma, still govern NCA Maasai access to resources and form the basis of their risk avoidance strategies and of their efficient livestock management in an unpredictable environment." (Homewood and Rodgers, 1991:56).

Although people were moving with their livestock, and land and resources were being managed according to traditional institutions, important changes were occurring at the village level. Critical changes include: the adoption of cultivation, the allocation of land to individuals, the out migration of young men to both find work as laborers or to work as middle men in the Tanzanite gem trade, the development of community managed resources including dams, schools, health clinics, human population increase, and the gradual acceptance of village based governance. This lead up to the second major policy shift which were the village land acts of 1999. Below I briefly describe how some of the factors mentioned above developed from the period of villagization to the imposition of the village land acts.

Methods

Before proceeding I should briefly say a few words about the methods used to collect the information that I am presenting here. Myself and colleagues have been conducting research in Simanjiro District since 2004 and in Longido District since 2015. We have conducted group and individual interviews concerning changes over time and have published articles on the adoption of cultivation (McCabe et al. 2010), temporary out-migration (McCabe et al. 2014), the impact of

conservation (Baird et al. 2009) and how people perceive human well-being (Woodhouse and McCabe 2018).

Cultivation

Cultivation among the Maasai in most parts of northern Tanzania began in the early 1980's, but there was significant variation across villages. For the most part cultivation began with small gardens (less than one acre) and later expanded into farms (more than one acre). The preferred crops were maize and beans, although some people experimented with crops such as sunflowers or sesame. Most of the early adopters of cultivation learned to cultivate by observing non-Maasai (WaArusha, WaMeru and East Indian people) and the need to cultivate was primarily driven by lack of livestock. Unlike some other pastoral groups (e.g. Turkana) Maasai had traditionally incorporated grain into their diet, which was obtained through trading with local cultivators or purchased following the sale of livestock. It is important to note here the Maasai are well known for their historical aversion for agriculture

Over time the motivations for cultivating changed. Our research showed that by the first decade of the 21st century most Maasai families were cultivating, with poor people cultivating out of need for food, while more wealthy people were cultivating so that they did not have to sell livestock to obtain grain. Cultivation in Simanjiro has been qualitatively different from other areas with large farms being plowed by tractors or ox plows. Yields are highly variable, but now cultivation is considered part of being a

modern Tanzanian, and despite the concerns of conservationists² is unlikely to decrease, except in those areas where yields are consistently poor.

Land Allocation

Land began to be allocated to individual household heads in the areas where we have been working in the 1980's, although the earliest we have recorded was 1977 and the latest 1999. Land allocation in Tanzania is not like privatization in Kenya. Although a parcel of land is allocated, the central government still retains the rights to the land. Individuals are technically not allowed to sell land but have use rights for various periods of time.

Following village formation in the late 1970's a few individuals, including influential Maasai, some non-Maasai Tanzanians, and a few expatriates, were given very large tracts of land (e.g. the Stein Lease encompassed 381,000 acres). During the 1980's non-Maasai were attempting to obtain large allocations and these worried village leaders. According to a recent interview the initial push for land allocation to households was not driven by household heads advocating for a land allocation, but from village leaders who felt that if land was not allocated then it would be lost to outsiders.

As population increased the desire for household allocations grew. Throughout our 14 years of research in Simanjiro, population increase was frequently mentioned as a principle driver of the need for household allocation. In our well-being study

 $^{^{2}}$ The Simanjiro plains are the wet season dispersal area for much of the wildlife living inside Tarangire National Park and this wet season migration is considered critical to the viability of the Park.

(Woodhouse and McCabe, 2018) an individual allocation of land was seen as necessary for a family's economic well-being.

Insecurity of land tenure remains an important concern. Villages with a border to Tarangire National Park feel their land is at risk due to Park expansion (Baird, Leslie and McCabe, 2009). The splitting of Arusha region into Arusha and Manyara Regions also contributed to the sense of insecurity of land tenure. Simanjiro was part of Arusha Region until 1989, and included many pastoral communities. Manyara Region, on the other hand, is composed primarily of agricultural communities, many of which have limited land for cultivation. As a result, some sub villages have allocated all the land in the sub village to demonstrate that there is no "open" land.

