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**LAND DIVISION,  
CONSERVANCIES,  
FENCING AND ITS  
IMPLICATIONS IN THE  
MAASAI MARA, KENYA.**

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## Working paper

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***Land division, conservancies, fencing and its implications in the Maasai Mara, Kenya.***

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## 1 ABSTRACT

There is growing concern about the future of wildlife and pastoralism in the Maasai Mara as well as on the communal lands adjacent to the national reserve that serves as home to pastoral communities and wildlife dispersal areas. Of particular concern over the last years has been the increasing threat of fencing of what once was an open landscape. Although there are studies that have documented the increase of fencing and its possible effects, a thorough investigation into what provoked such a move by local communities is lacking.

In this paper, we set out to investigate the causes that lead to the enclosure of what once was communal areas and the now increasing fencing of individually owned plots of land. We use empirical data from ethnographic fieldwork in villages adjacent to the Maasai Mara involving interviews, participant observation as well as analysis of documents such as conservation plans, reports, government legal acts and websites. We argue that the history of group ranches, processes of land division, the establishment of conservancies and the transformation of land into a tradable commodity can largely explain the processes of fencing taking place today. We conclude that in the long run the processes of fencing is not compatible with traditional pastoralist practices and may lead to further marginalisation of already vulnerable pastoral communities. By reducing mobility, fencing undermines pastoralism, which still is the mainstay of many households in Maasai Mara.

Key terms: fencing, territorialisation, marginalisation, peripheries, commodification, exclusion

## 2 INTRODUCTION

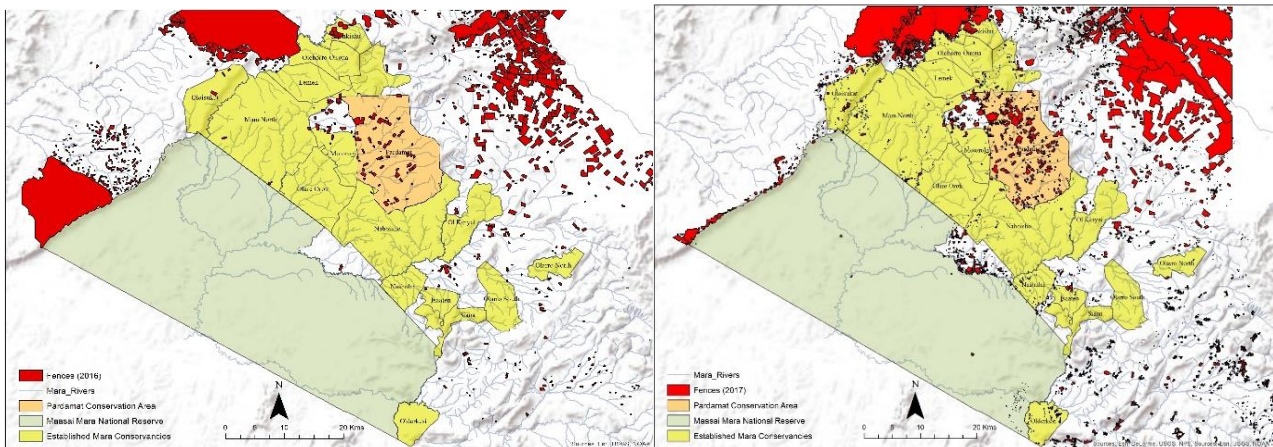
### 2.1 Background

The Maasai Mara, home to one of the most diverse wildlife populations in the world and a vital part of the famous Serengeti-Mara annual migration route is under threat from the fencing of previously communally owned open grazing areas outside the national reserve (Løvschal et al., 2017). Land adjacent to the Maasai Mara National Reserve (MMNR), which used to be communal grazing space for pastoral Maasai communities and dispersal and migration space for wildlife, has been divided into individual parcels since the late 1980s. As a result, landowners can now make individual decisions about how to use their land, and one of the most important changes that have been taking place is uncontrolled fencing (Hart, 2017). Through analysis of satellite imagery between 1985 and 2016, Løvschal et al. (2017) revealed that fenced areas outside protected spaces increased by more than 20% between 2010 and 2016 alone. The authors, therefore, argue that fencing is now on the brink of becoming a new permanent and self-reinforcing pattern occurring at an even faster pace (pp. 1).



Figure 1: Areas covered by fences are expanding every day: Pardamat, Maasai Mara 16 October 2017

Similarly, a report by Maasai Mara Conservancies Association (MMWCA) - an umbrella organisation governing conservancies in the Maasai Mara, shows that fencing in places outside protected areas increased by 354% between October 2014 and June 2016 (MMWCA, 2016). The two maps below made by the MMWCA based on data collected by Århus University show the changes in the level of fencing between 2016 and early 2017. The maps illustrate the dramatic increase in fencing in areas close to the national reserve.



Map 1 Changes in the area surrounded by fences between 2016 and 2017.

Fencing, some emphasise, may have positive outcomes for local landowners in terms of securing control over their own land. It is also claimed that fencing can reduce human-wildlife interaction and thereby reduce conflicts (Hayward & Kerley, 2009). However, fencing is changing the way the Maasai Mara ecosystem has worked historically (Hart, 2017). Most importantly, it has and will continue to affect the historical coexistence between wildlife and livestock as fencing is reducing seasonal migration of both livestock and wildlife (Hughes, 2013). The impacts of fencing on the region's wildlife is currently evident in many places. A study by Ogutu et al. (2011) shows a significant decline in the Loita-Mara wildebeest migration, which critically contributed to the great Serengeti-Mara annual migration. In many places, fences have also killed significant numbers of wildebeest and prevented migration between conservancies and the Maasai Mara National Reserve (MMWCA, 2017b; Weldemichel, 2017)



Figure 2: Carcasses of wildebeest that died inside a fence on a migration route between the National Reserve and Naboisho Conservancy (photo taken on October 19, 2017).

Fencing also contributes to the destruction of rare forests around the Mara. Fencing posts, which mainly are made from olive (*Olea Africa*) and red cedar trees (*Juniperus procera*) comes from bushes around villages and forests around the Maasai Mara such as the Mau forest located to the North, the Naikara hills in the east and the Trans-Mara in the west. All of these reserves are catchments for different rivers flowing into the Mara River.



