THE EVOLUTION OF COLLECTIVE LAND ACCESS REGIMES IN PASTORALIST SOCIETIES: LESSONS FROM EAST AFRICAN COUNTRIES

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Abstract

This study examines the evolution of collective land tenure regimes in East Africa including how they affect pastoral communities. Specifically, the drivers and impacts of changes in collective land access across time are identified. First, the study synthesises regional evidence on East Africa’s pastoral communities before examining changes among collective land tenure regime in Kenya using existing literature, secondary data and primary data. Second, using theory testing process tracing method to analyse the key drivers on changes in collective land tenure. Land individualisation and privatisation policies implemented during the colonial period and maintained by post-independence governments did not yield the desired outcomes of increasing investments on land and improving productivity and incomes, especially in areas where land is accessed collectively. The growing trend towards individualisation of land in pastoral areas is triggered by a combination of factors including the potential for change in land use, proximity to urban cities large-scale infrastructural developments and the nature of community mechanisms for accessing and managing collectively owned land and other resources. To sustain pastoral productive systems, the maintenance of collective access to land especially where extensive livestock production systems are likely to be practiced, will provide economic and social benefits to communities.

Key Words: Community, Land Tenure, Pastoralists
1. INTRODUCTION

During the 1970s and 1990s, multilateral agencies and governments in many developing countries promoted land market liberalisation policies based on bestowing individual property rights, as part of a wider policy programme based around structural reforms. It was believed that market forces were the key to increasing access to land and improving rural livelihoods. Top among these policies was land titling (or land registration), as a means to assure land tenure security and, thus, improve rural livelihoods.

Emerging literature, in contrast, suggests that maintaining collective land access rights may have positive effects on rural livelihoods. First, land liberalisation policies have generated land concentration and fostered social inequalities (Jansen & Roquas, 1998; Ghimire, 2001; Zoomers & van der Haar, 2001; Lohr, 2012); marginalised poor communities have low ability to participate in land markets (Toulmin, 2005; Lohr, 2012); and land liberalisation policies have not necessarily led to increased investment, production and access to credit amongst these communities (Atwood, 1990; Deininger & Binswanger, 1999; De Janvry & Sadoulet, 2001; Zoomers & van der Haar, 2001; Place, 2009; Obeng-Odoom, 2012). Secondly, communities with collective land access might benefit from economies of scale in production, spread the risks and avoid costs of enforcing individual property rights (Nugent & Sanchez, 1998; De Janvry & Sadoulet, 2001). Additionally, collective land access can ensure greater access to resources for the poor and control over common resources, and lay the foundations for the development of systems of mutual insurance through cooperation (De Janvry & Sadoulet, 2001; Zoomers & van der Haar, 2001).

Collective land access is a salient form of tenure in East African countries, with 67% of land in Kenya, 50% in Tanzania and 40% Uganda controlled under customary systems (KNBS, 2014; Government of Uganda, 2013; USAID, 2010). A large proportion of land under collective access regimes in these countries is inhabited by pastoral communities. These communities have lived on these lands since the pre-colonial period and share a number of characteristics. For instance they live in an environment which is mainly suitable for livestock where they use extensive production systems; they have historically practised nomadic pastoralism; they have a strong cultural identity that defines their social and economic systems; they have faced similar land adjudication systems during the colonial period; they have faced economic exclusion from successive government administrations resulting in economic and social inequalities; they have undergone a period of state-led interventions in land tenure reforms, provision of public goods and interventions in production and marketing systems; and currently they face different pressures to their collective land tenure regimes including public funded mega projects.

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1Much of the history before the colonial period is not documented, instead African communities shared their history from one generation to the next through word of mouth.
and the alienation of communal lands to private use. For example, communal land has been allocated to private individuals in Kenya (Government of Kenya, 2004), for mineral exploitation in Uganda (Owor et al., 2015), and to private large-scale land developers in Tanzania (Lekaita et al., 2014).

Although pastoral communities have maintained their customary land access practices alongside national legal frameworks, they are now pushing for regulations to secure their land tenure as well as other policies that are likely to have a positive effect on their livelihoods including legal recognition of customary laws. This pressure has grown as a result of tensions around communal land resulting from the implementation of mega projects and increasing awareness of communities concerning their rights, especially rights for minority groups. Examples of public funded mega projects being implemented in communal lands include the Lamu Port South Sudan Ethiopia Transport (LAPSSET) corridor\(^2\), the Northern Transport Corridor in Kenya\(^3\) and Uganda, oil exploration in Uganda and the Mtwara and Tanzania Zambia Railway (TAZARA) development corridor in Tanzania. Compensation to these communities for loss of land has mainly been overlooked, yet there has been direct negotiation with private owners in cases where private land has been affected by these projects. Against this backdrop, East African governments have been pressured into initiating policy discussions aimed at improving land use and livelihoods for communities in areas where land is accessed collectively. For example, in Kenya new land policies are under debate and include the Community Land Bill which proposes to secure communal land tenure and promote investments in improving land management and livelihoods in areas where land is owned and accessed communally.

Previous studies on collective access to land in East Africa have mainly focused on specific regimes, while others have compared land tenure systems to identify the conditions within which different systems are effective, specifically with reference to land liberalisation policies. Even in the face of these policies, communities in East Africa have been able to maintain various regimes of collective land access which have evolved over time and differ across communities and regions. Therefore, there is a need to understand the drivers of change in collective access to land in relation to different geographical regions and across different conditions and cultures. This will be of great relevance to the current policy debate, especially given that communities that have maintained collective land access regimes are usually minorities with limited political power to influence policy. Our research aims to provide answers to our main research question: how have collective land access regimes in East African countries, specifically Kenya, changed over time? Our methodology will allow us to explore the main drivers of these changes, compare these changes and their triggers across different communities and

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\(^2\) LAPSSET corridor projects include the Lamu Port, construction of a railway line, highway, crude oil pipeline, product pipeline, oil refinery, three resort cities, airports and a mega dam.

\(^3\) The northern transport corridor involves construction of a standard gauge railway line covering Kenya, Uganda, South Sudan and Rwanda.
regions and explore how these changes affect or are likely to affect communities’ livelihoods.

2. APPROACH AND METHODOLOGY

The major objective of our research is to answer the question: how have collective land access regimes in East African countries, specifically Kenya, changed over time? In particular, we seek to examine: (i) the factors that explain these changes, and (ii) the implications of these changes for the livelihoods of pastoralist communities.

Our unit of analysis is the regimes that govern land tenure in pastoralist societies. We analyse the changes in these land tenure regimes from the colonial period in the 1900s to present day, including the drivers and impacts on pastoral communities. To achieve this, we begin by synthesising regional evidence to understand the context around pastoral communities in East Africa. We then identify three types of collective land regime and explore three case studies per type based on primary data collection among nine communities in Kenya.

The general approach to our study is drawn from an extensive review of literature on collective land tenure regimes in East Africa supplemented by qualitative analysis of secondary data and primary data collected using Focus Group Discussions (FGDs). Specifically, we use the theory testing process tracing method (Collier, 2011; Beach & Pedersen, 2012; Punton & Welle, 2015) for our analysis and to identify causality. This method is suitable because the outcomes of changes in collective land access regimes and some of the drivers of these changes are known to us. However, these factors may not provide a complete explanation since other drivers may trigger a chain of responses that lead to the observed changes. This method has several additional advantages. First, while it is expected that the changes in collective land access have been caused by a number of factors, this method will help us identify the combination of conditions that were necessary to induce these changes. Secondly, this method will allow us to establish and test for causal inference among these factors. Finally, this method allows us to test which intervening variables were important for observed changes in the dependent variable by establishing whether the intervening variables were necessary or sufficient or both to have caused the observed changes.

**Typology of Land Tenure Regimes**

Generally, land that is accessed collectively has attributes of a Common Property Resource (CPR). To avoid the ‘tragedy of commons’ in land accessed collectively, institutional arrangements that establish relationships among people, as individuals or groups, with respect to land are a necessity. These arrangements are essentially understood as land tenure regimes which define an enforceable set of rules, rights and duties that apply to the beneficiaries of these resources (Ostrom, 1990).
We differentiate property rights that can be held by an individual or collectively as a group. This allows us to develop a matrix that depicts the various combinations of choice actions that characterise land tenure regimes in East Africa, showing how either individuals or groups control or access land (Table 1).