Out Migration

Our previous research revealed that young men began leaving their homes to seek work in urban areas in the early to mid-1990's. The principal form of employment was to work as guards at private homes and businesses. Maasai were able to benefit from their reputation as warriors but the work was dangerous and did not pay well. The reasons given for leaving home were poverty and the desire to start a life for themselves. Often young men would not inform their families that they were leaving, afraid that their father would prevent them from seeking work away from home. These young men would often be gone from six months to over two years, with some becoming permanently "lost'. These temporary migrants were hoping to earn enough money to start a herd of their own but few were able to accumulate enough money to purchase anything more than a few goats and an occasional cow. However, some of these young men were successful enough to encourage other young men to seek work as guards. Over time the migration of young men away from Maasai land became an accepted norm with many young leaving home shortly after their circumcision and becoming warriors.

This pattern of migration spread all over Maasai land, but in the mid 1980's young men from Simanjiro began to migrate to the Tanzanite mine in the town of Merirani, just south of Kilimanjaro airport. What made this migration so unusual was that the Maasai migrating to Merirani were not going there to work in the mines but to act as middlemen in the gem trade. The process of migration was also very different from that described above. Migration to the Tanzanite mines was usually a family decision with the father providing enough money for a son, or sons, to learn the gem business. Also unlike working as guards, some of these migrants made quite of bit of money. In some cases, enough to buy new 4 wheel drive vehicles, tractors and to pay for the building of a modern house. In addition, many of these men were able to secure very large land allocations.

In addition to material benefits those men who migrated out experienced life outside of Maasai land and a livelihood not based on the raising of livestock. The experience of living outside of Maasailand, making a living not based on livestock, and mixing with many non-Maasai propelled many of these men to important positions in village leadership. As village leaders these men were able to influence decisions relating to land use, emphasizing land allocations and large scale cultivation. In many ways this is similar to the events described by Leserogol (2008) among the Samburu where young men with experience outside of their Samburu villages were able to overturn the emphasis on age as being critical to political leadership which resulted in policies favoring the privatization of commonly managed grazing lands.

The acceptance of village governance and community managed resources

Following the establishment of each village the official Tanzanian governance structure was put in place. As previously described, this consisted of a village chairperson (*mwenye kiti*) and a secretary (*katibu*). The chairperson was elected from all members of the village over 18 years of age (the village assembly). A village Council was also established which consistence of 25 elected members of which a quarter were required to be women. However, very little changed as almost all the new chairpersons were the traditional leaders of the senior age sets, the *olaigwanani*. Wet and dry season pastures were regulated as before, with enforcement supported by the threat of a curse by village elders. According to Ole Mokoro Ndete, the Olaigwanani of the Makaa age set and a subvillage chair in the village of Orbomba in Longido District:

"Traditional leaders were adored until the late 1980's. They defined dry season grazing zones plus restricted where people could settle. A spell was cast by the traditional leaders to anyone who violated these rules. Once cast, the spell would result in the death of livestock by being eaten by wildlife or by being bitten by a snake; or the house of the violator would burn down. Once the violation was known all this would happen before sunset of the same day" (interview conducted in October, 2017).

The first official change was the appointment of a village executive office (VEO) by the District government. For most of the villages where we are working this occurs in the 1980s and 1990s. Although the VEO works closely with the Village Council he or she is the representative of the District government in the village., and is often not of the same ethnic group as the village members. The appointment of the VEO marked a transition

point from local traditional leadership to more closely working within the larger governmental system.

Other factors as well were influential in formalizing the village as the principal governing body in Maasailand. Gardner (2016) argues that one significant factor was the desire for tour companies to secure rights among local communities to set up camps and to bring tourists into areas that were close but not inside the national parks. Gardner provides the example of Dorobo Safaris in making arrangements with Maasai communities in the early 1990's, in which the company paid for exclusive right of access to village lands.

"This new spatiality of conservation in Loliondo rests on the articulation of the village as a rights bearing entity grounded in historical, culturally based traditional rights. Through this new understanding, the village has become a meaningful social and spatial unit of rights and belonging" (Gardner 2016: 131).

Gardner mentions the need for defined geographical boundaries but as we will see this is more easily said than done. Other aspects of village development were the construction of dams, clinics, schools and boreholes. Some of these were funded by religious organizations, NGOs and government agencies, but the management was under the control of village government.

The Village Land Act

In 1999 the Tanzanian government passed two acts that have been referred to as "the most important measures relating to land tenure in present Tanzania" (Roughton, 2007:552). The purpose of the two acts (and the 2004 amendment to the Land Act), were

to clarify the existing land laws, to develop land markets, and to facilitate the equitable distribution of lands, and to allow women to own land (Mwangi 2009, Roughton 2007). The acts divide land into three categories: reserve land which is land set aside for purposes such as national parks and forests; village land is land within the boundaries of a village; and general land which all land not in the above two categories, but that also includes unused village land. The village land act devolves the authority to manage land within village boundaries to the Village Council which may also appoint a land committee to facilitate decisions relating to land management. The Village Land Act has particular importance for women as it protects the rights of women to own³ land; it also allows the Village Council to write and enact by-laws which are legally binding. This will become important to the case study.