Figure 3: Cutting of trees is intensified as demand for fencing wood rises

Mobility is one of the core features which allow pastoral livelihoods to adjust to climatic variabilities (Groom & Western, 2013; IUCN, 2007). With the fragmentation of land and fencing, pastoralists are increasingly forced to take up sedentary livelihood strategies giving up the mobility, that was a core feature allowing coexistence of wildlife and livestock with extensive use of grazing land (Hart, 2017).

## 2.2 Objectives

So why did the Maasai decide to take actions that may lead to an end of their traditional pastoralist system? There is a growing literature about the increasing land fragmentation (Archambault, 2016; Said et al., 2016) and fencing (Hart, 2017; Løvschal et al., 2017) taking place in Kenya and the Maasai Mara in particular. However, limited research has been done to explain the relationship between land subdivision, the establishment of conservancies and the decision to fence in the Maasai Mara. The primary objective of this working paper is to uncover the processes that may have contributed to the decision towards this precarious change. More specifically, through this study, we intend to answer the question,

- What role does the division of land play in the emergence of fencing?
- How does the establishment of conservancies affect land use patterns in the Maasai Mara?
- How do the key actors see the future of pastoralism in Maasai Mara?

## 2.3 Research methods

Empirical findings presented in this paper are the results of two rounds of ethnographic fieldwork in the spring and autumn of 2017 involving interviews, group discussions, participant observation, and review of different documents (e.g. conservation plans, reports, government legal acts and websites) pertaining to the area. The first round of fieldwork was carried out in February 2017 to identify study areas and key stakeholders. Open-ended interviews were carried out with different local Maasai community members, local, national and international conservation actors, conservation-related businesses and government authorities. This includes interviews with 51 different members of local Maasai communities and 15 representatives of NGOs working on conservation and development related issues and eight government authorities. Five group discussions and several informal talks with different actors within and outside the villages also constituted empirical material for this study. Furthermore, participant observation of decision-making meetings, observations of processes of change in the area and analysis

of different conservation policy documents such as reports, strategic plans, websites and legal (government Act) also constitute empirical material.

Names used in direct interview quotes in this paper have been altered to ensure anonymity of information and protection of participants. We have also received consent to use real names of participants whose specific positions makes anonymity difficult to ensure.

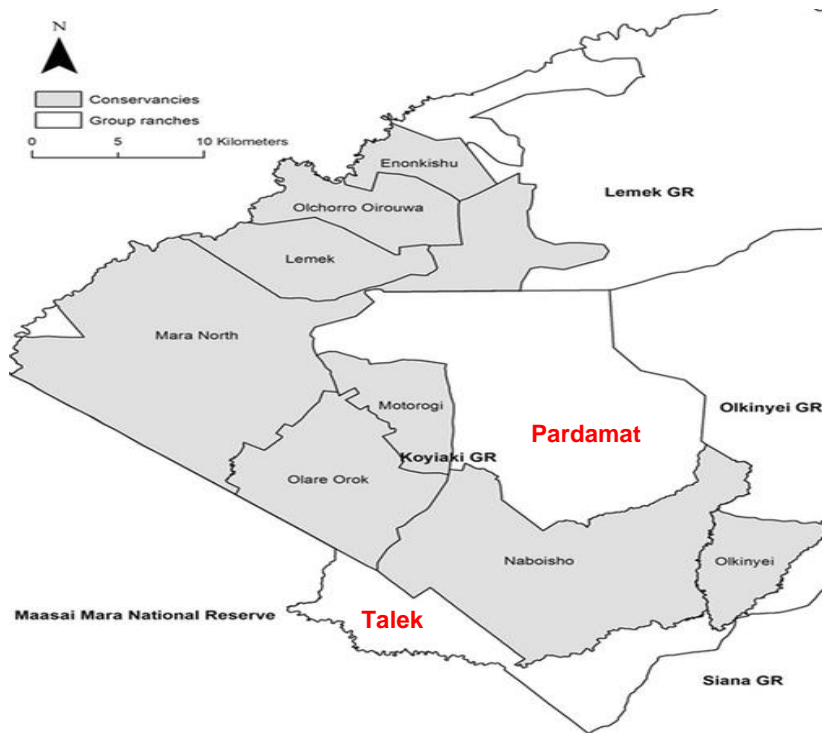
## 2.4 Study Context

According to MMWCA (2018), approximately 30% of Kenya's wildlife reside in the greater Mara ecosystem which is composed of various forms of conservation. Established in 1961, the Maasai Mara National Reserve is a government controlled protected area with high level of restriction on human activities. It covers an area of 1,510 km<sup>2</sup> (MMWCA, 2017c) and forms a critical part of the Greater Serengeti-Mara ecosystem. Areas surrounding the national reserve have historically been used as common grazing spaces by pastoralist Maasai communities and as dispersal areas for wildlife. The areas adjacent to the national reserve have undergone several changes since the colonial period and establishment of the national reserve. There has been a gradual shift from communal use towards private ownership of land since the colonial period. This shift started with the establishment of group ranches in the 1960 and culminated with the division of land into individual parcels between the 1980s and early 2000s. Communal land adjacent to the Maasai Mara National Reserve has been subdivided, individual landowners have been given title deeds providing full legal ownership, and control of their parcels (more detail below).

A major development in areas surrounding the National Reserve since subdivision of the land is the introduction of conservancies as a new wildlife conservation scheme. In conservancies, individual local landowners set aside land for conservation in exchange for monthly or annual guaranteed payment based on lease agreements with owners of conservation-related tourism businesses. A large portion of land surrounding the Maasai Mara National reserve is currently under conservancies. Few areas outside the conservancies are reserved as residential spaces for people who have been evicted to establish the conservancies - some of them voluntarily but others under circumstances that were coercive.

This study is based on fieldwork conducted in two villages (*Talek* and *Pardamat*) adjacent to the Maasai Mara National Reserve. The Maasai Mara National Reserve and two other conservancies surround Talek village. Pardamat, on the other hand, occupies a more central mountainous location between three private conservancies and is famous as an important migration route between Maasai Mara and the Loita plains. The hills in Pardamat are also home and important breeding grounds for elephants. There is widespread fencing in both villages. As can be seen in map one the two villages are the most fenced areas close to the national reserve.