//Table 1 here //

Un-adjudicated communal land is land where no adjudication had taken place and land boundaries are established following a community’s customary practices. These boundaries are not binding and are subject to conflict, however, in general, they are respected by the government during the establishment of public administrative units in these areas.

A group ranch is a defined area where the land is owned collectively by a group of individuals. Group Ranch A refers to land for which access, ownership and control has been granted to a group, and the group acts together in accessing the land. Group Ranch B refers to collectively owned land where individuals act independently in making decisions around access and use.

**Analysing Change in Collective Land Tenure Regimes**

Our analysis dates back to the colonial period during the 1900s. We divide this framework timeline into four periods: colonial period (1900-1960), post-independence period (1960-1980), structural reform period (1980-2000) and millennial to current period. Each time period contains a combination of land tenure regimes which evolve as they move into the next time period. We then identify the drivers of change in land tenure regimes and the effects on our case study communities using existing literature and secondary data, which is cross-checked with information gathered through FGDs. Additionally, we use existing literature and secondary data to contextualise our case studies at each point in time.

**Data Collection Methodology**

First, we selected counties in Kenya inhabited by pastoralists. These were: Narok, Kajiado, Samburu and Laikipia in the Rift Valley region and Isiolo in Eastern region. We then identified, with the help of County Lands Adjudication Officers, existing collective land access regimes described in Table 1 in these counties and randomly picked communities as case studies in each county. We initially selected 10 communities, two in Narok, Kajiado and Samburu, three from Isiolo, and one from Laikipia. However, we were forced to cancel one community meeting in Samburu due to security issues. Primary data was collected through nine FGDs; one in each of the communities listed above.

**Hypotheses**

We developed five hypotheses about the key drivers of change in collective land access regimes. These hypotheses were tested by using the theory testing process tracing method (Collier, 2011; Beach &
Pedersen, 2012; Punton & Welle, 2015). The hypotheses are as follows:

1) **Social conditions**: Although maintaining collective land access would protect more vulnerable actors and prevent land concentration, in situations where high inequality exists it becomes difficult to maintain collective land access.

2) **Economic conditions**: Natural resource economic theory argues that under growing commercial pressure, the shadow price of land will increase making it attractive to investors. This, in turn, will increase demand for individual land property rights. We argue, however, that this depends on the kind of activity that can be developed on the land. The hypothesis posited by natural resource economic theory is mainly related to geographical conditions conducive to intensive agricultural production i.e. not mountain or semi-arid environments where pastoralists live. Thus, in a context where land can accommodate intensive use, particularly crop production, maintenance of collective access to land may not be feasible.

3) **Demographic conditions**: Economic theory argues that a growing population puts pressure on natural resources such as land. This, in turn, increases competition over land as individuals seek to increase returns from production. Ultimately, this increases demand for individual land rights where property rights are easy to enforce. Under certain conditions, however, individual property rights can also be enforced under collective land tenure regimes. Thus, this hypothesis on its own may not be sufficient to explain changes in collective land tenure regimes.

4) **Urbanisations conditions**: As a result of urbanisation, large infrastructure developments or natural resource exploitation such as exploration for minerals it is argued that pressure on land will increase demand for individual and private ownership. This may not always be the case since community mechanisms and other factors that foster cooperation may have a role in maintaining collective rights to counter externalities created by such investments. Thus, in contexts where land accessed collectively is in close proximity to urban areas (mainly large cities or towns), large-scale infrastructure developments or natural resource exploitation, all of which bring about urban growth, the pressure to change land use to meet urban expansion will negatively affect efforts to maintain collective access to land.

5) **Market conditions**: In contexts where there is limited access to infrastructure and markets or limited support to access markets, collective land access regimes are likely to be maintained to reduce transactions costs.

3. **REGIONAL EVIDENCE SYNTHESIS**

The majority of communal lands in East Africa are located in arid or semi-arid areas. Due to high
temperatures and low rainfall, these vast rangelands are generally unsuitable for rain-fed crop production; however, they are more amenable to livestock production, especially extensive production systems. Consequently, these lands are rich in wildlife and other natural resources such as forests. Pastoralist communities living in these areas rely on mobile and extensive livestock production systems which they use under customary land systems operating largely outside the legal frameworks pertaining to land administration. Figure 1 shows the geographic location of pastoral communities in East African countries. Most of these communities are located in arid and semi-arid areas receiving annual rainfall between 250-1000 mm.

//Figure 1 here/

Table 2 shows land and population characteristics in Kenya, Uganda and Tanzania. Tanzania has the largest land area and population but the lowest population density. All three countries demonstrate similar population growth rates. The rate of urbanisation is highest in Kenya although Tanzania has the largest proportion of population living in urban areas. Kenya has the largest land area under collective access, estimated at 67% in 2015.

// Table 2 here/

**Evolution of Collective Land Access Regimes (CLAR) in East Africa**

Countries in East Africa have faced a similar colonial history, with Europeans arriving to the region in the late 19th century. Pastoral communities such as the Maasai found in Tanzania, Turkana, Samburu and Borana in Kenya and Karamojong, Dodoth and Teso in Uganda were isolated by colonial land policies, which declared all the land in the colonial protectorate as crown lands. This effectively meant that the land belonged to the colonial government, although native communities continued to live on these lands (Rutten, 1992; Mugerwa, 1992; Sendalo, 2009). Furthermore, these communities were driven out of their best pasture areas, which had more rainfall and greater potential for crop farming, into native reserves that had been created by the colonial powers. In Uganda, the Karamojong were driven out of their land in the north towards the border with Ethiopia as a deliberate strategy by the colonial government to prevent Italian influence. The Karamojong were also forced into the west towards the border with Kenya to create room for the Pokot who were driven out of the Western Highlands of Kenya (Ocan, 1994). It is estimated that the Maasai lost 60% of their land to British and German settlers in Kenya and Uganda (Fratkin, 2001). Throughout the region, colonial policies favoured the establishment of individual and private land rights.

After attaining independence, Kenya, Tanzania and Uganda implemented different policies relating to

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4In Kenya, the Maasai were pushed out of their best pasture lands which were preferred by the colonialists into the then Maasai province which was traditional Maasai pastoral lands (Rutten, 1992).
collective land access regimes, although the objectives were similar. Tanzania embraced Ujamaa, or African socialism, which completely changed the property rights regime in the country. Under this system, all land was considered public with the President serving as a trustee for the people, so any property rights granted to people were in fact just land use rights. Previous rights granted to families and individual rights held under customary law were abolished. Customary land rights of ethnic groups and clans were transferred to the newly established and elected Village Councils, which were responsible for land allocation and management. During this process, most of the rural population was moved from scattered homesteads and individual holdings into Ujamaa (communal) villages for settlement and the rest of the land was set aside for large-scale collective farming (USAID, 2010). At this time, policies such as the Villagization Act of 1975 were geared toward sedentarisation of pastoralists.

With the change of government in 1985, Ujamaa policy was reversed. In its place, the new government implemented a gradual transition to the property rights and resource governance systems that are still being put in place to date. This transition meant that the new land policy enacted in 1995 supported private property rights (with the President acting as trustee for all citizens), permitted individual rather than collective control of resources in farming lands, and promoted private investment that utilised the country’s natural resources for economic gain (USAID, 2010). The new land policy also recognised customary land laws, which had been abolished under the Ujamaa system. Notwithstanding, the policy attempted to address the land problem for pastoralists without establishing practical mechanisms for securing pastoral land tenure (Olengurumwa, 2010). The Land Act and the Village Land Act were passed four years later in 1999. The Land Act governs reserved land and general land. On the other hand, the Village Land Act 1999 sets out the rules governing village land, which it divides into three categories: (1) communal land (e.g. public markets and meeting areas, grazing land and burial grounds); (2) occupied land, which is usually an individual holding or grazing land held by a group; and (3) vacant land, which is available for future use by individuals or communally held (specifically encompassing unoccupied land within the ambit of village land, as opposed to general land).