Although the Village Land Act stipulates that the Village Council is to act as the trustee for village lands, the land is still under the jurisdiction of the President. The Village Land Act also requires that the government issue a "certificate of village land" that recognizes the boundaries of each village (Roughton 2007). Land is classified as communal village land, land used by an individual or group, and land that the Village Council can allocate. Following the implementation of the Village Land Act, the Village Council, along with the land committee, and often with the assistance of a NGO designed a land use plan that would be submitted and approved by the District government. Although these land use plans were based on the traditionally defined wet and dry season

³ As mentioned previously Tanzanian citizens do not technically "own" land, but the government is granting titles in a few experimental areas.

grazing areas, their management was now under the control of the village government. Sub-village boundaries were also established and included in the land use plans.

In some villages the wet and dry season grazing areas were marked by the placement of cement beacons, but what is really important to the case study is that land designations were now enforced by the village government in the form of fines rather than by cursing the violators by traditional leaders. When asked about this transition we were repeatedly told that the power of traditional leaders to curse had significantly diminished. The reasons given for the erosion of powers of traditional leaders were the influence of the church, education, and becoming modern.

In the table presented below I summarize some of the important events that occurred in villages in Simanjiro based on interviews conducted in 2005 in our study villages in Simanjiro. The dates selected were based on the opening of a new age set of warriors, something that people remember quite well.

Table 1: Changes over time in Simanjiro 1973-2005

Lobor Soit Village

1973-: No Cultivation; The area was forested; there were few people and no out migration.

1983-: There were many more people – some families began building permanent bomas; some people started small gardens- learned from WaArusha; some people started using tractor sand young men began to migrate to Merirani and to town for guarding; between 1983 and 1989 land started to be allocated, and there were some big farms. Lobor Soit Village created by splitting from Emboreet.

1998: There were many more people; there was livestock disease; non-Maasai began to move in and advocate for land allocations; there was large scale migration to Merirani after circumcision ceremonies

2005 – people who have made money in Merirani began to invest in land and tractors; Arusha Region split into Arusha and Manyara Regions. Household heads started to lease land to secure tenure due to fear of conservation. There was a feeling that land was becoming scarce "the land is being squeezed" Young people going to school.

Sukuro Village

1973: There were few people; no cultivation; no out migration; no outsiders

1983: Population was increasing; livestock were increasing; there were small farms but they started to expand; cultivation began in late 1970's using non-Maasai- laborers; people said that cultivation started because of villagization; there was migration to town, and migration to Merirani began around 1986; the use of tractors began in the early 1990's. Land allocation started in 1993-

1998: There was significant population increase; livestock began to decrease; cultivation was increasing and farm size was expanding; using laborers for plowing and laborers for weeding; there was lots of migration to Merirani which began just after circumcision

2005- no major changes, but people were worried over the security of their land.

Terrat Village:

1973: There were only a few bomas; people moving around quite a bit; there was no cultivation; there were no outsiders and no out migration; land allocation started between 1977 and 1983, people said this was due to villagization.

1983: Population was increasing; livestock were decreasing; farm size was around 4 acres – use of tractors and ox plows; people began to settle in permanent bomas but livestock were moving; people began to migrate to Merirani in 1986.

1998: There was a large population increase and cultivation increased a lot livestock about the same; cultivation increased a lot –some people had more than 100 acres – Successful men from Merirani had tractors. The process of land allocation was finished – and young men had to get land from their father;

2005: In some sub-villages there no more land to allocate- no "open" land"; lots of out migration both to Merirani and urban areas.

The period from 2005 until the present has seen significant village level development in both Simanjiro and Longido Districts. Population has continued to grow and in Simanjiro cultivation continued to expand. Village based developments included the drilling of boreholes, the construction of dams, and the building of schools. In Simanjiro one village has split into two villages, and another had plans to split, but a conflict between the local government and a large commercial farm and tourist camp has prevented this from happening. Even though the Village Land Act was supposed to clarify village boundaries, there are disputes among almost all villages in Simanjiro District often precipitated by the splitting of a village. Land allocation has continued in most villages, but there is a strong perception that available land is becoming increasingly scarce.