Map 2: Study villages (Pardamat and Talek) and conservancies around Maasai Mara

### 3 THE RISE OF FENCING IN THE MAASAI MARA

#### 3.1 Introduction

There are different narratives about the causes of the expanding fencing and land use changes that ongoing in the Maasai Mara. Based on analysis of interviews data, a prevailing narrative among key conservation actors in the area identifies the cause of fencing to be rapid human population growth, the 'encroachment' by outsiders (identified as non-Maasai land users) and competition over space for settlement and livestock production. Population growth, the argument asserts, leads to sub-division of land resulting in land use change (MMWCA, 2017d). And land division and individualisation according to this narrative are the likely products of population growth.

Conservation actors interviewed in this study believe that the recent expansion of fencing is a quick reaction to the division of land and individual landholders' feeling of owning land for the first time. The argument ends with the suggestion that fencing will stop and decline as soon as people realise that it is not compatible with their lifestyle and the ecosystem in which they live. It is further argued that people cannot afford to maintain the fences which have a relatively high cost. As many people have borrowed money from different sources to build fences and it will be difficult to repay their debt and maintain their fences at the same time considering that the fences do not generate immediate economic benefits. Interviewees in this study claim that fenced lands do not enable one to keep as many livestock as traditional pastoralism. David, an interviewee from Talek argued that the idea of fencing is associated with the idea of introducing fewer 'special productive' breed of cattle, but so far, he argues, the Maasai are only fencing and there has not been any effort to reduce the number of cattle or replace them with a different breed. People own a higher number of livestock in a smaller space than before with no flexibility of movement resulting in reduced productivity.

*"People don't realise how expensive it is to maintain the fence. People think only of the initial expense to put the fence up. However, then every year you need to repair that fence. The electricity, the poles,*

*everything. So, people are starting realizing that now. And I think they will start coming down soon"* (from an interview with Dr.Courtney, CEO of Maa Trust- a development NGO working in the Maasai Mara)

Conservation actors' response based on this notion tends to focus on trying to convince people to pull fences down using 'awareness raising' campaigns and provision of incentives for doing so. For instance by offering to cover the cost if landowners remove fences on their lands.

According to interviews with local landowners, fencing indeed is a challenging investment, and they are currently facing difficulties in maintaining their fences. This difficulty is evident in the villages where migrating wildlife frequently breaks fences and landowners fail to repair them. Nevertheless, fencing is also an expensive process and the decision to fence one's land is not made quickly. There are many instances where people have sold parts of their land and large portions of their livestock to build fences. Thus, fencing we argue is the outcome of a course of events and to look at it as a quick reaction to land division, is to simplify the roots of the challenge. However, the question is what are the processes that lead landowners to fence their land?

Analysis of data from interviews, discussions and documents show that a combination of structural forces is in play. Among the leading explanations are 1) the history of land division, 2) establishment of conservancies as a new conservation model, 3) discourses of the end of pastoralism. The next sections will discuss the roles that land division, the establishment of conservancies and the long-standing discourse about the end of pastoralism has played in the emergence of fencing in the Maasai Mara.

### 3.2 The establishment and dissolution of group ranches

In the late 1960s, the government of the newly independent Kenya introduced and promoted group ranches in the country's arid and semi-arid areas (Hughes, 2013). The government saw group ranches as a means to modernise and increase the production capacity of pastoral land, avoid overstocking and land degradation and ultimately as a way to promote sedentarisation of the pastoralist population (Veit, 2011).

According to a report by the Ministry of agriculture from 1968, cited in Ng'ethe (1992), '*...a group ranch is a system where a group of people jointly own freehold title to land, maintain agreed stocking levels and herd their livestock collectively which they own individually*'. The legal basis for setting up group ranches was the *Land Group (Representative) Act* from 1968, which opened up for ownership of land by a group of people (Veit, 2011). The establishment of group ranches implied that Trust land controlled by county councils was transferred into freehold (private) ownership where each member of the group ranch shared the ownership in undivided shares. The demarcation of the ranches was to be based on traditional Maasai grazing units ('*Oloshons*'), and membership was confined to Maasai pastoralists only. The group ranches were to be governed by ranch committees elected by the members and these committees were responsible for managing grazing rights among the members.

The establishment of group ranches were promoted through several programs from 1968 to the beginning of the 1980s and the Maasai community were initially supportive of the idea, probably in the hope that it could increase security of land rights (Hughes, 2013; Ng'ethe, 1992) and prevent further encroachment into their land by non-pastoralist users, a widespread problem when Trust Land was controlled by the county councils. However, during the 1970'ies it became clear that powerful outside actors, including president Moi, as well as many members of the Maasai community, wanted to dissolve groups ranches and transfer the jointly held ownership into individually owned parcels (Mwangi, 2007a; Seno & Shaw, 2002). This was possible as the same *Land Group (Representative) act* that formed the basis for establishing group ranches had a provision that allowed for sub-division of group ranches if 60% of the members supported such a move. If a group ranch were to be dissolved the jointly held land was to be subdivided between members into equal, undivided shares.

The reasons for this development and the widespread Maasai support for dividing land into private parcels is probably quite diverse and complex but according to Mwangi (2007a) many Maasai wanted to use their land as collateral for loans, and that was not possible under joint ownership. In addition, there was widespread dissatisfaction with the functioning of ranch committees which were plagued by elite capture where influential members were allocated better grazing rights and also were able to get land registered as individual holding (Mwangi, 2007b). Adding to the problem was that some ranches were too small to sustain traditional pastoral livelihoods often dependent on access to grazing land over large areas due to seasonal variation in precipitation.

From the 1980s until the present, most group ranches in Kenya have been dissolved, and land has been transferred to individuals holding private land titles. Whereas the land according to law should be distributed equally among group ranch members, it has been well documented that the subdivision processes, in general, favoured powerful and wealthy members of the ranch committees as well as local influential leaders and politicians (Mwangi, 2007a, 2007b). These elites were able to get larger parcels and land that is more fertile whereas other less powerful members were allocated few hectares. Mwangi (2007b) found that parcels in her study villages ranged from 3.6 ha to 214 ha per member after subdivision. Moreover, groups such as youth and women, who were not registered as group ranch members, were not given any land titles. In many cases, the land was again rapidly bought up by outside investors using the land for permanent agriculture (Kimani & Pickard, 1998).