During the structural adjustment period (1980s and 1990s), focus on privatisation increasingly opened up rangelands to several external forces. There was a move towards alienation of pastoral lands by the government for economic activity or conservation, mainly because of misconceptions around pastoral land and resource use (Sendalo, 2009). In addition, large-scale land alienation occurred, particularly around Arusha, where vast areas of rangeland were leased out to large-scale farmers (Reid et al, 2005). The evolution of land laws in Tanzania has formed part of broad economic liberalisation policy supported by donors and the World Bank Group (Sendalo, 2009).

While the Village Land Act was passed in 1999, implementation of the law did not start until 2004/2005 (Fairley, 2012). Villages obtained Certificates of Village Land (CVLs), while the residents within the
villages were issued with Certificates of Customary Rights of Occupancy (CCROs). CCROs can be held jointly or individually, are perpetual and heritable, and may be transferred within the village or to outsiders with permission of the village council. Village land allocations can include rights to grazing land, which are generally shared. Reid et al (2005) noted that village land can also be allocated by the government, if it is not registered or its use cannot be demonstrated. Therefore, in order to secure their title deeds, many pastoralists started cultivating. In addition, most of the rangeland areas in Tanzania have been categorised as reserved lands, that is, national parks, game reserves or game controlled areas, which makes them inaccessible for herders and their livestock.

After independence, Uganda maintained pre-existing land tenure systems. Among pastoral communities, customary land tenure systems prevailed. However, the country experienced civil strife between 1971 and 1986. In 1975, the Ugandan government passed a decree abolishing all previous ownership rights and declared that all the land belonged to the state. All individuals occupying land under customary tenure were allowed to obtain long term leases (Government of Uganda, 2013). Further changes in land tenure systems came after the promulgation of a new constitution in 1995 and the subsequent passing of a new Land Act in 1998, which re-established customary land tenure used predominantly in pastoral areas (Mugerwa, 1992). A new land policy was approved in 2013, mainly to address the challenges faced in implementing the 1998 Land Act. Currently, Ugandan law recognises customary land tenure systems under which land is held by individuals, families or communities. National laws also allow for the formation of Community Land Associations (CLA); groups that come together for the purposes of owning, holding and managing land.

THE KENYAN CASE:

*The Colonial Era before 1960: Alienation of Pastoral Communities from their Land and the Introduction of Land Tenure Rights (LTR)*

Colonial authorities did not understand the migratory and extensive production systems of the pastoralist communities. Given the seasonal grazing patterns of these communities, their lands were perceived to be unutilised and were categorised as unoccupied reserves. Through the crown lands ordinances (first in 1902 then revised in 1915), this land was proclaimed property of the colonial government. Subsequent land policies such as the East African Royal Commission 1953-1955 and the Swynnerton Plan of 1954 posited private land tenure as the best form of promoting investment in land and improving productivity. Thus, these polices recommended that livestock farmers or pastoralists

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5Uganda experience military rule from 1971-78 and civil war between 1981 and 1986.
6This plan advocated land tenure policies promoting individualisation of land ownership and was implemented in all three countries.
7The Swynnerton Plan recommended that to reap economic benefits from these lands, pastoral communities should adopt sound grazing management which included limiting the number of livestock, provision of regular outlets (markets) for the absorption of excess livestock, government investment in adequate and permanent water supply as well as pest and disease control.
would benefit by transforming their productions systems to reflect those of crop farmers in high potential areas. They argued that individual tenure was a key step towards improving environmental conservation, reducing herd size and improving livestock breeds, thereby improving productivity.

In 1946, the colonial government formed the African Land Development (ALDEV) programme in Kenya which attempted to control grazing in Maasai pastoral areas. In Kajiado, the local administration resisted this and maintained free grazing rights in all areas of the district as the Maasai believed that land was a birth right accessible to all. This may have helped the Maasai community overcome the drought experienced in 1948 (Rutten, 1992). The colonial government, however, continued to establish grazing schemes, such as Kisonko in 1954, Matapato in 1957 and Loodokilani in 1959, which exercised control over traditional pastoralist grazing methods. These schemes were unsuccessful due to two key factors: (i) drought forced the Maasai pastoralists to move out of the controlled grazing areas into other districts in search of pasture and water, and; (ii) the local elite, such as chiefs, teachers and other educated Maasai started to break away and establish private ranches (Rutten, 1992). In the 1950s, the colonial government started settling non-Maasai, mainly crop farmers, in traditional Maasai areas.8

Another concern for the Maasai community was the establishment of game and natural reserves. Traditionally, there was no restriction on the use of these lands. With the development of tourism, game reserves such as the Amboseli and Nairobi National Parks, located next to traditional Maasai grazing lands, were declared areas of national interest. To the Maasai, this meant their access to grazing land was effectively cut off.

By trying to limit the movement of pastoralists, the colonial government failed to recognise and understand the nature of the extensive livestock production systems they practised, which, through migratory practices, enabled communities to cope with the harsh environment where they lived and make the best returns they could from areas that often experienced low rainfall and provided poor pastures and water supply.

Furthermore, pastoralists kept large numbers of animals not because of the stereotype that they love association with large herds, but as a risk management strategy against losses arising from drought and disease outbreaks (Ocan, 1994). For instance, in the Maasai reserves and then in the Maasai province, the worst drought coupled with an outbreak of disease was recorded in 1891/92 when communities lost 90% of their livestock with further disasters of a similar magnitude recorded in 1929 and 1953 (Rutten, 1992). The colonial government also believed that the communal tenure systems discouraged investments in land as they were prone to land tenure insecurity.

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8The non-Maasai were detained Mau Mau freedom fighters, mainly from the Kikuyu ethnic group, who at the time were leading a revolt against the colonial government.

After independence, land was classified into three categories. First, government land which included natural forests, game reserves and national parks. Secondly, private land which was registered to individuals and third, trust lands which were community lands and lands in the native reserves established by the colonial government. Trust lands were held by the local government (county councils) on behalf of the community in these areas. The trust lands were governed using the Trust Land Act cap 288, the Land Adjudication Act cap 284 and the Land Consolidation Act cap 283.

In 1965, the government formed a mission to find ways of enhancing land consolidation (as proposed in the Swynnerton Plan) and registration. The mission’s report, famously known as the Lawrence Report 1966, is credited with recommending the establishment of group ranches in pastoral areas. This recommendation was that land should be owned communally by a registered group of people, animal movement was to be confined within the boundaries of the group’s land, group members would be supported with credit to improve their livestock and the state would support the development of water points, provide extension services and disease control.

In the 1960s and 1970s, the Kenyan government received considerable support from donors and development partners for initiatives aimed at enhancing livestock production, as proposed in the Lawrence Report (Fratkin, 2001). The government began establishing group ranches in the Maasai area with the objectives of reducing animal numbers, stemming land degradation, transforming pastoralism from subsistence to commercial livestock production and guarding against land consolidation by a few individuals and landlessness among pastoralists (Kimani & Pickard, 1998).

The Land (Group Representative) Act, cap 287, was enacted in 1967 to facilitate the establishment of group ranches. Supplementary laws included the Land Adjudication Act cap 284 and the Registration of Land Act cap 300. The process of group ranch formation started with members from a community coming together to register customary claims on a piece of land. If uncontested, the land would be declared as an adjudication section and the District Lands Adjudication Officer would then work with elders to establish boundaries. The land would be registered, with registered members as owners of a joint title deed. The group would elect leaders (group representatives) to manage the group ranch. The minimum number of members required was five and the management was to be made up of between three and ten members. At that time, members were heads of households. Women were not registered as members because of customary practices among pastoral communities.

The formation of group ranches started in the Kajiado District and quickly spread to other Maasai areas.