A major concern has been pressure to allocate land that is currently classified as village grazing lands. This was made clear to me in a discussion with village leaders in Sukuro. The neighboring village of Terat had signed an agreement in 2005 to set aside 9,300 hectares of land as a conservation easement, in which no cultivation or settlement would be allowed. In exchange a consortium of tour operators provided the village with 5 million Tanzanian shillings (approximately \$ 4,500) each year (Nelson et al 2010). The village leaders in Sukuro were discussing whether or not to join with Terat and expand the easement and when I asked why they would do this they answered "well for the benefits". I had assumed that they meant the money that would be contributed to the village, but they were actually unaware of the payments. The real benefits were to set the land aside so that it could not be allocated as both outside investors and young men coming of age were advocating for land allocations. Pressure to allocate land was felt in all the villages – from young men, investors and conservationists, and this is still the case.

There are two important things to remember at this point. One is that the discussion so far has concerned the management of resources within village boundaries – not between or among different villages. The second thing is that although the means of enforcing when livestock can access wet and dry season pastures was now the responsibility of village government, traditional leaders still played important roles in mitigating disputes, helping poor families through the redistribution of livestock, and helping to ensure well-being.

Drought

Droughts have been, and still are, the principal environmental challenge facing the Maasai of northern Tanzania. Most climate change models predict that the severity and frequency of drought will increase in eastern Africa, and there have been three significant droughts in the last decade: 2008/09, 2011, and 2017. According to Msoffe (Msoffe et all 2011) extreme droughts occurred in the Tarangire/Simanjiro ecosystem in 1961,1965,1974,1976 and 1991 and severe droughts in 1967, 1975,1982, 1992,1993, 1997 and 2003 (the study period ended before the 2008/2009 drought).

For most pastoral people, the principle means of coping with drought is through mobility, and for the Maasai this has meant migrating within and outside of national and sectional boundaries. Access to resources was negotiated based on traditional institutions, which often involved clan affiliation, or just the accepted norm that all Maasai should help each other in times of stress. It is also understood that what happens in one area today could happen to another area tomorrow. Despite differences, and at times hostility, among sections of the Maasai, there was always a sense of trust that livestock would be able to cross spatial boundaries and refusal to accommodate migrating livestock and their herders was unacceptable. This sense of trust among Maasai did not change as the villages designed and implemented their own land use plans. As Mwangi stated in 2005: "Reduced mobility will likely magnify vulnerability to drought and may jeopardize the ability of the livestock enterprise upon which pastoral livelihoods are dependent. In the longer run, it may also undermine the reproduction of the pastoral culture. No doubt the Maasai are aware of this" (Mwangi 2005: 2)

Many areas that were former drought reserves have now been alienated from the Maasai by the boundaries of national parks and protected areas, and in places by the presence of large commercial farms. Sometimes herders will drive livestock across national park boundaries at night, or attempt to bribe rangers, but the risks can be substantial. This makes the ability to cross national, sectional and village boundaries all the more important.

This brings us back to the 2008/09 drought. As described in the opening vignette of this paper, many thousands (perhaps hundreds of thousands) left the pastoral communities in southern Kenya and along the Kenya/Tanzania border area in a southern migration seeking better pastures and the availability of water. In all but one area these migrants were accommodated, if not outwardly welcomed. Along the eastern escarpment of the rift valley, east of the Ngorongoro highlands, in an area referred to as "Manyara" local residents not only refused access to grazing for the migrating livestock, but berated the herders and in some cases attacked people at night. Some were beaten so badly that they had to be transported to hospitals in Arusha, many hours away by vehicles. In talking about this to Maasai who took part in this migration I was told that this had never happened before and that in the event that the people form "Manyara" experienced similar drought conditions and needed to migrate north, they would be refused. This incident was deemed so important that this drought is referred to as the "Manyara" drought. This signifies a significant break in the management of the social and ecological system of the northern Tanzanian rangelands. For the first time traditional institutions did not facilitate access to resources, and village boundaries were defended.

In Simanjiro, these migrants were welcomed, and although the migrants suffered significant livestock loss, they felt that the trust that unites all Maasai in times of stress was maintained. However, for many of the people in Simanjiro they felt that times had changed.

Village based resources were overwhelmed and local resources depleted. They maintain today that grazing resources have not yet recovered from the intensive use they experienced during this drought. After the migrants had returned north, in three or our four study villages the land committees were charged with coming up with solutions to these problems in case of future droughts. The solutions were not uniform; they varied from defining a specific area for migrants to temporarily live and graze livestock and to set limitations on the numbers of herds or livestock could come in; to setting fees for grazing and water for each head of livestock; to specifying dates when parts of the village grazing zones could be opened to migrants and when they had to leave.