### 3.3 Land sub-division in Mara

The land division of the group ranches around Mara was, as in many other areas, a process filled with a range of problems. A study by Butt (2016) showed, that although every member of the former Koyaki group ranch, where both of the villages in this study are located, was eligible to 150 acres, elite members received more and better parcels of land. There were many allegations of corruption, and one informant, Namayan, a 57-year-old woman interviewee from Talek stated that;

*“We have been told many confusing pieces of advice to pay bribes to members of the land division committee, but we ended up not getting any land. The maximum land one can get [a full lot] is 150 acres. However, some people have four and five times bigger than that.”*

Mr L, who worked as a member of the land division committee in Koyaki Group Ranch also admitted that he received over 600 acres in addition to the 150 acres every member was entitled to have. We also interviewed Mr Ngoitoi, Mr Moses, and Mr K from Talek who admitted that they each own more than 500 acres of land because of their relations with the division committee. At the same time, some members only got 20-50 acres. In Pardamat for example, Mr Jo owns 20 acres while Mr Frank, the then leader of the land division committee owns over a 1000 acres of land in Pardamat.

Problems related to registration during the group ranch period also contributed to the lack of fairness in the division of land. Before the land division, group ranch committees registered members who are eligible to land titles, and some households who were unaware of the importance of these registrations failed to register their family members. This left many people landless including the households of the three *Sankai* brothers in Talek. Women in all villages were also similarly left landless, as it is only men who can own properties in Maasai tradition.

According to interviews with, Mr Kayel, Mr Sayellel (ex-chief), Mr Sure, and Mr Olana, when land was under the group ranches, it was put into three categories; for settlements, livestock development and wildlife tourism areas. Areas nearby the national reserve, which was richer pastures, were reserved for wildlife tourism whereas areas farther away from the reserve and of lesser pasture qualities were left for livestock development and settlement. Aitong, Endonyo rinka (Pardamat) and Talek were left for settlement because of the availability of water and healthier conditions for people. The former ones are what we now call ‘core’ from the point of view of wildlife conservation tourism. The core areas are places

that are important grazing spaces for wildlife and livestock whereas the 'peripheries' usually have less potential for grazing. Group ranch officials, land division committee members and people associated with them received better and bigger parts of the 'core areas'- leaving others with smaller and sub-optimal grazing areas.

In the Maasai Mara, the land division process was partly facilitated by the tourism business developers whose interest was to establish conservancies and who found it difficult to do so as long as the land were group ranches (Butt, 2016). Investors and particularly Nairobi based Indian business owners saw the opportunity in rising tourism in the Maasai Mara and started making deals with elite members of group ranches. During the last years of the group ranch period, conservation-related businesses started establishing camps around the areas by signing agreements with group ranch committees. Local interviewees admitted having received payments from revenue collected by group ranches management committees from such businesses. However, they believed that there was no way to know how much revenue, group ranch management authorities received from the businesses or how the distribution among members was determined.

*"In the beginning, the income was going to the [ranch] committee. Because land was not divided and later on we divided the land to make sure that the landowners get direct income."* said an Indian owner of Mara Porini Camp who currently leases an entire conservancy named Ol Kinyei in a meeting with stakeholders explaining the crucial role his company played in facilitating the land division. According to him, the land division was a way to ensure that landowners get direct benefits from tourist activities on their land.

The land division in Maasai Mara did not address the importance of the free movement of wildlife and livestock. It instead encouraged the process of *sedentarisation* that started during the group ranch period. Olana, a 73 years old interviewee from Talek said;

*"For a Maasai, the division of the land is a big problem because it reduces the number of cows that we used to have. We are not like farmers, you see. If you have been given a small portion of land and if you have a large number of animals, it is not easy to keep the animals. There is no free movement of our cows from one place to another as it used to be in the past. Like here [near his home], it is really bad now. In the past, we used to go all the way to Paradamat [an area about 30 km from his place]. However, when the division came, everything started to reduce."*

Similarly, Ole Peter, a 58-year-old male interviewee from Pardamat identified lack of mobility as one of the disadvantages of land division. He said,

*"Before the land demarcation, everyone had the right to access water points. However, now because it is demarcated and fenced, you have to take a long route to reach water to where there is water."*

Land division he said also limits the seasonal migration in search of grazing.

*"In the past, if you see rain on the other side of the village and you see it is a big rain there, you do not have to ask anyone. You just have to drive your cows through anywhere because land belonged to everyone. Now you have to wait here. If it doesn't rain here, you die here!"* he said.

In an interview, Dickson Kaelo, the current CEO of The Kenyan Wildlife Conservancies Association similarly argues that the division of land into individual parcels was a 'recipe for disaster'. He said;

*"The traditional pastoral system was about moving over larger areas. The whole idea of land division is one - a foreign concept, and two - it is a concept that works in wet areas where water is evenly distributed. However, when you have a landscape where it does not rain for six months and when it rains, it rains there not there [sporadic], you need to be able to move with the rains to be able to survive."*

Furthermore, Mr. Kaelo argues that land division led to fencing for two major reasons. Even though the Maasai know that it brings disastrous effects, fencing still came as a natural choice. According to him,

in the beginning, it was former group ranch officials and people associated with them who were financially capable and who fenced their plots to save pasture for dry seasons and thereby excluded poorer households and the wildlife. This encouraged others who felt that they were being disadvantaged by keeping their land open for grazing to both rich peoples' livestock and the wildlife and hence also started fencing.

In addition to this, when land was divided, landowners particularly people in areas around the Loita plains instantly sold<sup>1</sup> their land, and those who bought it were mostly people with backgrounds and interests mainly in agriculture. When outsiders buy land, they tend to fence it resulting in blocking of wildlife migration. Wildlife was as a result bound to stay in what are now remaining open private lands near to the national reserve all year round. This intensified competition for grazing in these areas and put landowners in difficult position making fencing the only rational choice.

## 4 CONSERVANCIES AND THE RISE OF FENCING

A major event in the Maasai Mara is the emergence of conservancies as a new wildlife conservation model. The establishment of conservancies followed the land division and is based on the principle that benefits and appropriate policy arrangements can incentivise local people to protect wildlife (Butt, 2016; KWS, 2017; MMWCA, 2017c). According to *The Wildlife Conservation and Management Act* (Kenya, 2013), conservancy refers to a sanctuary for wildlife established by any person or a community who owns land that is inhabited by wildlife.