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See Lesorogol, 2002, on the procedure of group ranch formation.
such as Narok and Laikipia, with other communities such as Samburu following thereafter. Figure 2 shows that in Narok more than half (61%) of registered group ranches were incorporated between 1970 and 1980. In Kajiado, 35 group ranches covering 35% of the district area had been established by 1980 (Rutten, 1992).

Government efforts to commercialise pastoralism included developing water points, roads and access tracks, as well as providing credit. The water points were aimed at ensuring that pastoralists adopted a sedentary livelihood, while credit was provided to farmers through the Agricultural Finance Corporation (AFC) to improve cattle breeds. The government also invested in extension advice to help pastoralists manage their land and pasture. This was done through various projects such as the Kenya Livestock Development Project (KLDP)\(^\text{10}\) phases I (1968-1973) and II (1974-1980). The KLDP projects were aimed at commercialising beef production, facilitating disease control and helping pastoralists transit from subsistence to commercial livestock production. In addition, other government agencies such as the Livestock Marketing Department (LMD) and Kenya Meat Commission were set up to improve marketing.

The motivation to form group ranches on the part of the community was very different from that of the government. The Maasai had signed treaties with the colonial government to exclusively occupy the Maasai province (Kajiado and Narok). Fearing that attaining independence would bring an end the treaties, they accepted the group ranch concept to protect their land (Rutten, 1992; Veit, 2011; Lesorogol, 2002). In addition, pastoral communities were not resistant to the idea of disease control and provision of water which were part of the package linked to the establishment of group ranches.

The implication of the Trust Land Act cap 288 was that county councils could allocate land to residents as well as non-residents. This was based on the constitution that gave the right to any Kenyan to own land anywhere in the country. As such, no citizen could be denied land that was in trust as it was treated as ‘unclaimed’ land. Second, although the county councils acted as trustees, in practice they allocated land without consulting the community. This, in later years, was another key motivation for communities to form group ranches, to stop their customary land from being claimed and allocated to people who were considered ‘outsiders’ (Lesorogol, 2006.)

**Structural Reforms in the 1990s and 2000s: The Collapse of Group Ranches**

By 1990, collective land access regimes were broadly categorised into two types: group ranches and un-adjudicated trust lands. Many pastoral communities had established group ranches. However, as

\(^{10}\) The KLDP offered the whole package, including the registration of group ranches.
explained earlier, there were conflicting objectives for the state, on the one hand, and pastoralists on the other. From the government’s perspective, group ranches were a mechanism to reduce numbers of livestock and help conserve the environment, and they also provided a pathway to higher incomes and improved livelihoods (Ng’ethe, 1993). This could be achieved because, theoretically, each member held an equal share in the group title hence each member had equal entitlement to land use. The group ranches were also to benefit from livestock off-take, thereby realising better prices for their livestock. On the other hand, pastoralists wanted to secure rights to their ancestral land and maintain their livelihoods. In addition, group ranches were perceived as offering cultural and social stability since people from other communities were excluded from the group ranch (Rutten, 1992; Ng’ethe, 1993; Lesorogol, 2002). Pastoralists had not envisaged commercial livestock production and the transformation that the government had planned for them (Kimani & Pickard, 1998).

Pastoral communities used customary laws to manage the group ranches and community elders were elected as officials. Other than using group by-laws to manage the group ranches, most of these leaders relied on customary laws and practices. For instance, most group ranches utilised the grazing fields collectively although each household grazed individually. In addition, group ranches did not impose a quota on the number of animals despite the fact that movement had become restricted. As explained earlier, pastoral communities such as the Maasai saw land as a common resource that is accessible to all members of the community. As such, each household continued to keep as many animals as they could and when they exhausted their pasture or during drought, they would take their animals into national reserves, game parks or other collectively accessed lands, in search of pasture and water.

Other challenges to group ranches also emerged. First, there was a strong desire for individual title deeds mainly to secure development loans. Second, pressure was felt from young pastoralists who had not been registered as members since only heads of households had been registered. Third, there was considerable mismanagement of the group ranches by elected officials (Kimani & Pickard, 1998; Ng’ethe, 1993). This led to pressure to subdivide group ranches beginning in the mid-1980s and gathering momentum throughout the 1990s.

Other factors that increased pressure for the subdivision of group ranches were dynamics that emerged as the country developed such as population growth, urbanisation and changes in land use. Table 3 shows the changes in population between 1969 and 2014 for selected counties predominantly inhabited by pastoral communities.

In Narok County, population figures doubled from 1969 to 1979 and then quadrupled between 1999 and 2009. Other areas that registered high growth rates are Kajiado and Laikipia counties while Samburu and Isiolo counties demonstrated modest growth rates. In Kajiado, the high growth rate is attributed to increases in the number of migrants, the majority of whom bought land for speculation. In
the 2000s, most of the lands in the former Kisaju and Polka ranches were subdivided into very small plots and used as residential areas for the expanding Nairobi city. In Narok, the high population is also attributed to immigration. However, unlike in Kajiado, people migrated to Narok primarily for crop production. As the Maasai in Narok started leasing land, mostly on a large scale, new opportunities arose for people to work as farm labourers, later extending to people working in trade and services. A similar scenario unfolded in Laikipia.

//Table 3 here//

Kimani and Pickard (1998) found that group ranches in Kajiado District (in close proximity to Nairobi) were the first to be subdivided. Incidentally, these group ranches were located in areas with more rainfall compared to other group ranches in the district. They also subdivided their land into very small portions and sold off big proportions of their land. This was because many non-Maasai had migrated to these areas buying land for speculation and cultivation. Rutten (1992) found that 30% of the land subdivided to individuals from the former group ranches in Kajiado had been sold to non-Maasai. This had risen to 50% by 1996 (Kimani & Pickard, 1998).

**Challenges in Subdivision for Early Group Ranches**

The first group ranches to be subdivided were in Kajiado District. Initially, the government was not supportive of the idea of subdivision but changed its position allowing seven group ranches in the district to subdivide by 1990 (Rutten, 1992; Kimani & Pickard, 1998; Veit, 2011).

The process of subdividing the pioneer group ranches faced a number of challenges which varied between them. One category of group ranches distributed land equally to all the members. Another category subdivided a portion of the land to individual members who had agitated for this move, with the remaining part of the land remaining as a group ranch and being accessed collectively by the remaining households. The third category distributed land to individual members but members received unequal portions of land (See Galaty (1992) for examples of these three categories), while the fourth category refused to subdivide and maintained collective ownership and use of land (Veit, 2011). Group ranches in the fourth category feared that subdivision would lead to erosion of cultural ties when immigrants moved in to purchase land and that crop farming in grazing fields would lead to restriction in animal movement and negatively affect livestock production under extensive systems.

During the subdivision of group ranches, communities relied on customary laws to guide the process. For instance, members of the committees that oversaw the subdivision were selected based on attributes such as honesty, personal integrity, fairness, clan and age (Mwangi, 2007). In practice, however the community paid the price for not having laid down procedures especially when the committees acted in self-interest. For such group ranches, there were gross inequalities in allocation of land during
subdivision. Committee members, their friends and relatives, local elites such as chiefs, teachers and people who had received formal education, and wealthier\textsuperscript{11} members were allocated huge parcels of land amid claims of bribery. Another form of inequality was the allocation of land in favourable areas, such as those with higher amounts of rainfall, good access to water, pasture and roads. It has also been reported that non-members were allocated land (Galaty, 1992; Mwangi, 2007). Among those people who received small or unfavourable portions of land were widows and less wealthy individuals. Complaints to the local administration did not resolve these issues since the government refused to intervene and directed the complaints back to the subdivision committees. Some people sought legal action but failed amid complaints of bias from some court officials with interest in the matter. Sometimes committees secretly increased land for the most vocal complainants who then withdrew the court cases. In addition, the committees also threatened to withdraw land allocated to those who pursued the matter in court (Kimani and Pickard, 1998).