In addition to proposing these measures they were considered by the village council and voted on by the village assembly. They were then formalized and written into to the village by-laws. I asked why they needed to be written into the village by laws and the most common answer was; we had to do it this way – otherwise it would be impossible to refuse friends or relatives but we know we have to protect our village resources. In discussing these changes to people in Longido they said – no that is impossible – when the next drought comes we will go back – they cannot refuse us – we are all Maasai.

Recent Events

In December 2017, due to drought, herds of cattle, along with herders, from Kenya began to migrate into the northern Tanzania rangelands close to the base of Kilimanjaro. Occasionally the Tanzanian government had in the past intercepted these livestock and sent them back to Kenya. However, this time the cattle were confiscated and sold and the herders returned to Kenya. In interviews conducted in February 2018, I was told that many cattle belonging to Kenyan Maasai were dying, but that the Kenya Maasai were afraid to cross the border into

Tanzania. This signifies an important policy shift and in essence cuts the Maasai social ecological system in two. If this policy is maintained there will be social, ecological and economic implication for livestock keeps on both sides of the border.

In February of 2018, the Regional Commissioner for Manyara Region visited our study area in Simanjiro District. He first came to the village of Emboreet where the chairman of the village had illegally "sold" or allocated the entire common grazing area of the village to outsiders, many non-Maasai. This was never brought before the village council or approved by the village assembly. The Regional Commissioner dissolved the entire village government, rescinded the land allocations, and called for new elections. As of now it is unclear what will happen to the village chairman or other members of the village government. He also dissolved the village governments of three other villages where it was determined that the chairmen were corrupt and involved in illegal land deals. He also demanded that the villages come up with a means for solving boundary disputes that have plagued the villages in Simanjiro for years.

Although the authority to manage resources is now under the control of village governments, people have begun discussing the problems of having land management decisions made by politicians rather than traditional leaders. It is clear that how villages make decisions relating to the use of resources, and who makes these decisions remains an evolving process.

Discussion and Conclusions

The case study presented here is unique in relation to the literature on common property and institutional change in East Africa. Some of the motivations for privatization are similar to those described by Lesorogol for the Samburu and for the formation of group ranches and their division described by Mwangi, but in both those instances the discussions focused on the privatization of individual holdings. The threat of loss of land to outsiders was considered important for Maasai initially agreeing to the formation of group ranches, and this has relevance to the Tanzania case. However, with the exception of Gardner, I am not aware of any publications that explore the process of change in the management of natural resources from traditional informal institutions to formal village based institutions in East Africa.

In the wider literature on common property the complexity of understanding how CPR are managed and change is emphasized, and we certainly see this in the Tanzanian case. We also see how governmental policy interacts with local traditions and management practices to form a somewhat hybrid form of governance. Traditional use of wet and dry season grazing areas, enforced by traditional leaders, were the basis for the village based land designations enforced by the village government. This appears to be similar to the "bricolage" described by Cleaver. It is also clear that in the two major policy shifts: *Operation Imparnati* and the village Land Act of 1999 did not result in institutional change until long after the policies were implemented, especially in the case of villagization. It was the combination of multiple interacting factors (referred to as slow moving variables in the resilience literature) that culminated in institutional change precipitated by an extreme event; in this case to 2008/09 drought.

Especially important to the case study are the perceptions of population increase, increasingly scarce and limited resources, an inability to control boundaries, and the erosion of traditional means of enforcement of management rules. These are common themes in the literature on how common property regimes fail and transform, and would be a violation of some of the eight design principles that Ostrom identified as common to the successful management of CPR.

The case study does not describe how the management of a common property has transformed, but how it is transforming. The process is not finished; it is still evolving. There are discussions among villages of combining rangelands and the possible reemergence of the role of traditional in a management capacity. These new rules and the uncertainty associated with what will happen in the future articulates with what Bollig and Losorogol refer to as the "new commons".

Finally, we may be witnessing the demise of a successful, long-term resilient socialecological system encompassing the rangelands, the livestock, and the livelihoods of Maasai people in both Tanzania and Kenya. Ostrom pointed out the importance of trust and reciprocity for the successful management of a common property system. Trust has been challenged by the confiscation and sale of Kenyan livestock by the Tanzanian government. Reciprocity has been compromised by the refusal of people in "Manyara" to allow livestock to graze on village lands and the beating of herders. We do not know how the villages in northern Tanzania will respond to the next drought, but it is well understood that limiting mobility will reduce the adaptive capacity for people to respond to drought stress, will further fragment the rangelands and pose a significant challenge to the resilience of what has been up to now a resilient social and ecological system.

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