Mara North, the first and the largest (69,160 acres) conservancy in Maasai Mara was established in 2009 with a lease agreement between eleven tourism operators and over 800 landowners (MNC, 2017). Currently, conservancies in the Maasai Mara cover an area of 336,191 acres of land belonging to 13,236 landowners (MMWCA, 2018). Boards of directors elected by tourism camp owners manage the conservancies. Conservancies in the Maasai Mara are membership-based organisations where landowners set aside land for wildlife conservation and tourism in return for fixed monthly or annual payments.

According to interviews and discussions with different conservation actors, conservancies play important roles in maintaining wildlife and providing benefits to landowners. On the one hand, they promote conservation of wildlife by ensuring that essential dispersal areas stay open for wildlife. David Kortot, a Community Liaison Officer of MMWCA said,

“If it is not for conservancies, land that is divided could have all been converted into other forms of land use, which are not compatible to with conservation of wildlife. Through conservancies, we have managed to keep important wildlife corridors open”.

Conservancies also provide direct benefits to landowners. According to MMWCA (2017a), conservancies on average pay USD 30-50 per hectare to landowners annually. Conservancies claim that they prevent landowners from selling their land to fulfil their basic needs by providing monthly fixed payments. Bedelian and Ogutu (2017) argue that conservancies can provide a crucial and reliable source of income and thereby prevent households from selling their livestock when they face financial stress.

However, according to interviews with members of local communities, the establishment of conservancies has contributed to the alienation of some people and spaces. When conservancies were

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<sup>1</sup>“100 acre piece of land for sale at the Maasai Mara conservation, with a ready title. It is ideal for Camps development, located 2km from Fairmont mara and 3km to the mara airstrip. Quoted price is negotiable. call 0710979797”, reads an advertisement for a land on sale posted on <https://house.jumia.co.ke/100-acres-for-sale-maasai-mara-conservation-178266-14.html>

set up, they were established around areas with higher potential for ecotourism due to the presence of more abundant wildlife and the landscapes' scenic values. These areas overlap with places that were designated as zones for grazing and wildlife during the period of the group ranches. Areas with lower potential as pasture, which was designated as settlements during the group ranch period, were similarly excluded from conservancies. However, the land division/demarcation process starting in the late 1980s did not recognise such differences in qualities and all land was allocated to people regardless of such differences. As a result, some people and particularly those affiliated to the land division committee received their land in the 'core' areas, which were attractive for conservation based tourism investment whereas others received their entire parcels in the less valuable peripheral areas.

People whose parcels happened to be located in the core areas and thus were suitable for conservation received payments through land lease agreements with conservancies. This payment provided these landowners with resources to acquire more livestock or reduce the selling of livestock to fulfil household needs.

The number of livestock that the conservancy members owned as a result increased despite the fact that there was less space for livestock grazing. People who had leased their land to conservancies continued being pastoralist despite the fact that they did not have their own land to keep livestock. One of the common reasons for this is the inadequacy of income from conservancies to sustain livelihoods. Also, many such households have no other form of employment and to completely stop pastoralism would mean that all members of these households would become idle. In a meeting between landowners and the authorities of the Mara North Conservancy to discuss the impact of livestock on the conservancy, one of the landowners said,

"If I stop pastoralism and if I do not have cows, am I supposed just to sit and wait? And, wait for what?"

People who leased their land to conservancies largely depended on any remaining open space to continue pastoral practices. Areas excluded from the conservancies includes drier landscapes, bush-covered hills, former human settlements and others with less potential for tourism attraction. Such areas were not attractive to private tourism businesses who played a key role in the establishment of conservancies. Areas such as Talek (see map 2), which are located between the national reserve and the different conservancies were left out as periphery even though these areas are important corridors and dispersal corridors for wildlife. People whose land parcels are located in these areas outside the conservancies found themselves in a difficult position because the competition for grazing on their lands intensified when people who leased their land to conservancies started to share the same spaces. Furthermore, people in the latter group had more livestock as they could afford to keep their livestock instead of selling it based on the benefits they earn from leasing their land to the conservancies.

People whose entire parcels of land are in the peripheral areas - and thus non-members in conservancies - face increased competition for grazing from people who have leased their land to conservancies. Also, the establishment of conservancies prevented pastoral households from accessing important grazing areas, water points and migration routes. Even though conservancies allow controlled grazing during extreme droughts and low tourism seasons, this is limited only to members. Non-members - usually owners of sub-optimal lands, which are shared with everyone for most of the year - have nowhere to graze during such times.

Thus, conservancies did not manage to ease the pressure of human activities on the ecosystem as a whole but instead transferred the pressure to specific areas within the ecosystem. People as a result have been pushed into smaller and more marginal spaces and usually the poor who do not receive any benefit from conservancies depend on these lands (see also Bedelian and Ogutu (2017)). People in these marginal areas then choose to fence their land to protect their livelihoods.

However, this does not mean that marginal landowners do all the fencing. Some of the first people to fence their land were wealthy people who could afford the costs. For example, the former chief of Koyaki Group Ranch (KGR) who owns land in different places and has big plots leased to conservancies, was

the first person to fence land close to the Talek gate of the Maasai Mara National Reserve. In an interview, he proudly explained that he was the person behind the decisions to both divide the land and establish conservancies. Some people who leased their land to conservancies also either buy or lease land outside conservancies and fence it to keep livestock there. James, an interviewee from Pardamat village, explained that there are people with land as far away as Mara North Conservancy who had leased land from his neighbours to fence and keep their livestock.

## 5 IMPACT ON MAASAI MARA RESERVE

Another space that has come under increasing pressure is Maasai Mara National Reserve. Even though the reserve is a government-protected area, it has never been entirely off limit to neighbouring communities. People have historically crossed its borders to graze their cattle, particularly during periods of extreme drought. Since the establishment of conservancies, the national reserve, the authorities claim, has faced a severe threat of overgrazing due to increasing number of livestock.

During the first round of fieldwork for this study (February 2017), people herding cattle towards the national reserve was observed every evening. Such observations were particularly prevalent in Talek through which herders from all other villages have to pass to get into the national reserve. During daytime, herders kept their livestock in fenced compounds around their homesteads. Cattles usually started moving towards the national reserve around 5:30 to 6 pm depending on the distance and the herders returned to their homes before 6 am. Interviews with some of the households in Talek show that in addition to their own livestock they kept herds owned by families who live in distant villages.