\textit{Consequences of Group Ranch Subdivision}

The inequalities created by unequal subdivision resulted in winners and losers and led to conflicts over land use (Campbell et al., 2000). Winners were the local elite and connected individuals in some areas, who allocated themselves huge tracts of land and prime land with good rainfall, thereby securing access to water and pasture. Losers were community members allocated small plots of land or land in the drier areas with less water and pasture. To the Maasai, disparities in number of animals were tolerated as this was not considered permanent. However, given that the Maasai viewed land as a birth right that should be accessible and available to all, inequality in land distribution implied a violation of this right (Mwangi, 2007).

Galaty (1992) found that pastoralists who had no education and those who did not have other employment opportunities were likely to sell their land after subdivision. There were fears among pastoralists that sale of land would increase poverty and landlessness among their communities and some studies found this to be true (for example, Rutten, 1992). Pastoralists sold land for various reasons, such as to meet high costs of land registration, pay off debts owed to the KLDP and AFC, and to raise money for consumption and improve welfare (Galaty, 1992; Ng'ethe, 1993; Lesorogol, 2005). Some of the individuals who sold land spent the money on leisure, large durable goods such as automobiles, or married additional wives (Galaty, 1992). These households became worse off in the long run (Rutten, 1992).

Even with decreasing pasture land due to subdivision, pastoralists did not reduce their livestock herds. This exacerbated overgrazing which was already considered a problem before subdivision. With the individualisation of land, pastoral communities were now bound to sedentary lifestyles, abandoning

\textsuperscript{11} Wealth was measured by the number of animals owned.
migratory practices that had allowed them to cope with harsh weather and environments. Although individual land owners from the Maasai community did not fence off their land, the non-Maasai who bought land, especially in areas near urban centres or with high rainfall for crop farming, started fencing off their land, effectively restricting animal movement (Rutten, 1992; Kimani & Pickard, 1998).

Land subdivision also gave rise to human-wildlife conflict. First, there was an increase in crop farming activities. Given that the pastoral communities lived in areas near game reserves and migratory corridors, wildlife, especially herbivores, were attracted to farmlands (KWS, 2008). Second, pastoralists moved close to wildlife in search of pasture either along migratory corridors or in the game reserves. There, their animals were likely to be attacked or contract diseases since wildlife are hosts for harmful livestock diseases such as the East Coast Fever (KWS, 2008).

Figure 3 shows how human-wildlife conflict can arise as a result of subdivision of group ranches. The top left panel shows the group ranches before subdivision and the top right panel shows the subdivision of Kimana group ranch into individual parcels. The lower panel shows that although the Kimana group ranch was subdivided into individual and private land, these parcels were located on a wildlife migratory route, with animals migrating to Tsavo West National Park to the east or Mount Kilimanjaro Reserve to the south. Mailua group ranch was also subdivided and when the private owners fenced their land to protect their crops, they interfered with wildlife movement.

In addition, competition for land use became political leading to factions within the community, each with its own interests. For example, powerful members of the community such as the political elite fought for rights over land motivated by potential revenue from tourism (Campbell et al., 2000).

There is consensus among scholars that despite the huge investment in providing individual rights to pastoralists and implementing policies aimed at transforming the extensive and migratory systems they used, these policies failed to achieve such transformation. Furthermore, securing land tenure rights for pastoral communities is still an issue that is yet to be resolved (Fratkin, 2001; Mwangi, 2007; REGLAP, 2010; Little et al., 2008; Veit, 2011). Despite these failures, some positive outcomes did arise. For instance, pastoralists were able to adopt crop farming and diversify their incomes (Lesorogol, 2005). Intensification was also observed through pastoralists adopting small stock such as sheep and goats which mature quickly and moving away from large stock such as cattle which require more pasture and water (Rutten, 1992). Finally, total amount of land sold in areas near big urban centres was larger than in drier areas (Galaty, 1992; Rutten, 1992; Kimani & Pickard, 1998).

Having been ignored for decades, the development of pastoral areas is now on the agenda of many donors and governments. In Kenya, this has been demonstrated over the last decade through the establishment of the Ministry of Northern Kenya and Other Arid Lands in 2008 after a similar ministry was dissolved in 1993. Under the current administration, the ministry became a state department within the Ministry of Devolution and Planning. In addition, the Arid Lands Resource Program has been in operation since 1996. Elmi and Birch (2013) highlight the disparities in education, health and other development indices between the North Eastern region and other parts of the country. The significance of the North Eastern region is that all land here is categorised as community land, is arid and suitable for extensive livestock production. Table 4 shows trends in the Human Development Index (HDI)\(^\text{12}\) for the five counties in which we sampled our case studies. The HDI was below the national average for Narok, Samburu, and Isiolo counties in 2013. Narok and Laikipia recorded declines in the HDI between 2005 and 2013.

//Table 4 here//

Land tenure plays a big role in improving livelihoods. Given the challenges experienced in the implementation of previous policies, there is now a need to address key problems in establishing and enforcing land tenure rights in areas with collective access to land. First, communities, researchers and policy makers use the terms open access land and community land interchangeably. Likewise, the terms private and individual have been used synonymously (Rutten, 2008). This is inaccurate because community land can be private land as in the case of group ranches. However, group ranches have been treated at times as open access land by communities with little enforcement of land rights.

Subsequent to the individualisation of land in pastoral areas, which was followed by sale of land, changes in population dynamics, diversification of income, education, and changes in land use, it is now feared that a larger group of pastoralists has become poorer and more marginalised. In pastoral areas, children were not educated in favour of tending to livestock. This underscores some of the challenges that many individuals in pastoral communities face when trying to diversify incomes, especially from non-farm opportunities. This, in turn, implies that scarcity of arable land leaves little

\(^{12}\)The Human Development Index (HDI) is a composite index measuring average achievement in three basic dimensions of human development: health and longevity (as measured by life expectancy at birth), education (measured by adult literacy and combined primary, secondary, and tertiary enrolments), and living standard (measured by GDP per capita in Purchasing Power Parity (PPP) terms). A higher index indicates progress in human development measured in terms of health, education and income. Achievement in each area is measured by progress in attaining the following goals: life expectancy of 85 years, adult literacy and enrolments of 100 percent, and real GDP per capita of $40,000 in PPP terms.
room for income diversification from livestock incomes. Therefore, as individuals in pastoral areas sell their land, the long-term effect of scarcity of land for livestock production will weigh heavily on these communities.

Another challenge for pastoralists is the diversification of activities in the former grazing fields. The change in use of land is likely to cause conflict between two different users. In Kenya, violent clashes between Oromo (pastoralists) and Mijikenda (farmers) in Tana River County, especially during periods of drought, have escalated with the worst clashes occurring between 2011 and 2013. These clashes coincided with one of the worst droughts ever recorded in the horn of Africa and East Africa. Similar conflicts have been witnessed in Trans Mara, Narok County between the Maasai (pastoralists) and Kisii (farmers) communities. A key cause of these clashes is restricted movement following establishment of farm land in areas that used to be grazing reserves and which provide water points during droughts. In both cases, pastoralists have to go through farm land to access water. Notably, farmers also cultivate along river banks where it is easy to irrigate when necessary.

In 2004, the Government of Kenya established a Land Commission to find solutions to land issues in the country, specifically those touching on irregular allocation of land to private individuals. The Commission’s report, popularly known as the Ndung’u Report, found that in pastoral areas, local governments had mismanaged trust lands under their watch. They alienated land without due consideration for customary laws, did not put in place mechanisms to manage these lands resulting in ‘tragedy of commons’ problems associated with common pool resources, and did not strengthen community based institutions to manage and use land (Government of Kenya, 2004).

To address these issues, and in response to growing concerns around environmental degradation and pastoral livelihoods, NGOs and civil society organisations began working with communities. One such organisation is the Northern Rangelands Trust (NRT) which was formed in 2004 with the help of development partners to integrate community conservation activities into rangeland management in the northern and coastal parts of Kenya. These community conservancies are primarily focused on wildlife and natural resource management. They are normally registered as self-help groups and community-based organisations (non-legal bodies), with some more established conservancies registering legally as Trusts under the Trustee (perpetual Succession) Act cap 14 (Aggarwal & Thouless, 2009). Land under these conservancies is either trust land or group ranches.