Figure 2: Cattle heading towards to the national reserve to graze at night. (Talek, February 14, 2017)

This pattern changed during the second round of fieldwork at the end of September 2017. The main reason for the change according to Muntet, a community development expert at the Maa Trust, was complaints by conservation actors regarding the effects of grazing on the national reserve. He explained:

*"...the Maasai Mara is dying, and the cows are killing it... if you go to the park, the cows have produced highways by going back and forth daily. Cows travel all the way to the border with Serengeti National Park [Tanzania] to graze at night. So, the park is dying, and anybody can see it."*

Efforts have been made to prevent entry. On October 6<sup>th</sup> 2017, tension erupted between local pastoral herders and the national reserve authorities around the Talek gate of the National Reserve. The conflict started when the national reserve authorities decided to withhold cattle herds owned by several families and demanded that the families pay a fine for their release. Community members came together, rejected to pay the penalty, and attempted to use force to get their livestock released. They went to the

gate shouting and protesting and managed to get their cattle released. One of the people was Sam – a field translator in this study - and he explained that the group had decided not to send the cattle to the national reserve for the next few days until the situation was better. He also explained that the park rangers were outraged by the action of the people who chose to use force to get their cattle released instead of paying as usual. The current chief of the area was also one of the people whose cattle were withheld by the park rangers. During an interview with him earlier the same day, the chief explained that he did not want the rangers to find out that his cattle were among the arrested because ‘*it puts me in a difficult position*’ as he said.

Several of the interviewees believe that people signed up for conservancies because they hoped that there would be open spaces such as the national reserve to maintain livestock production. When the national reserve denies them access, people will go back to their lands, which are under conservancies

Some conservation actors interviewed for this study argue that the national reserve authorities for a long time have failed to realise the consequence of allowing grazing in the reserve (interview with Kortot, and Ntimama). Even though this allowed the establishment of conservancies and encouraged landowners to keep their lands open, the long-term consequence is that people were encouraged to keep more livestock jeopardising the sustainability of both pastoralism and wildlife. In an interview, Mr Ntimama said:

*“Instead of saying no to grazing, they [the national reserve authorities] focused on charging people every time they catch them grazing [inside the park]. They focused on collecting money. God knows who gets it. People could afford to pay such amounts and still go back to graze as it is more economically viable to do so. In my family, there are six people, and we gather all our cattle into one herd, and a 100 USD fine shared by six people does not affect us very much or does not stop us from going into the national reserve to graze.”*

## 6 OTHER CONSEQUENCES

Complete exclusion of livestock grazing in the MMNR - the way it is currently done as described by several local people, will eventually lead to major changes in the Maasai Mara Ecosystem. First, it may affect landowners’ decision concerning leasing their parcels of land to conservancies. As earlier explained, many people decided to set their lands aside for conservancies because they expected that peripheral areas and the national reserve would remain open for communal grazing. With most of the peripheral areas now fenced, a complete ban on grazing in the national reserve may drive many of these landowners back to their lands, currently under conservancies. This may generate another surge of fencing in what are now conservancies.

According to interviews with local participants, the lack of cattle grazing in the national reserve leads to overgrowth of pasture that many resident wild *herbivores* such as gazelles and wildebeest do not prefer. These *herbivores* tend to migrate to areas outside the national reserve where livestock maintain *sward palatability* (Bhola et al., 2012; Blackburn et al., 2016). Another reason why the resident herbivores make this migration, is according to local people, to avoid predators such as lions. When the Serengeti-Mara migration is in the south (on the Tanzanian side), and pasture in the north (Maasai Mara national reserve) is left to resident wildlife only, the grass grows tall, and animals such as gazelles try to avoid it because it makes them vulnerable to predation. These animals tend to migrate to areas adjacent to the national reserve where the grasses are shorter (Bhola et al., 2012).

Migration of the resident herbivores forces lions and other predators to follow their prey to areas outside the reserve. These seasonal trends in predator-prey relations have been documented by Ogotu et al. (2009). The migration of lions to areas outside the national reserve puts lions in conflict with pastoral communities because lions also hunt livestock. A study by Blackburn et al. (2016) confirms that predation of livestock by lions in the Mara has been on the rise because of increase in the population of lions in recent years. David, an interviewee from Talek said;



*“Last month a lion killed one of my bulls. That cost me about a hundred thousand Kenyan Shillings [approximately equivalent to USD 1000]. The problem is there is no compensation for such a loss and the only way I can prevent it, is if I fence my land. And I have already started fencing my land”.*

Similarly, according to Dickson Kaelo, the CEO of KWCA, there is a growing threat from the spread of zoonotic diseases such as *Bovine malignant catarrhal fever* (Bedelian et al., 2007; Wambua et al., 2016), a disease that livestock and mainly cattle acquire when they intermingle with wildebeest. This happens particularly during the wildebeests’ calving season (Bedelian et al., 2007). According to Mr Kaelo, transmission of the diseases was less common in the past when people could undertake seasonal migration, swapping spaces with wildlife. It only became a problem when the seasonal *Mara Loita* migration stopped and when migrant wildebeest are permanently held up in new territories - usually close to people - and where people have not adapted to dealing with the transmission risk. Thus, people tend to fence to keep the wildlife off their lands to avoid the diseases.

The demarcation of land encouraged the establishment of permanent settlements of pastoral communities near wildlife corridors and dispersal areas (Groom and Western (2013). People who previously used to build temporary settlements using bushes now build semi-permanent wooden structures to secure their homesteads<sup>2</sup>. This is evident everywhere in the Maasai Mara.

*“Previously we used to sleep outside to protect our livestock from predators at night. Now we are used to the new lifestyle,”*

said Joshua - a local Maasai from Pardamat in an interview - referring to the fact that the Maasai instead of sleeping outside to prevent predation now are building bigger and predator proof structures. The Maasai, he says are now accustomed to a more comfortable life in their permanent settlements.

During land division, all type of land, including forests, hills, and rivers sides, were demarcated and distributed without regard to differences in quality and its economic and ecological implications. Thus many people received land in woody hills and as a result, do not have sufficient pasture for their livestock. They will usually clear land with natural vegetation to make way for pasture, and according to interviewees, this may have disastrous consequences for the greater ecosystem by reducing water retention and increasing erosion. Referring to the changes in land use, Joseph Ngoitoi, a Maasai and an assistant to the chief warden of the Maasai Mara National Reserve explained;

*“Long time ago, our parents never thought of the hills as land. Hills were just hills. Now, you hire someone to do the demarcation. He demarcates everything including the hills and rivers. This will have disastrous consequences as people are clearing bushes to make way for pasture.”*

## 7 CONSERVANCIES, TOURISM INCOME AND FENCING

A major challenge in the Maasai Mara is the way tourism is conceptualised as a strategy for both sustainable livelihood diversification and wildlife conservation. Conservation actors claim that tourism can provide income comparable to other forms of land use such as cultivation and ranches. However, according to informants, income from tourism and land rent from conservancies is not sufficient to sustain livelihoods. This confirms findings by Bedelian and Ogutu (2017) which showed that income from land leases is smaller than what livestock provides to households. Despite the limited space left, livestock remains the primary source of income to households (Osano et al., 2013).

With tourism income inadequate to sustain livelihoods, people may revert to other forms of land use. Mr J, an interviewee from Pardamat who owns two parcels of land - a 90-acre land in which he currently resides and another 50 acre he leased to Naboisho Conservancy explained that income from tourism

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<sup>2</sup> For pictures, see Teklehaymanot’ s blog (Weldemichel, 2017)

A typical Maasai household may have up to 30 members - depending how many wives the head of the household marries. Suppose this family has 150 acres of land that is entirely under Mara North or Naboisho Conservancies, which on average pay USD 1.5 per acre per month. This means that the household earns about USD 225 per month. Considering that this household does not have any extra space to keep livestock, it is difficult to imagine how a USD 225 monthly income can sustain the livelihood of a household of 30 people. Such families therefore tend to keep livestock in any way possible even though they do not own any land. According to interviews in the villages, many of such households sell part or all of their land in conservancies to buy other land outside the conservancies or borrow money from banks to start businesses in town, which according to local interviews usually tend to fail.

Aged 71, Mr K, an interviewee from Talek has 7 wives, 32 children, 23 grandchildren and as a family owns three plots of land totalling 450 acres. Thirteen of his children are married and have their own families but still share the same land and other resources. He currently leases 300 acres of his land to Mara North Conservancy (one of the conservancies in the Maasai Mara) from which he and his family earn USD 500 per month. He uses the USD 500 to pay school fees, veterinary medicine, clothes and other household consumption items. The family now shares 150 acres of land for settlement and grazing of livestock (including 550 cattle, and 700 sheep). The 150 acres land he and his family currently reside on, he says is not enough to sustain such a number of livestock and people.

cannot match what he can get from livestock production and he plans to withdraw his land from the conservancy when his current contract ends. He said:

*"I have 50 acres [land] I have leased to Naboisho Conservancy and the challenge is the money I get is not enough. I am receiving 6800 [Kenyan Shillings] a month, and if it happened that I did not sign the agreement with Naboisho, I would have fenced it and put some bulls there and earned better. If I put 25 bulls there, I believe [that] within a short time I can make more money than the Conservancy pays me. I will never sign up for another term once this is over."*

Adding to this challenge is the fact that the population in the Maasai Mara ecosystem is believed to have increased considerably in the last few decades and the current growth rate of the human population (10.5%) in the Mara (MMWCA, 2017c) is significantly higher than the average national growth rate of 2.9 % (KNBS, 2015). Income from tourism thus cannot catch up with the needs of the growing local population.

In addition to this, tourism income is also highly susceptible to changes at other scales (MMWCA, 2017c). Tourism business is based on mobility of people from different places both globally and within countries. Any change at global or national levels profoundly affects the sustainability of tourism-based livelihoods. This has to some extent been witnessed when the election process related concerns considerably reduced the tourist flow into Kenya between August and December 2017 leaving many businesses in despair.

Conservation tourism business involves several different actors and revenues are distributed among international and national businesses, conservation managers and local people. The share of conservation-related profits received by local people is as a result very low as can be seen in the text box below.

Nashipai, a 65-year-old woman informant from Pardamat used her land in Mara North as collateral to borrow money and bought land in Pardamat where she currently lives. Her family owns about 50 cattle,

and explained about the difficulties of repaying the loan and sustaining her household's livelihood on the land, she had bought in Pardamat.

Thus, it can be argued that tourism in the Maasai Mara does not generate increased income *per se* - but instead replaces some income sources. Despite the fact that tourist based conservation takes over land from pastoral households, it does not necessarily provide additional income to these households. Tourism based conservation takes over land from its owners, push them to find other areas to keep livestock, and as such replaces pastoralism in terms of space but not in terms of revenue. As income from tourism is not sufficient to sustain livelihoods, people need to maintain pastoralism despite shrinking grazing space.

Conservancies in the Maasai Mara have been hailed as beacons of success combining the goals of wildlife conservation and meeting the livelihood needs of local communities. However, according to many of the participants in this study, this success may not be long lasting, and the current trend towards fencing in the Mara is the beginning of the difficulties that the conservancies are yet to face. '*Conservancies are a time bomb*' said John (interviewee) referring to the way land deals to establish conservancies are made. He said:

*"I have never met any landowner who says he is happy with the arrangement [land lease agreement with conservancies]. When you ask this question, people just keep quiet, and this is not a good sign."*

Similarly, in an interview, Mr J, an active local politician who resisted land division argued that conservancies have contributed to the increases in fencing and their success is momentary. He said:

*"Conservancies do not recognise that the wildlife wealth they depend on is not independent of what goes on outside their premises. Conservancies boast that they are successful, but it is only a short time before they realise that they cannot stand on their own."*

Dickson Kaelo, who is currently the CEO of Kenyan Wildlife Conservancies Association and who played key role during the establishment of many conservancies in the Maasai Mara, shares this sentiment. He argues that conservancies in their current form, are only a means to '*buy some time*' for the government and other actors to '*intervene and save the ecosystem*'. He said, "*If the government does not help, the system will collapse*". Conservancies are thus facing an uncertain future where landowners may withdraw when their contract periods end in few years leaving them powerless.

One of the reasons for the collapse of the group ranches was their inability to secure benefits and lack of transparency creating contestation over the legitimacy of the governing institutions. Conservancies face similar challenges, as revenue collection and use is not transparent. Questions of transparency regarding the magnitude of revenue generated by conservancies were frequently mentioned both during individual interviews with Maasai landowners and during conservancy-landowner meetings attended during fieldwork.