More recently, policy debate on how best to improve livelihoods for pastoral communities has gathered momentum in East African countries. In Kenya, a new constitution was promulgated in 2010 followed by the enactment of new land laws such as the Land Act 2012 and the Land Registration Act 2012. Tanzania’s Land Policy was enacted in 1995 followed by Land and Village laws in 1999, while Uganda enacted its Land Policy in 2013. In Kenya, a National Lands Policy was enacted in 2009.
new challenge for land governance in Kenya is that trust lands are now classified as community land, while the trusteeship remains the same as under the old law. Currently, a Community Land Bill is under debate. Two critical issues being discussed are how to prevent alienation of community land to private land and how to establish mechanisms to better manage the land and improve the livelihoods of communities living there.

4. CASE STUDIES

For the purpose of this research, we selected three case studies in Kenya in order to trace the evolution of collective access land regimes. In this section, we discuss changes in land access observed among these cases as well as explanations for those changes.

The three case studies represent three different collective access land regimes, namely: (i) un-adjudicated communal lands - communities own land and use land communally but the land is yet to be adjudicated; (ii) group ranch A - communities own and use the land communally, but the land has been adjudicated and (iii) group ranch B - land is owned communally but used individually or land may be used communally but the community has started the process of individualising ownership. For each of these three types of regime, we selected three communities for carrying out Focus Group Discussions (FGDs). These nine communities are from four different ethnic groups- the Maasai (in southern Kenya) and the Samburu, Turkana and Borana (in the north) - and demonstrate different economic and social characteristics. Our selection of communities enables us to learn from different pastoral cultures, thereby strengthening the basis for extracting and generalising findings. Table 5 provides a summary of these communities by land regime type, county and predominant ethnic group, while Figure 4 shows their geographical locations.

//Table 5 here//

//Figure 4 here//

Land Regime Type 1: Un-adjudicated communal lands

Communities such as Kiina, have had in place land governance and management structure, although it has operated outside the country’s legal framework. During the 1900s, this structure was based on the premise that land was communally owned by all members in the community. To enhance land management, several households formed a cluster and several clusters formed a grazing community (dheeda). Each dheeda had its own grazing rules and pasture and water management plans. For instance, grazing land was used and managed differently during rainy, dry and drought seasons. In the post-independence period, the community found that this customary arrangement was not easy to enforce as the local authority, which now held ownership of the land in trust on behalf of the community, did not base its by-laws on the community’s customary laws.
Lack of enforcement of customary laws reinforced land tenure insecurity. For example, during famine or drought, other communities such as the Somali from the north, would come and graze on the land claimed by Kiina in total disregard of the rules and grazing patterns established by the community. Under national law, the land was held in trust by local authorities and as such the Somalis were not necessarily breaking any law and could ignore the customary claims made by the Kiina community. Additionally, the Kiina community did not have titles to prove their claims to the land. This was also experienced by Ngaremara community.

In addition, the local authority have benefitted through charging licence and extraction fees from traders who harvest sand, quarry stone and other resources from community land. These fees are not shared with the community or directly used to improve their livelihoods. Between 2003 and 2007, the government constructed a major road linking Isiolo and Marsabit counties. During the road construction, the contractor extracted sand and quarry stones from the land claimed by Ngaremara community. The community did not receive any compensation because they could not produce a title deed. In contrast, neighbouring communities in Samburu County, further up the road, were compensated by the contractor for resources extracted on their land since they did have a title deed. A major transport infrastructure, the LAPSSET corridor, is expected to pass through Isiolo County to the North of Kenya. This has led to fears that communities without title deeds in close proximity to project areas may be displaced since there is no formal recognition of their customary claims.

**Land Regime Type 2: Group Ranch A**

Group ranches used customary laws to manage land despite the existence of law such the Group Representative Act. As such, no annual general meetings or elections were carried until early 2000 for our cases. This was mainly due to cultural reasons, e.g. Maasai would never challenge the elders’ authority. Additionally, mechanisms for accountability were very weak i.e. record keeping, disclosure on use of revenues. The emergence of second generation pastoralists, who were younger and more educated than the founders led to subsequent elections. More recently, women have also been elected into elective positions.

Revenue generated from the group ranch has been used for bursary allocations to children of group members (given to all registered children); to pay salaries for non-government (Parent Teacher Association) teachers for schools within the group ranch; to pay for hospital bills for members; for constructing an office and three surface dams; and to purchase the ‘now customary’ five goats for each household per year.

Some groups such as Ilpolei group ranch is a member of Naibunga conservancy trust under the NRT, which consists of nine group ranches. The total conservancy area is 47,470 ha. Group ranches in the conservancy benefit from the Livestock to Market Programme. Other benefits include training in craft-
making, product development, basic accounting, pricing structures and leadership skills. These skills allow pastoralists to diversify their income sources by engaging in small and micro enterprises. In addition, the NRT also runs a credit programme targeting women and promotes tourism, including eco-tourism. Conservancies benefit from the NRT brand which is important for their marketing.

**Land Regime Type 3: Group Ranch B**

The key reasons that were advanced for the collapse of these group ranches were: encroachment into group ranch lands’ by non-members. The encroachment would be by private ranchers and individuals from neighbouring communities who have already subdivided their ranches especially during drought in search of pasture. A second reason was the unequal utilisation of communal land. Since there is no limit on the number of animals, households with large numbers of animals benefit more. Although there have been attempts to rationalise this by providing more benefits to less wealthy households, the view of less wealthy households is that they still get a smaller share of the benefit. This can only be sorted out by subdividing the land since each member is entitled to an equal share. Another reason is societal pressure to subdivide the ranch. For example, most ranches in Kajiado have been subdivided and members allocated individual plots. Some of those members sold part of or all their land. As they spend this income in the short run, they portray the perception of being economically well off. Given the demand for land by speculators in Kajiado, group ranches that are not yet subdivided find themselves under pressure to do so. A final reason is that individual titles would allow members to access loans and construct better housing. This is debatable since there is enough evidence that owning a title does not guarantee getting a loan (Atwood, 1990). It is important to note that some members of the group ranch were opposed to subdivision citing examples from neighbouring communities where subdivision has not necessarily resulted in members being better off. There is the fear that certain members, especially those seeking to get quick money, will sell their land and become a bigger challenge for the community by engaging in crime. Additionally, the loss of pasture once land has been individualised represents a big problem for those with large herds of animals.

**Hypotheses Tests**

We subjected our hypotheses to the evidence we collected and carried out the tests following collier (2011). The findings can be summarised as follows:

1) **Social conditions**: We hypothesised that in situations where high inequality exists, it becomes difficult to maintain collective land access. We find that one of the reasons for establishing group ranches was to guard against land concentration that would have led to landless pastoralists. Furthermore, high inequality in access and utilisation of collective land was one of the triggers of the collapse of group ranches and of the movement towards individual private tenure. However, there is insufficient evidence that inequality on its own would trigger the
changes observed in collective access land regimes. This is because pastoral communities, such as the Maasai, tolerated inequality in use of land since this was not considered a permanent state. This evidence, therefore, passes the hoop test, affirming the relevance of the hypothesis, however we are unable to confirm it.

2) **Economic conditions:** We hypothesised that where land can accommodate activities that imply intensive land use, particularly crop production, maintenance of collective access to land may not be feasible. We find that pastoral areas containing arable land were transformed into individual private holdings, which occurred as pastoral communities started farming, such as in Olekepedong and Naroosura group ranches. Crop agriculture was supported by growing markets such as in Naroosura and Narok and the increasing number of pastoralists adopting this practice. In Kiina, although the land has potential for crop farming, the community reverted to livestock due to constant destruction of crops by wildlife, therefore, collective access to land was maintained. The evidence therefore fails the smoking gun test suggesting that the potential for change in land use was not the only driver towards individualisation of land.

3) **Demographic conditions:** Based on economic theory, we posited that a growing population constrains natural resources, such as land, thereby negatively affecting the preservation of collective land access. We find that the population grew in all pastoral communities selected as case studies. However, population growth on its own was not responsible for changes in land tenure. Population growth in pastoral areas near urban centres was higher as a result of migration and the emergence of an active land market as the communities sold land to outsiders. However, even with a high population some pastoral communities such as Ilpolei, Loseesia and Eselekai group ranches have maintained collective access. Overall, evidence fails the smoking gun test suggesting that other intervening factors may also have triggered changes in collective land access regimes.

4) **Urbanisations conditions:** We hypothesised that where land accessed collectively is located in close proximity to urban areas (mainly large cities or towns), large-scale infrastructural developments or natural resource exploitation such as mining, all of which bring about urban growth, the pressure to change land use to meet urban expansion will negatively affect efforts to maintain collective access to land. We find that pastoral communities near urban areas faced strong pressure to subdivide and sell land, mainly to migrants. Additionally, large infrastructure projects have created land tenure insecurity among pastoral communities leading to demands for formal recognition of ancestral land rights, mainly to prevent encroachment or displacement. Our evidence passes the hoop test as these are compelling reasons that have negatively affected collective land access regimes. However, there is insufficient evidence to suggest that on their own these drivers are strong enough to have led to the changes that have
been witnessed in collective land tenure regimes. This is because some forms of natural resource exploitation such as mining, quarrying and sand exploitation have been carried out on land under collective access.

5) Market conditions: We hypothesised that limited access to infrastructure and markets would lead to the maintenance of collective land access regimes as this would reduce transactions costs. We find that a majority of the pastoral communities live in areas that are underdeveloped. In addition, the communities maintained close cultural ties that were beneficial to their production and marketing systems. Markets were accessed communally, although participation was on an individual basis. These communities also benefit from collective action such as security during cattle rustling. Our evidence passes the smoking gun test as we are able to confirm the hypothesis, however we are unable to eliminate rival hypotheses.

From our analysis, we did not establish one particular hypothesis as double-decisive. We do, however, argue that a combination of hypotheses will lead to the double decisive condition i.e. a combination of factors appears to explain changes in communal land tenure systems. In the case of group ranch B, inequality in land use played a primary role in changing some communities’ perceptions about collective access to land. Furthermore, inequality was brought to the fore by changing social dynamics within the communities. For instance, we found evidence that as the population grows and younger generations receive education, this creates demand for higher incomes and greater income diversification. The potential for change in land use, such as engaging in crop farming, which the communities perceived could only be carried out on individual private land since this was the case with other farming communities in the country, raised demand for private land. In addition, we found evidence that as urban populations expand, demand for land for settlement can prompt pastoralists to individualise communal land and participate in land markets. Finally, consistent government policies promoting privatisation and individualisation of land tenure galvanised the process of change towards individual land tenure.

Therefore, from the evidence we can affirm that the following three hypotheses hold true in relation to land use changes among pastoralist communities in Kenya:

i. Although maintaining collective land access would protect more vulnerable actors from losing access to land and prevent land concentration processes, in a context of high inequality it becomes difficult to maintain collective land access.

ii. In contexts where land accessed collectively is in close proximity to urban areas (mainly large cities or towns), large-scale infrastructural developments, or natural resource exploitation such
as mining, all which bring about urban growth, pressures to change land use to meet urban expansion will negatively affect efforts to maintain collective access to land.

iii. In a context where the land can accommodate intensive use, maintenance of collective access to land may not be sustained.

5. KEY FINDINGS
First, we find that social dimensions within pastoralist communities greatly affect motivation for maintaining collective land access regimes. There is compelling evidence in the case of group ranches that households which accessed smaller portions of land, and so felt short-changed, had the greatest incentive to break the group ranch and subdivide into individual parcels. Inequality in land access and use ultimately means that economically and socially disadvantaged households are worse off. Although inequality in land access was tolerated among the Masai as it was considered temporary, it affected the economic and social well-being of households. Households with greater access to land kept more livestock and were wealthier than households with less access. We also find that where community mechanisms were weak, wealthier and well-connected households were able to obtain larger shares of land when the group ranches were subdivided by influencing management committees. However, based on the literature review we argue that this is not a compelling enough reason on its own to drive the changes observed in collective land access.

Nevertheless, when coupled with mismanagement of resources in the group ranch case, the incentive to individualise becomes greater especially where land is shared equally across households. We further argue that where community mechanisms for establishing and enforcing rules are weak, although the threat to disadvantaged households is greater, this situation can also imply greater benefits for these families when private land rights are established since it generally results in greater access to land than under the previous regime. Additional benefits can be derived from participation in land markets or by adopting more intensive land use practices. As such, we find that inequality, combined with other factors, leads to the demise of collective land access regimes.

Second, we argue that economic pressure, especially pressure to commercialise land under collective access, does not necessarily increase demand for private and individual land among pastoralist communities. We find examples of communities that were able to change use of land, for example from extensive livestock production to crop agriculture, while maintaining collective land access. However, the ecological environment and type of crop farming can create demand for individualisation of land under collective access. This is especially the case where these factors necessitate significant investments in land, such as improving soil quality. Therefore, economic pressure combined with other factors can negatively affect the maintenance of collective land access regimes.
Third, we argue that demographic pressure may not necessarily increase demand for individual private land access among pastoralist communities. We base our argument on the fact that within certain ecological, social and economic conditions, collective access to land may be maintained. We find that this holds true where land use is not easy to change, where the community has organised itself allowing for inter-generational transfer of collective land rights and where communities use and share resources equitably without some sorts of discrimination. We find that these conditions hold under all three types of communal land access regimes we examined i.e. un-adjudicated communal lands and group ranches A and B. However, where there is population growth from migration and where land under collective access is in close proximity to urban areas, these conditions will not sustain and the pressure for individual private land will prevail.

Fourth, we argue that large infrastructure developments or natural resource exploitation such as mining will increase demand for individual and private land ownership. We contend that this condition holds because these developments usually lead to the expansion of urban centres and lifestyles, which, over time, affect lifestyles and land use among pastoralist communities. Eventually, land access regimes must change to accommodate these new preferences and developments. Without changes from communal to private tenure, urbanisation is unlikely to occur.

Fifth, we argue that market access does not increase demand for individual private land among pastoral communities. However, changes in land access regimes in the face of increased market access and penetration is dependent on community and institutional mechanisms that foster cooperation. We argue that communities which maintain and enforce customary rules, such as the maintenance of extensive grazing fields, are unlikely to change these arrangements as a result of increased market access. However, in communities with weak institutional mechanisms, increased market access can lead to individualisation of land tenure as each household acts independently to maximise the gains that come with increased market access.

Finally, we find that strengthening community mechanisms to establish and enforce rules on common property is a key strategy for maintaining collective access to land. This mechanism should include strategies promoting equitable access to resources, intergenerational succession and efficient allocation of land rights to provide incentives for investments.

Based on this evidence, we can identify a pathway from collective to individual private land access which is depicted in Figure 5. Initially, communities occupied communal land that was not adjudicated. Due to threats to land tenure security posed by colonial governments and state initiatives to modernise pastoralists, communities formed group ranches. Albeit in different time periods, pastoral communities have also experienced land tenure insecurity due to mega projects and have responded in a similar way, by moving towards the formation of group ranches. The group ranches privatised land ownership to a
A group of people and land was still collectively accessed and utilised. However, owing to mismanagement of resources within the group ranch and inequalities pertaining to the use of land, the pressure to individualise land within the group ranches increased. The potential for land use change or to use land intensively, as well as proximity to urban areas, piled on the pressure to establish individual private land rights, especially among individuals who hoped to take advantage of high land value, such as in the cases where land was converted into real estate or where higher returns could be gained from crop agriculture.

6. CONCLUSIONS AND POLICY IMPLICATIONS

We analysed the evolution of collective land tenure regimes in East African countries and focused on experiences in Kenya that could be generalised to the region and similar areas in sub-Saharan Africa. We found that the government’s perception that land under collective access is better utilised if it is individualised and privatised was consistent over the years. Furthermore, a lack of understanding about how pastoralists operated led to policies that aimed to transform pastoralists by limiting their stock numbers, improving their breeds and bringing to an end the migratory nature of extensive livestock production. These policies were viewed differently by pastoral communities, who mainly sought to protect their customary land from encroachment. This clash of objectives became visible as the policies failed to attain the envisioned outcomes.