Different means are brought into play in the struggle to keep Maasai Mara open for wildlife conservation and related businesses. First, conservation-based businesses employ market-based incentive structures to encourage locals to set their lands aside for wildlife conservation. Land lease agreements are signed providing locals with fixed guaranteed monthly or annual payments. Conservancies also arrange loans for landowners with banks. Parcels of land under conservancies are in many cases used as collateral for bank loans forcing landowners to keep the same agreements even when they are not happy with the terms.

Second, conservation actors also use the Maasai's long history of friendly coexistence with wildlife as an entry point to convince the Maasai to give away their land for wildlife conservation in part reflecting elements of what Fletcher (2010) designated as "truth environmentality".

Third, there is an element of force applied to make people give away their land as Butt (2016) has argued. If someone's land is in the middle of an area where other landowners have signed up for a conservancy, it is deliberately made difficult for the landowner to use the land for pastoral or other purposes. Conservancies put restrictions on movements of people and livestock ensuring that there is no way one can access one's land if a conservancy surrounds it. The enactment of the Wildlife Conservation Act of 2013 provided conservancies with legal backing to enforce rules of exclusion.

## 8 THE END OF PASTORALISM?

A study by Ogutu et al. (2016) shows that there is a decline in wildlife corresponding to an livestock increase and particularly the number of goats and sheep in Kenya and Maasai Mara in recent years. They argue that this declining wildlife numbers can be attributed partially to growing competition for pasture from increasing number of livestock.

An underlying process important throughout the history of conservation and communities in Maasai Mara is the idea that pastoralism is an inefficient economic system and that it is necessary to substitute it with market-oriented livestock production (Bedelian, 2014). This, in other words, is the discourse about the end of pastoralism. This history of this agenda goes back to the colonial period when the British administration tried to settle the Maasai in designated 'native reserves' (Hughes, 2006). The desire to settle the Maasai and to 'modernise' their production system continued during the group ranch period under the post-colonial government of Kenya led by President Kenyatta (Ng'ethe, 1992). The materialisation of this discourse has been facilitated in recent years by the division of land into individual parcels.

Based on the interviews, an essential factor in the fencing process is the anticipation of the imminent end of pastoralism by many pastoralists themselves. There seems to be a wide recognition by the locals that the pastoral system that they historically relied on is fading away. With the division of land into individual parcels and competition by other forms of land use, people now see that the end of pastoralism is near and there is a need to shift their livelihood bases away from pastoralism. A participant in a group discussion said, "*As a young man, I do not intend to keep cows. That, I think, was ideal in the past but not any more*".

This trend is evident in two emerging processes in the area. First, many locals invest in tourism businesses such as tourist vehicles and construction of houses in urban centres. Buying a vehicle for the tourism business, for example, costs more money than one can afford by selling only the few livestock that an ordinary pastoralist owns. It usually requires a substantial number of livestock sold at once to invest in a productive asset such as a vehicle. This leads to a situation in which more people try to keep livestock and more of it as a strategy to switch to a non-pastoralist livelihood production system. Petro, an interviewee who currently drives a safari *Land Cruiser*, bought his first land cruiser by selling about 200 cattle, and he plans to do so one more time before he fully embarks on an exclusive business strategy. In the long-term, this may mean that people will move away from pastoralism, but until then, it leads to more intense competition for grazing as more people strive to pass the threshold of a sufficient number of cattle to make this switch.

Second, in a related process many people also see a future in livestock production but in a different way than traditional pastoralism. Many interviewed locals intend to enter into commercial production of livestock by introducing a more productive or higher yielding cattle breed. This is only possible to achieve, they say, by fencing their land and excluding wildlife and other people's livestock from their pasture. This was one of the most common responses to the question '*why did you fence your land?*' by local people who had fenced their land. Another related development is a shift from cattle to small livestock such as goats and sheep (Ogutu et al., 2016). This shift, Bedelian and Ogutu (2017) argue occur perhaps because sheep and goats can live on a smaller amount of pasture and are thus more resilient to harder conditions such as extended droughts under limited mobility caused by land division and grazing restrictions by conservancies. Analysis of interviews with local Maasai confirms that by

reducing herders mobility - a central feature of pastoralism - conservancies have contributed to the sedentarisation of livestock production. People now choose to fence their land and keep sheep and goats that require smaller pasture rather than traditional cattle-based livelihoods that require extensive grazing space.

## 9 CONCLUSION

In this working paper, we have described events and processes, which have pushed the Maasai communities towards fencing their lands in areas adjacent the Maasai Mara National Reserve. While the Maasai supported the land division project in the hope that it will secure their land rights, an analysis of the events that preceded it, suggest that the process of land division did not address the fundamental fear of the Maasai – the dispossession of their land. First, land division was fraught with problems as powerful actors whose interest was to secure their position led the process. Second, the land division project did not secure Maasai land *per se* because many people - and particularly those who lead non-pastoralist livelihood strategies - sold their lands to anyone interested, enabling outsiders to buy up land in many places. Outsiders who bought land usually did not use the land for pastoral purposes but bought land to establish tourist camping facilities, commercial ranches, and farms, none of which is compatible with traditional pastoralism based on open grazing. Third, land division was followed by a process of establishing membership-based commercial protected areas (conservancies) - whereby former communally used resources such as water access points and dry season pastures were enclosed excluding non-members.

In a neoliberal perspective, something that has no commercial value bears no reason for conserving as is evident in the ways conservancies chose conservation spaces. 'Peripheral' areas despite their long-term importance for the health of the wider ecosystem were not considered worth including in the establishment of conservancies and were thus left open to overexploitation. However, powerful actors refer to the intrinsic value of wildlife and the pride associated with *Kenyan-ness* or *Maasai-ness* as guardians of the wildlife when they want to convince landowners to set their land aside for conservation. In other words, even though the purpose of conservation appears to be to obtain revenues from tourism-related businesses, conservation actors usually bring the idea of conservation of wildlife for its own sake into play. Local people say that fencing is their last attempt to stop the process of dispossession. As stated by one interviewee "*Fencing is our last stronghold before we lose it all.*" It is an unintended outcome of the historical process of inclusion and exclusion and a final defence line against further exclusion by the Masaai.

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