Policies that established individual private ownership in pastoral areas restricted overgrazing, allowed for the development of land markets, crop farming and improvement in breeds of livestock and opened up opportunities to diversify livelihoods. However, these policies also had the impact of diverting high potential land away from pastoralist control (through sale of land), thereby reducing pastoralist access to land, disenfranchising women and less wealthy households and reinforcing structural poverty among pastoral communities.

In response, pastoralists formed group ranches as a means of establishing private land rights among a collective group of individuals. These group ranches were governed by customary laws. The Kenyan case shows that policy attempts to modernise the way pastoral communities utilised land without recognising their customary tenure arrangements led to unintended consequences. We further find that trust lands and un-adjudicated communal land suffered mainly from challenges associated with common pool resources, such as overuse, while group ranches suffered primarily from mismanagement.

Across sub-Saharan Africa here is a renewed call for the enactment of new land laws that recognise and incorporate customary laws into legal frameworks. Furthermore, new literature is emerging suggesting seasonal rights as a strategy for securing collective land access among pastoralists. This could be achieved by using information on pastoralists’ migratory patterns (Lengoiboni, et al., 2010).
Our findings suggest that communities will embrace collective access to land if the benefits are clear and under certain conditions. In harsh ecological and climatic environments, the migratory nature of pastoralist communities represents an essential component of extensive livestock production and can maximise returns on land. Collective action by communities has been maintained in these conditions wherever there is equitable distribution of benefits and better management of resources. This implies that with education and training and by strengthening community governance mechanisms, these benefits can be scaled-up. However, most pastoralist communities lag behind in terms of socio-economic development especially investments in human capital. This underlines the role civil society organisations can play in supporting community mechanisms especially with waning government influence. Examples include mobilisation among communities in northern Kenya to diversify income sources through nature and wildlife conservation. These efforts have shown to have a positive effect, for example between 2010 and 2011 poaching accounted for one third of elephant deaths within community conservancies compared to 87% outside (NRT, 2013). In return, these communities have benefited from tourism and eco-tourism as well as other employment opportunities that have opened up as a result.
References


Northern Rangelands Trust. 2013. *The Story of Northern Rangelands Trust*. Acscnt Limited, Nairobi


Table 1: Land access regime typology for East Africa

<table>
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<tr>
<th>Collective-Choice Action (ownership and control)</th>
<th>Individual</th>
<th>Collective</th>
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<tbody>
<tr>
<td>Individual</td>
<td>Private tenure</td>
<td>Group Ranch B</td>
</tr>
<tr>
<td>Collective</td>
<td></td>
<td>Group Ranch A</td>
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<tr>
<td></td>
<td></td>
<td>Un-adjudicated communal land</td>
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Source: Authors depiction

Table 2: Land and population characteristics in East African Countries

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<th></th>
<th>Kenya</th>
<th>Uganda</th>
<th>Tanzania</th>
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<tbody>
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<td>Total land area (Km²)</td>
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<td>Total arable land</td>
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<td>142,620</td>
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<td>Total forest area (Km²)</td>
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</tr>
<tr>
<td>% of land under collective access</td>
<td>67</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>Total national population</td>
<td>44,353,691</td>
<td>37,578,876</td>
<td>49,253,126</td>
</tr>
<tr>
<td>Annual population growth rate</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Population density (people per Km²)</td>
<td>78</td>
<td>188</td>
<td>56</td>
</tr>
<tr>
<td>Urban population</td>
<td>10,990,845</td>
<td>5,801,051</td>
<td>14,872,474</td>
</tr>
<tr>
<td>Rural population</td>
<td>33,362,846</td>
<td>31,777,825</td>
<td>34,380,652</td>
</tr>
<tr>
<td>Annual urban population growth</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Urbanisation rate (%)</td>
<td>25</td>
<td>15</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: Data from World Bank, 2015

Table 3: Population in selected counties from 1969 to 2014

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Narok</td>
<td>125,219</td>
<td>210,306</td>
<td>398,272</td>
<td>365,750</td>
<td>850,920</td>
<td>1,128,131</td>
</tr>
<tr>
<td>Samburu</td>
<td>69,519</td>
<td>76,909</td>
<td>108,884</td>
<td>143,547</td>
<td>223,947</td>
<td>292,484</td>
</tr>
<tr>
<td>Isiolo</td>
<td>30,000</td>
<td>43,478</td>
<td>70,078</td>
<td>100,861</td>
<td>143,294</td>
<td>178,097</td>
</tr>
<tr>
<td>Laikipia</td>
<td>66,000</td>
<td>134,524</td>
<td>218,957</td>
<td>322,187</td>
<td>399,227</td>
<td>457,514</td>
</tr>
<tr>
<td>Kajiado</td>
<td>85,903</td>
<td>149,000</td>
<td>258,659</td>
<td>406,054</td>
<td>687,312</td>
<td>898,289</td>
</tr>
</tbody>
</table>

Source: KNBS and County Development Profiles, 2013 (*population projection based on 1999 census figures)
Table 4: Trends in human development index for selected counties

<table>
<thead>
<tr>
<th>County</th>
<th>1999</th>
<th>2005</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narok</td>
<td>0.4462</td>
<td>0.502</td>
<td>0.51</td>
</tr>
<tr>
<td>Samburu</td>
<td>0.2982</td>
<td>0.347</td>
<td>0.43</td>
</tr>
<tr>
<td>Isiolo</td>
<td>0.4245</td>
<td>0.58</td>
<td>0.45</td>
</tr>
<tr>
<td>Laikipia</td>
<td>0.5415</td>
<td>0.585</td>
<td>0.57</td>
</tr>
<tr>
<td>Kajiado</td>
<td></td>
<td>0.348</td>
<td>0.59</td>
</tr>
<tr>
<td>National</td>
<td>0.5035</td>
<td>0.532</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Source: KNBS (Economic Survey, 2006 and 2014)

Table 5: Communities by case category, county and ethnicity

<table>
<thead>
<tr>
<th>Category of land regime</th>
<th>Community</th>
<th>County</th>
<th>Predominant Ethnic Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Un-adjudicated communal lands</td>
<td>Kiina community</td>
<td>Isiolo</td>
<td>Borana</td>
</tr>
<tr>
<td></td>
<td>Ngaremara community</td>
<td>Isiolo</td>
<td>Turkana</td>
</tr>
<tr>
<td></td>
<td>Oldonyiro community</td>
<td>Isiolo</td>
<td>Samburu</td>
</tr>
<tr>
<td>Group Ranch A</td>
<td>Losesia group ranch</td>
<td>Samburu</td>
<td>Samburu</td>
</tr>
<tr>
<td></td>
<td>Ilpolei group ranch</td>
<td>Laikipia</td>
<td>Maasai</td>
</tr>
<tr>
<td></td>
<td>Eselenkei group ranch</td>
<td>Kajiado</td>
<td>Maasai</td>
</tr>
<tr>
<td>Group Ranch B</td>
<td>Olpekedong group ranch</td>
<td>Narok</td>
<td>Maasai</td>
</tr>
<tr>
<td></td>
<td>Naroosura group ranch</td>
<td>Narok</td>
<td>Maasai</td>
</tr>
<tr>
<td></td>
<td>Mailua group ranch</td>
<td>Kajiado</td>
<td>Maasai</td>
</tr>
</tbody>
</table>

Source: Authors depiction
Figure 1: Pastoral Areas in East Africa

Source: Fratkin, 2001
Figure 2: Group ranches in Narok County by year of incorporation

Source: Data from Lands Adjudication Office, Ministry of Lands, Housing & Urban Development, 2015
Figure 3: Human-wildlife conflict as a result of subdivision of group ranches in the Amboseli ecosystem

Source: Amboseli Ecosystem Management Plan, 2010 - 2015
Figure 4: Counties selected as case studies

Source: Authors depiction
Figure 5: Pathways from community to individual private land

Source: Authors depiction